National Association of County Agricultural Agents

Proceedings

110th Annual Meeting and
Professional Improvement Conference

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2024-2025 NACAA Report to the Membership

President

Scott Jensen

Idaho

It's hard to believe that nearly a year has passed since we left Dallas and began the journey home. Time has flown, and in that time, NACAA has made remarkable strides. It has been a strong and productive year, thanks to the dedication of our board members, council chairs, and committee chairs and vice-chairs. I am sincerely grateful for the outstanding individuals I've had the privilege to serve alongside.

I also want to express my heartfelt appreciation to the Montana Association. Shelley Mills, Patrick Mangan, and their entire team have been a pleasure to work with. Shortly after I was elected NACAA vice president, I traveled to Billings to meet with them. At that meeting, I shared two goals for the 2025 AM/PIC: first, to deliver the best meeting possible; and second, to ensure we remained friends through it all. I'm happy to report that we are well on track to meet both goals! I'm thrilled to see such a strong response to this year's call of "Westward Ho!" We've exceeded expectations across the board—first-time attendees, overall registration, oral presentations, and poster submissions. The City of Billings and the Montana Agents are rolling out the red carpet to make everyone feel welcome and at home.

The 2025 AM/PIC promises to be a unique and memorable experience. If you missed the announcement, this year's meeting will be one day shorter than usual. We will hold a single general session at the historic Alberta Bair Theater, just a short walk from the Northern Hotel. That session will include an Indigenous Dance and Prayer to open the event, a welcome from MSU Extension Director Cody Stone, remarks from newly appointed NIFA Director Dr. Jaye Hamby, and the presentation of the Service to American/World Agriculture Award.

Our keynote speaker will be Mr. Dwayne Fisher of Homedale, Idaho. I've had the pleasure of knowing Dwayne for over 25 years. He's the Vice President of Marketing and a partner at Champion Produce Sales, which markets onions for five packing facilities and ships roughly 100 semi-loads weekly across the U.S. Dwayne also co-operates a family row crop farm and onion packing facility, and raises club lambs and goats with his wife and children. A lifelong supporter of 4-H and FFA, Dwayne's story and message are sure to inspire.
One of the most anticipated moments will be the Montana Buffalo Ceremony, scheduled just before the meeting's close. Curious about what that involves? So am I! But one thing's certain—you won't want to miss it.

Monday will be packed with oral presentations, poster sessions, regional meetings, and States Night Out. Following dinner, the scholarship auction will be held, and we'll cap off the night with music from Kyle Shobe and the Walk 'Em Boys. You might even feel the urge to "scoot a boot"!

Tuesday will include the Achievement Award Breakfast, additional presentations, awards luncheons, and a full afternoon of super seminars. That evening, we'll celebrate our Hall of Fame inductees and Distinguished Service Award recipients at the banquet. Due to space limitations, we'll be divided into three rooms and connected via video—believe it or not, there isn't a single venue in Montana large enough to accommodate all of us for a formal meal!

Wednesday is reserved for professional development tours, followed by a closing meal featuring Montana's renowned beef and lamb. I hope many of you are taking advantage of your proximity to some of the nation's most breathtaking national parks—either before or after the meeting though!
This year, we've also made progress in strengthening our organization. After thoughtful evaluation and input from committee members and leadership, we're making strategic changes to a few of our committees. Additionally, we expanded the Development and Planning Committee to help guide NACAA's future direction and ensure we continue to meet the evolving needs of our members.

I would be remiss not to recognize our Executive Director, Scott Hawbaker. His tireless work and efforts are a cornerstone of

our success. Quite simply, he does much of the heavy lifting, and we are incredibly fortunate to have him.

To the Idaho Association of County Agricultural Agents—thank you for your steadfast support and friendship. To my wife, Sharla—thank you for your unwavering encouragement throughout this journey. And to all the friends I've made across the country over the past several years—your friendship and service have enriched my life and inspired me deeply.

It has truly been an honor to serve as your NACAA President.

President-Elect
JJ Jones
Arkansas

As President-Elect, it has been a true privilege to serve NACAA and work alongside our Executive Director, Scott Hawbaker, in securing essential sponsorships and donor support. Scott truly carries the lion's share of this work, maintaining strong relationships with existing sponsors and identifying new opportunities for support. The continued success and affordability of our Annual Meeting and Professional Improvement Conference (AM/PIC) depend greatly on the generosity of our sponsors and donors, who make possible the awards, meals, tours, and professional development opportunities we offer.

The support of our donors plays a vital role in showcasing and honoring the exceptional educational work of our members. Their generosity also enables us to provide the extensive professional development opportunities that are a hallmark of our national conference. While many of our donor relationships have been sustained over the years, ongoing industry consolidations have led to the reduction or loss of some long-standing sponsorships. This reality underscores the importance of continually cultivating new donor partnerships to ensure the continued success of our programs.

You, our members, play a vital role in donor development, and potential corporate sponsors may be closer than you think—right in your own communities. I encourage each of you to think creatively and explore local connections that could become valuable supporters of NACAA. To recognize and encourage these efforts, NACAA offers an incentive program: members who recruit new sponsors contributing $2,000 to $4,999 receive reimbursement for their AM/PIC registration fee; those securing contributions of $5,000 to $9,999 also receive $500 for travel; and for sponsors contributing $10,000 or more, members are awarded registration reimbursement plus $1,000 in travel support. These rewards make building donor partnerships both meaningful and personally beneficial. During the AM/PIC in Montana, I strongly encourage you to visit with our sponsors on the tradeshow floor. Invite them to events like State Night Out and be sure to express your appreciation—whether it's a warm welcome during the conference or a simple thank-you note once you return home. A small gesture can go a long way in reinforcing these vital partnerships.

Another responsibility of the President-Elect is working with the Early Career Development Committee to host the First-Timers Orientation and Luncheon. This year, we will again hold the Sunday afternoon orientation off-site. Ashley Wright, Chair of the Early Career Development Committee, along with her vice-chairs and the Montana agents, has planned an exciting and welcoming program.

As we come together for this year's national conference, let us remember that the strength of NACAA lies in the dedication, innovation, and passion of its members. This event is more than a gathering; it's a celebration of the work we do, the knowledge we share, and the future we shape together. Take full advantage of the opportunities before you—learn something new, make a meaningful connection, thank a sponsor, and leave inspired to elevate your impact back home. Together, we continue to grow, lead, and make a difference. I look forward to all that we will accomplish.

Vice President
Connie Strunk
South Dakota

Eleanor Roosevelt said it best when she said, "The future belongs to those who believe in the beauty of their dreams." It has been an honor and a privilege to serve as your NACAA National Vice President. I have taken great pride in fulfilling this role and dream of mine. I continue to be amazed and grateful for the professional development and personal growth opportunities NACAA provides for its members. Over the last year I have had the opportunity to visit with many of our Association members regarding their interest in serving on a committee, listening to suggestions for professional development opportunities, and answering (website, general, and award related) questions.

As Vice President I am responsible for all committee work that takes place within our Association. I started my term working with 18 committees across 3 councils. I have been meeting monthly with Council Chairs Joni Ross Harper (Program Recognition), Colt Knight (Educational Development), and Brian Beer (Professional Improvement) where I have strived to provide open and honest communication discussing committee functions, webinar 365 opportunities, editing the committee handbook, open positions, super seminar applications, pre-tour applications, oral presentation slots, posters, awards and award functions, and recommendations for the board's consideration. This year we saw a huge increase in submissions in all areas from oral presentations to posters and to awards. It's great to see the enthusiasm and excitement from our members wanting to share their programs and research projects with each other.

A change which has been slowly implemented is that now all committees are officially comprised of 5 members (one national chair and four regional vice chairs with representation from each region). The committee structure underwent a taskforce review, and they provided recommendations to the Board last year. Upon receiving the task force review and recommendations the Board discussed each recommendation received and moved to either accept the recommendation, modify/adapt the recommendation, or not accept the recommendation. At last year's AM/PIC in Dallas during the Voting Delegate Session the Board presented their approved changes to the committee structure and said these changes would go into effect at the conclusion of the 2025 AM/PIC in Billings. There will now be 16 committees. The Natural Resources/Aquaculture Committee and the Sustainable Agriculture Committee will be merged into one committee called Sustainable Agriculture and Natural Resources Committee while the Public Awareness and Ag Appreciation Committee was eliminated. The Agricultural Awareness and Appreciation Award will now become a Search for Excellence category.

I have been blown away by the dedication, motivation, hard work, and excitement displayed and portrayed by our committee chairs, vice chairs, and council chairs. It has been said more than once, and it bears repeating that our committees make up the backbone of our Association. I am thankful for those of you who are willing to give of your time, talents, and ideas to serve in such roles. The committee openings for next year will be featured in the December edition of the County Agent Magazine. If you are interested in serving as committee vice chair, chair, or council chair, the leadership applications are available on the NACAA website in your dashboard under the applications section and are due by March 15th.

I had the pleasure of attending the JCEP Extension Leadership Conference (ELC) and Public Issues Leadership Development Conference (PILD). While there, I was able to visit with many of our state associations' leaders. I am hopeful we can continue with open communication and embrace change in a positive light no matter the size of the issue or concern as we all work to meet the day to day needs of our clientele.

For our NACAA Association to grow and stay relevant we must be willing to try new things and accept that change is needed. This change starts with each and every one of us; we need you! We need all NACAA members to step out of their comfort zone and participate. Whether this is by attending our national meeting (AM/PIC) and pre-tours, submitting an abstract for a presentation or poster, applying for communication or search for excellence awards, serving on the many different NACAA committees whether on the state or national level, utilizing those scholarship funds, writing an article for the Journal of NACAA, or running for State or National office, you get out of this organization what you put into it. As Harriet Tubman said, "Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars, to change the world." It's time to invest in yourself and better our Association, so what's stopping you?

I would be remiss if I did not take the time to thank those who love, support, and encourage me to follow my heart and my passions. I need to extend a huge thank you to my husband David who has been holding down the home-front and doing a wonderful job while I have been gone! I also want to thank my children, Benjamin, Ada, Gunnar, Cora, Weston, and Zachary for their understanding and patience with me. In addition, I would like to express my gratitude to the South Dakota Association of Agricultural Extension Professionals and SDSU Extension for allowing me this wonderful, once-in-a-career opportunity. I would personally like to thank our Executive Director Scott Hawbaker for the time and dedication he puts into our Association whether that is answering the endless emails, phone calls, texts from not only me but from our entire membership to ensuring our website runs smoothly addressing every error message.

Thank you to all NACAA voting delegates and NACAA members for instilling your trust in me to serve as your NACAA National Vice President and for your support, encouragement, and friendship. I have thoroughly enjoyed representing you on the board and did my best to bring your ideas, suggestions, and concerns forward. If you have any questions about serving in a NACAA leadership position, please do not hesitate to ask. I am happy to visit with you about this or any other questions you may have about NACAA. For those of you who can make it – I look forward to seeing you in Billings!!

Secretary
Donna Beliech
Mississippi

This year the virtual NACAA board meetings are held on the first Tuesday of each month at 12 Noon (EST). The exceptions were for the in-person Winter (Dec.), and Spring (Apr.) board meetings held in Billings, MT and Boise, ID, respectively. If you want to know more about what is going on within NACAA at any given time, visit https://www.nacaa.com/board-minutes .

In preparation for the Annual Meeting, I contact state presidents to obtain states 'Voting Delegate' names. A states certified membership determines their number of Voting Delegates. This year the Northeast Region has 259 members (12 delegates), the Western Region has 389 members (16 delegates), the North Central Region has 671 members (24 delegates), and the Southern Region has 1,974 members (68 delegates). In total, the 2025 NACAA certified membership is 3,298 agents from forty-nine states, represented by 120 Voting Delegates. At the Annual Meeting, Voting Delegates receive notification of pertinent updates and/or changes the National Board has made or proposes to make to committees, policy, and by-laws.

In 2024-25, the Board wanted to make sure that all members (active and life) had the opportunity to serve in a leadership role for the three 'Special Assignment' positions: National Outstanding Young Farmer (NOYF) liaison, Journal of Extension (JOE) liaison and the NACAA Journal Editor.

Another change was the adoption of a $10 late fee per person for missing the dues deadline set for 12:01 AM CST on Feb. 16 each year. New hires are exempt.

The last Board recommendation enhances the acceptance standard for state association status within NACAA. This requires a state association to (1) have an administrative structure with elected officials and to (2) send a letter requesting state membership in NACAA.

In 2025, the Board made three committee structure changes:
(1) The Public Relations & Agricultural Awareness Committee was eliminated. In its place a new award category was adopted under the Search for Excellence Committee.
(2) The Natural Resources/Aquaculture and Sustainable Ag Committees were combined and renamed the Sustainable Ag and Natural Resources Committee.
(3) The name of the Professional Excellence Committee was changed to Research and Education Posters.

The $50 payment to state winners of the 8 Search for Excellence awards in the Program Recognition Council has been removed. Why, you ask? Because checks were cut and handed out, but many were not cashed. This created accounting issues since the checks are good from AM/PIC to AM/PIC, approximately 1 year.

Committees handling AM/PIC Pre-Tours and organizing Super Seminars (Nov. 15 annual submission deadlines) can now access proposal guidelines, submission forms, and budget spreadsheets. These can be found on the NACAA website under the 'Leadership & Contacts' heading, then 'Committee' subheading and finally scroll down to the bottom of the page under the heading 'Committee Chair/Vice Chair Application Forms', https://www.nacaa.com/committees .

Other annual secretarial duties include ordering NACAA name badges and recognition plaques for outgoing Officers, Directors/Vice Directors, and Council Chairs.

Treasurer
Melody Rose
Tennessee

Greetings from Tennessee, y'all! What an honor and pleasure it is to serve you as members of NACAA as treasurer. Special thanks are extended to the Tennessee Association of Agricultural Agents and Specialists (TAAA&S), Big Spring Master Gardeners of Greene County, and the University of Tennessee administrators for their continued support serving in this capacity.

As your treasurer, I am happy to report NACAA remains in a sound financial position. Throughout the past two years, the board of directors has worked to continually evaluate our investments, budgets, and sponsorships to better serve the needs of our entire NACAA membership. We have implemented the option for using the Automated Clearing House (ACH)-aka direct deposit) for reimbursing expense vouchers. This gives our membership the option of being reimbursed within 48 hours of approved vouchers from the NACAA President, as well as streamlining the overall reimbursement process.

The biggest change (and upgrade) this year was the decision to migrate QuickBooks to the online version for a more

seamless approach to recordkeeping. This enables direct assistance from Intuit and QuickBooks. In addition, one of my favorite duties as treasurer is signing the checks (or ACHing) to formally recognize our award winners who are so worthy of recognition due to their passion(s) serving in their Extension capacities. I look forward to seeing many of you in Billings. We are in store for an exciting AM/PIC, thanks to our wonderful colleagues in Montana. Thank you for two outstanding years as NACAA treasurer!

Past-President Keith Mickler Georgia

Reflecting on an Incredible Journey: From Vice-President to Past President!!

Holy cow, the last four years have been an absolute blur, with time flying quickly. It all began on Friday, July 9, 2021—my first official day as vice-president. Now, as I prepare for my final duty as past president on the evening of Tuesday, July 1, 2025, installing the new president and past president, I can't help but reflect on this incredible journey.

If you had told me back in 2005 that I'd one day, be president of NACAA, I would've laughed and said, "Yeah, right!" But that's what happened. One evening while visiting a hospitality room during the AM/PIC in Buffalo, New York, Elmo Collum, the Southern Region Director from Mississippi, encouraged me to consider running for an office. Fast forward to 2025, and I find myself asking, "How did that happen—and where did the last 20 years go?"

My term as past president began the evening of Wednesday, July 18, 2024, after the banquet in Dallas. I changed into a pink t-shirt, black cowboy hat, and donned my unicorn floatie named Eunice, a gift from board members who know I'm always up for some craziness. Eunice, my wife Candy, and I did our absolute best to thank everyone who attended the president's reception.

One might think that once you're the past president, it's smooth sailing. Not quite! You take on several new roles. First, I served as liaison between the Educational Foundation and NACAA, which funds our scholarship activities. Next, I chaired of the Fiscal Committee, working closely with committee members to develop the next year's operating budget, and the upcoming host state in developing the 2025 AM/PIC budget. It's the Fiscal Committee's job to manage our funds and maximize them to the fullest for the continued operation of NACAA.

Another responsibility and great honor is serving as one of seven judges for the National Outstanding Young Farmers program. This process begins with the submission of applications from many states, with NACAA members being the largest contributors of applications. Thank you, members! Late November, I received 18 applications, as I read them, I was inspired by the involvement of families and communities in advancing agriculture in America. These 18 applications were narrowed down to 10 semifinalists, who were invited to the annual Outstanding Farmers of America Conference, held this year in Des Moines, Iowa, in early February. Yep, it was cold!!! The hardest part was when we (judges) had to further reduce the top 10 to the final four.

One especially important duty, shared by the past president, president, and other Extension association leaders, is serving on the Joint Council of Extension Professionals (JCEP) board. This past year, I was honored to be co-vice chair of the Professional Development Committee, which oversees both the ELC and PILD conferences. I was fortunate to work alongside Julie Garden-Robinson, NEAFCS past president, as vice-chair of the 2025 ELC in preparation of me chairing the 2026 ELC in Savannah.

My time serving on the NACAA board is quickly approaching the end. It has been the greatest of honor to have had the opportunity to serve with so many wonderful people from across our great nation whom I can have the privilege to call a friend. I will finish with an excerpt of a presentation I gave during the 2025 spring board meeting in Boise, Idaho a few months back.

It's an honor to be part of this group of professionals who truly embody the heart and soul of Extension work. Each of us represents the best of what we do, educating, leading, and serving our agricultural communities with dedication and passion.

Extension isn't just a job; it's a calling. It's the early mornings in the field, the late nights preparing programs, and the countless moments spent guiding farmers, ranchers, and families toward success. The impact we have goes beyond crops and livestock, it can strengthen communities, help build futures and ensures that agriculture remains a pillar of our nation's prosperity. Let's move forward with purpose, supporting one another, embracing new ideas, and always striving for excellence.

As my friend and Extension Plant Pathologist Dr. Bob Kemerait often signs off in his emails, "Thank you for all you do, you are the tip of the spear."

Policy Chair
Cynthia Gregg
Virginia

The Policy Chair reviews a section of the NACAA Policy that must be reviewed annually to ensure the policies are current and up to date. In 2025, the section to review is the Duties of Officers and Directors, as well as looking over the entire document for any additional edits. The Policy Chair works with the Board to ensure if any business such as changes to By-Laws is sent and presented correctly to the Voting Delegates during the Business Meeting at the AM/PIC.

This year quite a bit of the overall Policy Manual has been updated. Hopefully, this will help everyone. If you are interested in a leadership role on a committee, board, or special assignment, you need to read through the Policy Manual. If you have question you can contact the sitting Policy Chair.

This, my second and final year as Policy Chair, I worked with the NACAA Board, NACAA Policy Committee, and NACAA Membership. The Policy Chair is to be available for the Board to help with an understanding of the NACAA Policy. The Policy is the guiding document of NACAA. The Policy Chair is responsible to safeguarding the Policy, By-Laws, intent, and standards of NACAA. This is a very important job and must be taken seriously. NACAA Policy is important to our Association. Maintaining them is paramount. There are also Handbooks for Committees, Annual Meeting and Professional Improvement Conference, and the State Officers Handbook. You need to be familiar with them as well as the Policy.

The Policy Committee is made up of the Policy Chair and the nine other past presidents, active and life, members. If there are questions then the sitting Policy Chair can utilize their expertise and knowledge to come to the appropriate interpretation of the NACAA Policy. The Policy Committee Members for 2025 are Bill Burdine, Phil Durst, Richard Fechter, Alan Galloway, Mike Hogan, Gene McAvoy, Keith Mickler, Mark Nelson, and J. Craig Williams. The Policy Chair, according to Policy, must be an active NACAA Past President. The Policy Chair serves for two years and has a lot of responsibility. This is my last Meeting as Policy Chair and Mark Nelson will be taking over at the Post Board Meeting.

It has been an honor and privilege to work with the current NACAA Board. Your Board has been diligent and thoughtful in the business of NACAA. They have done updates to the Policy and these are in the process of being added to NACAA Policy Manual, which will be approved in June. There are portions of the Policy the refer to the NACAA Handbooks that were mentioned previously. Again, please make sure if you are interested in any leadership positions, you not only look at the NACAA Policy Manual but you also refer to the handbooks for more complete information, so you can make informed decisions. These documents can help you with YOUR leadership development in NACAA.

As Montana welcomes everyone for the 2025 NACAA AM/PIC in Billings, be prepared to learn from extension professionals from across the country as well as experience the agriculture, culture, history, traditions, beauty, and more Montana has to offer. The Montana Extension Professionals have been working hard to plan a great meeting for us, their colleagues from across the country, to have a true Montana Experience. This meeting will be a bit different, being shorter and a modified schedule of events. Nonetheless, I know we will network, learn, connect, reconnect, and more in Billings as NACAA Members. This week, please be sure to support and learn from your colleagues from across the country, and take home some great information to help your clientele in your home county, parish, state, or region. And Make Some Memories!

I look forward to seeing you in Billings.

Thank you for all you do for your communities along with your state Association and NACAA! Safe travels to AM/PIC (and back Home).

North Central Region Director
Scott Gabbard
Indiana

As I reflect on my time with NACAA, I'm filled with gratitude for the journey and the people who have made it so meaningful. I remember my first AM/PIC in San Antonio—a beautiful city that welcomed us with warmth and music. I can still see the smile on my wife's face and hear her laughter as a mariachi band serenaded her at the bottom of the escalator. I remember the people that made it special. It's the people that make a difference.

But that trip also brought a sobering reminder of the challenges our agricultural communities face. Mentioned last year, I recall seeing a tractor plowing under a field of standing

corn—ravaged by drought and aflatoxin. Again, it was the people, their resilience, our resilience, that made a difference. In 2012, during the peak of our own drought in the Midwest, I remembered that image and knew we, too, would persevere. Extension agents stepped up and made a difference, serving our people.

Each AM/PIC has left its mark on me, largely due to the those that surrounded me. When I brought my family, I'd call a county agent to ask them for guidance on where I should or could take them for regional experience. You always delivered. The kids and I still talk about the bioluminescence midnight kayak tour in Florida. It was a beautiful insight to Walt Disney's Tinkerbell flight at each of his opening movies.

Over the years, NACAA has become more than a professional organization—it has become an extended family. I used to hear seasoned members say this and didn't fully understand. Now I live it. As my children move from home and out of state, you have provided invaluable help (thank you South Carolina). No matter where they or I go, we are never too far from extended family.

Over the past four years, as I traveled throughout the North Central Region, that sense of family was reaffirmed time and again. I was welcomed with open arms, warm meals, and genuine camaraderie in every state I visited. I learned more from the members who hosted me than I could ever hope to teach. To the North Central Region membership—thank you. Your hospitality, wisdom, and dedication have been humbling and inspiring.

I'll state the same for the National Board. It is humbling to sit around the table with amazing skill and a commitment to serve and especially a commitment to serve all of you. I will miss that sense of camaraderie. You would be amazed the sacrifices some have made to make NACAA better tomorrow than it is today. Those stories and observations I will take with me.

As I step down from my four-year commitment on the national board, I do so with a heart full of appreciation. It has been an honor to serve and represent you. I leave confident that the North Central Region and the National Association are in capable hands, guided by passionate and committed leaders who will continue to advance our mission.

Though our administrative structures and clientele may differ, we are united by a common goal: to use science-based knowledge to improve the lives and livelihoods of those we serve. That shared purpose binds us together—across counties, states, and regions.

To my NACAA family—thank you. For the memories, the mentorship, and the mission we share. Through all seasons, it is family, faith, hope and an undying sense of service that gives us the strength to build a better future.

North East Region Director Nick Polanin New Jersey

This will be my last report to the membership as my term as your Northeast Director concludes at the end of this phenomenal AM/PIC in Billings, Montana. I have been incredibly fortunate in this role to visit with friends and make new ones across the northeast. I am also very excited to see the incoming faculty and staff to our various Extension programs from Maine to West Virginia. The growth in membership, our state chapters being re-energized and committed to NACAA, and the acceptance and success in leadership roles at the committee and officer levels – all these point to a solid and bright future for our region, your organization, and your state's Extension programs. Andy Kness of Maryland is your incoming NE Regional Director and representative on the National Board of NACAA, and I want to thank our colleagues in Pennsylvania for their nomination of our new NE Vice Director, Thomas M Butzler, both of whom will be officially voted on at the NE Regional Meeting and inducted at the Delegates Session in Billings.

I have thoroughly enjoyed getting to know more about the region through the eyes of state chapter and association meetings, mostly via Zoom, but luckily more are returning to in-person multiple-day professional development tours and meetings. I have enjoyed the invitations and conversations over meals or farm tours visiting Pennsylvania, Maryland, and New Jersey (of course). I was also happy being able to pivot for last-minute Zoom invites to Connecticut, New York, and Maine, to name a few. Technology is great, don't get me wrong, but it is not a complete replacement for meeting together at a special location or research farm. Granted, the Northeast is not that large geographically, but as we take on these volunteer leadership roles for NACAA and within your states, planning your membership meetings with dates and locations well in advance and communicating that to Andy and Tom would be greatly appreciated.

At each of these meetings, I shared the newest updates from the National Board, including updates from the Scholarship Committee, requested interest in the NE for vacancies on national committees, congratulated national award winners, shared timelines and rotation schedules for selecting our next NE Region Vice Director, and encouraged folks to participate at the national level. More importantly, I have reminded states that the Northeast is slated to present our plans to host

an AM/PIC (yes, once again) in 2029 at this year's AM/PIC's Delegates Session. We will also be looking for a National Vice President nominee from the Northeast to be presented at the 2026 meeting in Denver in anticipation of serving as NACAA President in 2029 when the AM/PIC would be in the region. Please make sure to attend the Northeast Regional Meeting in Billings to be part of these critical discussions – and bring ideas from your state membership to share with the rest

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Regarding the 2029 AM/PIC discussion, the Northeast Association of County Agricultural Agents (NEACAA) has held meetings with Helms-Briscoe, the event planning partner for our annual AM/PIC, and Scott Hawbaker, NACAA's Executive Director. The NEACAA was created following our last hosted AM/PIC in Buffalo and is comprised of representatives from the state chapters existing in the region at that time. Chartered in Pennsylvania, the NEACAA is our regional fiscal agent, taking that burden off any single state in successfully hosting an AM/PIC in the northeast. Several exciting locations are under consideration for 2029. Be sure to attend the regional meeting in Billings to learn more and to consider how you can help make it a huge success.

Congratulations to all of our region's DSA and AA award winners, and for the spectacular Extension careers, outreach, and mentorship impacts you have shown over your careers. Please make sure to attend your award events, especially the banquet held specifically to honor the DSA awardees. Thank you to all of our Northeast members who stepped up and are, or will be serving, as our regional committee Vice Chairs and representatives!

Please don't hesitate to reach out to me or Andy at the Billings AM/PIC, and then Andy or Tom anytime throughout the coming year with any suggestions for how to increase NACAA's value and connection to all our regional members. It has been noted that communication linkages may be lacking at times. Please avail yourselves of all NACAA has to offer – the Leadership Academy, scholarships, awards and recognition, 365 of I will also be hosting a Zoom meeting this fall and again in the spring of 2025, inviting all the Northeast Regional Vice Chairs across all our committees to attend and facilitate better communication and sharing of ideas and events for our membership and recruitment of new leadership at all levels. Hope to see y'all in Montana!

Southern Region Director Paula Burke Georgia

It's been an honor to serve as Southern Region Director for the past four years and to represent Georgia on the NACAA Board of Directors. They say the best part of the director position is traveling to all of the thirteen Southern states, and they were right! I didn't quite make it to all thirteen but I truly enjoyed visiting with fellow NACAA members in Mississippi, Kentucky, South Carolina, Alabama, North Carolina, Florida (in person and via zoom), Georgia, Louisiana, Texas (via zoom), and Tennessee. I am blessed to expand my list of knowing fellow ag agent colleagues and even making a good friend or two in the process.

Your state meetings are a highlight of the year celebrating one's awards, successes, retirements, and extraordinary work. The great work you are all doing in your home county at your Extension programs is amazing, and I was so honored to get a quick glimpse while visiting your state. I was grateful after each visit to return home with many new ideas to share or even steal for my own programming.

Thank you to Southern Region Director Sherri Sanders and Southern Region Vice Director Jennifer Pelham for being part of the Southern director team. I leave the position knowing the southern region is in good hands with you both as directors. You are great examples of our professionalism and are true leaders in your own right. Thank you for being my friend.

UGA Extension Agents and Administration, thank you for your support and for choosing me to serve in this role. It's been an honor. I look forward to working with you all as we plan the 2028 NACAA AM PIC in Atlanta. Go Dawgs!

And lastly, but not least, thank you to the NACAA Past President, Henry Dorough. If it were not for him, I would probably still be in New York working with Cornell Cooperative Extension (and about to retire!) and may have never had the opportunities that I have had these past 14 years in Georgia. Thank you for love, support, and believing in me.

It has been my honor to serve as your Southern Region Director. Thank you all for the wonderful experience, the opportunity for growth, and the friendships along the way.

Southern Region Director Sherri Sanders Arkansas

It has been an honor to serve as your Southern Region Director this past year and to represent Arkansas on the NACAA Board. Serving as a director truly is the best role on the board—not only because of the meaningful work, but because it offers the opportunity to travel across our 13 Southern states and connect with so many outstanding colleagues.

Each state meeting is a true highlight of the year. These events celebrate your accomplishments and showcase the incredible work being done in Extension. I see the passion and dedication you bring to serving farmers, ranchers, and youth in your communities. I'm continually inspired by the diversity of agriculture across our region and grateful for the chance to witness the powerful impact you're making firsthand.

One of NACAA's greatest strengths is the professional network it provides. As your board representative, I consider it my duty to serve as a liaison—to be present, engaged, and supportive of the work you're doing. Thank you for welcoming me into your states, your meetings, and your celebrations. You've made me feel at home every time.

I'd like to extend a special thank you to our past Southern Region Director, Paula Burke, for her mentorship and guidance. I also sincerely appreciate the NACAA Board members and Scott Hawbaker for their continued professionalism and leadership. You've all set a high standard, and I'm honored to be in the trenches alongside you.

This role is both a privilege and a responsibility—one I do not take lightly. I look forward to continuing to serve you in the year ahead and doing my best to make you proud.

I hope to see many of you in Billings at the AM/PIC or during your upcoming state meetings. When we meet, let's take time to talk about the great work you're doing, the future of our organization, and how you too can get involved in this incredible national leadership team.

Thank you again for the opportunity to serve.

Western Region Director Aaron Esser Washington

It has been an honor to serve my first year as the Western Region Director and to represent Washington on the NACAA Board of Directors. I believed I was well-prepared for this role after two years as Western Region Vice-Director—but I quickly learned otherwise. Attending the post-AM/PIC Board Meeting in Dallas and witnessing the passion, dedication, and professionalism of the Board as we laid out goals and objectives leading up to Montana was both inspiring and humbling.

I want to sincerely thank Linden Greenhalgh, Past Western Region Director, and Betsy Green, current Western Region Vice-Director, for their guidance and support in helping me navigate this position.

I had heard that one of the most enjoyable parts of serving as Director is traveling to the Western states to update members about changes and opportunities within the Association—and that has absolutely been true. My travels began in the fall with a visit to Sandpoint, Idaho for the Chad Reid Western Regional AM/PIC in September. From there, I went to Fort Collins, Colorado in October and Sheridan, Wyoming in November. Winter travel included the Winter Board Meeting in Billings, Montana in December, followed by Santa Fe, New Mexico in January, and the Extension Leadership Conference (ELC) in Savannah, Georgia in February. As spring arrived, I attended the Spring Board Meeting in Boise, Idaho in March/April, traveled to Roseburg, Oregon in April, San Juan County, Utah in May, and Orofino, Idaho in June. I also joined Arizona, California, and Nevada state association meetings via Zoom. Unfortunately, I missed the Montana meeting due to an unexpected hunting trip, and Washington's meeting was canceled because of travel restrictions. I hope to visit Hawaii and Alaska next year.

The travel has been fun, educational, and eye-opening, but the most rewarding part of serving as your Western Region Director has been connecting with the people in this association and throughout Extension. I truly realized the strength of our national leadership when I saw the calm and capable leadership of President Scott Jensen and Past President Kieth Mickler during a transportation snafu at ELC. Despite the unexpected challenge, the evening turned out to be a great success.

At the state level, I've been continually impressed by the dedication and professionalism of everyone I've had the pleasure of working with.

I look forward to seeing many of you at the AM/PIC in Montana. Shelly Mills, Patrick Mangan, and the Montana Association of County Agriculture Agents have done an outstanding job putting together a condensed and unique conference filled with excellent professional development opportunities in a fun and memorable setting.

Extension Development Council Chair Colt Knight Maine

My name is Colt W. Knight from Maine, and I am honored to be serving my second year as Chair of the Extension Development Council (EDC). I'm pleased to report that the EDC has made tremendous strides this year in advancing professional development opportunities for our members.
Our council has been hard at work organizing impactful webinars, planning Super Seminars, hosting the Leadership Academy, and coordinating the First Timers' Social at the Rodeo Goat restaurant—conveniently located right across from the AM/PIC hotel.

At its core, the Extension Development Council is dedicated to elevating the professionalism of NACAA members by fostering leadership development and enhancing educational delivery. As Extension agents and educators, we share a commitment to continuous improvement—and the EDC is here to ensure we all have the tools, training, and experiences to become even more effective in our roles.
The EDC is comprised of four key committees:
• Teaching and Educational Technologies, chaired by David Yates (Tennessee)
• Early Career Development, chaired by Ashley Wright (Arizona)
• Leadership and Administrative Skills, chaired by Amanda Douridas (Ohio)
• Agricultural Issues, chaired by David Marrison (Ohio)

This year, we received 62 presentation abstracts, and we're excited to offer two dynamic Super Seminars through the Teaching and Educational Technologies Committee:
1. Designing Educational Board Games for Ag Learning
2. Leveraging AI Tools for Extension Success

The Early Career Development Committee will once again host the popular First Timers' Social, this year at Hooligans in Billings. Meanwhile, the Leadership and Administrative Skills Committee continues its outstanding work by engaging another cohort of the Leadership Academy.

We've also delivered two informative NACAA365 Webinars this year:
• Getting Started with AI in Extension
• Farm Bill Update
Please make time to attend these excellent sessions during the 2025 AM/PIC in Dallas—you won't want to miss them!
Finally, I would like to extend my heartfelt thanks to all our committee chairs for their dedication and effort in making this year's programming a success. Their work plays a vital role in creating a meaningful and enriching experience for our membership.

Thank you for your continued support of the Extension Development Council. I look forward to seeing you in Montana!

Agricultural Issues Chair David Marrison Ohio

Greetings NACAA Membership! The purpose of the NACAA Agricultural Issues committee is to provide educational opportunities that help NACAA members identify, define, and educationally address issues in agriculture that impact the sustainability of agriculture operations in their areas.

I was honored to step into the national chair leadership role in October 2024 replacing Connie Strunk (former National Chair) who was elected at the 2024 AM/PIC to serve as the NACAA Vice-President. We appreciate Connie's leadership to this committee and are excited to see the great things she will accomplish in her new role (s).

National Leadership:
Currently, the leadership for this committee is:
• David Marrison (OH) National Committee Chair
• Donna Aufdenberg (MO) North Central Region Vice-Chair
• Emily Fread (PA) Northeast Region Vice-Chair
• Mackenzie Gunn (VA) Southern Regional Vice-Chair
• MJ Fisher (ID) West Region Vice-Chair

I would like to thank Donna, Emily, Mackenzie, and MJ for representing their regions in a very effective manner this past

year. I appreciate their hard work and dedication to NACAA and to our membership.

NACAA 365 Webinar – Farm Bill Update

One of the committee's goals was to offer a NACAA 365 webinar to update members on the progress of the new Farm Bill. While a farm bill was never passed, the committee hosted a NACAA 365 webinar on April 23 taught by Dr. Brad Lubben (Extension Associate Professor and Policy Specialist) from the University of Nebraska-Lincoln. Dr. Lubben did an excellent job providing an overview of the major titles of the farm bill, major policy issues, and the hurdles to overcome to get a new farm bill passed by the legislature. A total of 62 NACAA members participated. For those interested in watching the recording, it can be accessed at https://www.nacaa.com/webinars

National Committee Workshop

The national committee workshop was held via zoom on May 14 from 11:00 to 12:00 noon (eastern standard time). We were excited that 22 NACAA state chairs/members participated in the meeting. During the meeting, the group reviewed the committee 2024-2025 activities and identified some of the current ag issues which are being seen across the country. These issues will be translated into the goals and 2025-2026 plan of work for the committee.

AM/PIC Presentations

The committee solicited abstracts for presentations for the 2025 AM/PIC to be held in Billings, Montana. There were 16 submissions with 12 being accepted for presentation at this year's AM/PIC (75% acceptance rate). The presentations will be given on June 30 and July 1 from 8:30 to 11:30 a.m. in the Double Tree Ballroom B. We are thrilled to have a wide range of topics being presented this year. Topics include how to respond to disasters (drought, hurricanes), educational program for targeted audiences (women producers, HMoob, LGBTQIA, youth), land and ag data rights, estate planning, and food security.

Thank You

Our leadership team would like to thank all our Ag Issues State Chairs for their work in their home states. Our goal is to continue to increase our communication to state chairs and to explore ways in which we can assist our membership in meeting the critical ag issues which they are facing as an Extension Agent. Please reach out to any member of our team with your questions, concerns, and ideas. Thank you!

Early Career Development Chair

Ashley Wright

Arizona

The Early Career Committee continues to work to provide meaningful professional development opportunities for agents in their early years with Extension.

The 2025 committee:

- National Chair – Ashley Wright, Arizona
- Western Region Vice-Chair – Anita Thompson, Arizona
- Northeast Region Vice-Chair – Timothy Waller, New Jersey
- Southern Region Vice-Chair – Sarah Sharpe, Virginia
- North Central Region Vice-Chair – Amanda Bennett, Ohio

This year marks our full transition to a five-member committee structure, with a dedicated National Chair and one Vice-Chair representing each Extension region.

We're excited to offer a diverse slate of oral presentations that focus on critical areas for early career success. Topics this year include effective publishing and peer review, program evaluation, mentoring models, building partnerships, managing service responsibilities, professional communication, and strategies for transitioning into established programs. These sessions will provide valuable insight to help new agents gain practical tools and insight they can apply immediately in their work.

We've also partnered with the Montana First Timers Committee to host the First Timers' Reception. The event will take place off-site at Hooligans in downtown Billings and is an opportunity to meet fellow first-time agents, make new connections, and build your professional network. Light snacks and refreshments will be provided. Come hang out and get to know each other, there are a lot of first timers this year! There's a lot of excitement about this year's AM/PIC being held in Montana, and we hope you get the chance to enjoy what Billings has to offer!

Leadership & Administrative Skills Chair Amanda Douridas Ohio

Leadership and Administrative Skills- We are wrapping up our second Leadership Academy cohort and kicking off our third here at AM/PIC. It has been a great year of diving into leadership topics each month, learning more about the NACAA leadership structure and developing presentations on new leadership topics. The Academy graduates will give their final presentations during the Monday morning session of the LAS professional presentations. Topics include breaking the burnout cycle, overcoming our weaknesses as leaders and transforming them into strengths, unlocking your leadership potential and building public relationships: the skills, attitudes, and management needed to make them successful.

Our 2024-2025 graduates are: Bill Errickson, Bindu Poudel-Ward, Brooke Latack, Charlotte Maxwell, Daniel Leonard, Donna Patterson, Jerry Smith, Joshua Criss, Kayla Wyse, Madalyn Shires, Rodolfo Martinez-Morales, Sarah DeBour, Terrell Davis, and Wendy Becker. If you see them, congratulate them on their dedication to improving their leadership skills! We will initiate the 2025-26 cohort during AM/PIC and are excited to welcome another strong class of current and future leaders. The committee has worked hard to put together three awesome years of leadership and administrative skills education for NACAA members.

Teaching & Educational Technologies Chair David Yates Tennessee

Members – Melanie Barkley, Pennsylvania State University; Scott Duggan, Oregon State University; Alicia Halbritter, University of Florida; Travis Harper, University of Missouri; David Yates, University of Tennessee.

The Teaching and Educational Technologies committee strives to provide members new and innovative ways of using technologies and tools in teaching/reaching our Extension audiences.

The TET committee hosted 4 member presentations during the 2024 AM/PIC that covered a range of technology use within Extension programs.

On May 7, committee members Melanie Barkley, Scott Duggan, Alicia Halbritter, and David Yates conducted a NACAA 365 seminar titled Getting Started with AI in Extension with 98 registered participants. This was an introduction to AI use in Extension and provided a snapshot of current AI adoption and questions about AI.

The Teaching and Educational Technologies Committee would like to invite you to view our oral presentation on Monday and Tuesday mornings, June 30 and July 1, at the AM/PIC. The committee is also looking forward to hosting two Super Seminars on the afternoon of July 1. Designing Educational Board Games for Agricultural Learning will be presented by members from Idaho and provide participants with an immersive, hands-on experience in game design concepts and digital integration, taking them through the process from digital idea to development and implementation.

Leveraging AI for Extension Success: Tools, Techniques, and Insights will discuss how large language models can help Extension professionals in their roles, what pitfalls to avoid, navigating ethical concerns, and what is available for AI technology. Speakers will form a Q&A panel for the last half of the super seminar where audience members are encouraged to share their experience with AI.

Professional Improvement Council Chair Brian Beer South Carolina

The Professional Improvement Council is one of three Councils that make up the committee structure for NACAA. The Professional Improvement Council is comprised of seven committees as follows:

- 4-H and Youth Programming, chaired by Heather Jennings of Mississippi
- Agriculture Economics and Community Development, chaired by Blake Carter of Georgia.
- Agronomy and Pest Management, chaired by Michael Rethwisch of California
- Animal Science, chaired by Kyle Sanders of Arkansas

• Horticulture and Turfgrass, chaired by Cyndi Lauderdale of North Carolina
• Natural Resources and Aquaculture, chaired by Jody Gale of Utah
• Sustainable Agriculture, chaired by Heather Schlesser of Wisconsin

This Council's function is to further the professional development of NACAA members. Each committee works to provide learning opportunities in the subject matter area of that committee. At the Annual Meeting and Professional Improvement Conference in Billings, MT, these committees are offering four pre-conference tours, three super seminars, and 89 oral presentations. I encourage everyone attending the meeting in Billings to take advantage of these opportunities. Where else can you get this amount of professional development in one meeting?

Professional Improvement Council Committees also presented NACAA 365 Webinars. These webinars keep NACAA members engaged throughout the year by offering professional improvement content outside the Annual Meeting and Professional Improvement Conference.

I am thankful for the hard work and dedication of each committee chair and all the regional vice chairs. Their efforts in planning pre-tours, reviewing abstracts, selecting presentations, and finding excellent speakers for super seminars are what make the NACAA Annual Meeting and Professional Improvement Conference so valuable. Thank you for your contribution to this year's meeting.
I look forward to seeing you in Billings!

4-H & Youth Programming Chair
Heather Jennings
Mississippi

4-H & Youth Programming Committee
Heather Jennings, Mississippi, National Committee Chair
Mark Heitstuman, Washington, Western Regional Vice Chair
Genevieve Christ, Pennsylvania, Northeast Regional Vice Chair
Kevin Camm, Florida, Southern Regional Vice Chair
Kendra Graham, Missouri, North Central Regional Vice Chair

The NACAA 4-H & Youth Programming Committee is looking forward to hosting a variety of 4-H and youth presentations that all members can find relevant. This committee spotlights educational programs that our colleagues are doing with youth and 4-H. We will have presentations Monday, June 30th through Tuesday, July 1st. This year we had twenty-nine excellent submissions and will be hosting eighteen of those presentations at AM/PIC. We are excited to have all regions represented! Presentation topics include Adopt a Cow, Cowboys and Calves, Florida's Ecosystems, ChickQuest, Tractor Safety, School Gardens, Field Days, Skillathons and more!
I would like to thank our hardworking Regional Vice Chairs for their work on our committee and their commitment to youth and 4-H programming. We look forward to seeing everyone at the 2025 AM/PIC in Billings and hope for more great submissions for the 2026 AM/PIC!

Ag Economics and Community Development Chair
Blake Carter
Georgia

Leadership:
• Blake Carter (GA), National Committee Chair
• Robyn Stewart (GA), Southern Regional Vice-Chair
• Samantha Gehrett (PA), Northeast Regional Vice-Chair
• Jacob Hadfield (UT), Western Regional Vice-Chair
• Nathan Hulinsky (MN), North Central Regional Vice-Chair

Activities:
For the 2025 AM-PIC, the committee is hosting a preconference tour. Join us for an engaging and insightful pre-conference tour that highlights the dynamic intersection of agricultural economics and community development in the Billings, Montana, area. This carefully curated itinerary showcases innovative agricultural enterprises and their contributions to the local economy and community. Start the day with a visit to Drange Apiary, a leading honeybee operation. Discover how this enterprise contributes to pollination services and agricultural productivity while supporting sustainable practices. Learn about the economics of beekeeping and the vital role honeybees play in Montana's agricultural landscape. Our second stop takes us to Mule Train Alpaca Ranch, where we'll explore the niche market of alpaca fiber production. Gain insights into how this unique enterprise adds value to the local economy through diversified income streams and sustainable land use practices. At Agri Organics, dive into the world of composting and organic waste management. This facility exemplifies how agricultural waste can be transformed into a valuable resource, creating economic opportunities while promoting environmental stewardship. Conclude the tour at Scheels, a premier destination for outdoor and

agricultural retail. Gear up in local merch, foods, and anything you need for the trails at Scheels. (It also has an indoor Ferris Wheel!!!). Through the support of NACAA, we were able to offer the tour for a very reasonable $75. We are excited to also offer 13 Professional Improvement Council Seminars at the AM-PIC that have been selected from many strong proposals. The presentations represent all four regions and include wide-ranging topics from kitchen table conversations for farm women to leveling up beekeepers. Presenters include Nathan Hulinsky (MN), Amy Hagerman (OK), David Marrison (OH), Amie Breshears (MO), Amanda Bennett (OH), Desiree Keever (NY), Lisa Jones (WV), Daisy Bailey (WV), Madelyn Greathouse (FL), Ronald Seymour (NB), Rachel Painter (TN), Charlotte Maxwell (SC), and Pilja Vitale (NM). We have been working on ideas to involve more NACAA members in the committee. At the committee meeting just prior to the AM-PIC, we will discuss cross-state collaboration, mentoring, and even AI opportunities. It has been a pleasure to work with such a dedicated and enthusiastic leadership team. Together, we look forward to confirming the incoming leadership. Congratulations and a HUGE thank you to Samantha Gehrett and Jacob Hadfield for serving alongside myself the last couple years. Samantha liked it so much she is staying on for another term as the NE Regional Vice Chair. Jacob is taking his talents and joining another committee this next year… Sustainable ag committee, you got yourselves a good one coming! We wish Jake the best. Sam, Robyn, Nathan, and I look forward to welcoming a new Western Region Vice-Chair at the upcoming AM/PIC. See y'all in Montana.

Animal Science Chair

Kyle Sanders

Arkansas

As we approach the 2025 National NACAA Annual Meeting and Professional Improvement Conference (AM/PIC) in Billings, Montana, I'd like to take a moment to update you on some exciting developments.

The Montana delegation has worked diligently to help plan an outstanding pre-tour that showcases the state's diverse animal science industry. Over the past year, we have collaborated closely with Montana's leadership team to ensure that agricultural agents from across the country experience the best of what Montana agriculture has to offer.

We have a two-day pre-tour planned, filled with insightful and educational stops. Starting in Billings, we'll travel to Great Falls, Montana, with several key stops along the way. The tour will include visits to locations such as the Wool Warehouse, Bair Ranch, and Big Sky Bison Ranch, among others. We'll also take time to explore the Lewis and Clark Interpretive Center. This tour is already sold out, a testament to the enthusiasm among our members—and for good reason. The educational value offered by these venues will provide agents with ideas and experiences they can take back home and perhaps inspire future visits.

Upon returning to Billings, agents will have the opportunity to attend a wide range of presentations and seminars. These sessions are a core part of the AM/PIC experience, providing practical, relevant content to enhance our professional growth and support the work we do in agriculture across the United States.

Last year's AM/PIC experience in Texas gave us an excellent model. The conference and tours highlighted not only the rich livestock heritage of Texas but also its diverse agricultural landscape. We learned that while our practices may differ by region, we all share a commitment to excellence and innovation in agricultural extension.

As well we visited some of the more well-known ranches such as the 6666 Ranch and the R.A. Brown Ranch that boast a lot about the history of Texas Ranching. These locations tell us a lot about their legacy once you drive through their gates.

One of the great strengths of NACAA is its commitment to providing hands-on, meaningful professional development opportunities. By rotating our conference among different regions of the country, we gain exposure to new ideas, unique challenges, and diverse agricultural systems—broadening our perspectives and enriching our service to producers back home.

Welcome to Billings, Montana for the 2025 NACAA AM/PIC. I look forward to learning alongside you in Big Sky Country!

Horticulture & Turfgrass Chair

Cyndi Lauderdale

North Carolina

Committee Members:
Cyndi Lauderdale (North Carolina), Committee Chair;
Danny Lauderdale (North Carolina), Southern Region Committee Vice Chair; Heather Neikirk (Ohio), North Central Region Committee Vice-Chair; Ginny Rosenkranz (Maryland),

North East Region Committee Vice-Chair; and
Andy West (Idaho), Western Region Committee Vice Chair;

First, I would like to thank the Horticulture and Turfgrass Committee members for all the time, effort, and support while I served as the National Chair. The Horticulture and Turfgrass Professional Improvement Committee is pleased to present this report to the membership, as we reflect on the 2024-2025 and the upcoming 2025 NACAA AM/PIC.

We hosted two national professional development 365 webinars, focusing on How to Write a Winning Horticulture and Turfgrass Abstract and The Benefits of Attending the Horticulture Pre-tour. We selected these topics because of the number of abstracts typically submitted to our Committee (over 25 annually), and knowing there were only 12 openings to present. Last year, we hosted the pre-tour topic and had increased participation on the tour. We decided this would be a good topic for the membership again, especially since we are starting in Bozeman and traveling to Billings. The committee plans to continue professional development webinars and will use the topics suggested by the membership at our Committee Meeting.

We are looking forward to an excellent program of professional development and fellowship at the 2025 AM/PIC. Much of the committee activity in 2024-2025 was focused on planning for the 2025 AM/PIC pre-conference tour. We are very excited to have Bayer CropScience as a sponsor of our tour again this year. The tour begins on Friday, June 27, in Bozeman, Montana. The first day of the tour will highlight Montana State University and all the good work going on there. Stops include the MSU Horticulture Farm, a native tree walk on campus, Indigenous Gardens, and the Museum of the Rockies' native plant gardens. Saturday, June 28, we will head out of Bozeman on our way to Billings by stopping at two nurseries, a quick stop at the Prairie Dog Park, lunch, and tour at a working mill, and at a State Park that grows heirloom fruit trees.

We will offer our Super Seminar "The Complex Tree System of Montana" on Tuesday, July 1, with two excellent speakers, Dr. Peter Kolb, MSU Forestry Specialist, and Dr. Drew Zwart, West Coast Technical Representative, Bartlett Tree Research Laboratories. We thank Bartlett Tree Research Laboratories for being our Super Seminar Sponsor.

The Horticulture and Turfgrass PIC committee received 18 abstracts for 12 presentation openings. The Horticulture Committee annually receives more abstracts than most other committees. We are very diligent in developing the best horticulture and turfgrass oral presentation program for the 2025 AM/PIC. We encourage the membership to carefully review the Horticulture-specific rubric (research or education) and use the total word limit to submit the highest quality abstract. The committee evaluated the abstracts, organized the sessions, maintained close contact with speakers, and moderated the sessions. Our thanks to the NACAA leadership team that successfully coordinates the oral sessions at the conference, which will include a wide range of horticultural topics from research, volunteer management, and innovative new programs. Our thanks to the NACAA members who plan to share such impactful programming.

The Horticulture and Turfgrass PIC committee annual meeting is on Wednesday, May 21, at 3 pm via Zoom. Incoming and outgoing regional vice chairs will be in attendance, and the meeting is open to the NACAA membership. We will discuss the 2026 AM/PIC. Among agenda items are a pre-conference tour, a super seminar, and ongoing professional development opportunities during the upcoming year.

Again, I want to thank the regional committee vice chairs and the state committee chairs for your support during my fourth year as Chair. As national committee chair, I want to encourage NACAA members to share ideas with the Horticulture and Turfgrass Committee. In particular, we need ideas related to the upcoming pre-conference tour, potential super seminars, and professional development activities. Feel free to reach out to your committee regional vice chair, who represents your state. The committee meets virtually monthly, and members are welcome to join our meetings. If any member is interested in a leadership opportunity with the committee or the abstract application process, please go to the NACAA website. Please reach out to the committee, we would love to hear from you.

Sustainable Agriculture Chair
Heather Schlesser
Wisconsin

Committee Members:
Heather Schlesser, Committee Chair
Katie Kammler, North Central Region Vice Chair
Matt Loller, Southern Region Vice Chair
Ethan Orr, Western Region Vice Chair
Heidi Reed, North Eastern Region Vice Chair

The Sustainable Agriculture committee is excited to welcome you all to Billings, Montana. We are thrilled to co-host this year's pre-tour with the horticulture committee. We hope many of you can attend the Annual Meeting and Professional Development conference. This past year, the Sustainable Agriculture worked on planning the pre-tour with the horticulture committee. We hosted one NACAA 365 seminar on the types of presentations that could be submitted to the

Sustainable Agriculture Committee. We believe this resulted in many submitted presentations for this year's conference. The Sustainable Agriculture committee will have content-specific breakout sessions on Monday, June 30th, and Tuesday, July 1st, from 8:30 am – 11:30 am. Thank you to everyone who applied this year. We would also like to thank the State and Regional Vice-Chairs for their hard work and dedication to the committee. We look forward to seeing what our new combined committee can accomplish next year.

Professional Improvement Council Chair Joni Harper Missouri

The Program Recognition Council (PRC) contains six committees that administer award-based programs, a long-standing tradition within NACAA. These committees serve as the primary way our association recognizes members for their professionalism, performance, creative works, and outreach. We are currently implementing changes to our committees. This year marks the final year for the Public Relations & Ag Awareness Committee, as it transitions into a Search for Excellence category. The Professional Excellence Committee also undergoes a change—renamed the Research & Education Poster Committee.

Thanks to our generous sponsors and the dedicated efforts of our committee members, the PRC is awarding over $36,000 to members this year.

The six committees that make up this council are:
- Communications Committee – chaired by Brittany Council-Morton & Interim Chair Daniel Leonard
- Research and Education Poster Committee – chaired by Brian Haller
- Public Relations & Ag Awareness Committee – chaired by Terrell Davis
- Recognition & Awards Committee – chaired by Ed Lentz
- Scholarship Committee – chaired by Stephen Hadcock
- Search for Excellence Committee – chaired by Linda McClanahan

Each year, these committees review hundreds of entries to determine state, regional, and national winners. Committee members work diligently to recognize NACAA members for their exceptional efforts. We had a large increase in number of entries this year:
- 732 Communications Award entries
- 178 Poster entries (53 Applied Research and 125 Extension Education)
- 202 Search for Excellence applications across 8 categories
- 13 Ag Awareness & Appreciation Award applications
- 141 applications for the AA, DSA, and Hall of Fame awards

The NACAA Scholarship Committee continues to improve the scholarship program. To learn more, visit: https://www.nacaa.com/scholarship-criteria. And don't forget—Monday evening features the NACAA Scholarship Auction, with hundreds of silent and live auction items. All proceeds support the Scholarship Fund.

This year also marks the completion of two terms as committee chairs for Linda McClanahan (Search for Excellence) and Stephen Hadcock (Scholarship). We sincerely thank them for their outstanding leadership and continued dedication to NACAA.

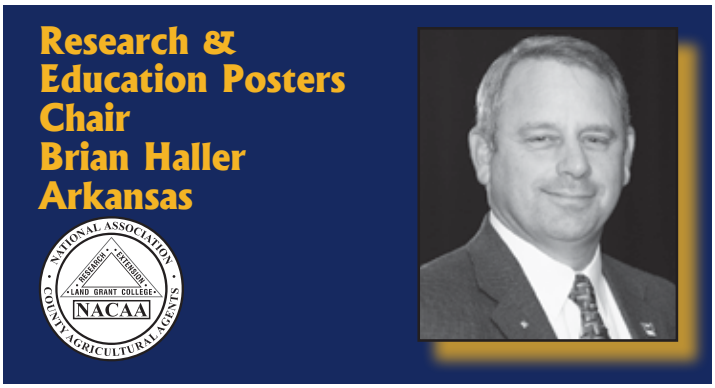
As I complete my final year as PR Council Chair, I extend heartfelt thanks to the National Chairs, Vice-Chairs, and State Chairs of all PRC committees. Your commitment makes the awards program possible. I also sincerely thank the National Board, my fellow council chairs Colt Knight and Brian Beer, and Scott Hawbaker for their outstanding support of me and our organization.

Communications Interim Chair Daniel Leonard Florida

The Communications Awards competition provides a way for NACAA members to be recognized for their efforts to reach the general public. Congratulations to all our members for excellent Extension programming around the nation. The caliber of award entries was outstanding. A total of 732 applications were completed for 2025 from across the nation. The Southern Region led the way with 461 entries submitted, followed by the North Central Region with 159 entries, the Northeast Region with 76, and the Western Region with 36. Congratulations to the Florida Association for the most entries as a state with 73 total applications. Florida was followed by Georgia with 55, Ohio with 51, and North Carolina and Tennessee with 49 each. The following is a summary of the entries made in each category.
- Audio Recordings had 49 entries.
- Published Photo had 78 entries.

• Computer Generated Presentation with Script had 46 entries.
• Event Promotional Package had 92 entries.
• Personal Column had 54 entries.
• Feature Story had 51 entries.
• Newsletter had 84 entries.
• Educational Video Recordings had 66 entries.
• Fact Sheet had 75 entries.
• Publication had 48 entries.
• Web Site/Online Content had 49 entries.
• Learning Module/Notebook had 23 entries.
• Bound Book/eBook had 17 entries.

The national winners will be announced at the Awards luncheon. The Communication Awards and poster Awards luncheon will be held together. The NACAA Communications Awards Committee is very appreciative of the NACAA Board for continued funding of this program. A hearty thanks to the Communications Awards state chairs and regional vice-chairs for their hard work in making this awards program successful. The NACAA Communications Awards Regional Vice-Chairs for 2025 are: North Central Region Vice-Chair – Aerica Bjurstrom (Wisconsin), Northeast Region Vice-Chair – Ginger Fenton (Pennsylvania), Southern Region Vice-Chair & Interim National Chair – Daniel Leonard (Florida) and Western Region Vice-Chair – Iris Mayes (Idaho). Without the state chairs and regional vice-chairs this program would not be possible. I would also like to thank Joni Harper, NACAA Program Recognition Council Chair, and Scott Hawbaker, NACAA Executive Director, for their assistance throughout the year with questions and concerns. If you have any suggestions for improving the NACAA Communications Awards Contest, please contact your Communication Awards Regional Vice Chair.



The Research and Education Posters Committee is responsible for organizing and conducting the poster session before and during the AM/PIC. It took a lot of dedication and work to make this happen, and without the regional vice-chairs, state chairs, and volunteer judges, the poster session would not be possible. Current regional vice-chairs are: North Central Region, Heather Gessner (SD); Northeast Region, Cassie Yost (PA); Southern Region, Jan Yingling (AR); and Western Region, Philip Waisen (CA). Regional Vice-Chairs are responsible for connecting with state chairs throughout the year and assisting with the judging portion at the regional level. Presenting a poster is an excellent way for members to showcase their work in Extension Education or Applied Research, generate discussion during and after the conference, and publish their abstract in the conference proceedings.

This year we had a record number of submitted posters to be displayed at the AM/PIC, with a total of 178 (53 Applied Research and 125 Extension Education). In 2025, we will have the national poster contest in Billings, MT and we are excited to showcase the great work that our Extension colleagues have been doing to reach audiences.

The committee used independent pre-AM/PIC regional judging of state winners to select the 23 National Finalist posters. Judges from the four regions will evaluate the finalists on Monday, June 30th to determine the National 1st, 2nd, and 3rd place award winners. Judging criteria are found on the NACAA website and can be reviewed to prepare for next year's posters.

All posters are displayed in the trade show area during the AM/PIC. Posters are to be in place no later than 4:30 p.m. on Sunday, June 29th, and stay through 3:30 p.m. Monday, June 30th. There will be a "Meet the Author's Poster Session" from 10:00 a.m. – 10:30 a.m. and 3:00 – 3:00 pm on Monday. National winners and finalists will be formally recognized during the Communications/Research and Education Posters awards luncheon on Monday, June 30th. Congratulations to all of our winners.

Public Relations and Ag Awareness Committee members:
Western Vice Chair: Bonnie Hopkins (NM)
North Central Vice Chair: Michael Estadt (OH)
Northeastern Vice Chair: Jaqueline Kowalski (CT)
Southern Vice-Chair: Nicholas Simmons (FL)

The Public Relations and Ag Awareness Committee would like to thank all of the State Chairs, award application judges, and members who submitted applications for the Ag Awareness and Appreciation Award. We had entries from 3 of the 4 regions submitted by our membership. Congratulations to our National Award winner, Mr. Timothy McDermott (OH), who

submitted his application for "A One Health Program to Keep You, Your Family, and Your Animals Tick Safe". We would also like to recognize our Regional Winners, Ms. Lindie Huffman (KY), "Agricultural and Cultural Heritage Tour IV: New England" and Mr. Don McMoran (WA), "Pizza 4 Producers". In addition, we congratulate our State winners; Jennifer Davison (AL), Rachel Bearden (AR), Alicia Halbritter (FL), Sierra Burke (GA), Taylor Chavis (NC), Liana Palmer (OK), Laura Hair (SC), and Lindsay Stephenson (TN).

The Public Relations and Ag Awareness Committee conducted their annual workshop via Zoom on May 9, 2025. This was the last workshop for this committee as NACAA has approved a restructuring of our committees. I appreciate the opportunity to serve as Chair of this committee and encourage our members to continue to submit applications as our committee's award will be a Search for Excellence category in 2026. We would like to extend a heartfelt thank you to Mr. Jim Hruskoci of Brayer Crop Science of his many years of support to our award as a sponsor. Our luncheon and awards would not have been possible without his generous support.

Recognition & Awards Chair

Edwin Lentz

Ohio

Edwin Lentz, Chair of Recognition and Awards Committee
Recognition and Awards Committee Members:
North Central Vice-Chair – Cade Rensink (Kansas)
Northeast Vice-Chair – Alexandria Smith (West Virginia)
Southern Vice-Chair – Jennifer Caraway (Arkansas)
Western Vice-Chair – Victoria Xiong (Utah)

The Recognition and Awards committee would like to congratulate the 2025 Hall of Fame, Distinguished Service Award, and Achievement Award recipients. The committee was diligent in their efforts to recognize outstanding agriculture agents and educators. The chair would like to thank the regional vice-chairs and state chairs for their time and commitment required to successfully complete the duties of this committee.

The 2025 Hall of Fame recipients include Stanley Moore (Michigan), Glenn Rogers (Vermont), Robert Hochmuth (Florida), and Ron Cunningham (Wyoming). They will receive their awards at the AMPIC's banquet. Recipients of this award are recognized for a career of outstanding work as an Extension Agent or Educator and continued engagement in community service. They have provided leadership to their profession, religious communities, and humanitarian organizations. This is the 20th year of this prestigious award.

Sixty-eight recipients will be honored at the 2025 AM/PIC Achievement Award breakfast ceremony. This is the 51st year that NACAA has presented this award, and this year's recipients will be joining 2,623 fellow Achievement Award winners. These recipients have demonstrated their ability to conduct high-quality educational programs and have gained the respect of co-workers in less than ten years of service.

Sixty-nine individuals who have been chosen by agents and educators in their respective states will receive the Distinguished Service Award. These recipients have been engaged in Extension and university activities for more than ten years. Their clientele and co-workers recognize them for their leadership skills and outstanding educational programs. The recipients will be recognized during the 2024 AM/PIC Banquet. This is the 87th year for this prestigious award and this year's recipients will be joining 7,771 fellow Distinguished Service Award winners.
The committee expresses our appreciation for the continued support of the Achievement Award breakfast by the American Income Life Insurance Company (Special Risk Division). They have sponsored the ceremony for 51 years and various other NACAA programs for 70 years. The committee also recognizes and thanks the Pipeline Ag Safety Alliance for their continued financial support for the Hall of Fame awards.
2024 NACAA Scholarship Report to Membership

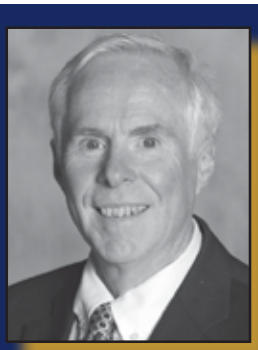
Your scholarship Committee's work is truly a team effort. I want to thank North Central Region Vice Chair Jennifer Lutes, Western Region Vice Chair Brooke Latack, Southern Region Vice Chair Carole Knight, and Northeast Region Vice Chair Xuan Wei for their support and hard work this year. I feel very fortunate and honored to work with these Vice Chairs.

Thanks to Past President Phil Durst, another donation was secured for the Territory Grant Program this year. Five NACAA members have received grants to assist them in attending this year's AM/PIC.

Scholarship Chair

Stephen Hadcock

New York



The generous donations by NACAA members help to make the task of awarding scholarships to members easier. For a defined 2024-25 period (May 16, 2024 – May 15, 2025), donations to the Education Foundation totaled $25,740.64. You have got to be in it to win it! A NACAA member can donate to the NACAA Education Foundation in various ways.

What do NACAA members use their scholarships for? I'm glad you asked! I encourage you to check out the June 2025 issue of "The County Agent." In this edition, you can learn firsthand how your colleagues from across the country have utilized their scholarships for professional development.

Want to craft a compelling scholarship application? Use this link, https://www.nacaa.com/sample-scholarship-application, to view a sample application and gather ideas on what to include.

The live and silent auction, a highlight of the AM/PIC, will take place Monday night in Billings, MT, along with the scholarship raffle.

Scholarships awarded:
By June 1, 2024, nine scholarship applications had been received. National committee members reviewed these applications and awarded a total of $11,750. Among the applications, eight were individual submissions and one was a group submission. Eight NACAA members benefited from receiving scholarships during the June application period.

By December 1, 2024, eight scholarship applications had been received. The national committee members reviewed these applications and awarded $15,334. Among the submissions, seven were individual applications, and one was a group application. Eleven NACAA members received scholarships from the June application period.

Search for Excellence Chair

Linda Mcclanahan

Kentucky

The current Search for Excellence (SFE) committee is comprised of four regional vice chairs and myself. The regional vice chairs include Leslie Rose from North Carolina, David Handley from Maine, Ron Patterson from Idaho and Anthony Ohmes from Missouri.

The committee held an organizational meeting by Zoom/conference call in January 2025. We discussed procedures for promoting SFE entry submissions and for scoring the entries to be received. We reviewed plans for the upcoming AM/PIC and discussed duties of regional vice chairs as well as state chairs. During the conference call, we also confirmed the division of responsibilities regarding the SFE categories that each would lead and preside over at the 2024 NACAA AM/PIC. They were as follows:
Consumer or Commercial Horticulture- David Handley
Crop Production- Ron Patterson
Environmental Quality, Forestry, and Natural Resources- Ron Patterson
4H and Youth Programming- Leslie Rose
Farm & Ranch Business Management- Linda McClanahan
Livestock Production – Linda McClanahan
Sustainable Agriculture- David Handley
Young, Beginning, or Small Rancher/Farmer – Anthony Ohmes

Each regional vice chair was responsible for organizing a team of judges for each respective category, judging the entries and reporting the results to me. National finalists and winners were notified of their placing before May 1st.
There were a total of 202 entries, 117 being judged at the national level. The entries per category was as follows:
Consumer or Commercial Horticulture- 28 entries, 13 states
Crop Production- 17 entries, 12 states
Environmental Quality, Forestry and Natural Resources- 19 entries, 9 states
Farm and Ranch Business Management- 15 entries, 11 states
4H and Youth Programming- 51 entries, 23 states
Livestock Production- 38 entries, 22 states
Sustainable Agriculture – 15 entries, 14 states
Young, Beginning or Small Farmers/Ranchers- 19 entries, 13 states

The total number of entries judged at national level was up 34 from last year. There are a lot of opportunities for members

to participate by submitting SFE entries. The entries are easy to prepare/submit, and SFE provides an excellent opportunity for individual/team recognition.

Our 2025 winners and finalists will be recognized during their respective SFE luncheon sessions at the upcoming NACAA AM/PIC in Billings. The committee will continue to promote the SFE awards program and encourage more applications next year. For those interested in learning more about the SFE Committee or learning more about their duties as state chair, the SFE committee held their meeting on May 5 via Zoom prior to AM/PIC.

Thank you to each state chair for their efforts in promoting SFE to their membership and judging/selecting state winners. I owe a huge thank you to each regional vice chair for all their efforts to facilitate the judging of the entries and other associated tasks of the committee. As I am wrapping up my final year of service, I have to say it has been a great honor to serve as National Chair of this committee. Thanks to Program Recognition Council Chair, Joni Harper, for her assistance and support during the year. I appreciate the continued support NACAA Board provides for the Search for Excellence program. Finally, many thanks to NACAA Executive Director, Scott Hawbaker for his support and assistance throughout my years of involvement with the Search for Excellence committee.

Life Chair
Steven Munk
South Dakota

Greetings to all, from the Life Member Committee.
Serving as the National Life Members Chair I have the privilege of reporting on the Life Member Committee work for this past year.

General responsibilities/duties of the Life Members Committee is to serve as a liaison between Life Members and NACAA Association Members and National Board, promote the membership of Life Members, support the Scholarship Fund, and work with the host state in the planning of the Life Members Program at the AM/PIC.

Those attending the 2025 AM/PIC noticed the meeting was one less day but despite one less day Montana did a great job of putting together a strong Life Members program that had many opportunities for Life Members to choose to participate in.

During the 2025 AM/PIC there were a number of key Life Members events that Life members were encouraged to attend beginning with the Life Members and Spouses Welcome and Orientation held at 2:00 pm on Sunday, a great chance to be briefed for the week. Monday had the Life Member Business meeting at 10:00 am followed by the Life Member/Spouses Luncheon at 11:45 am. The rest of the week was filled with the Life Member/Spouses tours and workshops. We would like to thank the host State of Montana for all their effort in organizing a successful 2025 AM/PIC Life Member program.

Prior to the 2025 AM/PIC all the Regional Life Member Vice Chairs contact the State Life Member Chairs in their region to collect the names of those that had passed since the 2024 AM/PIC.

Traditionally these names were read from a memorial listing during a "In Remembrance" portion of the Life Member Business Meeting. In 2023 pictures were added to the names. In 2025 to give more reverence to our coworkers that had passed, along with the reading of the memorial listing at the Life Member Business Meeting, copies of the listing was made available at the Regional Meetings, and Life Member/Spouse Hospitality Room. The pictures and info were also put on a rolling power point program that ran at a large session event. After the AM/PIC the information was placed on the Life Member web page. The Life Member Committee would like to thank the State Life Member Chairs for their contribution of collecting the In Remembrance information.

In 2025 Featured Spotlight recognition was introduced. The recognition was to highlight and show how Life Members continue to serve and be engaged after retirement. The Featured Spotlight is a no prize recognition that does not require attendance at the AM/PIC. Each region can submit one person from a state within the region based on a rotation among the states in the region. The submission is 4-6 slides that convey the involvement of the candidate which was on a rolling power point slide show that played during the AM/PIC, during the Life Members Business Meeting and at the Regional Meetings.

I would like to thank the Regional Vice Chairs for all the time and effort they contributed to the tasks of the Life Member Committee this past year. Fred Miller Southern Region, Larry Hulle Northeastern Region, Chuck Otte North Central Region and Mark Nelson Western Region all served the Life Members well this past year. We thank Fred and Larry for all their contributions as they rotated off the committee as the AM/PIC closed. Gene McAvoy will be coming on for the Southern Region Vice Chair and Richard Brzozowski comes on as the Northeastern Region Vice Chair. The North Central and Western regions elected Vice Chairs for the 2026-2028 term.

The Life Member Committee would like to express sincere appreciation to the National Board and Scott Hawbaker for all their support and assistance of the Life Members.

The Life Member Committee is looking forward to the 2025-26 year.

See you in Billings and then in Denver 2026!

Outstanding Young Farmer Liaison

Amber Yutzy

Pennsylvania

It has been a true honor to serve as the NACAA liaison to the National Outstanding Young Farmers of America. Throughout this role, I have had the privilege of meeting exceptional farmers from across the country—individuals whose dedication, innovation, and passion for agriculture continue to inspire me. The connections I've made through this program have been deeply meaningful and will last a lifetime.

The Outstanding Young Farmers of America (OYF) is comprised of former Outstanding Young Farmer Program nominees who continue to foster excellence in agriculture and community service. With over 1,500 members nationwide, this organization promotes the exchange of ideas and strengthens connections among farmers. It also highlights the critical role of agriculture in our nation and encourages continued leadership and service at the local, state, and national levels. The NOYF program is instrumental in bridging the urban-rural divide by promoting a deeper understanding of the vital contributions farmers make. It honors their hard work, resilience, and commitment—not only to agriculture but also to their communities. Today's farmers are more than producers; they are leaders, volunteers, and advocates. Recognizing their impact through this award is both fitting and essential.

The 2025 National Outstanding Young Farmers Awards Congress was held this past February in Des Moines, Iowa. I'm proud to share that NACAA members submitted 14 of the 27 total applications. Of the 10 national finalists recognized, five were nominated by NACAA—an incredible testament to our organization's commitment to celebrating excellence in agriculture.

Please join me in congratulating the 2025 NACAA-nominated NOYF finalists:

- John & Sara Wayne, West Virginia – National Winner
- Adam & Clarissa Egolf, Pennsylvania
- Jacob & Olivia White, Mississippi
- James & Kimberly Hawkins, Georgia – National Winner
- Jacob & Callie Feather, Arkansas

Now is the time to begin thinking about nominations for the 2026 awards. The NOYF program provides county Extension agents a unique opportunity to recognize outstanding young farmers within their communities. I encourage you to consider nominating individuals who exemplify innovation, leadership, and community service in agriculture.

Applications for the 2026 awards are due September 1, 2025, and can be found at www.outstandingfarmers.com. If your nominee is selected as a top 10 finalist, NACAA will offer a stipend to support your attendance at the 2026 NOYF Awards Congress in Hershey, Pennsylvania.

If you have questions or need help with the nomination process, please don't hesitate to reach out. Additionally, NOYF representatives and past winners will be available during the NACAA AM/PIC in the trade show area—stop by to learn more about the program and how to get involved.

Thank you for your continued efforts to support and recognize the future of American agriculture.

Journal of Extension

Jason de Koff

Tennessee

The Journal of Extension is an open-access, quarterly journal that provides an opportunity for Extension professionals to share their programs and ideas with each other. There are a number of ways that this can be done, either as a Feature Article (up to 5000 words), a Research in Brief article (up to 3000 words), Ideas at Work (up to 2000 words), Tools of the Trade (up to 1250 words), or as a Commentary (up to 1500 words). To find out more about these options, please visit the website: https://tigerprints.clemson.edu/joe/. There is also a Job Bank available at: https://jobs.joe.org/.

The Journal of Extension is always looking for reviewers which can provide professional development opportunities to both the reviewer and the authors they review. If you are interested in serving in this way or would like to find out more, please email: JournalofExtension@clemson.edu

Over the last year, the Journal of Extension has published 6 issues with 132 total articles. In February 2025, the Journal of Extension had over 20,000 downloads, about 10,000 more downloads/month than for February 2024.

In March 2025, the Editorial Board, led by President Jamie Rae Walker (Texas A&M), met in person and continued work to streamline the website to provide clear, concise information for prospective authors and others associated with the journal. New information will include an author checklist and reference table of common errors. The Journal of Extension is also working toward developing policies related to artificial intelligence.

Be sure to check out our booth at the trade show as well as the presentation, "Tips for writing and reviewing Extension work with the Journal of Extension" hosted by the Early Career Development committee at the 2025 NACAA AM/PIC.

NACAA Executive Director

Scott Hawbaker

Illinois

Planning for the 2025 AM/PIC has been an enjoyable experience as the Montana team has done an outstanding job of making this years meeting one to remember. I had the honor to work with Shelley Mills from the very beginning in developing a 4-day event vs. the normal 5 days. That did lead to challenges, but the board of directors agreed to the new format and felt that the schedule still offered the vast majority of offerings that members expect in an AM/PIC.

This year marks the completion of my 27th year as Executive Director and even though my historical knowledge is relevant on "how do we normally do it", one of the most enjoyable features of this role is that there are always new challenges. Fortunately, I like challenges. I discovered long ago, if you're not willing to take on new challenges, you become stale...and that's not good. So my goal, is to not become stale :)

Your NACAA board of directors is a strong group of dedicated leaders who work very hard each year to set policies that will benefit you as members of NACAA. They take their role very seriously, yet do manage to build long-lasting friendships while serving. Congratulations to this years board, for once again making NACAA a vibrant and strong organization.

110th Annual Meeting and Professional Improvement Conference
June 29 - July 2, 2025

National Association of County Agricultural Agents

2025 NACAA ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT CONFERENCE

REGISTRATION
Northern Hotel

Sunday:	8:00 am - 7:00 pm
Monday:	6:30 am - 7:00 pm
Tuesday:	8:00 am - 2:00 pm
Wednesday:	NOT OPEN - TOUR DAY

COMMERCIAL AND EDUCATION EXHIBITS
Doubletree - 2nd/3rd Floors

Sunday:	9:00 am - 1:00 pm (Set-up)
Sunday:	1:00 pm - 6:30 pm
Monday:	8:00 am - 4:30 pm
Tuesday:	8:00 am - 2:00 pm
Tuesday:	2:00 pm -5:00 pm (Exhibit Take-down)

POSTER DISPLAY
Doubletree - Ponderosa Room (22nd Floor)

Sunday:	9:00 am - 1:00 pm (Set-up)
Sunday:	1:00 pm - 6:30 pm (Open)
Monday:	8:00 am - 10:00 am (Poster Judging)
Monday:	10:00 am - 3:00 pm (Open)
Monday:	10:00 am - 10:30 am (Meet the Authors)
Monday:	3:00 pm - 4:00 pm (Poster Take-Down)

ANNUAL MEETING RIBBON COLOR GUIDE

National Board	Dark Blue
National Council Chair	White
National Committee Vice Chair	Orange
National Vice Director	Tan
State President	Red
Past National President	Purple
Past National Secretary	Gold
Past National Treasurer	Dark Green
Life Member	Brown
Donor	Black
Guest	White/Gold
First Timer	Maroon
Hall of Fame	Gray

Welcome to the 110th Annual Meeting and Professional Improvement Conference

National Association of County Agricultural Agents

NAME BADGES ARE REQUIRED.
PLEASE WEAR YOUR NAME BADGE AT ALL TIMES. YOU WILL NEED IT TO BE ADMITTED TO ALL FUNCTIONS INCLUDING MEALS

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Scott Jensen
President

Welcome to the Billings!

Thank you for coming to the 110th NACAA Annual Meeting/ Professional Improvement Conference! We appreciate your commitment to professional development and to our association as we enjoy "Big Sky and Big Connections" together.

Our Montana Association friends and your NACAA board and committee members have been working diligently to prepare for our time together in Billings. Be sure to take time this week to make some new connections, learn some new programming ideas, and see some new sights. My Extension programming has been elevated, rejuvenated, and expanded by each AM/PIC I have attended.

This meeting will definitely be different from what many of us are accustomed to. Please be patient as you move from location to location. We have done our best to fit sessions, presentations, luncheons and the banquet into the available space. Enjoy and appreciate the differences as we celebrate our programming and career successes!

You will not want to miss the welcome dinner at the PUB Station. Beef tri-tip is delicious and a staple at bull sales, weddings, and other special events in the west. A short walk following dinner will get you to the historic Alberta Bair Theatre for the opening (and only) general session of the AM/PIC. You will not want to miss the opportunity to be inducted into the Montana Association's Order of the Buffalo!

Be sure to review the program book and outline a plan to attend the oral presentations and view the posters that are of interest to you. There are always more things to see, hear, and do than time allows.

I invite you to attend the scholarship auction on Monday night and to stay for the after-auction entertainment. AM/PIC co-chair Shelley Mills has made special arrangements to have Kyle Shobe and the Walkem Boys provide some great entertainment following the auction. You won't want to miss it!

Don't forget to take time to visit the trade show in the foyers on the 2nd and 3rd floors of the Doubletree Hotel. Besides offering some great products and services, these folks have provided sponsorship money to help make the conference more affordable.

Please be sure to thank them for their support!

I want to express my sincere appreciation to the Montana agents. They have been outstanding to work with over the last couple of years. Additionally, I recognize the incredible work and commitment of our executive director Scott Hawbaker. His dedication to our association and membership is truly remarkable!

I look forward to visiting with you this week. Please feel free to stop me as we cross paths throughout the AM/PIC. I wish each of you a great week and a great time in Big Sky country!

Scott Jensen
NACAA President

Welcome to Montana

Shelley Mills
Co-Chair

Patrick Mangan
Co-Chair

We are delighted to see you in Montana. Thank you so much for coming. We hope you have a wonderful time visiting our beautiful state. All of Montana Extension as well a ton of help from across the Western Region have been working diligently to make sure that your stay in Montana is a pleasant experience. Our sponsors and donors who helped to make this event happen are excited to meet you at our tradeshow Sunday afternoon through Tuesday afternoon. Please stop by and say thank you because without them, this would never have happened. It really takes an entire state and a bit more to pull off this event.

The 2025 AM/PIC officially kicks off on Sunday with the Welcome to Montana Dinner at the Pub Station, one and half blocks east of the headquarter hotels. Billings local caterer Yellowstone Kelly's will be serving a wonderful beef dinner with all the trimmings. We will have a vegan option as well. The Pub Station will also have a cash bar where you can get everything from a soft drink, to beer, wine, and well drinks.

Following the dinner, we will move to the historic Alberta Bair Theater where we will have our opening ceremonies. The national anthem will be sung by noted Opera singer Chris Bengochea, followed by his nephews (Montana 4-H members) performing the pledges. President Jensen has a full agenda and some fun, followed by Montana Ag Extension Agents sharing a piece of

their association's rich history dating back to 1922 when it first began. As you leave the theater, don't forget to stop and grab a Wilcoxson's ice cream bar! Hospitality will be on the 22nd floor of the Doubletree hotel in the Ponderosa room. Once a private gentleman's club, the Ponderosa room offers stunning views of the city and landscape. It's also where our poster sessions will be held.

We have exciting and educational events planned for the Life members, spouses, and youth. Everything from Montana history, learning about Montana's Indigenous Tribal customs, cowboy culture, and a rich diversity of agriculture are scheduled for the Life members and Spouses. The youth will experience the thrill of either rafting or horseback riding on Monday and will visit the Audubon and Conservation center Tuesday morning, before spending the afternoon at the Oasis Waterpark.

Monday is State's Night out and the opportunity to sample some of the great dining Billings has to offer. Be sure to come back in time to attend the NACAA Scholarship Auction starting at 7 p.m.! You will not want to miss the Live music before, during and after the auction provided by Kyle Shobe and the Walk 'Em Boys band.

Tuesday is our annual banquet and awards ceremony. Though a little unconventional in our delivery since we are holding the banquet in 4 different rooms, we know you are going to enjoy our fillet of beef! As always accommodations will be made for those with dietary restrictions.

Montana has tours like no other! Whether you are into breathtaking mountain views, livestock production, conservation agriculture, agricultural industry, or are looking forward to a cold brew and some cowboy culture, Montana has it in spades. Our Tour team has spent countless hours organizing and developing tours that are sure to please everyone.

All roads lead back to the Farewell dinner once again at the Pub Station. We hate to see you leave, so we're throwing a traditional Montana style BBQ with Montana Angus Beef donated by the Montana Beef Council and some scrumptious lamb donated by the Montana Lamb Board. We're also hosting a cornhole tournament so make sure you get your team organized and participate in the fun and competition. Our local radio station, KGHL will be playing music and doing live interviews of attendees of the conference!

All of Montana welcomes you and hopes you have a wonderful experience while you're here. Don't hesitate to ask us if you need anything. We're in the Blue and Gold Montana Extension shirts or stop at our registration and reception desks on the 2nd floor of the Northern Hotel. Our fabulous partners, Visit Billings and the Billings Chamber of Commerce and Agriculture, will be on site as well to help you with anything related to Billings or southeast Montana!

Montana welcomes you!

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Sustainable Agriculture:	Heather Schlesser, WI
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Early Career Development:	Ashley Wright, AZ
Leadership & Administrative Skills:	Amanda Douridas, OH
Teaching and Educational Technologies:	David Yates, TN

OTHER CHAIR POSITIONS

Annual Meeting:	Shelley Mills, & Patrick Mangan, MT
Association Policy:	Cynthia Gregg, VA
Life Members:	Steven Munk, SD
NACAA SPECIAL ASSIGNMENTS	
Executive Director; Publisher, The County Agent:	Scott Hawbaker, IL
Journal of Extension:	Jason de Koff, TN
Journal of NACAA:	Linda Chalker-Scott, WA
Outstanding Young Farmer:	Amber Yutzy, PA

VICE DIRECTORS

North Central Region:	Jennifer Bentley, IA
Northeastern Region:	Andrew Kness, MD
Western Region:	Betsy Greene, AZ
Southern Region:	Jennifer Pelham, FL
Southern Region:	Lonnie Jenschke, TX

110th ANNUAL MEETING
and
PROFESSIONAL IMPROVEMENT CONFERENCE
of the
NATIONAL ASSOCIATION OF
COUNTY AGRICULTURAL AGENTS
Billings, Montana
June 29 - July 2, 2025

MEMBER

DT = DOUBLETREE HOTEL
N = NORTHERN HOTEL

FRIDAY, JUNE 27

8:00 am - **HORTICULTURE/SUSTAINABLE AG COMMITTEE PRE-TOUR, ANIMAL SCIENCE PRE-TOUR**

8:00 am - 5:00 pm **NACAA BOARD MEETING,** N Enterprise Boardroom

SATURDAY, JUNE 28

7:30 am **HORTICULTURE COMMITTEE PRE-TOUR, ANIMAL SCIENCE PRE-TOUR, AG ECON PRE-TOUR**

8:00 am - 5:00 pm **NACAA BOARD MEETING**
N Enterprise Boardroom

SUNDAY, JUNE 29

8:00 am- 7:00 pm **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF**
N - 2nd floor foyer
AUCTION ITEMS can also be dropped off at - DT - Conference Room 2

SUNDAY, JUNE 29

MEMBER

9:00 am - 11:00 am **NOMINATING COMMITTEE MEETING**
N - PB Moss boardroom

9:00 am - 1:00 pm **COMMERCIAL EXHIBIT TRADE SHOW**
DT - 2nd and 3rd floors

9:00 am - 1:00 pm **NACAA POSTER SESSION SETUP**
DT - Ponderosa Room - 22nd Floor
Coordinator: Brian Haller (AR), Research & Educational Posters Committee Chair

9:00 am - 5:00 pm **SCHOLARSHIP SELECTION COMMITTEE**
DT Boardroom 1
Presiding: Stephen Hadcock (NY), Scholarship Committee Chair

12:00 pm - 2:00 pm **PAST NATIONAL OFFICERS & BOARD LUNCHEON,** DT Skyview 1 and 2
Presiding: Keith Mickler (GA), Past President

1:00 pm - 6:30 pm **COMMERCIAL EXHIBIT TRADE SHOW,**
DT - 2nd and 3rd floors

1:00 pm - 4:30 pm **LEADERSHIP ACADEMY**
DT - Conference Room 1

2:00 pm - 4:00 pm **FIRST LADY'S OPEN HOUSE**
D - Governor's Suite
(Invitation Only)

2:00 pm - 3:00 pm **LIFE/SPOUSE ORIENTATION**
N - Ballroom North

2:00 pm - 5:00 pm **NACAA EDUCATIONAL FOUNDATION ANNUAL MEETING & BOARD OF DIRECTORS MEETING,** DT - Skyview 1 and 2
Presiding: Cynthia Gregg (VA), NACAA Educational Foundation President

3:00 pm - 4:00 pm **PARENT ORIENTATION FOR SONS AND DAUGHTERS PROGRAM**
N - South Ballroom

3:00 pm - 4:30 pm **FIRST TIMER ORIENTATION & SOCIAL**
Hooligans Pub (Offsite location - walk)
Presiding: JJ Jones (AR), President- Elect

SUNDAY, JUNE 29

MEMBER

4:30 pm - 6:30 pm **WELCOME TO MONTANA DINNER**
Pub Station (Offsite location - walk)
(Ticket Required)
Courtesy: NACAA, AARP, AgWest

7:00 pm - 9:00 pm **OPENING SESSION & INSPIRATIONAL PROGRAM,** Alberta Bair Theater (offsite - walk)
- Welcome & Comments –Scott Jensen (ID), NACAA President
- Posting of Colors
- National Anthem - performed by: Chris Bengochea
- Pledge of Allegiance - Felixe, Beau, and Oliver Becker (MT)
- Indigenous Prayer & Dance
- State Flag Presentation - Video produced by Colt Knight (ME)
- Presentation of Service to American/World Ag Award – Scott Jensen (ID), NACAA President
- Justen Smith– Utah State University
- Introduction of Speakers – by Scott Jensen (ID) NACAA President
- Welcome by Dr. Cody Stone, Executive Director of Montana State University Extension
- Keynote Speaker – Dwayne Fisher (ID), VP Marketing and partner at Champion Produce Sales
- Closing Announcements –Shelley Mills and Patrick Mangan, AM/PIC Co-Chairs

9:00 pm **ICE CREAM SOCIAL**
Outside Alberta Bair Theater walk back
Courtesy: Advanced Composting Technologies

9:00 pm - 11:00 pm **HOSPITALITY ROOMS**
DT - Ponderosa Room, 22nd floor

10:00 pm **MONTANA AM/PIC COMMITTEE MEETING**
DT - Skyview 1 and 2

MONDAY, JUNE 30

MEMBER

6:30 am - 7:00 pm **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON)**
N - 2nd floor foyer
AUCTION ITEMS can also be dropped off at - DT - Conference Room 2

6:30 am - 7:45 am **BAYER CROPSCIENCE BREAKFAST - FUELING THE FUTURE: BAYER'S BIOFUEL CROPS & NEW FARMER OPPORTUNITIES**
N - Ballroom North (Ticket Required)
Presiding: Michael Rethwisch (CA), Chair - Agronomy & Pest Management
Courtesy: Bayer CropScience LP
Speakers: Chad Bilby, Biofuels Crop Innovation and Commercial Lead & Carlene Sarvas, Customer Sales & Solutions Agronomist - Bayer CropScience

6:30 am - 7:45 am **VOTING DELEGATES BREAKFAST**
N - Ballroom South (Invitation only)
Presiding: Donna Beliech (MS), NACAA Secretary
Courtesy: NACAA

8:00 am - 4:00 pm **COMMERCIAL EXHIBIT TRADE SHOW,**
DT - 2nd and 3rd floors

8:00 am - 10:00 am **NACAA POSTER JUDGING**
DT - Ponderosa Room - 22nd Floor

8:00 am - 5:00 pm **SONS & DAUGTHERS PROGRAM GATHER & DEPART**
DT - Ballroom A

8:30 am - 11:30 am - **EXTENSION DEVELOPMENT COUNCIL PRESENTATIONS**

8:30 am - 11:30 am **LEADERSHIP & ADMINISTRATIVE SKILLS SEMINARS**
DT - Conference Room 1
Presiding: Amanda Douridas (OH)

8:30 - 9:00 am
Breaking the Burnout Cycle: Strategies for Personal and Professional Resilience
Presenter: Kayla Wyse (OH)

9:00 - 9:30 am
Overcoming Our Weaknesses as Leaders and Transforming Them into Strengths
Presenter: Daniel Leonard (FL)

MONDAY, JUNE 30

MEMBER

9:30 - 10:00 am
Unlocking Your Leadership Potential
Presenter: Donna Patterson (OK)

10:00 - 10:30 am
Building Public Relationships: the skills, attitudes, and management needed to make them successful
Presenter: Terrell Davis

10:30 - 11:00 am
Researching and Evaluating a New Management Structure in Ohio State University Extension
Presenter: Haley Shoemaker (OH)

11:00 - 11:30 am
Leveraging Adaption and Innovation Preferences in Extension Work
Presenter: Matt Spindler (IL)

8:00 am - 11:30 am **AGRICULTURAL ISSUES**
DT - Ballroom B
Presiding: MJ Fisher (ID), Emily Fread (PA) Committee Vice Chairs

8:30 - 9:00 am
Ladies Raising Livestock
Presenters: Alyssa Large, Sarah Orr, Jessica Wilkinson Smith and Jenni Goodrich (TN)

9:00 - 9:30 am
First Aid and Safety Training for Oregon Agricultural Producers
Presenter: Jacob Powell (OR)

9:30 - 10:00 am
Landowner Rights and Responsibilities Education in West Virginia
Presenters: Doolarie Singh-Knights, Jesse Richardson, Jodi Richmond, and Alexandria Smith (WV)

10:00 - 10:30 am
Saving Our Acres: Estate Planning in West Virginia's Fastest Growing Region
Presenters: Emily Morrow and Ryan Snyder (WV)

MONDAY, JUNE 30

MEMBER

10:30 - 11:00 am
Lessons Learned From Hurricane Helene
Presenter: Amy Byington (VA)

11:00 - 11:30 am
Women and The Land: Using Annie's Project Inspired Events to Connect Women Landowners to Conservation Agencies
Presenters: Katie Bell and Rachel Curry (IL)

8:30 am - 11:30 am **EARLY CAREER DEVELOPMENT**
DT - Skybridge 1
Presiding: Anita Thompson, Western Region Vice-Chair (AZ), Tim Waller, Northeast Region Vice-Chair (NJ)

8:30 - 9:00 am
Tips for Writing and Reviewing Extension Work with the Journal of Extension
Presenter: Jason de Koff (TN)

9:00 - 9:30 am
A Peer-to-Peer Mentoring Program for Extension Agent Success
Presenter: Amy Rowe (NJ)

9:30 - 10:00 am
Planting Seeds of Success: Practical Training in All Things Agriculture for New Agriculture Extension Agents
Presenter: Tracey Sullivan (TN)

10:00 - 10:30 am
Presiding: Tim Waller, Northeast Region Vice-Chair
From Data to Impact: Program Evaluation for New Agents
Presenter: Robyn Stewart (GA)

10:30 - 11:00 am
Professional Posters with Purpose: How to showcase your amazing work
Presenter: Amy Derby (OR)

11:00 - 11:30 am
The Good, The Bad and The Ugly of "Service"
Presenter: Timothy Waller (NJ)

MONDAY, JUNE 30

MEMBER

8:30 am - 11:30 am **TEACHING & EDUCATIONAL TECHNOLOGIES**
DT - Conference Room 5
Presiding: Melanie Barkley, Northeast Region Vice-Chair and Travis Harper, North Central Region Vice Chair

8:30 - 9:00 am
Statewide Hybrid Idaho Online Program Delivery
Presenter: Ronald Patterson (ID)

9:00 - 9:30 am
Providing Skills and Knowledge to New Farmers with the Maryland Beginning Farmer Success Course
Presenter: Emily Zobel (MD)

9:30 - 10:00 am
Online Education Strategies to Meet Food Entrepreneur Needs
Presenter: Emily Marrison (OH)

10:00 - 10:00 am
AgConnect: Connecting Agriculture with Science in the Classroom
Presenter: Lindsey Ruhl (VT)

10:30 - 11:00 am
Tailoring Training for Pesticide and Fertilizer Applicators
Presenter: Michelle Atkinson (FL)

11:00 - 11:30 am
Elevating Gardening Expertise: A Hybrid Master Gardener Program for High-Altitude Regions
Presenter: Jennifer Werlin (ID)

10:00 am - 10:30 am **BREAK AND MEET THE AUTHORS POSTER SESSION,** DT - Ponderosa Room - 22nd Floor
Courtesy: Wyoming Association of County Agricultural Agents & Bravera Bank

MONDAY, JUNE 30

MEMBER

8:30 am - 11:30 am - **PROFESSIONAL IMPROVEMENT COUNCIL PRESENTATIONS**

8:30 am - 11:30 am **4-H & YOUTH PROGRAMMING PRESENTATIONS**
N - Hart Albin
Presiding: Heather Jennings, National Chair, Kevin Camm, Southern Region Vice Chair

8:30 -9:00 am 4-H and Youth Programming County Bred Steer Feed Out
Presenters: Coy McCorkel and Casey Russell (OK)

9:00 - 9:30 am
Cowboys and Calves: Educating Florida's Students on Cattle's Impact on Environment, Economy and Nutrition
Presenters: Lindsey Crum and Lauren Butler (FL)

9:30 - 10:00 am
Sweet Success in the School Garden
Presenter: Josh Fuder (GA)

10:00 - 10:30 am
Workforce Readiness Through Drone Technology: Preparing Youth for Careers in a Growing Industry
Presenters: Wendy Mussoline, Stacy Strickland, Matt Smith and Brittany Scharf (FL)

10:30 - 11:00 am
Farm Safety Field Day
Presenter: Brooklyne Wassel (GA)

11:00 - 11:30 am
Close Encounters with Agriculture
Presenters: Kelly Nichols and Catherine Savage (MD)

8:30 am - 11:30 am **AG ECONOMICS AND COMMUNITY DEVELOPMENT PRESENTATIONS**
DT - Skybridge 2
Presiding: Blake Carter (GA), National Chair
Jake Hadfield (UT), West Region Vice Chair

8:30 - 9:00 am
Minnesota Beginning Farmer Institute
Presenter: Nathan Hulinsky (MN)

MONDAY, JUNE 30

9:00 - 9:30 am
Enhancing Disaster Preparedness Across the Oklahoma State University Extension System
Presenter: Amy Hagerman (OK)

9:30 - 10:00 am
Helping Farm Families Mitigate Transition and Estate Risk through OFRS and FARMS
Presenter: David Marrison (OH)

10:00 - 10:30 am
Tools and Strategies for Direct-to-Consumer Meat Marketing Education
Presenter: Amie Breshears (MO)

10:30 - 11:00 am
Monitoring Fertilizer Input Prices in Ohio
Presenter: Amanda Bennett (OH)

11:00 - 11:30 am
Applied Education/Economic Development Program Builds Agricultural Economic Viability
Presenter: Desiree Keever (NY)

8:30 am – 11:30 am **AGRONOMY AND PEST MANAGEMENT PRESENTATIONS**
N - Babcock
Presiding: Jennifer Brhel (NE), North Central Region; Vice Chair, Hung Doane (CA) West Region Vice Chair

8:30 - 9:00 am AM
Attracting New Talent to Replace Old Agronomists like Me
Presenter: Bill Burdine (MS)

9:00 - 9:30 am
What we've learned about tar spot of corn epidemiology in Maryland's climate
Presenter: Andrew Kness (MD)

9:30 - 10:00 am
Emergency response to infestations of an invasive thrips pest of fresh market peppers in Florida
Presenter: Anna Meszaros & Julien Beuzelin (FL)

CCA Recertification Credit will be offered with the Agronomy oral presentations

MEMBER

MONDAY, JUNE 30

MEMBER

10:00 - 10:30 am
Fungicide Application and Herbicide Timing In Dryland Winter Wheat
Presenter: Aaron Esser (WA)

10:30 - 11:00 am
Examining Phosphorus Use Efficiency in Florida Rice
Presenter: Matthew VanWeelden (FL)

11:00 - 11:30 am
Phosphorus and Potassium Applications Influence on Alfalfa Hay Quality and Value
Presenter: Steven Norberg (WA)

8:30 am - 11:30 am **ANIMAL SCIENCE PRESENTATIONS**
D - Ballroom C
Presiding: Kyle Sanders (AR), National Chair

8:30 - 9:00 am
Grazing Sticks as an Educational Tool for Women Managing Livestock and Pastures
Presenter: Amie Schleicher (MO)

9:00 - 9:30 am
Economics of Growing Warm-Season Annuals for Sheep in D4 Drought
Presenter: Christine Gelley (OH)

9:30 - 10:00 am
Assisting the Pork Industry Prepare for an Emergency Disease Response
Presenter: Sarah Schieck Boelke (MN)

10:00 - 10:30 am
Emergency Response to Accidents Involving Livestock(ERAIL)
Presenter: Mike Metzger (MI)

10:30 - 11:00 am
'Cow Clinics' Improve Producer Confidence and Increase Profits
Presenter: Brent Plugge (NE)

11:00 - 11:30 am
Lifetime impact of early life nutrition on BeefxDairy crossbred steers
Presenter: Denise Schwab (IA)

MONDAY, JUNE 30

8:30 am - 11:30 am **HORTICULTURE AND TURFGRASS PRESENTATIONS**
N - Ballroom South
Presiding: Ginny Rosenkranz (MD)

MEMBER

8:30 - 9:00 am
Agents Guide - New and Old Threats to Boxwood Production and Maintenance
Presenter: Timothy Waller (NJ)

9:00 - 9:30 am
Meeting Stakeholder Needs of Tri-State Area Growers through Production Agriculture Programs
Presenter: Abigail Smith (FL)

9:30 - 10:00 am
Enhancing Pollinator Conservation Through Extension Agent Collaboration
Presenter: Cynthia Nazario-Leary (FL)

10:00 - 10:30 am
Helping Produce Farmers Address Food Safety Issues after Hurricane Helene in Western NC
Presenter: Elena Rogers (NC)

10:30 - 11:00 am
What Motivates People to Become an Extension Master Gardener, and What Inspires Them to Remain?
Presenter: Pam Bennett (OH)

11:00 - 11:30 am
Evaluating Drone Spray Coverage in Watermelon Production
Presenter: Haley Sater (MD)

8:30 am - 11:30 am **NATURAL RESOURCES/AQUACULTURE PRESENTATIONS**
DT - Skybridge 3
Presiding: Jody A. Gale (UT), National Chair; Madeline Flahive Di Nardo (NJ), Northeast Region Vice Chair

8:30 - 9:00 am
The New Paradigm of Drainage and Water Management Education Through the Virgil Overholt Drainage Schools
Presenter: Vinayak Shedekar (OH)

MONDAY, JUNE 30

MEMBER

9:00 - 9:30 am
Empowering Florida Well Owners Through Education and Water Testing Services
Presenter: Yilin Zhuang (FL)

9:30 - 10:00 am
Growing Knowledge: Teaching Residents Plant Selection Through Educational Demonstrations Gardens
Presenter: Tiare Silvasy (FL)

10:00 - 10:30 am
Expanding Extension Support for Landowners Following Natural Disasters
Presenter: Emily Beach (FL)

10:30 - 11:00 am
Wildlife & Invasive Species Education™: Creating a Wise Program in Your State
Presenter: James Davis (FL)

11:00 - 11:30 am
Building a Hardwood Management Program for Mississippi Landowners
Presenter: Brady Self (MS)

8:30 am - 11:30 am **SUSTAINABLE AGRICULTURE PRESENTATIONS**
DT - Skybridge 4
Presiding: Heidi Reed (PA), Northeast Region Vice Chair; Heather Schlesser (WI), National Chair; Katie Kammler (MO), North Central Region Vice Chair

8:30 - 9:00 am
Harnessing Cover Crops to Address Unique Farm Needs and Achieve Maximum Benefits
Presenter: Sarah Hirsh (MD)

9:00 - 9:30 am
Turning Waste to Worth: Hands-on Workshops for Composting Meat Processing Waste
Presenter: Rachel Wieme (WA)

9:30 - 10:00 am
Coop to Soup: Pasture Raised Poultry Processing for Homesteaders in Virginia
Presenter: Mackenzie Gunn (VA)

MONDAY, JUNE 30

10:00 - 10:30 am
Integrated Crop-Livestock System in Idaho Agriculture - An Overview
Presenter: Jemila Chellappa (ID)

MEMBER

10:30 - 11:00 am
What We've Learned from Five Years of Broadcast Interseeding Cover Crops Into Standing Soybeans
Presenter: Heidi Reed (PA)

11:00 - 11:30 am
At-Home Meat Processing in Rural Appalachia
Presenters: Joshua Peplowski and Greg Hamons (WV)

10:00 am - 11:30 am **LIFE MEMBERS BUSINESS MEETING**
N - Ballroom South
Presiding: Steven Munk (SD), National Chair

11:45 am 1:15 pm **LIFE MEMBER AND SPOUSES PROGRAM COMBINED LUNCHEON** (Ticket Required)
N - Ballroom South
Guest Speaker - Randy Rieman

11:45 am 1:15 pm **FIRST TIME ATTENDEE LUNCHEON**
DT - Ballroom AB (Ticket Required)
Presiding: JJ Jones (AR), President- Elect
Speaker: Taylor Brown - President, Northern Ag Network
Courtesy: NACAA

11:45 am - 1:15 pm **AGRICULTURE AWARENESS & APPRECIATION AWARD LUNCHEON**
N - Hart Albin (Ticket Required)
Presiding: Terrell Davis (TN), Public Relations & Agricultural Awareness National Committee Chair
Presenter: Timothy McDermott (OH) - Nat. Winner
Topic: A One Health Program to Keep You, Your Family, and Your Animals Tick Safe
Presenter: Lindie Huffman (KY) - Nat. Finalist
Topic: The Agricultural & Cultural Heritage Tour: New England
Presenter: Don McMoran (WA) - Nat. Finalist
Topic: Pizza for Producers
Courtesy: Bayer CropScience

MONDAY, JUNE 30

MEMBER

11:45 am - 1:15 pm **PROFESSIONAL IMPROVEMENT & SEARCH FOR EXCELLENCE LUNCHEONS**

CROP PRODUCTION
D - Ponderosa Room (22nd floor)
(Ticket Required)
Presiding: Linda McLanahan (KY), SFE National Chair
Presenter: Sandra Wick (KS) – Nat. Winner
Topic: Improving Crop Production in NC/NW Kansas
Presenter: Chuck Burr, (NE) – Nat. Finalist
Topic: UNL Testing Ag Performance Solutions (UNL-TAPS)
Presenter: Keith Wynn, (FL) - Nat. Finalist
Topic: Utilizing Florida Best Management Practices While Evaluating Grain Corn Varieties
Presenter: Morgan Menaker – (NC) – Nat. Finalist
Topic: Union County Field Crops Small Grains Extension Program
Courtesy: NACAA

SEARCH FOR EXCELLENCE IN 4-H AND YOUTH PROGRAMMING LUNCHEON,
Location: DT - Skyview 1 (Ticket Required)
Presiding: Leslie Rose (NC), SFE Vice-Chair
Presenter: Brandy VanDeWalle (NE), - Nat. Winner
Topic: Nebraska Youth Crop Scouting Competition – Integrated Pest Management (IPM) Education
Presenter: Timothy McDermott (OH), - Nat. Finalist
Topic: Growing Teachers Throughout the Seasons
Presenter: Kelly Nichols, (MD), Nat. Finalist
Topic: Close Encounters with Agriculture
Presenter: Ashley Edwards (LA), - Nat. Finalist
Topic: Louisiana 4-H Livestock Ambassador Program
Courtesy: NACAA

MONDAY, JUNE 30

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN YOUNG, BEGINNING OR SMALL FARMS/RANCHER PROGRAM LUNCHEON,**
N - Babcock (Ticket Required)
Presiding: Anthony Ohmes (MO), SFE Vice-Chair
Presenter: Christina Howard, (ME) - Nat. Winner
Topic: Setting Beginning Farmers up for Success with the Maine New Farmers Project
Presenter: Anastasia Meyer (NE), - Nat. Finalist
Topic: Nebraska Beginning Farmers and Ranchers: Beginning, Managing, and Transitioning
Presenter: Kalyn Waters (FL), - Nat. Finalist
Topic: UF/IFAS Panhandle Cattlemen's College
Presenter: Lindie Huffman (KY) - Nat. Finalist
Topic: Tri-State Homesteading Conference
Courtesy: Farm Credit

MEMBER

11:45 am - 1:15 pm **COMMUNICATION/POSTER AWARDS LUNCHEON,** N - Ballroom North
(Invitation Only)
Presiding: Daniel Leonard (FL), Communications Vice-Chair and Brian Haller (AR) , Research & Educational Posters Chair
Courtesy: NACAA

11:45 am - 1:15 pm **EDUCATIONAL LUNCHEON – SENSEHUB® COW CALF THE LATEST TECHNOLOGY SOLUTIONS INNOVATION - MERCK ANIMAL HEALTH**
Location: DT - Ballroom C (Ticket Required)
Presiding: Cynthia Gregg (VA)
Presenting: Jessica Finck, Ph.D., Associate Director of Beef Technology Customer Success at Merck Animal Health

1:30 pm - 2:30 pm **TRADE TALK CONCURRENT SESSIONS: OPEN TO ALL MEMBERS**
(See page 38-39 for Topic Descriptions)

FORAGE/TURF, SAFETY, FINANCIAL
N - Hart Albin
Participants: Barenbrug, Pipeline Ag Safety Alliance, Farm Credit

MONDAY, JUNE 30

MEMBER

ANIMAL SCIENCE, CROP SCIENCE
DT - Conference Room 5
Participants: Merck Animal Health, Bayer Crop Science, National Pork Board

PROFESSIONAL DEVELOPMENT TRAVEL & RETIREMENT BENEFITS
DT - Conference Room 1
Participants: Explorations by Thor, AARP

1:30 pm - 5:00 pm **LIFE MEMBER TOURS/ SPOUSE PROGRAM TOURS ORGANIZE AND DEPART**
N - Ballroom South

2:30 pm - 3:00 pm **BREAK AND MEET THE AUTHORS POSTER SESSION,** DT - Ponderosa Room - 22nd Floor & DT - Trade Show area - 2nd/3rd floor
Courtesy: Oregon Association of County Agricultural Agents

3:00 pm - 4:00 pm **POSTER REMOVAL/TAKE DOWN**
DT - Ponderosa Room - 22nd Floor

3:00 pm - 5:00 pm **REGIONAL MEETINGS & CANDIDATE PRESENTATIONS**
SOUTHERN Region, N - Grand Ballroom
NORTH CENTRAL Region, DT - Ballroom A
NORTHEAST Region, DT - Conference Room 5
WESTERN Region, DT - Ballroom C

4:30 pm - 5:45 pm **VIP/DONOR RECEPTION**
DT - Governor's Suite (Invitation Only)

6:00 pm - 8:00 pm **STATES NIGHT OUT** - Billings Area

6:00 pm - 8:00 pm **MONTANA TEAM DINNER** -
DT - Skyview 1-2

7:00 pm 9:30 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** DT -Ballrooms ABC

8:00 pm **NACAA SCHOLARSHIP LIVE AUCTION**
DT -Ballrooms ABC

TUESDAY, JULY 1

8:00 am - 2:00 pm **REGISTRATION**
N - 2nd floor foyer

TUESDAY, JULY 1

MEMBER

7:00 am - 8:30 am **ACHIEVEMENT AWARD RECOGNITION BREAKFAST,** DT - Ballroom A
Presiding: Ed Lentz (OH), Recognition & Awards Committee Chair
Courtesy: American Income Life Insurance Company (Invitation Only)

6:30 am - 8:00 am **NATIONAL COMMITTEE MEMBERS BREAKFAST**
DT - Ballroom C (Ticket Required)
(For all Present & Incoming Committee Members)
Recognition of Retiring Committee Chairs, Vice Chairs & Special Assignments
Presiding: Connie Strunk (SD), NACAA Vice President
Courtesy: NACAA

8:00 am - 2:00 pm **COMMERCIAL TRADE SHOW FLOORS OPEN FOR VISITORS**
DT - 2nd and 3rd floors

7:30 am 8:00 am **LIFE MEMBER AND SPOUSE TOURS DEPART AT 8:00 AM** Location: N - Ballroom North

8:30 am - 11:30 am **VOTING DELEGATE SESSION**
N - Ballroom South
- Presiding: Scott Jensen, NACAA President
- Inspirational Thought – Stan Moore (MI) Past President
- Delegate Roll Call
- Adoption of Agenda
- Appointment of Parliamentarian
- 2024 Delegate Session Minutes
- Nominating Committee Report
- Election of Officers
- Selection of 2029 AM/PIC Site
- Scholarship Committee Report
- NACAA Educational Foundation Report
- Treasurer's Report
- Adoption of 2026 Budget
- Confirmation of Committee Appointments
- Confirmation of Directors/Vice Directors
- Internal Committee Reports
- Unfinished Business
- New Business
- Recognition of Retiring Officers
- Installation of Incoming Officers, Directors, and Vice Directors
- Incoming President Remarks: JJ Jones (AR)
- Adjourn

TUESDAY, JULY 1

MEMBER

8:30 am - 11:30 am **EXTENSION DEVELOPMENT COUNCIL SEMINARS**

8:30 am - 9:30 am **LEADERSHIP & ADMINISTRATIVE SKILLS SEMINARS**
DT - Conference Room 1
Presiding: Dalton Dockery (NC), Southern Region Vice Chair

8:30 - 9:00 am
Burnout and the Extension Professional: Strategies to Make it Through The Day
Presenter: Jami Dellifield (OH)

9:00 - 9:30 am
Transforming Culture: Bringing Organizational Values and Mission to life
Presenter: Rob Leeds (OH)

8:30 am - 11:30 am **AGRICULTURAL ISSUES**
DT - Ballroom B
Presiding: Donna Aufdenberg (MO, North Central Region Vice-Chair and Mackenzie Gunn (VA), Southern Region Vice-Chair

8:30 - 9:00 am
Swift Response: OSU Extension's Quick Action to Inform in the Face of Drought
Presenters: Aaron Wilson, Stephanie Karhoff, Jason Hartschuh, Garth Ruff., David Marrison, Logan Minter, Jim Downs, Vinayak Shedekar, Jeff Hattey, Christopher Zoller, Marissa Mullett, and Stacy Cochran (OH)

9:00 - 9:30 amA
Ag for All: Creating a conference for LGBTQIA+ agriculturalists
Presenter: Emily Krekelberg (MN)

9:30 - 10:00 am
Building Relationships with the HMoob Community through Agricultural Educational Programming and Research
Presenters: Jerry Clark and Kristin Krokowski (WI)

TUESDAY, JULY 1

MEMBER

10:00 - 10:30 am
Beefing up Food Security: Bridging the Protein Gap for Idaho Families
Presenters: Audra Cochran, Meranda Small and Jessie Van Buren (ID)

10:30 - 11:00 am
Ag Connect: Connecting Fields to Front Doors
Presenter: Lindsey Crum (FL)

11:00 - 11:30 am
Navigating Agricultural Data Rights: Bridging Legal Gaps and Stakeholder Asymmetries
Presenters: Yilin Zhuang, Ziwen Yu, Songzi Wu, Jean Pompeo, and Adam Watson (FL)

8:30 am - 9:30 am **EARLY CAREER DEVELOPMENT**
DT - Skybridge 1
Presiding: Sarah Sharpe (Southern Region Vice Chair) and Ashley Wright (National Chair)

8:30 - 9:00 am
Big Boots to Fill: Moving into a Program after a Long-Term Career Agent
Presenter: Grace Atkins (NC)

9:00 - 9:30 am
The Power of Partnerships: How Collaboration Fuels Professional Growth in Agriculture
Presenter: Kendall Lovejoy (OH)

8:30 am - 11:00 am **TEACHING & EDUCATIONAL TECHNOLOGIES SEMINARS**
DT - Conference Room 5
Presiding: Scott Duggan (OR), Western Region Vice Chair and Alicia Halbritter (FL), Southern Region Vice Chair

8:30 - 9:00 am
The Top Rancher Challenge: A Threefold Extension Tool to Engage Florida Cattle Producers
Presenter: Lizzie Whitehead (FL)

9:00 - 9:30 am A
Respecting Our Origins in Technology Through Education in Agriculture: Virtual Reality Tours
Presenter: Brandy VanDeWalle (NE)

TUESDAY, JULY 1

MEMBER

9:30 - 10:00 am
The Missouri Produce Growers Video Newsletter: Digestible, Accessible, Impactful, and Replicable Extension Education and Outreach
Presenter: Justin Keay (MO)

10:00 - 10:30 am
Maximizing Impact: Enhancing Client Outreach and Agent Support in the Extension System
Presenter: Zachary Snipes (SC)

10:30 - 11:00 am
The Power of Fundamentals: How Basic Bilingual Landscaping Education Drives Results
Presenter: Hannah Eason (FL)

11:00 - 11:30 am
Enhancing Integrated Pest Management (IPM) Education for Horticulture and Small Farm Educators in Idaho
Presenter: Jemila Chellappa (ID)

8:30 am - 11:30 am **PROFESSIONAL IMPROVEMENT COUNCIL SEMINARS**

8:30 am - 11:30 am **4-H & YOUTH PROGRAMMING**
N - Hart Albin
Presiding: Genevieve Christ (PA), Northeast Region Vice Chair

8:30 - 9:00 am
Cracking the Science: Supplemental Lessons for Ohio 4-H ChickQuest
Presenters: Noelle Barnes and Ashlee Meardith (OH)

9:00 - 9:30 am
4-H Special Agronomy Project: Reaching More Youth
Presenter: Brandy VandeWalle (NE)

9:30 - 10:00 am
Utah High School Range Camp
Presenter: Cory Farnsworth (UT)

TUESDAY, JULY 1

MEMBER

10:00 - 10:30 am
Connecting with the Present, Paving the Way for the Future: An Entrepreneurship Journey for Future Agriculturists
Presenters: Lizzie Whitehead, Meagan Daniel and Bailea Scarbrough (FL)

10:30 - 11:00 am
Adopt A Cow: Beef Education for 3-5 Grade
Presenter: Madison Kovarna (SD)

11:00 - 11:30 am
Idaho Livestock Skillathon: Engaging Youth in Higher Livestock Learning
Presenter: Carmen Willmore (ID)

9:30 am - 11:00 am **4-H & YOUTH PROGRAMMING**
DT - Conference Room 1
Presiding: Heather Jennings (MS), National Chair

9:30 - 10:00 am
AGventure Days: an ANR and 4-H Youth Education Collaboration in Henrico County
Presenters: Edward Olsen, Carter Humphries (VA)

10:00 - 10:30 am
Taking Tractor Safety Training to the Virtual Limits
Presenter: Dee Jepsen (OH)

10:30 - 11:00 am
Implementing the Fourth-H: Making Small Changes in 4-H Programming
Presenters: Jami Dellifield, and Amanda Raines (OH)

9:30 am - 11:00 am **4-H & YOUTH PROGRAMMING**
DT - Skybridge 1
Presiding: Mark Heitstuman (WA), West REgion Vice Chair

9:30 - 10:00
UI/WSU Youth Livestock Field Days - Animal Science through Experimental Learning
Presenters: Audra Cochran (ID) and Mark Heitstuman (WA)

TUESDAY, JULY 1

MEMBER

10:00 - 10:30 am
Youth Cattle Summer Camp
Presenter: Erin Jones Dasher (FL)

10:30 - 11:00 am
Exploring Florida's Ecosystem: A Youth Naturalist Experience
Presenter: Julio Perez (FL)

8:30 am - 11:30 am **AG ECONOMICS AND COMMUNITY DEVELOPMENT**
DT - Skybridge 2
Presiding: Blake Carter (GA), Robyn Stewart (GA), Southern Region Vice Chair

8:30 - 9:00 am
The West Virginia Winter Blues Farmers Market: Sparking Small Farm Economic Growth Through Concentrated Market Access
Presenter: Lisa Jones (WV)

9:00 - 9:30 am
Rooted in Community: Highlighting Local Producers through Extension Events
Presenter: Daisy Bailey (WV)

9:30 - 10:00 am
The Sweet Side of Agriculture: Cultivating Awareness from Farm to Community
Presenter: Madelyn Greathouse (FL)

10:00 - 10:30 am
Economic Analysis of Converting Marginal Cropland to a Playa Wetland
Presenter: Ronald Seymour (NE)

10:30 - 11:00 am
Building a Farm Business: Beginning Farmer Resources
Presenter: Rachel Painter (TN)

11:00 - 11:30 am
Tackling Farm Risk Management, One Bite at a Time
Presenter: Charlotte Maxwell (SC)

TUESDAY, JULY 1

MEMBER

11:00 am - 11:30 am **AG ECONOMICS AND COMMUNITY DEVELOPMENT**
DT - Conference Room 1
Presiding: Blake Carter (GA)

11:00 - 11:30 am
Virtual Fencing as a Cost-Effective Alternative for New Mexico Ranchers
Presenter: Pilja Vitale (NM)

8:30 am – 11:30 am **AGRONOMY AND PEST MANAGEMENT SEMINARS**
N - Babcock
Presiding: Chris Grimes (AR), Southern Region Vice Chair and Justin Brackenrich (PA), Northeast Region Vice Chair

8:30 - 9:00 am
Regionalize Pesticide Training Model: 10 Years of Glory and Road Bumps
Presenter: Kalyn Waters (FL)

9:00 - 9:30 am
Extension Insect Pest Monitoring: Supporting Integrated Pest Management in Vegetables and Agronomic Crops
Presenter: Helene Doughty (VA)

9:30 - 10:00 am
Equipping Florida Pesticide Applicators for Success through Industry Partnership
Presenters: Danielle Sprague Williams & Matthew Smith (FL)

10:00 - 10:30 am
Effect of Seeding Rate & Planting Date on Cover Crop Growth and Soybean Yield
Presenter: Stephanie Karhoff (OH)

10:30 - 11:00 am
UNL Testing Ag Performance Solutions (UNL-TAPS)
Presenter: Chuck Burr (NE)

11:00 - 11:30 am
Evaluation of Soybean Yield and Stand Counts in Response to Rolling
Presenter: Lee Beers (Ohio)

CCA Recertification Credit will be offered with the Agronomy oral presentations

TUESDAY, JULY 1

MEMBER

8:30 am – 11:30 am **ANIMAL SCIENCE SEMINARS**
DT - Ballroom C
Presiding: Kyle Sanders (AR)

8:30 - 9:00 am
Reducing SCCs on Dairy Farms to Improve Profitability
Presenter: Cassie Yost (PA)

9:00 - 9:30 am
How One Educational Program Sparked the Creation of Two More by Participant Demand, Boosting Efficiency and Expanding Reach
Presenter: Laura Bennett (FL)

9:30 - 10:00 am
Slowing Dewormer Resistance Through Producer Education
Presenter: Cassidy Dossin (FL)

10:00 - 10:30 am
Livestock Education & Certification for Agriculture Law Enforcement
Presenter: Caitlin Justesen (FL)

10:30 - 11:00 am
Using Thermal Camera Drones in Beef Cattle Roundup in the Intermountain West
Presenter: Justin Clawson (UT)

11:00 - 11:30 am
Innovating Cattle Reproduction: Empowering Producers with AI and Pregnancy Diagnosis
Presenter: Savannah Daniels (NM)

11:00 am – 11:30 am **ANIMAL SCIENCE SEMINARS**
DT - Skybridge 1
Presiding: Ethan Gillam (UT), West Region Vice-Chair

11:00 - 11:30 am
Penn State Extension, Dairy Feeding Assessment
Presenter: Angela Breneman (PA)

TUESDAY, JULY 1

10:30 am – 11:30 am **ANIMAL SCIENCE SEMINARS**
DT - Skybridge 3
Presiding: Garth Ruff (OH), North Central Vice-Chair

10:30 - 11:00 am
Responding to Beef Needs During Drought
Presenter: Garth Ruff (OH)

11:00 - 11:30 am
Local Meat Programming, Processing and Marketing
Presenter: Sarah Drake (NC)

MEMBER

8:30 am - 11:30 am **HORTICULTURE AND TURFGRASS SEMINARS**
N - Ballroom South
Presiding: Andy West (ID), West Region Vice Chair

8:30 - 9:00 am
Maple Tapping in Utah - Initial Results from Small-Scale Demonstrations and Workshop Turnout
Presenter: Wesley Crump (UT)

9:00 - 9:30 am
Growing Knowledge, Cultivating Communities: The Victory Garden Hybrid Programming in North Central Idaho
Presenter: Klae O'Brien (ID)

9:30 - 10:00 am
Rooted in Collaboration: Advancing Horticulture Across Tennessee
Presenter: Celeste Scott (TN)

10:00 - 10:30 am
Perceived Impacts of Extension Gardens on Visitor Health
Presenter: Jamielyn Hagyari (FL)

10:30 - 11:00 am
Garden to Table: Effective Home Gardening to Promote Healthy Living
Presenter: Abigail Smith (FL)

11:00 - 11:30 am
The Dirt on Native Plants: A Propagation and Education Program
Presenter: Michele Bakacs (NJ)

TUESDAY, JULY 1

MEMBER

8:30 am - 10:30 am **NATURAL RESOURCES/AQUACULTURE SEMINARS**
DT - Skybridge 3
Presiding: Ashley Longmore (UT), West Region Vice Chair

8:30 - 9:00 am
Master Foragers Connect with Nature and Build Community
Presenter: Brooklyne Wassel (GA)

9:00 - 9:30 am
Ecological Landscaping in Florida: Enhancing Biodiversity and Resource Management Through Collaborative Education
Presenter: Brooke Moffis (FL)

9:30 - 10:00 am
People and Ponds: Adopting Shoreside Buffer Zones
Presiding: Michelle Atkinson (FL)

10:00 - 10:30 am
Missouri's Parks, Soils, & Water Sales Tax: One County's Rocky Road to Successful Implementation of Cost-Shared Best Management Practices
Presenter: Darla Campbell (MO)

8:30 am - 11:30 am **SUSTAINABLE AGRICULTURE SEMINARS**
DT - Skybridge 4
Presiding: Matt Lollar (FL), Southern Region Vice Chair, Kate Kammler (MO), North Central Region Vice Chair

8:30 - 9:00 am
Heroes to Hives in Missouri
Presenter: Travis Harper (MO)

9:00 - 9:30 am
Advancing IPM Through Cover Crops and Strip Tillage
Presenter: Dwayne Joseph (MD)

9:30 - 10:00 am
Promoting Soil Health: Key Takeaways from the Suwannee Valley Soil Health and Cover Crop Field Day
Presenter: Jay Capasso (FL)

TUESDAY, JULY 1

10:00 am - 10:30 - VACANT

10:30 - 11:00
Developing Commercial Uses for Fruit Industry Waste Products
Presenter: Taun Beddes (UT)

11:00 - 11:30 am
Building Agritourism from the Ground Up: Inviting You to the Table
Presenters: Kimberly Woodring (MT)
Doolarie Singh-Knights (WV)

MEMBER

9:00 am - 5:00 pm **SONS AND DAUGHTERS PROGRAM TOURS ORGANIZE AND DEPART**
DT - Ballroom A

10:00 am - 10:30 am **BREAK**
DT - Trade Show area - 2nd/3rd floor
Courtesy: Visit Billings and Billings Chamber of Commerce & Agriculture

11:45 am 1:15 pm **SEARCH FOR EXCELLENCE IN SUSTAINABLE AGRICULTURE LUNCHEON**
DT - Ballroom A (Ticket Required)
Presiding: Leslie Rose (NC), SFE Vice-Chair
Presenter: Jodi DeJong-Hughes (MN) - Nat. Winner
Topic: Soil Management Summit
Presenter: Ginger Fenton (PA), - Nat. Finalist
Topic: Building Resources to Respond to Farm Stress in Pennsylvania
Presenter: Kent Stanford (AL)
Topic: Alabama Drought Reach
Presenter: Jake Hadfield (UT)
Topic: Ag Wellness
Courtesy: NACAA

TUESDAY, JULY 1

MEMBER

11:45 am - 1:15 pm - **SEARCH FOR EXCELLENCE IN ENVIRONMENTAL QUALITY, FORESTRY & NATURAL RESOURCES LUNCHEON**
DT - Ballroom B (Ticket Required)
Presiding: Ron Patterson (ID), SFE Vice-Chair
Presenter: Mallory Maher (SC) – Nat. Winner
Topic: Backyard Wildlife Habitat by Clemson® Extension
Presenter: Sarah Hirsh (MD) – Nat. Finalist
Topic: Cultivating Conservation
Presenter: Brooke Moffis (FL) – Nat. Finalist
Topic: Strategies in Residential Landscapes to Reduce Water Use and Attract Wildlife
Presenter: Reed Graham (KY) – Nat. Finalist
Topic: Breathitt County Natural Resources Education Canoe Trip
Courtesy: NACAA

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN FARM & RANCH BUSINESS MANAGEMENT LUNCHEON,**
N - Babcock (Ticket Required)
Presiding: Anthony Ohmes (MO), SFE Vice-Chair
Presenter: Andrew Kness (MD) – Nat. Winner
Topic: Ag 101 – An Overview of Maryland Farming for Government Agricultural Service Providers
Presenter: Madeline Schultz (IA) – Nat. Finalist
Topic: Women Managing Farmland
Presenter: Lindie Huffman (KY) – Nat. Finalist
Topic: Business of Farming
Presenter: Audrey Comerford (OR) - Nat. Finalist
Topic: The Oregon State University Extension Agricultural Tourism Program
Courtesy: NACAA

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN CONSUMER & COMMERCIAL HORTICULATURE PROGRAM LUNCHEON,**
N - Hart Albin (Ticket Required)
Presiding: David Handley (ME), SFE Vice-Chair
Presenter: Carmen Flammini (AL), - Nat. Winner
Topic: Hydroponic Workshop for Home Gardeners and Educators
Presenter: Donna Aufdenberg (MO), - Nat. Finalist
Topic: Training Extension Educators in Hydroponics Across Missouri

TUESDAY, JULY 1

Presenter: Celine Richard (NC), - Nat. Finalist
Topic: Pawpaw Field Day
Presenter: Natalie Bumgarner (TN), - Nat. Finalist
Topic: Tennessee Extension Master Gardener Collaborative Intern Training
Courtesy: NACAA

MEMBER

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN LIVESTOCK PRODUCTION PROGRAM LUNCHEON**
DT - Ballroom C
Presiding: Linda McLanahan (KY) - Nat. Chair
Presenter: Ashley Edwards (LA), - Nat. Winner
Topic: Extension Programs Aim to Improve Reproductive Efficiency for Cattle Producers
Presenter: Melanie Barkley (PA), - Nat. Finalist
Topic: Meat and Taste with Extension
Presenter: Jeremiah Davis (AL) - Nat. Finalist
Topic: Seasonal Extension Programming to Support Commercial Poultry Production
Presenter: Ashley Hall (AZ)
Topic: University of Arizona Cooperative Extension Artificial Insemination Clinic
Courtesy: National Pork Board

11:45 am - 3:00 pm **ADMINISTRATIVE LEADERS LUNCHEON & MEETING,** DT - Skyview 1 & 2 (Ticket Required)
Presiding: Scott Jensen (ID), President
Presenter: Dr. Jaye Hamby - USDA NIFA Director
Hosted by: NACAA

11:45 am - 1:15 pm **PIPELINE AG SAFETY ALLIANCE EDUCATIONAL LUNCHEON,**
N - Ballroom North & South (Ticket Required)
Program: Coexisting Safely: Farming and Utility Infrastructure
Moderator: Aaron Esser (WA), NACAA West Region Director
Sponsored by: Pipeline Ag Safety Alliance

2:00 pm - 5:00 pm **SUPER SEMINAR – DESIGNING EDUCATIONAL BOARD GAMES FOR AGRICULTURAL LEARNING**
DT - Skyview 1 & 2
Hosted by: NACAA Teaching & Educational Technologies Committee

TUESDAY, JULY 1

MEMBER

SUPER SEMINAR - THE COMPLEX TREE SYSTEM
N - Babcock
Presenting: Dr. Peter Kolb, Montana State University Forestry Specialist; Dr. Drew Zwart, Barlett Tree Research Laboratories
Sponsored by: Bartlett Tree Experts

SUPER SEMINAR - CLIMATE DATA, TOOLS AND RESOURCES FOR AGRICULTURAL EXTENSION
N - Hart Albin
Hosted by: North Central Climate Collaborative & USDA Northern Plains Climate Hub

SUPER SEMINAR - LEVERAGING AI FOR EXTENSION SUCCESS: TOOLS, TECHNIQUES, AND INSIGHTS
DT - Ponderosa Room (22nd floor)
Hosted by: NACAA Teaching & Educational Technologies & Early Career Committees

2:00 pm 5:00 pm **TRADE SHOW/EXHIBITS TEAR DOWN**
DT - 2nd and 3rd Floors

4:00 pm - 5:30 pm **NACAA BOARD RECEPTION**
DT - Governor's Suite (Invitation only)

4:30 pm - 6:30 pm **FORMAL PICTURE OPPORTUNITY**
Location: DT - foyer outside Ballrooms ABC

5:00 pm - 6:30 pm **DSA & AA RECIPIENTS, HALL OF FAME RECIPIENTS, NACAA BOARD MEMBERS, REGION DIRECTORS, PAST OFFICERS, SPECIAL ASSIGNMENTS, SPECIAL GUESTS, COUNCIL COMMITTEE CHAIRS AND VICE CHAIRS ASSEMBLE FOR BANQUET**
Location: DT - Sky Bridge Rooms 1-4

6:00 pm 8:30 pm **ANNUAL BANQUET**
(4 LOCATIONS - SEE TICKET FOR ASSIGNED LOCATION) - Doors open at 6:00 - Start: 6:30
DT - Ballrooms ABC
N - Grand Ballroom
DT - Ponderosa Room (22nd Floor)
DT - Conference room 5
(Ticket Required)

TUESDAY, JULY 1

6:00 pm 8:30 pm **SONS AND DAUGHTERS FAREWELL PARTY**
DT - Skyview Rooms 1-2

MEMBER

9:00 pm - 10:30 pm **PRESIDENT'S RECEPTION**
Location: DT - Governor's Suite
Courtesy: Idaho Association

10:00 pm **MONTANA TEAM MEETING**
DT - Skyview 1 & 2

WEDNESDAY, JULY 2

7:00 am - 8:00 am **BREAKFAST**
DT - Ballroom
Courtesy: NACAA & MONTANA

7:00 am - 9:00 am **ASSEMBLE FOR PROFESSIONAL IMPROVEMENT TOURS**
DT - Bus loop and street

8:00 am - 5:00 pm **TOUR DEPARTURES**
check your ticket time

5:00 pm - 7:30 pm **FAREWELL DINNER**
Pub Station
Sponsored by: Montana Beef Council and Montana Lamb Board

5:00 pm - 7:30 pm Buses will run from Pub Station for individuals staying at outer hotels

9:00 pm **MONTANA TEAM MEETING**
DT - Skyview 1 & 2

THURSDAY, JULY 3

7:00 am 6:00 pm **NACAA BOARD MEETING**
N - Enterprise Boardroom

TRADE TALK SESSION TOPICS:

(Concurrent Sessions held
Monday afternoon, June 30, 2025)

FORAGE/TURF, SAFETY, FINANCIAL
N - Hart Albin

Barenbrug

Got Grass? Want Grass? Barenbrug USA, a division of the Royal Barenbrug Group of the Netherlands, is one of the world's leading grass seed companies. Whether you need grass to feed livestock, grass for sports activities or grass for your personal greenspace we have the variety for you.

Barenbrug has business operations all over every continent of earth, with the exception of Antarctica. With our worldwide presence, we can research and introduce new species and varieties into the North American market that enhance the Barenbrug motto of Safe, Sustainable and Profitable.

Pipeline Ag Safety Alliance (PASA)
Coexisting Safely: Utilities & Farm Operations
Farming Safely Around Utilities

Whether it's installing a new fence, planting a garden, or putting in drain tile, every ground disturbing activity has the potential to impact a utility. Join us to get a snapshot of the best practices to preventing damage to buried utilities while keeping land and communities safe. This will be a shortened version of our Luncheon on Tuesday. For more information on PASA, visit PipelineAgSafetyAlliance.com.

Farm Credit
Headwinds for YBS producers

Young, Beginning and Small producers face a number of significant challenges in today's environment – high cost of land, access to capital, economies of scale and experience gaps just to name a few. With the average age of US farmer nearing 60 years old, the importance of finding remedies to these issues is as important as ever. Despite the head winds, there are options help YBS producers succeed through and partners like FSA, AgWest's AgVision program, mentorship groups and other industry members that recognize the importance of helping the agriculture industry make this transition.

Speaker Profile: Morgan Densberger

Morgan Densberger is Senior Vice President for Eastern Montana at AgWest Farm Credit. He has spent the past 11 years with AgWest,

serving the farming and ranching industries financing needs through a team of lenders across Eastern Montana. He focuses on building meaningful relationships with Montana's farmers and ranchers through even-handed access to capital and strives to help their customers and rural communities thrive. Morgan graduated from Montana State University in 2014.

ANIMAL SCIENCE/CROP SCIENCE
DT - Conference Room 5

Merck Animal Health

SenseHub® Vence - Ranching Reimagined for Profitability, Stewardship, and Legacy

Speaker: CK Wisniewski (Vee-schneff-skee)
Title: Associate Director, Rancher Success- Vence at Merck Animal Health

Bayer CropScience

Bayer CropScience is a division of Bayer AG focused on agricultural innovation. It provides seeds, crop protection products, and digital farming solutions to help farmers increase yields sustainably. Through science and technology, Bayer supports global food security while promoting environmental stewardship and advancing modern, climate-smart agricultural practices. Bayer representatives will be on-hand to discuss their latest initiatives.

PROFESSIONAL DEVELOPMENT TRAVEL & RETIREMENT BENEFITS
DT - Conference Room 1

Explorations by Thor

Come and discuss travel opportunities with NACAA! Explorations by Thor and NACAA have partnered together to offer a variety of excursions exploring international and domestic farms, culture and culinary experiences. We will also open the floor to any questions you might have related to travel.

AARP

Engaging Montanans Across the State: Collaborative Opportunities Between AARP State Offices and University Extension Programs.

2025 SERVICE TO AMERICAN/WORLD AGRICULTURE AWARD RECIPIENT

Justen Smith
Executive Director of Extension Agriculture & Natural Resources Department & Extension Professor
Utah State University

Justen Smith has dedicated his career to advancing agricultural education, extension programming, and global outreach. He started with Utah State University Extension as an Assistant Professor and County Extension Agent in 2002, he quickly established himself as a leader in the field. He was promoted to Associate Professor in 2008, and reached the rank of Extension Professor in 2017. Over the past 26 years, Justen has played a pivotal role in strengthening agricultural systems and improving the lives of farmers both in the United States and across the world.

Professional Experience and Leadership

As the Director and Department Head of the Extension Agriculture and Natural Resources Department at Utah State University, Justen has led statewide extension programs, ensuring that farmers and agricultural professionals have access to the latest research, training, and resources. His leadership as State Agriculture Extension Program Leader has further expanded the reach of these programs, benefiting communities throughout Utah and beyond.

Throughout his career, Justen has successfully secured over $11 million in grants and external funding, directly supporting extension initiatives and agricultural development. One of his notable achievements was leading the effort to secure $1.2 million in funding for the construction of the USU Extension building in Davis County, providing a dedicated space for agricultural education and outreach.

In addition to administrative leadership, Justen has created and implemented innovative programs that have left a lasting impact. His Cultures Around the World Youth Diversity Education Program has broadened students' understanding of global agricultural practices, while the 4-H High Adventure Program has provided hands-on learning experiences for youth interested in agriculture and natural resources.

International Impact

Justen's expertise in livestock management and agricultural extension services has been recognized on a global scale. He has worked in 24 countries across Africa, the Middle

East, Latin America, and beyond, providing critical technical assistance to farmers and agricultural organizations. His work with USAID, USDA, and international NGOs has helped to improve livestock production, enhance food security, and develop sustainable agricultural practices in diverse regions. His contributions in Iraq, for example, have been particularly impactful. He helped establish Iraq's first feed analysis laboratories, provided technical training for newly-formed 4-H Sheep Clubs, and assisted in the development of commercial cattle and sheep feedlots throughout the country. In South Sudan and Uganda, Justen played a key role in drafting a 25-year master plan for agricultural infrastructure, a project that will guide the nation's agricultural growth for decades to come.

From Lebanon to Armenia, Paraguay to the Philippines, Justen has worked with local farmers, government agencies, and universities to improve agricultural education and extension systems. Whether advising the U.S. Embassy in Lebanon on emergency livestock aid or working with dairy producers in Uganda, his efforts have led to tangible improvements in food production and sustainability worldwide.

Research and Creative Accomplishments

Justen's influence extends beyond direct service—his research and scholarly work have contributed significantly to agricultural knowledge and best practices. He has authored or co-authored 13 peer-reviewed journal articles, 6 peer-reviewed abstracts, 12 technical guides, 10 fact sheets, a handbook, and 11 published proceedings. His expertise has been sought after at international conferences, where he has delivered presentations on agricultural development, livestock management, and extension methodologies.

His ability to translate research into action is evident in the large-scale outreach events he has organized. USU Baby Animal Days, which he launched in 2012, has attracted over 35,000 attendees, providing families with an opportunity to learn about agriculture and animal husbandry while generating crucial funding for extension programs. The 4-H Donated Meat Program, another of his initiatives, has provided over 1 million pounds of meat to food banks and families in need.

Recognition and Lasting Impact

Justen's career is marked by a relentless commitment to improving agriculture at home and abroad. His work has transformed extension programming in Utah, provided critical agricultural support in developing countries, and shaped the next generation of agricultural professionals through education and mentorship. His efforts have strengthened food security, promoted sustainability, and fostered international collaboration in ways that will have a lasting impact for years to come.

2025 AM/PIC SPEAKER PROFILES

Dr. Cody Stone
Montana State University Extension Director

For 20 years, Cody Stone has engaged clientele and faculty through his work with Extension in Texas and Montana. In Texas, he served as an Extension Agent, 4-H Specialist, and Regional Program Director. Cody and his wife Mary moved to Montana in 2005 to begin work at the Montana 4-H Center for Youth Development where he served as the Volunteer and Leadership Development Specialist before becoming the Director of the 4-H Center and State 4-H Program Leader. Cody has served three years as the Associate Director of MSU Extension. After a nationwide search Cody was selected in August 2018 as the Extension Director. He holds a Bachelor's and Master's degree from Texas A&M University and a Doctorate in Adult and Higher Education from Montana State University.

Dwayne Fisher (ID)
Farmer & VP of Marketing and partner at Champion Produce Sales

Dwayne Fisher had the privilege of growing up in small town America, Parma, Idaho. Active in 4-H and FFA his entire life. He served as the Idaho State FFA President from 1993-94. That same year his long-time best friend, who he met at the county fair as teens, served as the Idaho State FFA Secretary. Two years after their officer service, they were married. Dwayne and Tracy are the parents of 8 kids and now enjoy grandparent life with their 8 grand kids. Dwayne graduated with his bachelor's degree from Boise State University in Marketing Management. Upon graduation they moved to his aunt and uncle's farm in Homedale, Idaho to help run the family business and raise their family. He, along with his cousin and 3 of their children or children's spouses are currently running their row crop farm and onion packing facility. Dwayne is also the VP of Marketing and partner

at Champion Produce Sales. The team at Champion markets for five onion packing facilities year-round and distribute around 100 semi loads of onions each week across the nation. When not growing and selling onions, Dwayne & Tracy, along with their family run a club lamb & goat operation with 300 head of mature ewes and 40 head of does. They do extensive Embryo transfer work and market their livestock across the nation. Dwayne and Tracy are active members of their church and serve in many capacities. Dwayne is also the Vice-Chairman of the Homedale School District.

Taylor Brown
President Northern Ag Network

Taylor, the president of the Northern Ag Network, is widely known as one of the nation's leaders in the field of agricultural broadcasting and has played a huge role in western agriculture since he joined the Northern Ag Network as a regional farm broadcaster in 1979. Today he and his wife Shannon own the Northern Broadcasting System, and its flagship radio station KGHL (AM790 and 94.7FM) in Billings. A past National President of the National Association of Farm Broadcasting, Taylor also served 12 years as the President of the NAFB Foundation. His many achievements in the broadcasting industry include being named America's "Farm Broadcaster of the Year" and receiving the "Oscar in Agriculture" award for radio and being inducted into the NAFB Hall of Fame in 2010. Taylor was awarded an honorary doctorate from Montana State University at the fall commencement of 2021. Taylor's signature voice is widely known across the state and region.

Randy Rieman

Randy Rieman is a lifelong cowboy who began his career on cow-calf operations and grazing associations in the Gallatin Valley in Montana, some 45 years ago. His passion for the working cow horse took him to a large stocker operation on the San Benito Cattle Company, a Spanish land grant ranch in California's Salinas Valley. He later spent a decade as the colt starter for the Parker Ranch in Hawaii, one of the largest privately-owned cattle ranches in the United States. Throughout his career, Randy has also been known as a musician and

sought-after reciter of classic cowboy poetry, who has performed at the National Cowboy Poetry Gathering since its beginnings. Today, he continues his work with horses and people from his home base in Choteau, Montana, which he shares with his partner, Jenn Swanson.

Dr. Jaye L. Hamby
Director, USDA National Institute of Food and Agriculture

Dr. Jaye L. Hamby is the director of the USDA's National Institute of Food and Agriculture, the extramural funding agency in the USDA Research, Education and Economics Mission Area.

Prior to joining NIFA, Dr. Hamby led and directed hundreds of proprietary research efforts, specializing in concept testing, product marketing, value driver analysis, and farm demographic trends. His consultative expertise includes the agronomy, livestock, and farm machinery markets. He has assisted with the launch of numerous crop protection products and authored field sales and competitive positioning manuals.

Dr. Hamby, a Tennessee native, graduated from the University of Tennessee's College of Agriculture with a Bachelor of Science degree in agricultural education. Following his selection as a Harry S. Truman Scholar, he attended Oklahoma State University and earned master's and doctoral degrees in agricultural education with a specialization in agricultural economics. He was an active 4-H'er and a national FFA officer.

Dr. Jaye L. Hamby was appointed as the USDA NIFA Director on March 20, 2025.

LIFE MEMBER & SPOUSE PROGRAM
2025 NACAA ANNUAL MEETING

(Life Members & Spouses are welcome to attend General Sessions and Voting Delegate Session)

SUNDAY, JUNE 29

8:00 am-7:00 pm	**REGISTRATION & SCHOLARSHIP AUCTION DROP OFF** N - 2nd floor foyer AUCTION ITEMS can also be dropped off at - DT - Conference Room 2
8:00 am - 5:00 pm	**LIFE MEMBER & SPOUSES HOSPITALITY ROOM** N - Enterprise Boardroom
9:00 am - 1:00 pm	**COMMERCIAL EXHIBIT TRADE SHOW** DT - 2nd and 3rd floors
9:00 am - 1:00 pm	**NACAA POSTER SESSION SETUP** DT - Ponderosa Room - 22nd Floor Coordinator: Brian Haller (AR), Research & Educational Posters Committee Chair
12:00 pm - 2:00 pm	**PAST NATIONAL OFFICERS & BOARD LUNCHEON,** DT Skyview 1 and 2 Presiding: Keith Mickler (GA), Past President
1:00 pm - 6:30 pm	**COMMERCIAL EXHIBIT TRADE SHOW,** DT - 2nd and 3rd floors
2:00 pm - 4:00 pm	**FIRST LADY'S OPEN HOUSE** D - Governor's Suite (Invitation Only)
2:00 pm - 3:00 pm	**LIFE/SPOUSE ORIENTATION** N - Ballroom
2:00 pm - 5:00 pm	**NACAA EDUCATIONAL FOUNDATION ANNUAL MEETING & BOARD OF DIRECTORS MEETING,** DT - Skyview 1 and 2 Presiding: Cynthia Gregg (VA), NACAA Educational Foundation President

SUNDAY, JUNE 29

3:00 pm - 4:00 pm **PARENT ORIENTATION FOR SONS AND DAUGHTERS PROGRAM**
N - South Ballroom

3:00 pm - 4:30 pm **FIRST TIMER ORIENTATION & SOCIAL**
Hooligans Pub (Offsite location - walk)
Presiding: JJ Jones (AR), President- Elect

4:30 pm - 6:30 pm **WELCOME TO MONTANA DINNER**
Pub Station (Offsite location - walk)
(Ticket Required)
Courtesy: NACAA, AARP, AgWest

LIFE MEMBER & SPOUSE

7:00 pm - 9:00 pm **OPENING SESSION & INSPIRATIONAL PROGRAM,** Alberta Bair Theater (offsite - walk)
- Welcome & Comments –Scott Jensen (ID), NACAA President
- Posting of Colors
- National Anthem - performed by: Chris Bengochea
- Pledge of Allegiance - Felixe, Beau, and Oliver Becker (MT)
- Indigenous Prayer & Dance
- State Flag Presentation - Video produced by Colt Knight (ME)
- Presentation of Service to American/World Ag Award – Scott Jensen (ID), NACAA President
- Justen Smith– Utah State University
- Introduction of Speakers – by Scott Jensen (ID) NACAA President
- Welcome by Dr. Cody Stone, Executive Director of Montana State University Extension
- Keynote Speaker – Dwayne Fisher (ID), VP Marketing and partner at Champion Produce Sales
- Closing Announcements –Shelley Mills and Patrick Mangan, AM/PIC Co-Chairs

9:00 pm **ICE CREAM SOCIAL**
Outside Alberta Bair Theater walk back
Courtesy: Advanced Composting Technologies

9:00 pm - 11:00 pm **HOSPITALITY ROOMS**
DT - Ponderosa Room, 22nd floor

10:00 pm **MONTANA AM/PIC COMMITTEE MEETING**
DT - Skyview 1 and 2

MONDAY, JUNE 30

8:00 am - 5:00 pm **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
N - Enterprise Boardroom

6:30 am - 7:00 pm **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON)**
N - 2nd floor foyer
AUCTION ITEMS can also be dropped off at - DT - Conference Room 2

6:30 am - 7:45 am **VOTING DELEGATES BREAKFAST**
N - Ballroom South (Invitation only)
Presiding: Donna Beliech (MS), NACAA Secretary
Courtesy: NACAA

8:00 am - 4:00 pm **COMMERCIAL EXHIBIT TRADE SHOW,**
DT - 2nd and 3rd floors

8:00 am - 10:00 am **NACAA POSTER JUDGING**
DT - Ponderosa Room - 22nd Floor

10:00 am - 10:30 am **BREAK AND MEET THE AUTHORS POSTER SESSION,** DT - Ponderosa Room - 22nd Floor
Courtesy: Wyoming Association of County Agricultural Agents & Bravera Bank

LIFE MEMBER & SPOUSE

10:00 am - 11:30 am **LIFE MEMBERS BUSINESS MEETING**
N - Ballroom South
Presiding: Steven Munk (SD), National Chair

11:45 am 1:15 pm **LIFE MEMBER AND SPOUSES PROGRAM COMBINED LUNCHEON** (Ticket Required)
N - Ballroom South
Guest Speaker - Randy Rieman

1:30 pm - 4:00 pm **LIFE MEMBER & SPOUSE TOURS**
Location: N - Ballroom South - Tours leave promptly after luncheon

TOUR 1 - YELLOWSTONE COUNTY MUSEUM

TOUR 2 - HERITAGE CENTER

TOUR 3 - BEN SWANKE SADDLERY, INC.; BUCKAROO BUSINESS, "KEEPING THE TRADITIONS", AND RANDS CUSTOM HAT MAKERS

TOUR 4 - MARBLED MEAT COMPANY, MONTANA PREMIUM BEEF AND RANCH HOUSE MEATS

TOUR 5 - PICTOGRAPH STATE PARK

MONDAY, JUNE 30

2:30 pm - 3:00 pm **BREAK AND MEET THE AUTHORS POSTER SESSION,** DT - Ponderosa Room - 22nd Floor & DT - Trade Show area - 2nd/3rd floor
Courtesy: Oregon Association of County Agricultural Agents

3:00 pm - 4:00 pm **POSTER REMOVAL/TAKE DOWN**
DT - Ponderosa Room - 22nd Floor

3:00 pm - 5:00 pm **REGIONAL MEETINGS & CANDIDATE PRESENTATIONS**
SOUTHERN Region, N - Grand Ballroom
NORTH CENTRAL Region, DT - Ballroom A
NORTHEAST Region, DT - Conference Room 5
WESTERN Region, DT - Ballroom C

LIFE MEMBER & SPOUSE

6:00 pm - 8:00 pm **STATES NIGHT OUT** - Billings Area

6:00 pm - 8:00 pm **MONTANA TEAM DINNER** -
DT - Skyview 1-2

7:00 pm 9:30 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** DT -Ballrooms ABC

8:00 pm **NACAA SCHOLARSHIP LIVE AUCTION**
DT -Ballrooms ABC

TUESDAY, JULY 1

8:00 am - 2:00 pm **REGISTRATION**
N - 2nd floor foyer

8:00 am - 5:00 pm **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
N - Enterprise Boardroom

6:30 am - 8:00 am **NATIONAL COMMITTEE MEMBERS BREAKFAST**
DT - Ballroom C (Ticket Required)
(For all Present & Incoming Committee Members)
Recognition of Retiring Committee Chairs, Vice Chairs & Special Assignments
Presiding: Connie Strunk (SD), NACAA Vice President
Courtesy: NACAA

7:30 am - 4:00 pm **LIFE/SPOUSE TOURS**
N - Ballroom North - Tours leave promptly at 8:00

TUESDAY, JULY 1

TOUR 1 - GREYCLIFF MILL/MONTANA SILVERSMITH/SPECIAL K RANCH

TOUR 2 - SOUTHERN AG RESEARCH CENTER AND MOLSON'S COORS/VERMILLION

TOUR 3 - BIG HORN COUNTY MUSEUM AND HERITAGE CENTER, LITTLE BIG HORN BATTLEFIELD NATIONAL MONUMENT AND POMPEY'S PILLAR NATIONAL MONUMENT

TOUR 4 - RED LODGE

8:00 am - 2:00 pm **COMMERCIAL TRADE SHOW FLOORS OPEN FOR VISITORS**
DT - 2nd and 3rd floors

LIFE MEMBER & SPOUSE

8:30 am - 11:30 am **VOTING DELEGATE SESSION**
N - Ballroom South

10:00 am - 10:30 am **BREAK**
DT - Trade Show area - 2nd/3rd floor
Courtesy: Visit Billings and Billings Chamber of Commerce & Agriculture

2:00 pm 5:00 pm **TRADE SHOW/EXHIBITS TEAR DOWN**
DT - 2nd and 3rd Floors

4:00 pm - 5:30 pm **NACAA BOARD RECEPTION**
DT - Governor's Suite (Invitation only)

4:30 pm - 6:30 pm **FORMAL PICTURE OPPORTUNITY**
Location: DT - foyer outside Ballrooms ABC

5:00 pm - 6:30 pm **DSA & AA RECIPIENTS, HALL OF FAME RECIPIENTS, NACAA BOARD MEMBERS, REGION DIRECTORS, PAST OFFICERS, SPECIAL ASSIGNMENTS, SPECIAL GUESTS, COUNCIL COMMITTEE CHAIRS AND VICE CHAIRS ASSEMBLE FOR BANQUET**
Location: DT - Sky Bridge Rooms 1-4

6:00 pm 8:30 pm **ANNUAL BANQUET**
(4 LOCATIONS - SEE TICKET FOR ASSIGNED LOCATION) - Doors open at 6:00 - Start: 6:30
DT - Ballrooms ABC
N - Grand Ballroom
DT - Ponderosa Room (22nd Floor)
DT - Conference room 5
(Ticket Required)

TUESDAY, JULY 1

6:00 pm 8:30 pm **SONS AND DAUGHTERS FAREWELL PARTY**
DT - Skyview Rooms 1-2

9:00 pm - 10:30 pm **PRESIDENT'S RECEPTION**
Location: DT - Governor's Suite
Courtesy: Idaho Association

10:00 pm **MONTANA TEAM MEETING**
DT - Skyview 1 & 2

WEDNESDAY, JULY 2

LIFE MEMBER & SPOUSE

7:00 am - 8:00 am **BREAKFAST**
DT - Ballroom
Courtesy: NACAA & MONTANA

8:00 am - 9:00 am **ASSEMBLE FOR PROFESSIONAL IMPROVEMENT TOURS**
DT - Bus loop and street

8:00 am - 5:00 pm **TOUR DEPARTURES**
check your ticket time

5:00 pm - 7:30 pm **FAREWELL DINNER**
Pub Station
Sponsored by: Montana Beef Council and Montana Lamb Board

5:00 pm - 7:30 pm Buses will run from Pub Station for individuals staying at outer hotels

9:00 pm **MONTANA TEAM MEETING**
DT - Skyview 1 & 2

THURSDAY, JULY 3

7:00 am 6:00 pm **NACAA BOARD MEETING**
N - Enterprise Boardroom

SONS & DAUGHTERS PROGRAM 2025 NACAA ANNUAL MEETING

SUNDAY, JUNE 29

8:00 am- 7:00 pm **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF**
N - 2nd floor foyer
AUCTION ITEMS can also be dropped off at - DT - Conference Room 2

3:00 pm - 4:00 pm **PARENT ORIENTATION FOR SONS AND DAUGHTERS PROGRAM**
N - South Ballroom

4:30 pm - 6:30 pm **WELCOME TO MONTANA DINNER**
Pub Station (Offsite location - walk)
(Ticket Required)
Courtesy: NACAA, AARP, AgWest

7:00 pm - 9:00 pm **OPENING SESSION & INSPIRATIONAL PROGRAM,** Alberta Bair Theater (offsite - walk)

9:00 pm **ICE CREAM SOCIAL**
Outside Alberta Bair Theater walk back
Courtesy: Advanced Composting Technologies

MONDAY, JUNE 30

SONS & DAUGHTERS

6:30 am - 7:00 pm **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON)**
N - 2nd floor foyer
AUCTION ITEMS can also be dropped off at - DT - Conference Room 2

8:00 am - 5:00 pm **SONS & DAUGTHERS PROGRAM GATHER & DEPART**
DT - Ballroom A

5:00 pm **SONS & DAUGHTERS RETURN**
DT - Ballroom A

6:00 pm - 8:00 pm **STATES NIGHT OUT** - Billings Area

6:00 pm - 8:00 pm **MONTANA TEAM DINNER** -
DT - Skyview 1-2

MONDAY, JUNE 30

7:00 pm 9:30 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** DT -Ballrooms ABC8:00 pm
NACAA SCHOLARSHIP LIVE AUCTION
DT -Ballrooms ABC

TUESDAY, JULY 1

8:00 am - 2:00 pm **REGISTRATION**
N - 2nd floor foyer

9:00 am - 5:00 pm **SONS AND DAUGHTERS PROGRAM TOURS ORGANIZE AND DEPART**
DT - Ballroom A

5:00 pm **SONS & DAUGHTERS RETURN**
DT - Ballroom A

6:00 pm 8:30 pm **SONS AND DAUGHTERS FAREWELL PARTY**
DT - Skyview Rooms 1-2

WEDNESDAY, JULY 2

SONS & DAUGHTERS

7:00 am - 8:00 am **BREAKFAST**
DT - Ballroom
Courtesy: NACAA & MONTANA

8:00 am - 9:00 am **ASSEMBLE FOR PROFESSIONAL IMPROVEMENT TOURS**
DT - Bus loop and street

8:00 am - 5:00 pm **TOUR DEPARTURES**
check your ticket time

5:00 pm - 7:30 pm **FAREWELL DINNER**
Pub Station
Sponsored by: Montana Beef Council and Montana Lamb Board

5:00 pm - 7:30 pm Buses will run from Pub Station for individuals staying at outer hotels

NACAA NATIONAL DONORS

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Alex Thor
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Lexington, KY 40522
Phone: 859-533-1965
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kathleen.cuddy@merck.com

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1776 NW 114th St
Des Moines, IA 50325
(515) 223-2795
Dpeebles@pork.org

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(919) 548-4324
sgroce@barusa.com

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jim.hruskoci@bayer.com

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GOLD DONORS $7,500 - $14,999
SILVER DONORS $2,500 - $7,499

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GOLD (20K – 24,999) –
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TITANIUM (15K – 19,999) –
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MONTANA WSARE PDP

SILVER (10K – 14,999) –
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TUNGSTEN – (5K – 9,999)
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OREGON ASSOCIATION OF COUNTY AGRICULTURAL AGENTS (OACAA)
MONTANA JOINT COUNCIL OF EXTENSION PROFESSIONALS (MJCEP AUCTION)

COPPER – (2.5K – 4,999)
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MONTANA ASSOCIATION OF 4-H AND YOUTH DEVELOPMENT EXTENSION PROFESSIONALS (MA4HYDEP)
MONTANA WHEAT AND BARLEY COMMITTEE
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ADVANCED COMPOSTING TECHNOLOGIES
MSU COLLEGE OF AG

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MONTANA ASSOCIATION OF FAMILY & CONSUMER SCIENCE AGENTS (MAFCS)
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THE SCIENCE AND CONSERVATION CENTER
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MONTANA ALPHA CHAPTER OF ESP (EPSILON SIGMA PHI)
THE BARN GROUP
MONTANA CUT FLOWER ASSOCIATION – DONATED FLOWERS FOR DECORATIONS

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BIG SKY, BIG CONNECTIONS
NACAA 2025
BILLINGS, MONTANA

NACAA Annual Meeting and Professional Improvement Conferences

Year	President	Location
1916-1919	Heaton, Ed	Chicago, IL
1920	Kennedy, C.N.	Chicago, IL
1920	A.J. Dexter	Chicago, IL
1921-1922	Mosher, ML	Chicago, IL
1923	Merrill, JW	Chicago, IL
1924	Perdue, Calvin	Chicago, IL
1925	Kirkpatrick, K A	Chicago, IL
1926	Hedge, J C	Chicago, IL
1927	Palm, A W	Chicago, IL
1928	Bucholz, A B	Chicago, IL
1929	Olda, R L	Chicago, IL
1930	McKay, Morgan	Chicago, IL
1931	Mayhew, Earl	Chicago, IL
1932	Whonsetler, J E	Chicago, IL
1933	Clough, R S	Chicago, IL
1934	Douglass, Ellwood	Chicago, IL
1935	Kerrigan, P N	Chicago, IL
1936	Abbott, H E	Chicago, IL
1937	McConnell, Bright	Chicago, IL
1938	Boyd, George W	Chicago, IL
1939	McCormick, Dewey Z	Chicago, IL
1940	Parker, J Ed Jr.	Chicago, IL
1941	Ryall, E V	Chicago, IL
1942	Keller, C C	Chicago, IL
1943	Toyne, L V	Chicago, IL
1944	Beck, E D	Chicago, IL
1945	MacDougall, Allister F	Chicago, IL
1946	Sill, Weber H	Chicago, IL
1947	Nichols, H M	Chicago, IL
1948	Sterling, Stuart	Chicago, IL
1949	Logan, John Henry	Denver, CO
1950	Carter, Rex	Chicago, IL
1951	Bay, Ed	Memphis, TN
1952	Hoar, Sherman	Chicago, IL
1953	Kerr, L J	Philadelphia, PA
1954	Brown, Joe T	Salt Lake City, UT
1955	Williams, E O	East Lansing, MI
1956	Farrington, Fletcher	N. Houston, TX
1957	McDougall, R H	Boston, MA
1958	Bunnell, Marion	Seattle, WA
1959	Walker, Orville F	Kansas City, MO
1960	Rose, Carl E	Miami, FL
1961	Campbell, Howard H	New York, NY
1962	Trierweiler, Bernard G	Las Cruces, NM
1963	Barger, Paul	Minneapolis, MN
1964	Cook, Elmo	New Orleans, LA
1965	Thurston, Joseph S	Pittsburgh, PA
1966	Hansen, N John	Honolulu, HI
1967	Kunau, G J	Omaha, NE
1968	Estess, Ansel	Lexington, KY
1969	Whipp, Roscoe N	Atlantic City, NJ

1970	Esplin, Grant M	Corvallis, OR
1971	Iverson, Larry	Columbus, OH
1972	Strohbehn, Douglas W	Atlanta, GA
1973	Hibbard, Russell E	Baltimore, MD
1974	Marek, Richard G	Tucson, AZ
1975	Goodwin, Norman J	Milwaukee, WI
1976	Kennedy, Thurman J	Richmond, VA
1977	Jones, Robert L	Hartford, CT
1978	Koester, Ed	Boise, ID
1979	Juchartz, Donald	Rapid City, SD
1980	Smith, James A	Oklahoma City, OK
1981	Firth, Leslie N	Cornell University, NY
1982	Roberts, Wayne	Billings, MT
1983	Merrick, A Daniel	Wichita, KS
1984	D'Armond, Reymond	New Orleans, LA
1985	Sorensen, Dave	Hershey, PA
1986	Dictson, Billy	Colorado Springs, CO
1987	Davis, Bob	Fargo, ND
1988	Witherspoon, William D. "Billy"	Charlotte, NC
1989	Curran, G. Richard	New Brunswick, NJ
1990	Phillips, Dave	Seattle, WA
1991	Hawbaker, Stuart	Peoria, IL
1992	Tatum, Hal	Little Rock, AR
1993	Kelly, William C	Baltimore, MD
1994	Warnock, Doug	Casper, WY
1995	Sifferath, Warren	Bloomington, MN
1996	Jenkins, Jamie	Nashville, TN
1997	Moramarco, Donna W	Burlington, VT
1998	Drost, Don	San Antonio, TX
1999	Gary Hall	Omaha, NE
2000	Curtis Grissom	Jackson, MS
2001	C. David McManus	Albuquerque, NM
2002	Eddie Holland	Savannah, GA
2003	Steven Munk	Green Bay, WI
2004	Frank FitzSimons	Orlando, FL
2005	Glenn Rogers	Buffalo, NY
2006	Mickey Cummings	Cincinnati, OH
2007	Chuck Otte	Grand Rapids, MI
2008	N. Fred Miller	Greensboro, NC
2009	Richard Gibson	Portland, OR
2010	Phil Pratt	Tulsa, OK
2011	Stan Moore	Overland Park, KS
2012	Paul D. Wigley	Charleston, SC
2013	Paul Craig	Pittsburgh, PA
2014	Henry D. Dorough	Mobile, AL
2015	Mike Hogan	Sioux Falls, SD
2016	Cynthia L. Gregg	Little Rock, AR
2017	R. Mark Nelson	Salt Lake City, UT
2018	Alan B. Galloway	Chattanooga, TN
2019	Richard H. Fechter	Fort Wayne, IN
2020	Gene McAvoy	Virginia Beach, VA (Virtual)
2021	J. Craig Williams	Philadelphia, PA (Virtual)
2022	Bill Burdine	West Palm Beach, FL
2023	Phil Durst	Des Moines, IA
2024	Keith Mickler	Dallas, TX
2025	Scott Jensen	Billings, MT

STATE PICTURES

Due to time constraints - there will be no formal State Pictures coordinated by NACAA. States are encouraged to take their own group photos (ideal time would be while at State's Night Out, or other large gatherings)...and then email those photo(s) to exec-dir@nacaa.com

NACAA will then post the photos on the NACAA website along with other photos taken throughout the conference.

Thank you for your understanding - and SMILE...in your pictures. We look forward to seeing your Happy Faces :)

-

NATIONAL ASSOCIATION OF COUNTY AGRICULTURAL AGENTS
RESEARCH EXTENSION
LAND GRANT COLLEGE
NACAA

FUTURE ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT CONFERENCE DATES

2026 - Denver, Colorado
July 8 - July 12

2027 - St. Paul, Minnesota
September 12-16

2028 - Atlanta, Georgia
August 6-10

Maps

NORTHERN HOTEL

NATIONAL ASSOCIATION OF COUNTY AGRICULTURAL AGENTS
RESEARCH EXTENSION
LAND GRANT COLLEGE
NACAA

OTHER LOCATIONS
ALBERTA BAIR THEATER, PUB STATION

HOTEL SHUTTLES

Homewood Suites - Ember Lane
Hampton Inn & Suites - Billings West I-90
Hampton Inn - Southgate
Hilton Garden Inn Billings - Grant Road
Shuttle schedule (buses will be running every 20-30 minutes depending on traffic)

June 29 (Sunday)	7:30 AM - 10:00 AM
June 29 (Sunday)	11:30 AM - 3:00 PM
June 29 (Sunday)	8:30 PM - 10:30 PM
June 30 (Monday)	6:00 AM - 9:00 AM
June 30 (Monday)	7:00 PM - 10:00 PM
July 1 (Tuesday)	6:00 AM - 9:00 AM
July 1 (Tuesday)	5:00 PM - 10:30 PM
July 2 (Wednesday)	6:30 AM - 8:30 AM
July 2 (Wednesday)	5:00 PM - 7:30 PM

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Poster Session

Applied Research

2025 NACAA

110th
Annual Meeting
and
Professional Improvement Conference

Billings, Montana

2025 Poster Session
Applied Research

1st Place

EFFECTIVENESS OF TREATMENTS TO REDUCE MOSQUITO LARVAE IN RAIN BARRELS

Steven Yergeau
Environmental and Resource Management Agent
Rutgers University Cooperative Extension
Toms River

Yergeau, S.[1], Jessica Keen, J.[2], Senyk, M.[3]

[1] Yergeau, S. Environmental and Resource Management Agent, Rutgers UNiversity, New Jersey, 08755-1199
[2]Keen, J. Identification Specialist, Ocean County Mosquito Commission, New Jersey, 08005
[3]Senyk, M. Superintendent, Ocean County Mosquito Commission, New Jersey, 08005

Rain barrels are a practice for homeowners to conserve water in their lawns and yards. The potential exists for rain barrels to provide mosquito breeding habitats, so Extension programs that provide barrels to homeowners suggest different treatments to reduce the chances of mosquito breeding. These practices include the use of physical barriers created by screening the barrel openings, adding soap or oil to the water, or the use of a Bacillus thuringiensis israelensis (BTI) larvicide (a.k.a. 'Mosquito Dunks®'). Because the relative success of these practices has not been determined, this project was developed to evaluate the effectiveness of Extension-recommended mosquito control methods appropriate for rain barrels. Five-gallon buckets were filled with one gallon of water and had one of the practices applied to them. The buckets were then left out for up to three weeks to ensure mosquito egg deposition and larvae hatching. Filtered water samples were analyzed by the Ocean County Mosquito Extermination Commission for mosquito larvae which included identifying and enumerating each species for each practice. A total of 14 trials were conducted during the summers of 2021 through 2023 for a total of 173 samples collected during this study. A total of 1,927 mosquito larvae were collected in the buckets, with 1,920 from the control buckets (no treatment practice applied) and the remaining 7 larvae from other practices. This means that any of the treatment options reduce mosquito breeding habitat with better than 99% efficiency. There were some practical issues that arose in which homeowners need to be informed to enable them to make appropriate decisions when maintaining their rain barrels (for example, the oil going rancid in the summer heat, Mosquito Dunks® breaking apart, difficulty maintaining a layer of soap or oil). Since many homeowners may be reluctant to use rain barrels because of the potential for increasing mosquito populations, having science-based information on how to effectively control mosquitoes allows for wider adoption of rain barrels as a practice and more water being conserved for the future.

2nd Place

P & K APPLICATION FOLLOWING COVER CROPS IN MISSISSIPPI SOYBEANS

Bill Burdine
Agronomy Specialist
Mississippi State University
Houston

Burdine, B.[1]

[1] Agronomy Specialist, Mississippi State University, Mississippi, 38879

Mississippi producers spend over $280 million annually on fertilizer and costs continue to rise. Cost of inorganic fertilizers makes improving nutrient efficiency a top priority in row crop production. Using cover crops to improve nutrient availability to subsequent cash crops has been suggested by numerous researchers (Calegari et al., 2013; Borkert et al., 2003) however data specific to Mississippi is lacking. The effects of cover crops on P2O5 and K2O availability in Mississippi soybean systems is lacking. A study conducted across Mississippi determined soybean yields could be increased up to 8 bushels/acre with the addition of P2O5 or K2O when nutrient values were insufficient per soil analysis. This factorial arranged, randomized block designed study was to determine if A) cover crop systems would improve nutrient availability and soybean yield and B) if fall applied P2O5 and K2O would increase yield. A significant interaction was seen between years. In 2021, soybean yield increased when cover crops were used but in 2022, cover crops decreased yield (2022 suffered from extreme drought). In 2021 and 2022, fall-applied P fertilizer increased soybean yield in no-cover and radish treatments while yields decreased in cereal rye. In 2021, fall-applied K increased yield in crimson clover only, whereas in 2022, fall-applied K increased soybean yields in all cover crop treatments. Cereal grains are believed to be beneficial to soybean production, however, it may take multiple years before benefits begin to be realized. Further study is needed to quantify years of cover cropping before yields increase. Additional study is also needed to

determine how soil moisture affects nutrient availability in cover crop situations.

3rd Place

NEW MITICIDES VARY IN EFFICACY IN CONTROLLING TWOSPOTTED SPIDER MITES (Tetranychus urticae) IN ALFALFA HAY BASED ON GROWTH RESPONSE

Michael Rethwisch
Farm Advisor - Crop Production and Entomology
University of California Cooperative Extension
Blythe

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Twospotted spider mites (Tetranyhus urticae) have recently increased greatly in both population and damage to local alfalfa, with damage now occurring in at least 5 cuttings per year. Options for control are very limited with only one effective active ingredient (hexythiazox) available, with only one application/year of this active ingredient allowed. Reduced efficacy of this active ingredient is also being noted by pest control advisors and growers, thus a high need for additional products for effective control exists. Twelve treatments, including several potential new unregistered products, were applied on October 21, 2024, to alfalfa that was heavily infested with spider mites and was nearing cutting height using a back-pack sprayer delivering 20.2 gallons/acre of solution. Small plots (14 x 25 foot) with a randomized complete block experimental design were used, and included four replications of each treatment. Treated alfalfa was not cut to allow comparative miticide product evaluation on new growth under severe conditions, and would also be somewhat similar to long term feeding of spider mites in alfalfa seed production systems. Data were collected on December 2, 2024. Heights of five stems/plot were obtained in addition to percent of each plots that had green growth. These two factors were multiplied to obtain plant vigor for each plot, which was used to determine crop growth response to applied miticides. Data/treatment means were analyzed and separated using Tukey's Honestly Significant Different test. Resulting information noted several treatments that resulted in a significantly higher plant vigor score than Hexamite® (which contains hexythiazox), with these being Kodama and both rates of Plinazolin (0.7 and 1.03 oz./acre). Two other products (Danitol® EC and Magister® SC) were very similar in plant vigor score to that of Hexamite®. While these products show promise as miticides in alfalfa hay, none are currently registered for usage on alfalfa hay or alfalfa seed. It is expected that the results from this field trial will be highly valuable in securing a future registration.

National Finalists

YOU CAN LEAD A HORSE TO WATER: MAPPING SEASONAL WATER RESOURCES TO PREDICT WILD HORSE MOVEMENTS ON UTAH RANGELANDS

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Deserts are defined by low and variable annual precipitation. Water distribution strongly influences animal movements and habitat use in these systems. Some herbivores, such as mule deer and pronghorn, can obtain water from succulent forage, but large grazers, including cattle and horses, need to drink water daily to help digest plant matter. As such, these species are typically found near water sources. In areas lacking perennial water, landowners and land management agencies can develop water sources to provide water for animals. However, temporary surface water that accumulates following snowmelt or rain remains the most widespread water source for wildlife and livestock, allowing these water-dependent species to range farther from developed or perennial sources than they might otherwise. All wild horse herd management areas in Utah overlap BLM grazing allotments. Although horses and cattle have similar dietary habits, both species rely heavily on predictable water sources during dry periods. The concentration of wildlife and livestock in mesic areas during droughts can become problems for farmers and livestock producers. To help address this problem, we aimed to map the annual distribution of temporary surface water across Utah that cattle, horses, and wildlife could use. Herein we analyzed an 18-year record of satellite imagery to create a statewide map of seasonal surface-water availability for agricultural and wildlife management purposes. Utah is one of the driest states in the U.S., so livestock production takes more land than it would in wetter, more productive environments. As a result, forage and water resources can

vary substantially from year to year, and when resources are sparse, competition between livestock and wild horses can occur. The maps presented here can be used to predict what time of year and which allotments are most susceptible to incursions from wild horses on Utah rangelands.

INCREASING FARM SUSTAINABILITY AND LOCAL FOOD SECURITY THROUGH GRAFTED TOMATOES

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Grafted tomato plants can provide many benefits in commercial tomato production including increased yields and decreased inputs. This includes a variety of rootstocks available for common environmental and soil-borne issues. While grafted plants are desirable, cost, along with sourcing and shipping, can be a challenge.

The feasibility of local commercial plant production is being examined in this project. This project also examined the feasibility of farmers grafting their own plants. Bishop Gardens, LLC, Cassville, Missouri, built and demonstrated a commercial on-farm grafting operation. Field days showcased the operation and plants grown at the operation were given to selected farms for trials during the 2024 growing season.

Five farms participated in the trials
A 30-60% increase in yield was reported
Plants were reported to be more vigorous with decreased insect and disease issues.
Plants were more forgiving of neglect.
Fruit was more uniform and blemish free and therefore more marketable.
All participating farms would use grafted tomato plants in the future, particularly if they could be locally sourced.

Results:
Although small-scale, local grafted plant production is possible, more information is needed regarding profit vs inputs.
The resources, time, and skill required to graft tomatoes make it impractical for farmers to graft their own plants.

COVER CROPPING TO IMPROVE SOIL MOISTURE RETENTION AND CROP YIELD

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As weather patterns become more unpredictable, farmers need reliable strategies to manage soil moisture and protect crop yields. Cover crops are known to improve water infiltration, but they also use moisture through transpiration, leaving questions about how they affect overall soil moisture for crops. This study tests the hypothesis that cover crops enhance soil moisture retention throughout the growing season. To better understand this balance, we monitored soil moisture in two no-till fields with cover crops and one conventionally tilled field without cover crops to evaluate how cover crops influence soil moisture at the local level. METER TEROS 11 sensors with ZL6 data loggers were installed at depths of 2 inches and 4 inches to monitor soil moisture hourly throughout the growing season. Sensors were temporarily removed during planting and nitrogen sidedress activities and reinstalled immediately after. Results indicate that both cover-cropped fields exhibited distinct soil moisture patterns compared to the conventionally tilled field. At the 2-inch depth, the tilled field held an average of 3.2% more soil moisture than the cover-cropped fields from April to June. However, during the drought period in July and August, the cover-cropped fields held an average of 2.9% more soil moisture than the tilled field, a notable benefit under the extreme dry conditions experienced in Ohio. By September, this trend shifted again, with the tilled field showing 1.8% higher soil moisture than the cover-cropped fields. At the 4-inch depth, moisture levels were generally more stable across all fields, though during the extreme drought, the cover-cropped fields maintained an average of 4.4% higher soil moisture compared to the tilled field. Overall, the cover-cropped fields demonstrated improved soil moisture retention, particularly during periods of drought stress, highlighting their potential role in improving field-level resilience to extreme weather events. Additionally, cover-cropped fields produced slightly higher corn yields, averaging 164 and 170 bu/ac, compared to 160 bu/ac in the conventionally tilled field. This project highlights the potential of integrating cover crops to enhance soil moisture retention and crop productivity,

particularly under increasingly unpredictable weather conditions. Acknowledgments to the farm partner for their participation in this project.

SOIL SAMPLE NO-TILL ACID SOILS AT THE 0-7.6 CM DEPTH

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Soil pH controls chemical weathering, soil solution chemical activity, and biological activity. Ammonium-based fertilizers acidify soil from the release of hydrogen during the mineralization process. No-till soils are susceptible to acidification from the lack of mixing and the tendency to apply fertilizers at or near the soil surface. Soil testing guidelines are needed to assist with pinpointing the troublesome acres and to develop lime recommendations. This project compared soil pH and various soil sampling depths. Twelve acid sites across North Dakota were soil sampled at the 0-5.1, 5.1-10.2, 10.2-15.2, 0-7.6, 7.6-15.2, and 0-15.2 cm depths. Soil pH was measured with a pH probe inserted into a 1:1 slurry of deionized water and soil. Collaborating farmers practiced no-till for more than five years and reported that field acidity increased with in the past five years. Comparison of means found that the 0-7.6 cm soil pH was the lowest (p-value <0.001). The 0-5.1, 0-15.2, and 5.1-10.2 cm depths had similar pH's. The 7.6-15.2 and 10.2-15.2 cm pH depths were the highest. No-till acidified soils from nitrification should be sampled at the 0-7.6 cm depth as that was the most acidic and included the soil environment that encompasses a variety of seeding depths.

EFFECTIVENESS OF PLANT IDENTIFICATION APPLICATIONS AT IDENTIFYING COMMON PLANT SPECIES IN FORAGE SYSTEMS

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Accurate plant species identification is essential in making management decisions for hay and pasture systems. A wide variety of mobile phone applications offer users the potential to quickly and easily identify plant species; however, the accuracy of mobile phone applications at correctly identifying plant species under field conditions is unclear. The objective of this project was to test the accuracy of nine popular mobile phone identification applications at identifying common plant species found in forage systems. A total of 30 different plant species (27 broadleaf, 3 grass) were tested in 2024. Target plant species included common broadleaves and grasses located in pastures and hayfields. All plants were photographed on farms throughout the growing season under normal field conditions. For each plant species, three unique images were selected, with priority given to images depicting whole plants in a vegetative state. Each image (n=90) was then individually run through nine different automated identification applications, including: PictureThis, iNaturalist, Seek by iNaturalist, PlantSnap, LeafSnap, PlantNet, Plantum, Google Lens, and Apple Visual Look Up. For each individual image, identification application performance was scored as follows: 4=top suggestion correct; 3=second suggestion correct; 2=third suggestion correct; 1=genus correctly identified but not species; and 0=no correct identification. Data was analyzed using one-way ANOVA, with significance at $p \leq 0.05$. Across all applications, 61% of images were identified correctly on the first suggestion and 74% were identified correctly within the first three suggestions. PictureThis was the most accurate application (average ± SD; 3.83 ± 0.7; $p < 0.05$), identifying 94% of tested images correctly on the first suggestion. This was similar to Plantum (3.77 ± 0.7) and iNaturalist (3.58 ± 1.0), which identified 89% and 79%, respectively, of images correctly on the first suggestion. PlantSnap was the least accurate application (1.55 ± 1.7; $p < 0.05$), identifying only 26% of images correctly on the first suggestion. Results from this assessment indicate that plant identification applications can be a useful tool for those wanting rapid identification of plant species in

forage systems. Future testing will include additional plant species and additional photos representing a broader range of plant growth stages.

OCCURRENCE OF GLYPHOSATE-RESISTANT JUNGLERICE IN LOUISIANA

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Herbicide-resistant weeds pose a serious threat to agricultural production worldwide. Junglerice [Echinochloa colona (L.) Link] is a troublesome weed that is among the top 15 weed species resistant to the greatest number of herbicide sites of action. In 2023, junglerice plants that survived two applications of glyphosate were collected from a fallow sugarcane field in Napoleonville, LA. Plants were grown to maturity and seeds were collected for greenhouse experiments. In 2024, dose-response assays were conducted in the greenhouse to compare the putative glyphosate-resistant (GR) junglerice population (LA-2) to a known susceptible population (GS). Glyphosate doses included 0, 0.125, 0.25, 0.5, 1, 2, 4, 6, 8, 10, and 12 times the field-use rate (840 g ae ha-1). Plants were treated at the 2-tiller growth stage in a spray chamber. Percent visual control (0-100%) ratings were conducted at 7, 14, and 21 days after treatment (DAT). Dry weights were recorded 21 DAT. To identify alternative control options, dose-response assays were also conducted with quizalofop-P-ethyl, clethodim, glufosinate, and paraquat. Data were subjected to ANOVA in SAS and log-logistic regression in R. Experiments to determine the potential mechanism of resistance in the LA-2 population were also conducted. RNA was extracted from the progeny of a junglerice plant that survived glyphosate treatment. A section of the 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS) containing the Pro-106 site was cloned sixteen times and sequenced. Since no junglerice EPSPS sequences were present in GenBank, the sequences were aligned with glyphosate-susceptible Italian ryegrass [Lolium perenne L. ssp. multiflorum (Lam.) Husnot] EPSPS. Dose-response data showed the GR50 of the LA-2 population was 4.6 times greater than the GS population. The LA-2 population survived up to 6 times the field-use rate of glyphosate (840 g ae ha-1). Quizalofop-P-ethyl, clethodim, glufosinate, and paraquat at field-use rates were effective in controlling the LA-2 population (96 to 99% control). Sequence data showed a Pro-106-Thr EPSPS target-site mutation in the LA-2 population, which has been documented in GR junglerice. Results from this research provide insight into how junglerice evolved resistance to glyphosate in Louisiana and which herbicides still provide acceptable control.

CHLORPYRIFOS ALTERNATIVE FOR LESSER PEACH TREE BORER CONTROL IN PEACH ORCHARDS

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South Carolina is the number 2 producer of peaches in the United States behind California. The 5 yr average value of peach production in SC is $92,234,800, according to reports from NASS. One of the top insect pests in commercial peach production is the lesser peach tree borer. For years, the industry standard for chemical control of lesser peach tree borer has been the use of Chlorpyrifos. In recent years the EPA has made changes to regulations and restrictions on this product which has affected the availability and use of the chemical control for growers. In addition to regulatory changes, when there is continued use of a single chemical control there is concern for resistance build up in crops. Alternative control options such as mating disruption are now available for commercial use but have not been widely used in South Carolina therefore there is little research on efficacy. The main objective of this project was to determine the efficacy of chlorpyrifos alternatives for the control of lesser peach tree borer (LPTB) in commercial peach orchards in South Carolina. Mating disruption ties were applied throughout 19 peach tree blocks, totaling 275 acres, in place of conventional chemical treatment of chlorpyrifos for control of peach tree borer at a rate of 1 per tree during the 2023 and 2024 peach season in SC. Traps were monitored weekly from April-September and LPTB counts were recorded from organic control orchards, orchards treated using conventional applications of chlorpyrifos and those treated with mating disruption ties. Data from both seasons show there is no significant difference in LPTB present in conventionally treated orchards compared to

those treated using the Isomate mating disruption ties. Based on this information we can assume that mating disruption in a viable option for a chlorpyrifos alternative for control of LPTB in commercial peach orchards in SC. Additional trial work will be performed to further support these findings.

WESTERN REGION ENTRIES:

USING COVER CROPS WITH CORN SILAGE TO MANAGE MANURE NUTRIENT LOAD IN SOUTHERN IDAHO

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In Southern Idaho, fertilization with dairy manure has increased levels of soil nutrients creating environmental concern. Currently, the region focuses on cash crops to extract soil nutrients, but cover crops (CC) can potentially extract excess nutrients from the soil while providing additional benefits. Corn silage plots planted with CCs were created to understand the effects different CC systems can have on nutrient extraction and forage yield and quality. In one study, CCs were inter-seeded in silage corn to determine the effect on corn silage production and on CC production. Treatments used a tall or short CC and changed CC planting to near corn-emergence or later in the vegetative development of the corn. Two post-management strategies were used either keeping the CC or terminating the cover CC. In an additional study, CCs are planted after harvest of the corn silage. Different management styles of the CC are compared including a control, a harvest, a simulated grazing, or a green manuring effect of the CC. In both studies, the control consisted of corn silage without any cover crop. Soil and tissue samples were taken, and silage yield and quality were measured and will be assessed to monitor the effects of the study. Preliminary results from this study have shown very few significant differences in soil analysis between CC treatments. There were, however, statistically significant differences between some treatments and the control. This situation indicates that having an active growing CC influences the soil nutrients and nutrient uptake compared to not having any CC when growing corn silage. The second trial with double cropping with a single fall mix after harvesting the corn silage was more successful in most years in growing much more CC mass than the interseeding CC, but his mass differential was present only for a short period in spring before harvesting or terminating the CC for corn planting. Results on the impact of fall CC and its different treatments compared to the control have not been fully analyzed yet.

MARKETABLE TOMATO YIELDS IN RELATION TO 2,4D DRIFT

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Tomatoes are extremely sensitive to 2,4 D formulations, with even the smallest drift causing revenue loss to vegetable producers due to the necessity of replacing affected plants. While it is not recommended to consume said fruits, there is no clear answer on the level of toxicity that the fruits contain after accidental exposure. This trial evaluates the effectiveness of actions to recoup losses and still gain marketable tomatoes. Seedlings were planted in high tunnels running east to west beginning of April, with row spacing of 6 ft, and plant spacing of 22 in. Accidental drift of a 2,4D formulation affected the eastern half mid-April. Plots were set up beginning of May, with 4 replications of 4 treatments – affected, pruned, replanted and control/healthy. Harvest ran from July 12 to September 13, with data collected thrice weekly. Yield of marketable and cull fruits were collected, with a seeable difference between treatments and time, with exposure possibly affecting length of production time in plants. Combined results were analyzed using statistical programs and lead to possible future field studies under Utah State University, increasing options for tomato production under drift of 2,4D.

FURTHERING UNDERSTANDING OF THE NUTRITIONAL VALUE OF BALED HAY OVER TIME

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Alfalfa hay is a vital component of agriculture in the United States. Not only is it a cash crop for many, but it is also a substantial part of livestock feed rations. There is, however, a lack of data to indicate the increase/decrease of nutritive value of baled hay over an extended period of time. In the fall of 2023, funding was secured to run a "seed study" to examine this very problem. Small bales of hay were purchased from three different hay growers in Oneida County, Idaho and placed into three separate storage methods; uncovered, tarped, or placed in an enclosed shed. This hay was then tested approximately every four months and analyzed at an independent laboratory. After 15 months, it was found that the quantity of minerals was nearly unchanged in all hay bales. Acid detergent fiber (ADF) in uncovered hay increased 5 times more than protected hay. Neutral detergent fiber (NDF) increased 10 times more than protected hay. Crude protein (CP) was also not greatly affected but the negative change of relative feed value (RFV) of unprotected hay was nearly 6 times more than protected hay. This is an ongoing study which will conclude in the fall of 2025. At that time, a full analysis of the data will be completed and rate of nutrient decline for each storage method will be calculated to offer insights into the longevity of baled hay over long periods of time.

EVALUATING THE IMPACT OF COW SIZE ON CALF WEANING WEIGHTS

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Cow size has increased over time due to selection for larger beef carcasses, raising questions about its impact on calf weaning weights and production efficiency. This study, conducted at the University of Idaho's Nancy M. Cummings Research, Extension, and Education Center (REEC) from 2015 to 2024, evaluated the relationship between cow size and calf weaning performance. Data from 484 cows and their calves were analyzed, including cow weight at weaning, average calf weaning weight, adjusted weaning weight (205 days), and the percentage of cow body weight weaned. Linear regression analysis revealed a weak but significant positive relationship between cow weight and adjusted weaning weight ($R^2 = 0.1138$), while average weaning weight showed little correlation with cow weight ($R^2 = 0.07$). A strong negative relationship was found between cow weight and the percentage of body weight weaned ($R^2 = 0.644$), suggesting that larger cows may be less efficient at converting their size into calf growth. Cows were categorized into weight groups (<1100, 1101-1200, etc.), and an ANOVA test indicated that calves from lighter cows (<1100 and 1101-1200 lbs) had significantly lower adjusted weaning weights, while no significant differences were observed among heavier cow groups. These findings suggest that while larger cows may produce slightly heavier calves, the relationship is weak, and cow efficiency should be considered alongside size when making management decisions. Selecting for increased cow size alone may not maximize weaning weight efficiency, highlighting the importance of balancing size and productivity in beef operations.

COMMUNITY-BASED EFFORTS TO ADDRESS PHOSPHORUS LEVELS IN MATT WARNER RESERVOIR

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Matt Warner Reservoir in Uintah County experiences annual harmful algal blooms due to high phosphorus levels, leading the Utah Department of Environmental Quality - Division of Water Quality to determine the reservoir does not meet water quality standards. Agriculture was identified as a major contributor to phosphorus levels. In response, the Uintah County Conservation District launched a community-based project to investigate the issue, discovering elevated phosphorus levels in soil surrounding Pot Creek, a primary tributary

to the reservoir. To address soil erosion and reduce phosphorus runoff, the project proposed fencing sections of Pot Creek to restrict livestock access and diverting water to alternate locations, employing conservation-focused solutions. Despite being in place for three years, the plan has struggled to gain traction with landowners. Navigating local stakeholder dynamics between landowners and agricultural lessees has proven challenging, as landowners prefer lessees to fund improvements, while lessees seek longer-term leases to justify their investments. This stalemate illustrates the importance of coordinating efforts across watersheds and communities while employing strategies for successful stakeholder engagement to align diverse interests. By focusing on collaborative, community-driven approaches that integrate conservation goals with local needs, this project aims to reduce phosphorus runoff, improve water quality, and address the broader challenges of watershed management. Lessons learned from this effort provide valuable insights into fostering partnerships and implementing sustainable solutions in shared ecosystems.

EFFECTS OF PREMORTEM STRESS ON STEAK COLOR IN THE LONGISSIMUS LUMBORUM OF HOLSTEIN STEERS FOLLOWING HARVEST

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Despite similar production practices, beef cattle exhibit undesirable variation in steak color, an important quality attribute influencing consumer purchasing decisions. Pre-harvest stressors—such as transportation, handling practices, illness, mixing with unfamiliar animals, or introduction to a new environment—may contribute to this variation. These stressors induce oxidative processes in tissues, leading to myoglobin oxidation, which causes a brownish-red discoloration that consumers are less likely to purchase. This study hypothesized that the timing of harvest following a stressful event would affect steak color in Holstein steers. Forty Holstein steers were administered adrenocorticotropic hormone (ACTH) to simulate a stress response. Blood samples were collected during the ACTH challenge to analyze cortisol concentrations. Steers were subsequently harvested in groups of 10 at 2, 12, 24, and 48 hours post-challenge. Steak color, specifically a* (redness) and b* (yellowness), was analyzed in samples collected from the logissimus lumborum aged for 14 days post-harvest. Unexpectedly, calves harvested at different time points exhibited significant differences ($P < 0.05$) in cortisol response. Additionally, time of harvest significantly impacted steak color, affecting both a* ($P < 0.05$) and b* ($P < 0.05$). These findings suggest that the timing of harvest following a stressful event influences meat quality, particularly steak color.

SMALL GRAIN VARIETY TESTING TRIAL 2024-25

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Selecting the appropriate variety is essential for a farmer's success, as small grain varieties in Arizona differ in adaptation and performance, directly affecting profitability. Variety trial testing assesses commercially available and emerging cultivars to help farmers make informed choices. Since individual producers often lack the resources to test multiple varieties, University of Arizona agronomists conduct annual trials to bridge this gap. In Pinal County, Arizona, 32% of stakeholders have expressed interest in receiving updated information on small grain variety testing. However, a significant knowledge gap has persisted in this area, and our project aims to address it. These trials provide farmers, seed producers, extension agents, and consultants with objective, up-to-date insights to support informed decision-making based on local growing conditions. Given the annual variations in performance and the introduction of new varieties, evaluating commercial small grains each year is essential. To address this, a small-grain variety testing trial is underway at the Maricopa Agricultural Center, featuring 13 varieties of durum wheat, three varieties of barley, and three varieties of triticale. This project seeks to reinstate annual testing while integrating in-season physiological characterization alongside agronomic performance. These findings will improve the understanding of adaptation to Arizona's climate stresses, aiding in developing more resilient small-grain varieties.

NORTH CENTRAL REGION ENTRIES:

EFFECT OF TILLAGE PRACTICES ON THE SOIL PHYSICAL AND CHEMICAL PROPERTIES UNDER ON-FARM CONDITION IN NORTHEASTERN OHIO

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Soil management practices that enhance soil health are crucial strategies for climate change mitigation and adaptation. Conservation tillage, including reduced or no-till systems, is widely recommended for enhancing soil carbon sequestration and improving soil health. However, the effect of tillage on soil health depends on site-specific management practices. Thus, an on-farm study was conducted to evaluate soil physical and chemical properties on ten different farms and two woodland reference sites on Canfield silt loam soil in Stark County, northeastern Ohio. These farms follow different tillage practices including moldboard plowing (MP), vertical tillage (VT), no-tillage (NT), or long-term hay (HAY) management. Crop rotation also differed among the participating farms, ranging from corn (Zea mays) and soybean (Glycine max) rotations to mixed forage fields with and without manure application. In the fall of 2024, ten (10) soil samples were collected from each farm: five (5) at 0-15 and five (5) at 15-30 cm soil depth at (5) GPS identified locations on each site. Soil samples were then analyzed for pH, electrical conductivity (EC), cation exchange capacity (CEC), total carbon (TC), total nitrogen (TN), bulk density (BD) and soil moisture retention. Results indicated no difference in soil pH (5.8-6.4), EC (range: 91-205µS cm-1) and CEC (10.1-14.3 meq/100g soil) among different tillage practices. However, the BD at the surface soil depth was higher in NT (1.55 g cm-3) compared to MP and VT (1.47 g cm-3). While TC at 0-15 did not differ among the tillage treatments (34 Mg ha-1), it was significantly higher in HAY farms (51 Mg ha-1). Preliminary results showed no statistical difference in most of the soil's physical and chemical properties across different tillage intensities, possibly due to the manure application, particularly in conventionally tilled field sample sites.

TARGET SPRAY EFFICIENCY EVALUATION ON SOYBEANS

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Targeted broadcast spray application is a new technology that utilizes camera technology and machine learning on a sprayer to identify weeds in a field and apply herbicide only to weeds present while maintaining label rates. The spray in this project was equipped with John Deere See and SprayTM Ultimate which is a two-tank system allowing for the application of a residual to all acres while target spraying emerged weeds. The objective of the project was to evaluate potential herbicide cost savings with a target spray application system compared to broadcast applications on soybeans. We evaluated six pre-planting (PRE) and eight post-planting (POST) spray applications across multiple fields. These fields had a combination of no-till and tillage. Weed control historically across this farm has been excellent. In 2024 there was a technology fee of $1 per acre for PRE applications and a $4 per acre fee for POST applications. This fee was applied to all acres where the technology was turned on. Costs of broadcast applications were calculated to determine cost savings with a target spray application. No broadcast application was actually made. The herbicide cost for PRE ranged from $5.47 to $12.29/ac. The herbicide cost for all POST applications was $15.05 per acre. Since only target spray was used in 2024, visual observations were used to evaluate weed control effectiveness. It was determined that weed control was as good as broadcast expectations. Cost savings were seen in all but two field application, one in PRE and one in POST saw negative returns. The formulas used to calculate costs were: PRE = (Acres x $1) + (Acres Applied x Herbicide Cost); POST = (Acres x $4) + (Acres Applied x Herbicide Cost). The total was then subtracted from the herbicide cost for total field acres to determine

herbicide cost savings. The farm saved $1,788.25 on PRE application and $1,075.06 on POST. The percent acres not applied across both applications averaged 54%. Average savings per acre on PRE was $3.76/ac and $5.12/ac on POST.

IDENTIFYING CORN HYBRIDS RESISTANT TO GIBBERELLA EAR ROT AND DEOXYNIVALENOL

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Deoxynivalenol (DON) is a mycotoxin produced by the fungus Fusarium graminearum, the causal agent of gibberella ear rot (GER) of corn and fusarium head blight of wheat. Grain contamination with DON causes adverse effects in livestock, especially swine and dairy. At levels beyond 2 ppm, it can lead to vomiting, feed refusal, and suppression of the immune system. Gibberella ear rot (GER) and DON contamination has become an increasingly pressing issue for Ohio corn growers and has reduced corn market value. Selecting disease-resistant corn hybrids is recommended to lower the risk of Fusarium graminearum infection and high DON levels, but resistance ratings are often not available to growers due to the labor-intensive process required to screen hybrids for GER and DON resistance. To address this issue, The Ohio State University launched a DON resistance screening program to assess the susceptibility to GER and DON accumulation in commercially available corn hybrids. In 2024, 89 corn hybrids from 11 different seed companies were blocked by maturity and screened at three field locations (Bucyrus, South Charleston, and Wooster). At silking (R1 growth stage) a subset of ears for each hybrid entry were inoculated with Fusarium graminearum spores and the remaining ears were naturally infected. Ear rot severity was measured prior to harvest and grain samples were collected to measure DON accumulation levels for each entry under both inoculated and naturally infected treatments. DON levels were low at all three locations due to below-average rainfall in 2024, but significant differences in average DON contamination levels were still observed among hybrids. Of the 89 hybrids, 37 did not statistically differ from the least contaminated hybrid at all three locations, while 2 were significantly higher within the inoculated treatment across locations. These results will help Ohio corn growers avoid planting susceptible hybrids and better manage both GER and DON accumulation, limiting yield losses and lowered grain quality.

EVALUATING THE GROWTH RATE OF FESCUE AT DIFFERENT CUTTING HEIGHTS

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Forage production is a vital industry in southeastern Ohio. Generally, mower conditioners are set at a height of 3 inches (short cut) when mowing grass hay. This study tests if setting mowers to a height of 5 inches (tall cut) will benefit forage recovery and quality, while not compromising production. This research project is located at the Jackson Agricultural Research Station (JARS), The Ohio State University, Jackson, OH. At JARS, the typical time between cuttings is 45-50 days. The research plots stretch 1,200 feet with two rows cut at 3 inches and two rows cut at 5 inches. Each set of two rows are raked together into one windrow and baled in accordance with the respective grass heights. In this study, weed population was also observed for differences in grass cut height. This study began in 2024 and will continue for a minimum of 3 years. This research faced a challenge with a historic drought hitting the region in 2024, with levels in Jackson County hitting D3 and D4 on the U.S. Drought Monitor with drought conditions lasting until November. 2024 results showed a longer recovery time between first and second cutting of 69 days. High weed pressure was observed in all plot rows. During the time between cuttings, the average gain of grass height was 2.19 inches in short cut and 2.15 inches in the tall cut. After the second cutting, the average weekly gain was 1 inch in short cut and 1.25 inches in tall cut. Bales were weighed by the two different cutting heights to obtain their official tonnage. Findings showed the tonnage difference favored the short cut with a difference of 202 pounds in first cutting and 192 pounds in second cutting.

GARLIC VARIETY PERFORMANCE TRIAL 2024

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This study evaluated the performance of 15 garlic varieties in Perry County, Ohio, focusing on germination rates, bulb sizes, and overall yield. The trial was conducted to provide insights for growers to optimize garlic variety selection, enhancing both crop quality and productivity. Garlic cloves were planted on November 4, 2023, and harvested on July 7, 2024. The soil was maintained at a pH of 7.0, with specific nutrient levels and nitrogen applications. Results indicated significant variation among the varieties. Germination rates ranged from 59% (Silver White) to 114% (Asian Tempest). Larger bulbs were produced by varieties such as German Red (2.00 oz) and Blanak (1.83 oz), while Ajo Roja had the smallest bulb size (0.41 oz). The study found a trend where higher clove size often correlated with higher germination rates and larger bulb sizes at harvest. These findings suggest that garlic variety performance is influenced by both subtype and geographic location, providing valuable information for growers to make informed decisions about garlic cultivation.

LIVESTOCK PRODUCER RESPONSE TO THE 2024 DROUGHT IN SOUTHEAST OHIO

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The 2024 growing season in southeast Ohio was marked by historic drought conditions leading the U.S. Department of Agriculture to designate 22 counties and 18 neighboring counties as natural disaster areas. Local impacts were felt in agricultural production resulting in limited hay supplies and lack of water access, placing stress on livestock production systems. Statewide, 2024 hay production yields in Ohio were 30% below the previous year's harvest according to USDA NASS. To further understand the impact to livestock producers in southeast Ohio, a survey tool was developed to gather information directly from producers which was shared during programming events from August to November 2024. This tool was designed to capture pasture conditions during the months of June-October and quantify supplemental feed and water hauling demands. 94 responses were received, and initial data summaries indicate that as early as second cutting, 73% of recipients reported 50% or greater reduction in hay yield. 43% of respondents indicated that first cutting hay was 100% of normal yield and 33% of respondents indicated first cutting hay was at least 75% of normal yield. A third cutting of hay was very limited with 42% indicating 25% or less hay yield. Initial data also indicated an average beef herd of 47 head and 160 acres farmed in hay or pasture. The USDA Farm Service Agency released funds through Emergency Livestock Assistance Program (ELAP) and through the Livestock Forage Disaster Program (LFP). These programs offered financial assistance for water hauling and hay hauling. On January 24, 2025, it was estimated that a total of $3,836,098.92 has been paid out in Muskingum County and Morgan County alone across 238 farm operations. This project aims to capture and quantify the economic impacts of the drought to the local cattle production systems.

EVALUATION OF FALL AND SPRING NITROGEN RATES EFFECT ON CEREAL RYE FORAGE CRUDE PROTEIN AND TILLERING USING NDVI AND CANOPEO TO MAKE INFIELD NITROGEN RATE DECISIONS

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Fall applied nitrogen has been used to increase plant tiller and protein in wheat but less research has been done of its effects on cereal rye (Secale cereale) forage and how Normalized Difference Vegetation Index (NDVI) and Canopeo readings can be used to make nitrogen application management decisions. This study took place at the Ohio State University North Central Agricultural Research Station in Fremont, Ohio. The experiment is a randomized complete block split-plot design with four nitrogen rates in the fall (0, 30, 60, and 90 lbs/ac) and in the spring an additional four nitrogen rates over

the fall rates of 25, 50, 75, and 100 pounds per acre in rye. Rye was planted in October and harvested in May. NDVI readings were taken in late November before fall dormancy and in the spring after greenup to determine the greenness and density of green matter in an area. Canopeo readings were taken at the same time as NDVI readings to determine the percent of live green vegetation in an area. Fall nitrogen rates increased tillering and have significantly increased spring yield. The results of the NDVI and Canopeo readings were evaluated together to determine if fall applied N increases the tillering density and protein in rye. We are investigating if spring NDVI readings can be used to assist with making spring nitrogen application management decisions.

NORTHEAST REGION ENTRIES:

A SCOPE REVIEW OF ETHNIC CROPS RESEARCH AND EXTENSION RESOURCES IN THE UNITED STATES

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Extension and research faculty provide technical support to small and micro-scale farmers, and some of these farmers are immigrants and refugees hoping to establish agribusinesses in their new land. These community members may also prefer vegetables unavailable in typical grocery stores, such as roselle, bitter melon, etc. These niche vegetables are sometimes referred to as ethnic crops or world vegetables. This lack of easily available, culturally appropriate vegetables provides an opportunity for increased local production where possible. However, it is challenging to find production information on these emerging crops. We initiated a literature review to determine which land grant universities and Extension programs are researching and creating resources to produce these niche crops. After many iterations, a scholarly literature review protocol was developed utilizing the Web of Science search terms such as “emerging crop,” “exotic crop,” etc., to find research studies and reports addressing ethnic crops or world vegetables—other used filters included studies conducted in the US from 1995 to 2024 and studies written in English. A secondary search method was developed using the World Wide Web to scour the grey literature. Preliminary results indicate that Extension services and research faculty are conducting research and creating resources to serve the needs of those growing these crops; however, information is still limited and not always easy to find. This presentation will discuss the study’s results, present supplemental materials, and consider opportunities for future work.

HARNESSING COVER CROPS TO ADDRESS UNIQUE FARM NEEDS AND ACHIEVE MAXIMUM BENEFITS

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Cover crops can provide various benefits, such as building soil organic matter, scavenging nutrients, or controlling pests such as weeds. Since cover crops are not a primary source of farm income, farmers may spend less time planning and managing them when compared to cash crops. We hypothesized that designing cover crops with a particular purpose in mind, extending the cover crop growth window, and considering environmental constraints and the capacity of the farm and farmer would result in more productive and functional cover crops. Extension educators collaborated with farmers to plan cover crops. Farmers planted cover crops in the late-summer to fall planting window and managed cover crops until spring termination. Extension educators measured cover crop fall and spring biomass, and spring nitrogen and carbon content. In year one, 11 farmers collaborated, planting 27 cover crop fields. In year two, 20 farmers collaborated, planting 56 cover crop fields. Farmers primary purposes for cover crops included building organic matter, contributing nitrogen, controlling weeds and other pests, and eliminating black plastic. Fall cover crop biomass from 69 fields ranged from 28 lb/acre to 2887 lb/acre, with an average of 521 lb/acre. Spring cover crop biomass from 83 fields ranged from 156 lb/acre to 8659 lb/acre, with

an average of 2213 lb/acre. Cover crop biomass positively correlated with the number of spring growth days. Nitrogen in spring biomass from 56 fields ranged from 2 lb/acre to 124 lb/acre, with an average of 37 lb/acre. Based on 56 fields, cover crop carbon to nitrogen ratio differed according to the cover crop species composition, with grass and/or brassica cover crops > cover crop mixes that included a legume > pure legume cover crops. In conclusion, despite all farmers engaging in cover crop planning, cover crop biomass, nitrogen content, and carbon to nitrogen ratio greatly varied across operations. Extending the cover crop season was important for increasing biomass and functionality. In order to achieve the targeted purpose of the cover crop, farmers often had to modify plans and actively manage cover crops, for example through re-seeding, extending the season later than anticipated, or applying selective herbicides.

POPULATION DYNAMICS OF STINK BUGS WITHIN COVER CROPS ON THE EASTERN SHORE OF MARYLAND

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Stink bugs (Pentatomidae) are significant economic pests of soybean (Glycine max), causing yield losses through pod and seed feeding. While fall-planted cover crops provide numerous agronomic and environmental benefits, there is growing concern that they may serve as overwintering habitat for stink bugs, potentially increasing early-season infestations in soybean fields. This study aimed to assess stink bug populations in Maryland cover crop fields and their movement into soybean fields after cover crop termination. Between mid-April and mid-May 2024, 26 cover crop fields were sampled on Maryland's Eastern Shore, primarily planted with winter wheat (75%) and mixed cover crop species (25%). Stink bug densities were evaluated using sweep net sampling, and a subset of fields was monitored after soybean emergence. A total of 91 stink bugs were detected in cover crops, with peak populations observed in late April and early May. The predominant species were the brown stink bug (Euschistus servus) and the brown marmorated stink bug (Halyomorpha halys). However, population levels remained well below the economic threshold of 36 stink bugs per 100 sweeps. In June, only 11 stink bugs were observed in emerging soybean fields. Additionally, more beneficial insects, particularly ladybird beetles (Coccinellidae), were detected than stink bugs. These findings suggest that while stink bugs are present in cover crops, they do not appear to pose a significant early-season threat to soybeans. Future research will expand sampling to include additional mixed-species cover crop fields to determine if stink bug populations differ based on cover crop composition.

EFFECT OF EXTENDED COLOSTRUM FEEDING ON THE PERFORMANCE OF JERSEY HEIFERS

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Research into extended colostrum feeding in Holstein calves has pointed towards beneficial effects in growth, and feed efficiency. However, there has been no research into its effect of feeding extended colostrum on Jersey calves. This experiment is being conducted to determine the short- and long-term effects of an extended colostrum feeding on Jersey calves and heifer performance. The data is being gathered on 1 commercial Jersey Farm in Maryland. The calves are separated into a control and treatment group with 60 calves per treatment (n=120). The control group is fed 2 feedings of colostrum while the treatment group is given 6 feedings of colostrum. Both groups receive 2 feedings of colostrum at 0-4 hours and 12 hours after birth. Afterwards, the control group is fed milk replacer powder at 12-hour intervals, while the treatment group receives 4 more feedings of colostrum at 12-hour intervals before being switched to milk replacer. After 7 days all calves are transferred to a group pen with a free choice automatic milk feeder where they remain

until weaning (77 days). Calves are measured on body weight, heart girth, hip height, rectal temperature, and fecal scores. These measurements are recorded at birth and then every other week until weaning. Our preliminary results were determined with a smaller sample size (control n=34 and treatment n=31). Data were analyzed using mixed model analysis, with statistical significance set at $P \leq 0.05$. Calves in the treatment group increased ($P = 0.04$) ADG compared with control (0.75 and 0.66 kg, respectively). Weaning weight increased ($P = 0.03$) for the treatment group compared with control (81 and 74kg, respectively). Weaning heart girth, and height did not differ among treatments. While the results are not statsitically significant, they do indicate a trend towards increased growth and feed efficiency for the treatment group. These findings can provide a baseline understanding for future research.

SOUTHERN REGION ENTRIES:

STRAWBERRY BREEDING ASSISTED WITH PLANT PHENOME AI MODEL

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Introduction: Traditional strawberry breeding is tasking research that requires the evaluation of plant phenome of thousands of individual plants to be narrowed down to one or two commercially viable varieties. Evaluation of plant phenome characteristics such as morphology, physiology, and development is an intensive, time and resource-consuming process. The use of an AI model to assist in data collection and analysis can offer a huge advantage to plant breeders to increase is breeding lines' evaluation capability with reduced time and invested resources. Hypothesis: An AI-based model can greatly assist strawberry breeders and speed up the release of new commercial varieties. Objectives: Use Plant Phenome AI model to accelerate the plant breeding process and reduce required intensive resources and time demands of traditional breeding. Methods: Aerial or ground-based images of strawberry plants are captured in the field. Images are uploaded to the cloud for raw processing and plant phenome characterization. Various data parameters such as biomass, and development rate are evaluated to advise the variety selection process. Results: Nondestructive imaging sampling over time of breeding lines provides the biomass and growth rates data. These plant phenome data parameters are plotted to differentiate among breeding lines being evaluated. Conclusion: Using this plant phenome AI model offers a nondestructive sampling method to measure strawberry plant growth and reproduction parameters. This is a great advantage in comparison to traditional destructive sampling methods which require more man hours, plants, field or greenhouse space, and associated higher costs. This AI model offers a big stepping stone for automating plant runner management, plant growth monitoring, and possibly yield estimations in commercial production.

ECONOMICS OF PRE-EMERGENT HERBICIDES OF PECAN

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The current pecan market for Southeastern pecan growers has a very low margin. Growers are already cutting significant costs by planting low-input, disease resistant varieties. Growers can also save significant inputs by establishing a pre-emergent herbicide program. In 2023 and 2024, research on pre-emergent herbicides was conducted at the University of Georgia's Vidalia Onion Research Center. The area pecan agent applied 8 different pre-emergent herbicide combinations and rates in a randomized block design for both research and demonstration. Ratings were taken at 30, 60 , 90 and 160 days after treatment (DAT). The economics of each program were determined using 2025 price data from University of Georgia Department of Economics.

CALCULATING DOGFENNEL (EUPATORIUM CAPILLIFOLIUM) CONTROL USING MACHINE COUNTING

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Objective: Over the past three years, we have demonstrated the proof-of-concept of using machine counting to calculate percent control. This is the first fully replicated research project conducted using machine counting. Dogfennel (Eupatorium capillifolium) is a competitive pasture weed that reduces forage production. Traditional herbicide control assessments rely on subjective visual estimates, which may introduce variability. This study aimed to evaluate the use of machine counting as a standardized, objective method for assessing dogfennel control using aerial imagery and image analysis software. Methods: Nine 0.4-hectare plots were arranged in a completely randomized block design with three replications of each treatment: Weedmaster (3.52 L/ha), Pasturegard (1.75 L/ha), and an untreated control. Aerial RGB images were collected using a SenseFly eBee X drone and processed into an orthomosaic using Pix4D. The images were analyzed in ImageJ with a standardized color threshold (hue 41-89, saturation 127-255, brightness 0-94) to distinguish dogfennel from Bahiagrass (Paspalum notatum). Treatments were applied in June 2024, and control was evaluated in November 2024. Results: Untreated plots exhibited a 320.3% increase in dogfennel coverage. Pasturegard achieved 89% control, while Weedmaster provided 87% control. These findings closely matched visual assessments, validating the accuracy of machine counting. Conclusion: Machine counting using ImageJ software proved to be a reliable tool for assessing herbicide effectiveness. This method offers a more objective and replicable alternative to traditional visual estimates. AI-driven analysis can enhance Extension research, providing precise, data-driven recommendations for weed management. Future work should refine AI integration to further improve herbicide evaluation methodologies.

EFFICACY OF AMENDMENTS IN REDUCING GREENHOUSE GAS EMISSIONS FROM BROILER LITTER

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Broiler litter (BL) produced in broiler houses emits greenhouse gases (GHG) such as nitrous oxide (N2O), and carbon dioxide (CO2) and contributes to global warming. In addition to ammonia, increased concentration of GHG inside broiler houses causes negative impacts on bird health as well the affect the environment. While various amendments have been applied to mitigate ammonia emissions from BL, there is limited research on strategies to reduce GHG emissions from BL. Consequently, our study focuses on examining the impact of amendments like biochar (B), zeolite (Z), FGD gypsum (G), and sodium bisulfate (S) on GHG emissions from BL. A 40-day incubation experiment was conducted where BL was treated with litter amendments at different rates at 30 °C. The gas samples from the headspace of the jars were collected in pre-evacuated vials using a 10 ml syringe at 0, 60, and 120 minutes and were analyzed in Shimadzu gas chromatography. The results showed that lower rates of biochar ranging between 5 to 9% (w/w) did not affect GHG emissions compared to control, whereas rates ranging between 13% to 17% significantly increased CO2 and N2O emissions. We found no effect of Zeolite and FGD gypsum application on GHG reduction. Among all the treatments studied, sodium bisulfate at application rates ranging between 4 to 7% reduced CO2 and N2O emissions compared to control. Future studies to test the efficacy of sodium bisulfate in commercial poultry houses will be conducted to better understand its efficacy in reducing GHG emissions in real-time.

THE EFFECTS OF USING CEREAL RYE (SECALE CEREALE) AS A COVER CROP FOR CONTROL OF ITALIAN RYEGRASS (LOLIUM MULTIFLORUM) IN FALLOW LAND IN THE SOUTHERN PIEDMONT OF NORTH CAROLINA

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Herbicide-resistant Italian ryegrass (Loloium multiflorum) is a persistent issue in North Carolina, particularly in the southern Piedmont, where ALS, ACCase, glyphosate, and paraquat resistance have been confirmed. While pyroxasulfone provides residual control, it does not affect emerged ryegrass, and resistance to pre-emergent herbicides is likely to develop. Paraquat-resistant ryegrass threatens all North Carolina crops, especially small grains, and delaying until ryegrass senescence would push corn, cotton, and soybean planting into June, significantly reducing yield potential. Cereal rye (Secale cereale) is well known for its weed-suppressive abilities via allelopathy and competition. Union County Agricultural Agents set objectives to; 1.) Explore the effectiveness of using cereal rye as a management tool for controlling Italian ryegrass, 2.) Determine the ideal planting date, seeding rate, pre-emergent herbicide, and which combinations best control Italian Ryegrass, 3.) Determine fertilization rates to produce cereal rye for hay and straw production.

Over two years, randomized strip and small plot trial work on-farm research; planting date (4) x seeding rate (5), cereal rye + pre-emergent herbicides (9 treatments), and forage fertility (6 treatments) revealed promising results.1.) Cereal rye has a wide range of plating for successful stand establishment following soybeans and can be applied pre and post-harvest in corn, soybean, and cotton. 2.) When planted on time 100 lbs/ac of cereal rye alone provides statistically similar ($p < 0.1$) control compared to cereal rye + pre-emergent herbicides, and 6/7 pre-emergent treatments significantly reduced ryegrass populations compared to the control. The seeding rate had no effect on forage but the nitrogen rate (0, 30 60 lbs N/acre) showed a statistically significant increase within seeding rates of 50 & 100 lbs/acre.

Two field days were held on-farm, March 2024, and March 2025, to educate row crop producers in surrounding counties about the findings and allow them to visually observe the treatments under investigation. Attendance was 40 and 55 persons respectfully. Between 2024 and 2025, informal surveying revealed that Union County growers planted approximately 3,000 acres of cereal rye, with three of the five adopters using a cover crop for the first time.

COUNTY STANDARDIZED TESTING OF COTTON CULTIVARS IN TENNESSEE

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The University of Tennessee Cotton Agronomy Program provides an unbiased evaluation of commercial varieties available for production in Tennessee each year through the County Standard Trials (CSTs) program. The CSTs are large plot variety strip trials located throughout the Western and Central regions of Tennessee and are composed of major commercial cultivars. Yield and fiber quality data obtained from the UT variety trials, serve as base for seed selection for planting future years crops for area producers. Producers request for the information prove the tests are valuable resources. For the 2024 season, 15 CSTs were planned, but only eight were successfully harvested. A challenging May weather pattern resulted in roughly one-third of Tennessee's planned acreage being shifted to alternative crops. Sixteen different cotton varieties were submitted by their respective companies for testing. Each variety was planted in a single plot at each location and maintained according to the individual producer's practices. Plot sizes ranged from six to eight rows wide and between 125 to 2,500+ feet in length, depending on equipment and field size. At harvest, the plots were picked using the producer's equipment. If a basket-style picker was used, the harvested plots were weighed by catching the cotton in a boll buggy before it was dumped into the module builder. In the case of an

onboard round module picker, modules were wrapped at the end of each plot and weighed using portable scales. Regardless of the picker type, approximately six pounds of seed cotton were collected from each plot, transported to the University of Tennessee Cotton MicroGin for analysis, and used to determine turnout and fiber quality. Subsamples were ginned at the UT MicroGin and classed at the USDA Classing Office in Memphis, TN. The 2024 data revealed significant differences in lint yield, turnout, and fiber quality across the tested varieties.

ON-FARM TRIALS EVALUATING FUNGICIDE STRATEGIES FOR PEANUT DISEASE MANAGEMENT IN NORTH FLORIDA

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Early Leaf Spot (ELS) and Late Leaf Spot (LLS) are major foliar diseases impacting peanut production in Florida. A four-year on-farm study (2021–2024) in North Florida evaluated calendar-based fungicide programs, focusing on applications at 60 and 90 days after planting (DAP). The study compared disease-related defoliation, yield, and economic returns between demethylation inhibitor (DMI)-based and succinate dehydrogenase inhibitor (SDHI)-based programs. Disease defoliation measured on the Florida 1-to-10 scale, varied by year, with ratings of 5.9 in 2021, 2.8 in 2022, 4.1 in 2023, and 5.2 in 2024. No significant differences in yield or net returns were observed between fungicide programs in 2021, 2022, and 2024. However, in 2023, DMI-based programs significantly outperformed SDHI-based programs in both yield and economic returns. A meta-analysis across all four years showed that SDHI-based programs negatively impacted yield savings and net returns ($p < 0.05$). These findings highlight the importance of rotating fungicide modes of action and tailoring management strategies based on disease presence and fungicide efficacy against the pathogen. Programs incorporating DMI fungicides resulted in improved yields and net returns compared to those that relied on SDHI fungicides for four consecutive applications. One exception occurred in 2024 when Elatus and Miravis were replaced with Convoy and Bravo in the SDHI program. This substitution led to improved yields and net returns, likely because Convoy's active ingredient (flutolanil) has no observed activity against leaf spots, reducing selection pressure. This study underscores the critical role of fungicide selection, crop rotation, variety selection, and resistance management in peanut disease control. It also reinforces the necessity of rotating fungicide chemistries, even when mixed-mode-of-action products are used, to sustain long-term efficacy and profitability.

IMPACT OF MANURE SOURCE AND APPLICATION RATE ON NUTRIENT LOSSES FROM A SERIES OF THREE ONE-ACRE INCH-SIMULATED RAINFALL EVENTS

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Phosphorus (P) transport from agricultural lands receiving animal manure is an ongoing water quality concern. Manure differs in physical and chemical characteristics such as nutrient content, moisture, presence or absence of bedding material, and density, among others. Similarly, the application rate varies due to the difference in density between solid and liquid manure. There has been less investigation on how manure source and their application rates affect runoff volume, soil and nutrient losses primarily nitrogen (N) and P, during runoff events. We used artificial rainfall simulation to study the effect of three successive one-acre-inch rainfall events occurring at seven days intervals on runoff volume, sediment, N, and P losses due to broiler litter (BL) and swine liquid manure (SLM) application in a conventional tilled Decatur silty clay loam soil. Broiler litter and SLM were applied at 0, 2, 4, 6, and 8 Mg ha-1 and 0, 47, 94, 140, and 187 kL ha-1, respectively. The results indicated that BL application increased runoff and soil losses compared to bare soil (0 kg ha-1), and the greatest losses were observed at the lowest application rate (2 Mg ha-1). On the contrary, SLM application did not affect runoff volume; however, soil losses increased with increasing application rate and decreased at the highest application rate. Phosphorus and N losses increased with increasing application rate of both manure. Phosphorus and N losses ranged between 1-1.4 kg ha-1 and 1 to 2.5 kg ha-1 for SLM and 1.5 to 2.6 kg ha-1 and 2-4 kg ha-1 for PM, respectively.

MISSISSIPPI LOG TRUCKING BUSINESS OWNER ASSESSMENTS OF INDUSTRY CHALLENGES

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The log trucking industry has been identified as a profit-limiting factor in the eastern United States. Log trucking industry challenges include difficulty hiring drivers, rising liability insurance premiums, and others. Mississippi log trucking business owner perceptions about hiring qualified truck drivers and profitability were assessed using Likert item questions in a mixed-mode survey. Eighty-four percent of Mississippi log trucking companies said hiring qualified drivers in 2021 was harder than in 2019. Survey participant ratings for factors that had important and very important impacts on hiring drivers included lack of qualified drivers (88%), failed drug tests (75%), uncompetitive pay (64%), and lack of employee benefits (56%). More emphasis was placed on driver shortages than lack of pay and employee benefits. Seventy-three percent of Mississippi log trucking companies stated that profits were worse or slightly worse in 2021 compared to 2019. Survey participant ratings for important and very important factors that impact business profitability included insurance premiums (95%), fuel prices (94%), hiring qualified drivers (92%), trucking rates (89%), accident lawsuits (85%), one-way haul distance (84%), and mill turnaround times (82%). There was less agreement regarding the importance of in-woods turnaround times (71%), road weight limits (70%), and one-way haul distance (67%). Rising expenses appeared to influence business owners to place more importance on factors relating to direct costs rather than litigation, policy, or operational management concerns.

THE EFFECTS OF AN INTENSIVE MANAGEMENT PROGRAM ON SOYBEAN YIELDS AND PROFITS

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Johnston County, North Carolina, has a wide range of soil types, from rolling to relatively flat topography with shallow to very deep clay layers. Johnston County growers plant between 45,000 and 55,000 acres of soybeans yearly with an average yield of 35 bushels/A. Many soybean acres are planted on medium to low-yielding soil types, which are well-drained and suited for tobacco production. Each year, approximately 10,000-12,000 acres of soybeans are planted double-crop after the small grain harvest is completed. Most years, this planting occurs after our area's normal soybean planting window has ended, which limits yield potential. Regardless of the soil type or planting date, growers must budget input costs to determine how much they can spend on production costs and still make a profit. Working with local growers for the past three years, Cooperative Extension initiated three on-farm tests to determine if scouting, tissue sampling, and timely application of insecticides and fungicides would increase profits above the additional input costs. Test sites were located on three different soil types common in the County, with yield expectations from 27 to 44 bushels per acre. Data for the three years showed an average range of yields from 31.6 bushels/acre for the baseline production practices, while the addition of insecticides, fungicides, and other treatments improved yields to 39.7 bushels per acre. This yield increase demonstrated that adopting these practices could improve profits by $23 -$90 per acre. However, the most significant component of the yield increase came from the timely application of insecticides to manage stink bugs. A popular insecticide, Bifenthrin, was applied, costing only $13.60 per acre per application for the pesticide and equipment. When this insecticide was applied twice in response to stink bugs reaching threshold pressure, it improved returns by over $90 per acre. Harvest data also demonstrated improved profitability from fungicides in moderate disease pressure years, while the application in low-pressure years did not improve profits. Intrepid Edge also increases yields and profits but has a more significant impact when exceeding thresholds. Foliar fertilizer products did not improve net profits in two of the three trial years.

ASSESSING RESIDENT KNOWLEDGE AND ATTITUDES TOWARDS URBAN LANDSCAPE FERTILIZER ORDINANCE IN HERNANDO COUNTY, FLORIDA

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In Florida, urban landscape fertilizer ordinances have been implemented across over 100 counties and municipalities to address nutrient pollution in waterbodies and promote sustainable landscape practices. This study focused on Hernando County, Florida, where recent amendments to the existing ordinance expanded seasonal restrictions. The primary objective was to assess residents' knowledge, behaviors, and attitudes towards fertilizer use and the amended ordinance, with the goal of developing educational materials that encourage responsible fertilizer application practices. The research utilized both quantitative and qualitative methods, including an online survey and focus groups. The online survey, distributed through social media and the Hernando County Extension and Utilities Department networks, reached a broad group of residents, collecting 740 responses. It assessed residents' understanding of fertilizer application practices and their familiarity with the local ordinance. Focus groups provided deeper insights into individuals' perceptions, concerns, and barriers to compliance. The survey results revealed that most respondents fertilize their lawns themselves, with approximately half residing on one-quarter to one-half acre properties. Fertilizer application generally occurs in April, May, and October, with respondents purchasing two to four 40-pound bags of fertilizer annually and using up to one full bag per application. 65% respondents reported not performing soil tests on their lawns, indicating a knowledge gap regarding best practices for fertilizer application. While many respondents understood the meaning of N-P-K ratios on fertilizer bags, awareness of how these nutrients relate to proper fertilizer use was limited. Furthermore, most respondents were unaware of the specific timeframes and procedures for fertilizer application mandated by the Hernando County ordinance. Focus group participants expressed strong support for the ordinance's environmental goals but were unaware of key aspects, such as restricted application periods and required buffer zones near surface water. They raised concerns about enforcement and suggested increased outreach through channel such as email, social media, and community events. Based on the findings, recommendations included developing targeted educational programs emphasizing soil testing and proper fertilizer application, enhancing communication strategies to improve ordinance compliance, and comparing findings to other counties to inform future outreach initiatives.

SOIL BASED ASSESMENT OF SITE PRODUCTIVITY FOR LOBLOLLY AND SLASH PINE PLANTATIONS IN THE COASTAL PLAIN REGION

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Southern pine plantations are a vital component of the southeastern U.S. forestry industry, contributing significantly to both revenue and employment. In Georgia, the forest industry generated $42 billion in revenue and supported 140,787 jobs in 2024. Loblolly pine (Pinus taeda) and slash pine (Pinus elliottii) are the most important commercial species in the region. Traditionally, productivity assessments have relied on outdated models based on site index (SI) and mean annual increment (MAI). In response to evolving forest management practices, the Natural Resources Conservation Service has collaborated with the University of Georgia Warnell School of Forestry & Natural Resources to update these models for loblolly and slash pine plantations in the Coastal Plain region. The study reveals that loblolly pine is best suited for high-productivity soils, while slash pine thrives on soils without an argillic horizon, possibly with a spodic horizon. Updated SI models offer practical tools for forest managers and landowners to assess site potential and optimize plantation productivity. Performance of both species was similar on certain poorly drained soils, highlighting the importance of soil testing for phosphorus levels and drainage class before plantation establishment. Intensive management should prioritize loblolly pine, while slash pine remains a viable alternative for wetter, poorly drained sites. These predictive models present a cost-effective approach to improving site selection, ensuring maximum timber yields, and advancing sustainable forest management practices.

THE IMPACT OF CALVING DISTRIBUTION ON WEANING WEIGHTS IN SPRING AND FALL CALVING HERDS

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Calving distribution is defined as the proportion of females in a beef cattle herd calving within 21-day periods (approximate length of estrus cycle) of the calving season. Cows that calve in the first 21 days of the calving season are generally bred earlier in the breeding season and raise calves that are heavier at weaning. Calving and weaning data from the Virginia Tech Shenandoah Valley Agricultural Research and Extension Center/McCormick Farm (SVAREC) beef cattle herd from 1999-2023 was analyzed. These records included 2,072 spring born calves and 1,670 fall born calves (total=3,742). Mature Cow records were separated from first calf heifer records to be analyzed separately as recommended by previous research (Cushman, 2012; Funston, 2013) and as the breeding season for cows and heifers did vary slightly. Spring calves born to first calf heifers that calved in the first 21 days of the calving season were 45 lbs heavier ($P<0.05$) at weaning than calves born in the second 21 days of the calving season. Spring calves born to mature cows (aged 3 yr old+) in the first 21 days of the calving season weighed 39 lbs greater ($p<0.05$) than calves born in the second 21 days and 90 lbs more than those born in the third 21 days (p-value<0.05). Fall calves born to first calf heifers in the first 21 days of calving season averaged a weaning weight 38 lbs heavier ($P<0.05$) than calves born in the second 21 days. Fall calves born to mature cows (aged 3 yr old+) in the first 21 days of the calving season weighed 68 lbs ($P<0.05$) more than calves born in the second 21 days of the calving season and 145 lbs more than calves born in the third 21 days at weaning ($P<0.05$). To improve calf crop weaning weights, uniformity, and marketability, producers should strive to ensure that females are bred early in the breeding season to increase the percentage of calves born early in the calving season, thereby increasing calf weaning weights through an age-advantaged calf.

LATE WINTER COOL-SEASON ANNUAL FORAGE PLANTINGS FOR SPRING PRODUCTION

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Cool-season annual grasses are often overseeded into bermudagrass pastures in the southeastern United States. These complementary forages can be planted in the fall or in late winter to extend the growing season. Late winter plantings are usually planted to provide an early hay crop or to provide forage for grazing where perennial stands have been affected by adverse weather conditions. The optimum late winter planting date is not well established for these annual forages. Our objective was to compare three late-winter planting dates on forage mass of four annual grasses. This experiment was conducted at the Arkansas State University farm in Jonesboro, AR from 2021-2024. Winter wheat, spring and winter oats, and annual ryegrass were no-till planted into a glyphosate-suppressed bermudagrass sod on one of three planting dates. Early planting dates were in late February, Mid planting dates were in mid-March, and Late planting dates were in late March. Plots were harvested once in late May of each year. Winter wheat was the least productive forage across planting dates in all years. Spring oats were the most productive forage. The early and mid-planting dates produced similar amounts of forage at time of harvest. Late plantings were less productive. These results were consistent despite the variability in weather conditions across multiple seasons. This experiment suggests that the optimal planting period for late winter-planted annual forages is between late February and mid-March in the southeastern U.S.A.

INVASIVE CHINESE FOUNTAIN GRASS HERBICIDE CONTROL

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Chinese fountain grass was virtually unheard of in Northwest Arkansas until September 2023, after a concerned producer contacted the Boone County Extension Office about an unusual grass overtaking a pasture. A farm visit was made, and pictures and samples were obtained. After researching this grass, we contacted the University of Missouri Extension to help confirm our suspicions. Chinese fountain grass Pennisetum alopecuroides was then confirmed growing in Boone County Arkansas. After visiting the pasture and talking to the producer, we learned that Chinese fountain grass can consume a field quickly. The producer had noticed this unusual plant growing for multiple years and attempted to remedy the problem by frequently clipping the pasture throughout the summer and fall. This had proved ineffective and likely led to the rapid spread of Chinese fountain grass. Surrounding County Extension Agents and the Forage Instructor for the University of Arkansas Extension Service were contacted about helping carry out an on-farm herbicide research efficacy trial to determine treatment options. On October 26th ,2023 a trial was established using 10 different herbicide formulations, repeated mowings, and a control plot. Plots were replicated 3 times using a random block design. Stand occupancy counts were also recorded prior to treatment being applied. The first frost was recorded on October 29th, 2023. The spring treatment date was May 29th, 2024. The same 10 herbicide formulations were used. Plots were reevaluated on July 11th, 2024, approximately six weeks after the spring treatment. Stand occupancy counts were retaken to determine Chinese fountain grass presence. After data was collected and analyzed, this study shows treatments of glyphosate during the growing season to be most effective. Stands of Chinese fountain grass can be reduced by 97% by using either 1 or 1.5qts of glyphosate. Treatments during the fall, after seed heads have established, proved to be ineffective. Mowing Chinese fountain grass showed a reduction of 30% in stand counts, but seed was still produced, so this method is not effective. Currently, the best option for control is identification and treatments with glyphosate before the plant becomes reproductive and produces seed.

MICRO-PLOT RESEARCH AND DEMONSTRATION OF FORAGE NUTRIENET

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Traditional research requires large areas of land, extensive planning, high amounts of labor, and often specialized equipment, which can reduce producer interest in hosting research trials, reducing the capacity of a research program to conduct statewide research. Additionally, traditional demonstrations are useful for case-specific investigation but reduce the opportunity to identify repeatability needed by researchers. County agents are often stuck in the middle, wanting to further research

to improve recommendations but also demonstrate management strategies and recommendations. However, they often don't have the necessary tools and/or materials to achieve this. Therefore, the development of micro-plot research and demonstration trials may provide the opportunity to conduct replicated statistically sound research that also demonstrates management strategies to producers with limited hindrance to the producer. These micro-plot research trails were tested in the 2024 summer production season to assess the interest of agents and producers in conducting and hosting small research trials. Over the 2024 season, three research objectives and research protocols were developed and made available to extension agents. Materials and tools needed to conduct the research were provided to the participating extension agents, and all fieldwork and data collection was conducted by the county extension agents. Data was collated, analyzed, and interpreted by the state soil fertility specialist, and research reports were returned to agents for outreach purposes. The feedback from the research and demonstration trials showcases interest in continued work by agents and stakeholders alike, and specific objectives increase the awareness among stakeholders about the need for fertilizer management.

ARKANSAS DIAMOND PLANT DEMONSTRATION IN ARKANSAS COUNTY

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Arkansas Diamonds are locally grown plants that are proven to be tough and to thrive in Arkansas. New plant varieties are chosen and released every year. This program is a partnership between the Arkansas Green Industry Association (AGIA), The University of Arkansas System Division of Agriculture (UADA), local growers, and local independent garden centers. The goal is to educate Arkansas gardeners about annual bedding plants, commonly referred to as 'annual color', that consistently perform well throughout the state so that gardeners are more successful. In 2024, the statewide Arkansas Diamond trials were conducted in 29 counties and consisted of the two annual and two perennial plant species. The annuals varieties trialed were 'Tattoo Black Cherry' annual vinca (Catharanthus roseus 'Tattoo Black Cherry' and 'Ruby Slipper' coleus (Solenostemon scuttellarioides 'Ruby Slipper'), while the perennial varieties were Liatris (Liatris spicata) and 'Homestead Purple' Verbena (Verbena canadensis 'Homestead Purple'). For the annual varieties, agents were provided with nine plants of each species, while only four of each perennial species were planted. All trials were planted in a 3 ft. x 3 ft. square bed. Agents were asked to plant the trial on or around May 15th to correspond to the average last frost date for NW Arkansas. During the study, agents were asked to take the following data twice a month through October 15th:
Plant height and width
Photographs taken at planting and then once/month around the 15th
Insect and disease issues
Flower Rating
1 = 0%, 2 = 1 – 25%, 3 = 26 – 50%, 4 = 51 – 75%, 5 = 76 – 100%
Health Rating
1 = Poor, 3 = Average, 5 = Excellent

BROWN MID-RIB TRAIT TRADEOFFS IN SORGHUM-SUDANGRASS AND PEARL MILLET YIELD

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The brown midrib (BMR) trait has been used to improve the nutritive value of sorghum-sudangrass and pearl millet, however it is known to affect yields. Seed cost/lb might influence seed selection; BMR seed costs twice as much as standard seed. This trial sought to combine yield data and economics for producers considering the BMR trait. A replicated field trial was conducted at the Livestock and Forestry Research Station in Batesville, AR. Pearl millet and sorghum-sudangrass with and without the BMR trait were planted 5/30/24 using an Almaco light duty grain drill. The seeding rate was 25 lb./acre. The plots were managed

as either common producer practices (CPP) or best management practices (BMP). Plots were harvested three times. The first two harvests were cut to 6” stubble and the final harvest was at 2” stubble. Harvested forage mass was weighed, and sub-samples were collected for moisture and nutritive value analysis. The presence of the BMR trait did not affect harvested forage mass, nor did species selections. The plots managed according to CPP had higher forage harvests than BMP plots in the first and second harvests. Forage production costs came to a difference of <$0.005/lb between BMR and standard options of both forages. The two-fold seed cost difference seen in BMR and standard summer annual forages does not compare to the greater investments made in weed control, soil fertility, and harvest management. These results suggest farmers should prioritize harvest management regardless of species selection or BMR status, especially on sites with high weed competition.

Poster Session

Extension Education

2025 NACAA

110th
Annual Meeting
and
Professional Improvement Conference

Billings, Montana

2025 Poster Session

Extension Education

1st Place

MANAGING POCKET GOPHERS: PROTECTING AGRICULTURE AND ENGAGING YOUTH

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Pocket gophers (Thomomys bottae) present a significant challenge for farmers and landowners in Garfield County, Utah. Their tunneling activity leads to economic losses through reduced crop yields, equipment damage, and costly pest control efforts (Baldwin et al., 2016). Garfield County Extension implemented a youth gopher trapping program, modeled after successful initiatives in neighboring counties. This program aimed to educate youth on safe and effective trapping techniques, distinguishing gopher mounds from those of protected species, and the importance of land stewardship. Additionally, it provided financial incentives, particularly for youth under 14 who lack traditional employment opportunities, while fostering outdoor engagement. The program yielded substantial results: 79 youth trapped 1,721 gophers and 141 squirrels, collectively earning $14,156. Agricultural producers benefited from an estimated $81,928 in savings from reduced abatement costs and crop damage. Participants spent 955 hours outdoors, reinforcing hands-on conservation learning while reducing screen time. By integrating pest management with youth education and financial incentives, the program effectively reduced gopher populations, provided income for young participants, and strengthened relationships between the county, conservation districts, and youth.

2nd Place

BACKYARD LIVESTOCK 101: CREATING A FOUNDATION OF ANIMAL HUSBANDRY FOR PROSPECTIVE SMALL-SCALE PRODUCERS

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Northeast Georgia has seen a rapid growth in population within the last decade, with rural land being divided into small-acreage residential lots. Yet, even on small acreage (<10 acres), homeowners are looking to grow their own food and become self-sufficient, including raising livestock. However, these are often first-time landowners with little or no experience in pasture management, or animal husbandry. The Oconee County Extension Agent instituted a Backyard Livestock 101 workshop series that would target these production areas with the goal of helping attendees implement better practices from an economic and environmental perspective. The workshop series covered different animal species used in backyard/small-scale livestock production: poultry, cattle, and small ruminants. Each species program involved 2 days of lectures paired with demonstrations and hands-on practice of animal handling and husbandry. There were 41 total participants coming from 12 different counties. The participants ranged from small-scale farmers looking for a refresher course to new backyard/personal producers who either just purchased their animals or were planning on purchasing the animals in the near future. Through the after-program survey, 97% of participants reported an increase in knowledge about animal husbandry/pasture management at the program's completion. 94% of participants reported that they were likely or very likely to apply what they learned to their animal husbandry

practices. Also, 100% of participants reported they were likely or very likely to recommend this program to others looking to start their own backyard/small-scale livestock operations. Implementing the skills learned in these programs can increase the long-term production capacity of participants' operations by promoting healthy livestock and pasture management. With similar workshops planned for the spring of 2025, it is projected to see similar increases in new participants' knowledge base and practical skillsets.

3rd Place

OUTCOMES FROM A TWO-YEAR BEEKEEPING BUSINESS COHORT

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Small-scale beekeepers that aspire to earn an income from their beekeeping operations often find themselves without guidance specific to their field. While educational opportunities in honey bee husbandry and small business development are abundant, resources specific to beekeeping business planning are lacking. To address this gap, a team at the University of Florida established a two-year beekeeping business program with the objective of training 30 small-scale beekeepers to create business plans, develop and market products, and establish safe workplaces. Cohort members participated in four online short courses, which were reinforced with monthly virtual meetings and discussions. Twice a year, the cohort met in-person to network, learn from experts in Extension and industry, and to practice new skills. Throughout the program, each cohort member received extensive individualized feedback both from program leaders and their peers, via grading rubrics, written comments, one-on-one and small group consultations, and through regular phone calls and emails with the program coordinator. Of the 30 participants selected for this program, 29 remained active in the cohort throughout the two-year period. Moreover, 100% of the participants developed a business plan and reported an increased ability to complete key business practices, 82% used a budget and/or product-costing spreadsheet to make financial plans, and 95% increased their knowledge of workplace safety. At least 72% of participants developed at least one new marketing product, with many participants creating new websites, social media pages, and/or Google Business Profiles. Finally, 86% of the cohort submitted hive products to be evaluated and around half of these products received a perfect score on a grading rubric. Ultimately, by establishing a motivated cohort with the same participants working together over two years, this program was able to provide business resources specific to beekeepers as well as a network of peer support and accountability for their new businesses.

NATIONAL FINALISTS

ADVANCING GARDENING SKILLS IN BROADWATER COUNTY

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In response to a county identified need for advanced level gardening skills, MSU Extension Broadwater County Agent, Allison Kosto, developed an Advanced Gardening Course. The program targeted experienced gardeners and Master Gardeners. Topics in the Advanced Gardening Course included native plants, season extension methods, plant propagation and advanced plant growth. Classes were conducted in the spring of 2024, combining classroom instruction with hands-on activities. A second component of the program took place during the summer, focusing on advanced garden and tree integrated pest management. This session featured a pest scavenger hunt, pocket gopher trapping and demonstration of systemic pesticides for aphid management in fruit trees.

Program evaluation revealed 100% of participants gained new knowledge as a result of the program, and 91.7% of participants indicated intent to change behavior as a result of the program. Planned changes included implementing plant propagation techniques, adopting season extension methods, incorporating more native plants into

landscapes, and improving general gardening skills such as seed selection and seed-starting techniques.

Participants in the summer class gained practical experience with pest identification, control methods and management thresholds. A notable outcome was a significant increase in knowledge among attendees. During the class, a pocket gopher was trapped, and participants were able to see damage and dirt mounds caused by the gopher. No one in the class had ever seen a pocket gopher. One person in the class said, "I always thought I had voles. Now I realize I actually have pocket gophers."
Another participant shared, "I have NEVER seen that many pests in real life. It was a good exercise to go around and see what our sleuthing skills came up with but then go a second time and have you show us what we missed or should have been looking for. I have a whole new appreciation for diagnosing pests and much more foundation on where to start looking. Plus the pesticide application demo made me realize I don't think nearly enough about options for treating issues.

PIZZA 4 PRODUCERS

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In October 2022, the very first Pizza 4 Producers event was held, led by Extension Professor Don McMoran. The event was a resounding success, and several other events have been held since. Each event includes the building of a wood fire oven, making the dough, selecting the dough, and baking the pizza itself. Everyone works together to create something wonderful they can all enjoy, crafting bonds that will last a lifetime.

ALTERNATIVE LIVESTOCK SYSTEMS NEEDS ASSESSMENT

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In Minnesota, there is a growing number of alternative livestock operations, including pasture-based, organic, and small scale. To better serve these producers, the University of Minnesota Extension hired an alternative livestock systems educator. A needs assessment survey of Minnesota audiences was conducted to help guide relevant program development in this diversified discipline. The survey was developed using expertise of an evaluation specialist and the UMN Extension Livestock Team. The 15-question survey was created in Qualtrics and distributed electronically via listservs, newsletters, educator contacts, social media, and QR code flyers. There were 166 responses. Poultry (54%) and beef cattle (50%) were the main livestock species raised by respondents. The alternative livestock systems used most often included pasture-based (87%), small-scale (63%), mobile housing (32%), silvopasture (32%), and livestock land management services (27%). The educational topics of interest included pasture and forage management (38%), business management (32%), animal health (22%), nutrition and feeding (12%), and raising new livestock species (11%). The preferred learning formats were webinars (69%), online courses (48%), in-person field days (42%), newsletters (42%), in-person workshops (34%), website articles (34%), and YouTube (31%). In response to these results, an online beginning livestock production course is being developed covering animal health, nutrition and feeding, and raising a new livestock species. The course includes a livestock safe-handling video series which shows participants how to handle new livestock species. Due to interest in pasture and forage management and the use of livestock for land management, a crop and livestock integration partnership between the UMN Extension Water, Crops, and Livestock Teams has formed. A pilot crop and livestock integration field day was hosted in 2024, with 50 participants. In the

post-field day evaluation, 100% of respondents indicated they can use what they learned at the field day on their own farm or in their work. 95% of respondents were likely to implement a new crop and livestock integration practice. These outcomes demonstrate that the use of a needs assessment to inform programming in a diverse discipline has resulted in a high degree of program collaboration and impact.

BEEF TO SCHOOL: CONNECTING CAFETERIAS AND CLASSROOMS WITH LOCAL BEEF AND BEEF EDUCATION

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This poster showcases a multidisciplinary approach to strengthening place-based Beef to School (B2S) programs, which integrate locally sourced beef into school meal programs and classroom education. The project focused on two key deliverables: 1.) Updated “Frequently Asked Questions about Beef to School” Guide – Developed using insights from school food service directors, beef processors, and other stakeholders, this revised resource addresses common questions, includes real-world examples, and features new appendices for clarity. It was distributed to over 200 school food service directors, processors, and educators. 2.) New “Adopt-a-Cow” Beef Curriculum – Piloted in seven school districts, reaching 230 students in Fall 2024, this curriculum teaches students about beef production, history, nutrition, and the beef industry. It includes interactive elements such as virtual escape rooms, a board game, and children’s book recommendations. By packaging these resources together, the program equips schools with the tools to source local beef for cafeterias while educating students on its production and significance. These materials have been distributed to 110 educators and 50 processors, with additional outreach through webinars and an updated web presence. This program illustrates how an integrated approach to beef education and local sourcing can create a more sustainable, community-driven B2S model that benefits students, schools, and local agriculture.

MULTI-STATE APPROACH TO STRATEGIES THAT EMPHASIZE MANAGEMENT OVER MEDICATION IN EXTENSION SWINE PRODUCTION

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This project aimed to adress knowledge gaps in herd health and management among small swine producers and veterinarians in the U.S. Small-scale swine farms face unique challenges, such as limited veterinary support, economic pressures, and a lack of accessible resources, which affect animal welfare and farm sustainability. The project, led by a multi-state team of experts, will identify key knowledge gaps through surveys and focus groups with producers and veterinarians. Based on these findings, the team will develop practical, accessible educational materials, including written guides, podcasts, and short videos on topics like biosecurity, nutrition, parasite management, and housing. The survey results highlight common health concerns among producers, such as respiratory and reproductive issues, as well as a need for improved veterinary care and biosecurity practices. Veterinarians identified gaps in training on nutrition, parasite management, and environmental control. The educational materials created will focus on bridging these gaps with user-friendly content that can be easily applied by small-scale producers. The goal of the project is to enhance herd health management practices, promote sustainable farming methods, and improve consumer confidence in U.S. pork production. By providing targeted educational resources, this project aims to empower small producers to address the challenges they face and contribute to the long-term success of the industry.

EAT WHAT YOU GROW IN CAPE MAY COUNTY, NJ

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The Eat What You Grow program is a workshop series done in partnership between the Agriculture and Natural Resources and Family and Community Health Sciences departments of Rutgers Cooperative Extension of Cape May County. The series consists of four sessions, one per season (January, April, June and October 2025. The goal of the program is to promote healthy living and teach how to grow healthy food at home. Each class focuses on seasonal vegetables and fruits, providing nutritional information and preparation ideas, and teaches about growing such produce in a home garden. The series covers the following topics: garden planning, garden friendly pantry planning, health benefits of gardening, preserving, balanced meals, and healthy twist of seasonal harvest foods. All classes are offered at the Rutgers Cooperative Extension office of Cape May County. Only the Winter session has been offered so far, to 20 participants, who were surveyed about their participation. 92% When asked about the value of the information given in the session, the average response was 4.58, 92% of participants strongly agreed with a statement indicating that they plan to use or share what they learned, and 89% strongly agreed with a statement indicating that they will make changes in their personal activities based on what they learned. Such results are encouraging and provide evidence of the need for a multifaceted approach to healthy eating, while maximizing educational efforts from Rutgers Cooperative Extension in Cape May County by creating partnerships between departments.

THE GARDEN THYME PODCAST-GETTING DOWN AND DIRTY IN THE GARDEN

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In 2024, the Podcast Consumer Report cited that 67% of the 12 + US population has listened to a podcast (192 million people). In 2025, the number of listeners is expected to reach 584 million people. With 4.42 million podcasts available worldwide, people can truly choose their own adventure (Podcast Index, 2025). In the last five years, Extension has felt the growing pains of a post-COVID world. Our educational programming has moved drastically from in-person classes to Zoom lecture series via smartphones, tablets, and laptops. Podcasts have become a proven tool for educators to disseminate information. They offer flexibility to our listeners, engage diverse audiences, and promote valuable educational knowledge sharing in an easily digestible format. The Garden Thyme Podcast is a monthly educational podcast developed by University of Maryland Extension educators to teach residents about building healthy gardens, landscapes, and communities using sustainable gardening techniques for novice to advanced gardeners in Maryland and the surrounding Mid-Atlantic area. Episodes are approximately 45-55 minutes long and feature a central topic or interview with a specialist, plus 3 recurring segments for native plant, bug, and timely garden tips of the month. Episodes are recorded using Audacity (www.audacity.org) or Riverside (https://riverside.fm/), edited using Audacity, and housed on the podcast Buzzsprout website (https://go.umd.edu/gardenthymepodcast/). The episodes are available for download on iTunes, Spotify, Overcast, Amazon Podcast, and the Buzzsprout website. Transcripts are available for each episode on the podcast website for those with hearing impairments. As of March 2025, 59 episodes have been published, with 11 episodes produced in 2024. The podcast has 29,000 total downloads (~5,200 downloads in 2024). 98% of listeners are from the United States, with minimal international listens from Europe, Asia, South America, and Oceania. In 2023, the podcast launched a listener survey that solicited over 100 responses. Survey participants responded that 74% increased the number of native plants in the landscape, 62% tried growing a new variety of vegetables or edible plants, and 39% performed soil tests based on the knowledge they gained from the podcast.

THE MAINE HAY CONTEST

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Hay is Maine's third most important crop, and most livestock operations rely on it during forage shortages, such as the winter months and summer slump. However, Maine hay producers primarily focus on the quantity produced per area, often overlooking the nutritional quality that affects animal performance later. The Maine Hay Contest program aims to encourage hay producers to evaluate and record the nutritional quality of their hay. The contest covers the costs of sampling, shipping, lab analysis, and interpretation of hay samples from each participating farm. Entries are ranked based on Relative Forage Quality (RFQ), 48-hour digestibility, and crude protein concentration. In its inaugural year, 2024, the contest included 12 participating farms from eight Maine counties. The evaluated hay samples showed an average of 14% crude protein and 63% digestibility, receiving 146 RFQ points. Recognition and awards for the top three quality entries took place at the Maine Forage Conference in November 2024, with 48 attendees. In this first year, 100% of participants expressed satisfaction with the program process; 80% showed interest in improving their harvesting and soil management practices, while 25% aimed to introduce better forage species to their hayfields. Two participants expressed a keen interest in boosting their scores for 2025, and four additional farmers requested to have their hay tested after the competition. The hay contest is set to occur again in 2025, with expectations for 20 operations to participate. Plans are in place to compare each year's results to evaluate the program's effectiveness over time.

YOUTH LIVESTOCK FIELD DAY

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The Adair County OSU Extension "Youth Livestock Field Day" was developed in 2021 to provide an annual educational event focused on youth and the livestock industry. The program's goals were to educate youth on best practices in livestock husbandry, nutrition, health, and management while increasing their awareness of the economic and agricultural importance of livestock in Oklahoma. This awareness is vital for the sustainability of the state's livestock industry. And by investing in youth livestock education, we cultivate informed consumers and future industry leaders who will ensure the sustainability of agriculture for generations to come.

The field days provided an interactive, hands-on learning experience that encouraged both youth and adult participation. Activities included a live cow with the ruminant digestive system painted on her sides, allowing participants to visualize how cattle digest feedstuffs. The nutrition session featured real feed and forage samples, where attendees could handle, smell, and weigh feed while learning about balanced rations. Participants also engaged in manure scoring, learning how animal behavior and manure observations can indicate health issues. They were introduced to common internal parasites and best management practices to reduce parasite loads. OSU Extension's Dystocia Simulators for cattle and small ruminants were used to provide hands-on training in recognizing normal and abnormal birth presentations, helping participants understand when intervention is necessary. Additionally, during one of the field days, participants witnessed Dr. Burton assisting a dairy doe with a difficult birth.

Other activities included an introduction to a Vet Science Skill-a-Thon, demonstrations of low-stress livestock handling techniques, and open discussions with OSU Extension specialists and veterinarians about the impact of the livestock industry in Oklahoma.

Survey results indicated a strong program impact: 100% of youth and adults expressed interest in making the event annual, and participants reported 125% increase in knowledge in livestock management practices, specifically nutrition, digestion, internal parasites and when to assist during calving. Some suggestions for improvement were to include activities with more species (pigs, horses, poultry, etc.). Future sessions will aim to expand content and improve participant engagement.

WESTERN REGION

ENGAGING 4-H YOUTH IN POULTRY EDUCATION IN RURAL UTAH

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The 2025 Hatchling Project is a collaborative initiative between USU Extension, Crosby's Home and Farm, and Valley High School Kane aimed at educating 4-H youth (grades 3-12) on the life cycle of chickens, breed diversity, and the fundamentals of hatching fertile eggs. By providing hands-on learning experiences, the project fosters youth engagement in poultry care, promoting responsible animal husbandry and reinforcing the importance of sustainable, self-sufficient food production within the community. Through this project, participants gain firsthand experience in hatching and caring for baby chicks while exploring the role of chickens as both backyard and farm animals. The initiative also enhances awareness of ethical poultry care and the importance of egg production as a sustainable protein source.

The project involves setting up a temperature- and humidity-controlled incubator at Crosby's Home and Farm and Valley High School, where youth can observe the incubation process. USU Extension provides fertile eggs, an incubator, and a GoPro camera to create a time-lapse recording of the hatching process, further enriching the educational experience.

Throughout the incubation period, volunteers from the Kane Master Gardener Program, Crosby's, and Valley High FFA monitor egg conditions, ensuring a successful hatch rate. Once hatched, Crosby's will provide a temporary facility for the chicks until they are adopted by participants or community members.

By integrating science-based poultry education with hands-on engagement, this project not only nurtures youth interest in agriculture but also strengthens the community's commitment to food security and sustainable livestock management. The Hatchling Project serves as a model for experiential learning in rural communities, demonstrating the value of Extension-driven partnerships in enhancing agricultural literacy and youth development.

BUILDING LEADERSHIP & SUSTAINABLE FOOD SYSTEMS IN COCHISE COUNTY, AZ: A CROSS-DISCIPLINE APPROACH

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Cross-discipline collaboration is central to advancing community well-being in rural Arizona. The "Building Leadership & Sustainable Food Systems in Cochise County" project integrates Family and Consumer Health Sciences (FCHS) with Agriculture and Natural Resources (ANR) to address food system challenges in underrepresented rural communities. Now approaching the completion of its second year in a four-year initiative, this project is designed to bridge gaps between agricultural producers, local distribution channels, and citizens striving to enhance healthy food access. The project fosters leadership development through the Cochise Leadership Academy, identifying and empowering both established and emerging community leaders. Simultaneously, Healthy Community Committees engage a diverse network of partners—ranging from elected officials to healthcare workers and local farmers—to build collective strategies for healthier, more sustainable communities. Early efforts have focused on establishing key relationships, including connecting with local farmer networks like the Farmers Organizing and Creating Opportunities (FOCO) group, and fostering collaborations to expand access to locally produced, sustainable food. Initiatives such as Farm Fresh Fridays and partnerships to implement hydration panels demonstrate the project's commitment to innovative, community-centered solutions. The use of collective impact models, strategic doing frameworks, and deep community engagement practices has been essential to building trust and aligning efforts across disciplines. Despite challenges like producer preferences for bulk sales and barriers to affordable local produce, the project is laying the groundwork for lasting community impact. As the project moves into its next phase, ongoing cross-disciplinary engagement and adaptive strategies will be critical to fostering sustainable food systems and promoting health equity across Cochise County.

ENHANCING HORTICULTURE EDUCATION NEEDS ASSESSMENTS THROUGH ANNUAL TRACKING OF PUBLIC INTERACTIONS

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Needs assessments are a major driver of programs that are created and utilized in extension. These assessments give extension professionals valuable insight into the information that is deemed the most important and useful to the people they serve. A variety of methods are used to collect data for needs assessments such as surveys, interviews, meetings with stakeholders, utilizing past surveys, among others. In Iron County Utah during 2024, interactions with the public was tracked in order to better understand the horticulture needs of Iron County residents. This information was collected primarily from members of the public soliciting help from the local extension office through office visits, site visits, emails, and phone calls. Tracking was done by creating main topics (e.g. fruit trees, vegetables, weeds) brought up by residents and further tracked by marking the need as: informational, a problem, or a how-to question. Information collected has helped faculty understand the overall horticultural needs of Iron County and given further insight about important horticultural issues encountered by local residents. The information gathered will be used as a major consideration when creating future programming and enhancing existing programs such as the Master Gardener course, local workshops and classes.

SCALING UP EXTENSION SERVICES TO SMALL ACREAGE LANDOWNERS AND MANAGERS IN COLORADO THROUGH CSU-NRCS PARTNERSHIP

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Small acreage landowners and managers in Colorado are involved in a broad range of production systems that include land stewardship, traditional agronomic crops, horse ownership and alternative livestock. They also produce vegetables, nursery crops, flowers, specialty crops and homesteading. In recent years, the number of small acreage landowners has been increasing with many coming from a non-agricultural background. These, coupled with Colorado's unique climate, land and natural resource regulations and limitations, calls for a specialized outreach program for the management of these operations. Because of this situation, Colorado State University, and the U.S. Department of Agriculture's Natural Resources Conservation Service came up with the small acreage management program to assist small acreage landowners and managers to make science-based resource (land, vegetation, water, wildlife, soil and recreation) management decisions. Through this partnership, two Regional Specialists provide direct assistance to small acreage landowners through site visits, preparing, conducting, interpreting and reporting applied research. They also prepare and assemble training educational materials with the aim of helping landowners to: (i) identify and implement "best practices" in resource conservation management, (ii) develop sustainable and profitable enterprises, (iii) access best small acreage management practices and resources and (iv) access NRCS EQIP and other conservation practices. The achievements of the program include: (i) non-credit educational programs, (ii) educational events and individual meetings, (iii) site visits, email and phone assistance, (iv) development of conservation, business, drought and other farm management plans, (v) education materials, (vi) workshops and demonstrations, (vii) enhanced relationships with agricultural businesses, USDA agency personnel, CDA, community and other local organizations (viii) webinars, web postings and media outreach and (ix) feedback for continued improvement. Our poster reports on the approach and success of this program.

IAMP-IDAHO EDUCATION & OUTREACH

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The Innovative Agriculture and Marketing Partnership (IAMP) of Idaho, spearheaded by the University of Idaho and supported by a $55 million grant from the U.S. Department of Agriculture, aims to revolutionize farming practices across 200 farms. This collaborative initiative focuses on integrating climate-smart practices such as cover cropping, targeted grazing, reduced or no-till methods, interseeding, precision fertilizer application, and biochar soil amendment. Farmers are incentivized to adopt these practices, with University of Idaho researchers monitoring their impact. The project promotes a tailored approach where farmers select practices from an approved list, catering to their specific needs. IAMP-Idaho seeks a dual impact: reducing greenhouse gas emissions for climate benefits while enhancing sustainability and profitability for growers. This effort involves a diverse coalition including Tribes, underserved communities, commodity commissions, and major companies, embodying a comprehensive strategy for sustainable agriculture. Central to IAMP-Idaho's strategy is its Education and Outreach Team comprising UI Extension Educators and participating Tribes across Extension Districts. They facilitate knowledge dissemination through grower's meetings and field days, showcasing IAMP research efforts and fostering additional outreach opportunities. The team administers a $320,000 IAMP Extension Mini-Grant program, funding 1-year, Extension-led projects supporting the IAMP mission. Initial outreach efforts have already yielded over 200 farm enrollments and funded three mini-grant projects. Looking forward, the grant supports IAMP field days scheduled at University of Idaho Research and Extension Centers in the summers of 2025, 2026, and 2027. Future outputs include UI Extension Bulletins detailing climate-smart practice implementation across Idaho's diverse production environments. IAMP-Idaho exemplifies a model partnership driving sustainable agriculture, harmonizing environmental stewardship with economic viability and community engagement.

SEED LIBRARIES IN NAVAJO AND APACHE COUNTIES

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Starting in 2022, the creation of a seed library in the Holbrook Navajo County Cooperative Extension office blossomed over time to a community of gardeners, community workers and seed enthusiasts. Two years later, another cooperative extension office seed library and three partner libraries joined the program. The seed libraries are all located in Apache and Navajo counties, which hold some of the most rural areas in Arizona, and are also home to the Hopi, Dine', Zuni and White Mountain Apache. Fresh fruits and vegetables can be difficult or expensive to obtain, and the cost to travel to towns that provide affordable groceries can exceed two hours for many residents. Providing no cost and high quality open pollinated seeds to the community to improve access to fresh produce is slowly showing an increase in resident self-sufficiency, seed saving and confidence in growing vegetables in backyards and other garden areas.

INTEGRATED WEED CONTROL FOR CEREAL GRAIN CROPPING SYSTEM

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Weeds and herbicide resistant weeds are the single greatest barrier farmers in the dryland cereal grain cropping region of the Inland Pacific Northwest face in today's agriculture and is a large threat to conservation tillage moving forward. I have dedicated a large portion

of my time to providing and facilitating research and outreach to this significant challenge farmers face. In my region, downy brome (Bromus tectorum) resistant to Group 2 and Group 9 herbicides is the biggest issue; however, my program is focused on the larger problem across eastern Washington. My efforts include using the WSU Wilke Research and Extension Farm and large-scale research to 'show-and tell' farms how they can economically use a long-term cropping plan to get multiple effective herbicides onto the ground, and how to use targeted tillage to enhance winter annual weed control for an integrated approach. My program is also looking at biological weed control for enhanced long-term control in a series of large-scale demonstrations across the dryland wheat producing region of Adams County. This barrier farmers face will truly take a combination of chemical, physical and potentially biological methods to maintain economically viable winter wheat production. Over the last two winter grower meeting seasons I have presented trial results and WSU Wilke Farm experiences at 37 meetings to over 2,200 participants and have started to see adoption of these practices.

BREAKING BOUNDARIES TO COMBAT INVASIVE SPECIES- A PARTNERSHIP USING VIRTUAL FENCING TO TARGET GRAZE PHRAGMITES

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Phragmites (Phragmites australis) is an invasive species that thrives in wetlands, forming dense mats of vegetation that can overtake these environments. Once established, Phragmites outcompetes native plants, altering both the biotic and abiotic components of wetland ecosystems. Phragmites is one of the major threats for the Great Salt Lake Ecosystem, which is the terminus for the Great Salt Lake watershed which encompasses 22,000 square miles of land in Utah, Wyoming, Idaho and Nevada. The Great Salt Lake has dense stands of phragmites which create conditions that are unsuitable for many wetland dependent avian species that depend on open wetland habitats. The Great Salt Lake is a critical habitat for 250 species of waterfowl, shorebirds and songbirds. It is estimated that 10 million birds use the Great Salt Lake annually. To combat the increases of phragmites, Grazing has proven effective in reducing and managing Phragmites, but managing livestock distributions in wetland systems across various property boundaries with traditional fencing is problematic. Utah State University Extension teamed up with multiple stakeholders including the U.S. Fish and Wildlife Partners Program, Bear River Bird Refuge, Utah Department of Agriculture and Food, Utah Division of Wildlife Resources, The Nature Conservancy, Northern Utah Conservation District, as well as private landowners and ranchers, to demonstrate the use of virtual fencing for targeted grazing of Phragmites as a new technology that will enhance the management of grazing to manage phragmites. In order to maintain the critical wetland habitats and healthy watersheds properly managed grazing could provide a watershed scale solution to phragmites invasions and return functional avian habitats the Great Salt Lake Ecosystem.

SOUTHEAST RANCHERS WORKSHOP

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In the ever challenging business of livestock production, producers are consistently looking for options to improve performance and profitability. Staying current with innovative technology and new information can be overwhelming and time consuming. Producers are constantly bombarded both on the internet and in trade journals with new looks at technology and production management decisions. Universities and industry are constantly developing and researching new ways to improve performance or solve underlying issues. Producers looking for new ways to improve efficiency they prefer to work with an agency or individual they trust. Especially when it comes to changes involving technology and production management decisions. The county agents worked to create a regionally relevant workshop for area livestock producers in Southeastern New Mexico. Live workshops are preferred by many producers, with demonstrations especially when it comes to new technology. Which is what the agents did by bringing specialists and other experts that have personally utilized the technology they were demonstrating. The agents opened discussions on E-Collars and Virtual Fencing applications, Remote Water Monitoring, Range Weed Management, Antimicrobial Updates, Beef Cattle Marketing, and updates from the New Mexico Beef Council.

NORTH CENTRAL REGION

HARVESTING SOLUTIONS: HOW QUESTION SERVICES BOOST WISCONSIN AGRICULTURE

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To ensure the University's resources are accessible to everyone in every county, regardless of Extension staffing, a statewide agriculture question service was established. This service provides research-based responses to inquiries from people across Wisconsin through online forms, email, and phone calls. After a year of public launch, a survey was conducted among those who reached out with agriculture-related questions, asking about their experience and any behavior changes resulting from using the system. This poster highlights the survey results and provides an overview of the types of questions asked. Based on these results, we can improve the system, review the research and resources provided, and develop standardized responses to common questions, which can then be utilized by all those assisting with agriculture questions in the state.

OUTREACH AND IMPACT OF OHIO'S WOMEN IN AGRICULTURE LEARNING NETWORK

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Since 2014, the Ohio Women in Agriculture Team (OWIAT) has provided extension resources and programs to Ohio women producers through the Ohio Women in Agriculture Learning Network (OWIALN). During this time, the number of farm operators in Ohio has increased 15% to over 132,000 individuals with one out of three being female (33%). Collaborative team efforts enabled OWIALN to address a variety of risk management education topics important to Ohio women interested in food, agriculture, natural resources, and small business. OWIALN has grown and expanded to include: 1.) annual outreach opportunities at Ohio's largest farming venue, the Farm Science Review 2.) regional conferences focusing on risk management topics, mentoring, and youth engagement 3.) traditional risk management education through Annie's Project and Inspired by Annie's Project programs such as Women for the Land programs 4.) and innovative outreach efforts such as Kitchen Table Conversations, Wednesday Women in Agriculture webinars, and social media networks. Each outreach effort and its impact will be featured. Through creative and innovative programming, the OWIAT and OWIALN efforts have strengthened communication skills, enhanced management skills, and created local networks for Ohio women involved in all aspects of agriculture for the past decade.

CONNECTING MENTAL HEALTH RESOURCES WITH FARMERS AFFECTED BY HPAI

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During early 2025, Highly Pathogenic Avian Influenza spread through the counties of Mercer and Darke of Ohio. At the time of submission, there were a total of 74 outbreaks that occurred in the region, causing producer to depopulate their flocks and facilities sit empty, while following USDA and ODA protocols. Poultry producers and other farmers in the agricultural industries began to see the impacts of empty barns, rising cases of HPAI, and financial concerns. OSU Extension Educators in the region looked for methods to address and assist the mental health concerns of these producers and other affected by HPAI. A workshop was held on March 5, 2025, for employees of county agricultural agencies, key agricultural companies, agricultural lenders and others to

educate best practices when communicating with farmers under stressed conditions. Other outreach programs including booths at local agricultural retail stores and providing display materials for mental health assistance. The educators worked with Ohio Mental Health Addiction Services to promote 988 in various manners as well.

SENATE BILL PLANTED THE SEED TO GROW YOUTH FARMERS IN URBAN AREAS OF OHIO

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Efforts in authoring an Ohio Senate Bill has led to a state-funded initiative designed to cultivate the next generation of agricultural leaders in Ohio's urban communities. Backed by a unique funding mechanism written into the state budget through the Department of Higher Education, the bill and subsequent language and intent was sponsored by Senator Paula Hicks-Hudson (Toledo, Ohio). This pilot project engaged youth in hands-on farming, agricultural education, and entrepreneurship.

Funding was purposefully allocated to both Ohio's Land Grant institutions - Central State University (CSU) and Ohio State University (OSU), ensuring institutional expertise to guide program implementation through each University's Extension Services. A mandated percentage of the funding was directed to local farm partners to fostering sustainable, community-driven agricultural development and growth in each urban community.

This initiative established 10 unique pilot programs at urban farms in five Ohio Counties. OSU partnered with three urban farms in Lucas and Summit Counties, each with tailored approaches to youth engagement in urban farming. The farm partner played a critical role providing mentorship, training and saw improvements to their farms. The Lucas County program operated under a 4-H SPIN Club Model, integrating multiple topics involving the entire extension team, including AgNR, FCS and 4-H program areas.

In contrast, the Summit County program prioritizes direct financial incentives to youth and transportation to support increased accessibility and participation with two partners in the county. Both counties utilized funds for hiring key personnel at each partner location, farm upgrades, tools, and social media engagement, but their resource allocations reflected differing priorities.

By bridging policy and practice, this initiative empowered youth, strengthened food systems, and invested in Ohio's future agricultural workforce, reinforcing the state's leadership in urban farming innovation. The results of OSU's involvement will lead to the creation of program opportunities based upon the pilot project experiences – a menu of sorts that can be implemented as individual pieces, or in its entirety.

EAST OHIO WOMEN IN AGRICULTURE CONFERENCE-A DECADE OF GROWING CONFIDENCE AND CONNECTIONS

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The 2022 USDA Census of Agriculture shows a significant number of female farm operators for the Eastern Ohio region. According to an Ohio State University College of Food Agriculture and Environmental Sciences (CFAES) article on the Characteristics of Ohio Farm Women, female farmers in this region of the state comprise 33-39% of total agricultural producers. The East Ohio Women in

Agriculture Conference was developed in 2014 to meet the unique learning needs of farm women, address agricultural risk management education and grow confidence and connections through educational programs and activities for all ages of women to build independent and productive lives. The conference is managed by a small multi-disciplinary planning team of area Extension Educators in the agriculture and natural resources, family and consumer sciences, and 4-H youth development program areas. The team uses a framework that is comprised of tracks with four break-out sessions per track. This year's conference will feature six tracks for a total of 24 breakout sessions. 2025 educational tracks focus on plants, animals, business and finance, special interest, home and family. and personal development. Additional components of the framework include a breakfast with networking and vendor fair, morning welcome, buffet lunch and keynote speaker, and closing with door prizes. The team has planned 11 and hosted 10 in-person conferences since 2014 reaching more than 1200 participants. One virtual conference was held in 2021 and one conference had to be cancelled in 2020 due to the COVID pandemic. Each year an overall program evaluation by participants is conducted, as is each breakout session and speaker. In 2018, a 5-year in-depth participant evaluation of conference impacts was completed. A 10-year participant evaluation survey is in development to measure impact over the period of 2014-2025. The East Ohio Women in Agriculture conference continues to be the only conference of its kind held in Eastern Ohio. Over one-third of conference participants have returned for multiple years. One of the participants from last year's conference stated, "As someone who is new to the industry, it was great being with like-minded women."

EMPOWERING UNDERSERVED URBAN FARMERS: INTEGRATING POULTRY PRODUCTION

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In urban areas with limited access to fresh food, small-scale farmers face unique production, marketing, financial, legal, and human resource risks. Many are first-generation producers from socially disadvantaged groups, historically underserved by USDA programs, and work on minimal acreage with limited technical guidance.

This USDA's Office of Partnerships and Public Engagement funded program, Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers Program, led by MU Extension and local NGOs, offered specialized hands-on workshops to integrate poultry production into urban farming operations. Participants learned practical techniques in flock health and husbandry, humane on-farm processing experience—including scalding, plucking, evisceration, and further cut-up—and gained insights into navigating regulatory frameworks. The workshops also addressed marketing strategies, permitting requirements, and community engagement, ultimately fostering greater sustainability and resilience.

Participant survey data indicated significant improvements in poultry processing knowledge and skills, which translated into meaningful practice changes and creating new production and marketing opportunities. Farmers reported greater confidence in processing poultry for personal use and expressed interest in direct-to-consumer sales. These outcomes reflect an enhanced capacity to diversify urban farming enterprises, mitigate production risks, and strengthen local food systems.

By empowering underserved urban producers with targeted, scale-appropriate education, this initiative demonstrated a viable model for improving multiple dimensions of agribusiness risk management. Conference attendees will learn how this integrative approach can help small-scale producers overcome barriers, expand product offerings, and bolster the financial, production, marketing, legal, and human aspects of their operations—ultimately supporting more resilient and sustainable urban farming.

FARM PULSE – CROP INSURANCE AND GRAIN MARKETING

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The Division of Extension University of Wisconsin-Madison Farm Pulse program lacked an online curriculum on crop insurance and grain marketing decision making. A new pilot program curriculum was developed by adapting and updating former University of Wisconsin-Extension AgVentures materials. A North Central Extension Risk Management Education grant was secured to assist in creation and development of new materials. The purpose of this curriculum was to increase learner knowledge in crop insurance and grain marketing through a hybrid course of in-person and online educational programs. The online course was offered through Canvas while in-person meetings were held statewide at three locations. Course objectives were to help participants establish economic fundamentals of grain production, risk management, and development of a grain marketing plan. Participants were to understand and apply risk management tools and cost of production analysis to determine break even prices. Applying fundamental and technical analysis to achieve marketing plan goals was reinforced through a grain marketing game to simulate price and crop production risk. Topic areas addressed in the course included risk management, crop insurance, and grain marketing techniques. The course provided guidance with identifying production and marketing risks to assist with grain marketing decisions. A series of videos were created to enhance the learning from the Canvas Course and in-person workshops. Over 155 participant views were recorded during course. Evaluation data collected from participants who completed the full curriculum in northwest Wisconsin indicated 83% of responses agreed or strongly agreed that learning or use of information increased. Plans include adding content for organic farms, women, and underserved audiences.

EXPLORING WILD MUSHROOMS & MACROFUNGI IN EXTENSION EDUCATION

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Whether driven by a desire to understand the natural world or to forage, the demand for accurate and science-based information on wild mushrooms has remained strong in recent years. Currently, resources provided by Extension on this subject are limited compared to other subject areas. Therefore, a need was identified for building more comprehensive, scientifically-backed resources for those interested in learning more about wild mushrooms, including landowners, foragers, gardeners, and nature enthusiasts. To address this gap, educational opportunities focusing on wild mushrooms and macrofungi in Ohio were developed from 2017 to 2025. These opportunities, held in 23 counties across Ohio, included in-person lectures, seminars, webinars, and classroom-based workshops with hands-on specimen identification. Additionally, fungal forays—coordinated outdoor classes allowing participants to collect and identify their own mushrooms—were held when weather permitted. Presentations and activities were also integrated into existing programs, including Master Gardener Volunteers and Ohio Certified Volunteer Naturalist trainings and continuing education through webinars and workshops. Participants not only learned to identify mushrooms but also about the ecology and roles fungi play in our ecosystems. These educational sessions were offered by county Extension offices or hosted by 19 partnering agencies or organizations. Feedback indicated a desire to see more mushrooms included, with initial evaluations showing interest in learning about species beyond the handful of common edible fungi. To date, 2,104 people have participated in these events, with more events planned for the future that will dive deeper into the world of fungi.

CERTIFYING FINANCIAL LITERACY FOR USDA/FSA BORROWERS

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Farmers and ranchers often have irregular income and obtaining enough financing at the right time is critical to the success of their businesses. Nationally, farm real estate debt is expected to reach $374.2 billion, and farm non-real estate debt is expected to reach $187.6 billion in 2025 (USDA ERS, 2025.) The debt-to-asset ratio is forecast to increase while working capital is forecast to decrease from 2024. Extension has an important role in supporting smaller and newer farmers and ranchers as they navigate debt in challenging times. One way to improve outcomes is to work with the USDA Farm Service Agency to educate borrowers. The Iowa State University Extension and Outreach Financial Decision Making course is designed to increase the financial literacy of farm and ranch borrowers. The course helps borrowers develop and improve skills that are necessary to successfully operate a business and build equity in the operation. Completion of the course satisfies the Farm Service Agency mandatory borrower education requirements. Borrower certification is provided directly to FSA loan officers. The 10-12 hour course is designed to be completed online. A correspondence version is also available. There are eight financial exercises and eight online quizzes covering net worth statement, income statement, analyzing financial statements, production record analysis, financial trouble shooting, 12 steps to cash flow budgeting, cash management, and financing alternatives. As the instructor and administrator of this course, I personally work with students of diverse backgrounds and education levels to ensure the learning objectives are met. Currently there are over 300 active students in the course. In the past three years 111 students graduated from the course. After completing the course, most graduates create a detailed cash flow budget for their own farm and ranch operation. After completing their own digital cash flow budget analysis, it can easily be modified on an annual basis. When extension supports smaller and newer farmers through financial education, they can make good decisions that lead to prosperous farm and ranch businesses and a stronger rural economy.

MANAGING RISKS IN BEEF PRODUCTION: TOOLS FOR ON-FARM FINISHING AND DIRECT-TO-CONSUMER MARKETING

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This poster highlights key resources from the University of Missouri Extension's Value-Added Meats Team to help beef cattle producers manage financial and market risks associated with selling beef direct-to-consumer. The primary objective of these resources is to provide producers with tools and strategies for evaluating local beef marketing opportunities, assessing the financial viability of these enterprises, and successfully implementing them into their operation. Evaluating Direct-to-Consumer Marketing Opportunities for Local Beef in Missouri provides strategies for selling beef. It covers pricing structures, market channels, and operational considerations, enabling producers to make informed decisions about entering local beef markets. The On-Farm Beef Finishing Planning Budget is a practical budgeting tool that helps producers evaluate the costs and profitability of retaining ownership from calving through finishing. This tool includes variables such as feed, labor, and marketing costs, allowing producers to assess the financial viability of selling live fed cattle, beef shares, or individual cuts of beef. Additionally, the 5 Steps to Buying Meat Direct from the Farm guide helps producers educate consumers on topics such as dressing percentages, freezer space requirements, and inspection programs, fostering better understanding and stronger connections in local markets. Each of these resources has garnered significant interest, with 11,319 combined views and downloads, reflecting

their value to Missouri producers. By utilizing these tools, producers can better understand the financial dynamics of direct-to-consumer beef marketing. Together, these resources empower producers to make informed pricing decisions, ensuring they charge enough to cover costs and achieve profitability. They also support marketing decisions by helping producers compare the financial implications of selling beef shares versus individual cuts. Expected outcomes include reduced financial uncertainty, smarter decision-making, and improved profitability, enabling beginning farmers, ranchers, and those expanding their operations to thrive in the competitive beef industry.

FARMER TO FARMER BAHAMAS

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The Bahamas is made up of about 700 islands and home to about 400,000 people. Tourism is the number one industry. Fishing and farming make up a small percentage of the Gross National Product. In 2019, Hurricane Dorian, a Category 5 hurricane, hit the Bahamian Islands and caused extensive damage, especially on the island of Abaco. In 2020, Covid-19 had a major impact on the country's economy as tourism came to a halt. Transportation issues and importing food became a problem. The Bahamas imports about 92% of their food. Finding ways to grow their own food and sell it as a business become a priority. An emphasis on tourism in recent decades pulled people away from the agriculture industry. As a result, there are fewer people involved in agriculture which resulted in a loss of agriculture knowledge and farming practices. The hurricane and pandemic presented a great need for increased local agriculture production and sustainable food sourcing. Through the Farmer-to-Farmer Program, Convoy of Hope connected United States based agricultural expertise with local producers and consumers in the Bahamas. Since its founding in 1994, Convoy of Hope?has served as a faith-based, nonprofit organization with a driving passion to feed the world through children's feeding initiatives, community outreach, and disaster response. In partnership with local churches, businesses, civic organizations, and government agencies, Convoy strategically offers help and hope to communities around the world.?They contacted University of Missouri Extension for assistance in providing educational resources to the people of the Bahamas. Nine teams of two agriculture specialists were organized for 2-week visits over 11 months to the islands of New Providence, Grand Bahama and Abaco. Morning trainings for commercial producers and backyard farmers were held simultaneously on a variety of horticulture and agriculture business topics, with afternoon field trips to supplement what was learned in the training. As a result, many Bahamians have started backyard farming to grow their own food and become more sustainable. They learned the importance of being productive, efficient and keeping good records. Two companies went back into commercial farming as a result of what they learned.

MEETING THE NEEDS OF OHIO ORGANIC GRAIN GROWERS

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Historically, Ohio organic grain growers have had limited opportunities for professional development in organic farm management and agronomy. Nationally, Ohio ranks 5th in the total number of organic farms and 6th in the number of acres in transition to organic. Ohio has over 850 organic grain farmers on 111,000 certified acres.

To address the needs of these growers, the OSU Organic Grains Conference was developed in 2023 with an Extension planning team with input from consultants and growers. The conference, now preparing for its 4th year, focuses on meeting needs of commercial organic grain growers and crop consultants in the Eastern Corn Belt.

This presentation will discuss the conference planning and delivery strategy including development of the educational program, sponsor-vender partnerships, organic food sourcing, and program marketing. It will also summarize the impact data collected from the conferences including knowledge gain and further research needed. Preliminary data from the 2025 conference show that attendees came from seven states and Canada and represented over 49,000 acres of certified organic grain production. Ninety-six percent of farmers surveyed indicated they learned at least one new practice that will improve their farm.

USING GENOMICS AS A DECISION-MAKING TOOL FOR COMMERCIAL REPLACEMENT HEIFERS

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Genomic testing can save beef producers time and money when deciding which heifers to retain within their herd, especially for commercial herds where in-depth sire and dam data may not be available. Genomic reports can be difficult to understand. The Regional Livestock Educator (RLE) developed a publication that explained the benefits of using genomics technology in commercial beef herds and provided a comparison of two commercial heifers with step-by-step interpretation of their respective genomic reports. The publication was also adapted into a shorter article for the Wisconsin Agriculturist magazine, where the benefits of genomics were explained. In order to generate real-world data for the publication, the RLE worked with the station superintendent at the UW-Madison Lancaster Agricultural Research Station to collect hair follicle samples from 11 replacement heifers in the UW beef herd. The RLE also photographed all heifers to demonstrate how physical appearance (phenotype) does not always align with genetic merit (genotype), reiterating the value of genomics for replacement decisions. Based on genomic results, the RLE selected the top and bottom animal from the group to compare in the publication and magazine article. The publication and overall concept of using genomics as a selection tool were conveyed to producers via face-to-face workshops, webinar, farm visits, websites, social media, print, and radio. There were 541 direct interactions with the content and an additional 515,000 potential audience reach due to radio broadcast and print circulation. The information generated dialogue amongst producers about using genomics technology in their operations, and even prompted producers to call the RLE with questions about genomics for their herd.

COUNTRY CURED HAMS - A MISSOURI TRADITION

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Supply chain issues caused by the pandemic created a renewed interest in homesteading and learning how to cure hams at home. In response to this interest and to ensure proper food handling and safety, the “Country Cured Ham Workshop” was created and successfully delivered in 11 counties in southwest Missouri. These workshops were taught 23 times with 1,076 attendees between January 2020 and January 2025. These courses were advertised to two distinct audiences 1) adults eager to learn about home food preservation, and 2) youth in 4-H and FFA. Learning objectives included: raw ham selection, when to cure a ham, curing mixture, curing process, aging process, preparing for exhibition, cold smoking, ham storage, and cooking instructions. At the end of each workshop, attendees were able to keep their ham. Workshops like this connect people more closely to their food, back to the farm, and to local community resources like Extension. When surveyed, 100% of respondents would recommend the workshop to others. A special outcome from this program is multiple youth participants chose to exhibit their hams at county and regional fairs. Ninety-five percent of the country cured hams selected for the Gold Buckle Gala at the Ozark Empire Fair were hams created in one of these workshops! Over the last five years, hams created in one of these workshops and selected for the Gala sold for a combined total of $242,500. In addition to curing workshop, participants were invited to attend informational sessions of what to expect during the aging process where they were able to ask specific questions about what they were seeing on their hams. A final ham trimming workshops were conducted to education youth and adults on exhibiting their hams. Workshop attendees attend year-over-year and introduce additional community members to the joys of county cured hams.

ADVANCING SMALL RUMINANT PRODUCTION: A PORTFOLIO MODEL FOR RISK MANAGEMENT EDUCATION

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The Advancing Small Ruminant Production portfolio of programs addresses the evolving needs of Missouri's small ruminant industry, focusing on risk management education for both beginner and advanced sheep and goat producers. As interest in small ruminant production grows, producers face unique challenges and opportunities in a competitive agricultural market. Missouri ranks 14th in sheep and lamb inventory and 2nd in meat and other goat inventory as of 2024, rising in the past ten years from 17th and 5th respectively, underscoring the state's growth in these sectors.

The portfolio addresses financial, production, marketing, legal, and human risks through training on topics such as budgeting, cost analysis, cash flow management, herd health, multi-species grazing strategies, market outlooks, value-added opportunities, record-keeping, resource allocation, and succession planning. Educational activities are delivered via workshops, webinars, and collaborations with stakeholders such as Lincoln University Extension, the Missouri Sheep Producers Association, and the Goat Expo. Over the last three years, the portfolio has reached 1,160 participants through 17 events. Pre- and post-surveys demonstrate a significant increase in knowledge and confidence in applying risk management strategies. Planned practice changes include adopting production records (64%), starting new value-added enterprises (63%), and stating they would add sheep (30%) or goats (33%) to a cattle enterprise.

By addressing critical risks, the portfolio supported the development of a more resilient and sustainable small ruminant industry in Missouri. This comprehensive approach to risk management education serves as a model for empowering agricultural producers and fostering informed decision-making.

ACHIEVING SUCCESS UTILIZING COMPREHENSIVE LEARNING STRATEGIES WITH MISSOURI BEGINNING SOCIALLY DISADVANTAGED AND VETERAN FARMERS

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University of Missouri Extension mobilized current and prospective Missouri beginning socially disadvantaged and veteran farmers and ranchers with grant assistance from the USDA National Institute of Food and Agriculture (NIFA). Using a multifaceted approach to agricultural education this program provided in person hands-on classes utilizing the experiential learning model, agriculture focused team-to-one technical and business consultations, classroom workshops to introduce key business concepts and farm tours to learn with and from successful farmers. University of Missouri Extension delivered programming as a team, leveraging expertise from field specialist in agriculture business, livestock, horticulture, health and human sciences, natural resources, and workforce development. Missouri's project worked with 691 socially disadvantaged, 1,710 beginning farmers, and 1,160 veteran farmers over three years.

Short-term outcomes were tracked and measured using post-surveys at each event. Post-survey data indicated participants increased their knowledge. Workshops, classes, trainings, and Team-to-one coaching all were useful and supportive of farmers. Client farmer and rancher feedback and post-program evaluations indicate increased use of resource conservation and sustainability practices among beginning socially disadvantaged and veteran farmers and ranchers through formal education, informal training, and Team-to-one coaching.

Long-term outcomes and measurable impacts include the project assisting beginning socially disadvantaged and veteran farmers and ranchers to have greater on-farm income, greater diversification on farm landscapes, enhanced farm sustainability through product diversification, and enhanced stewardship of farm resources by utilizing USDA farm programs. Project participants felt confident to seek outside capital through grants with twenty-four farmers completing applications for the first time. Farmer participants were able to hire employees during the project resulting in ten on-farm jobs created. The economic benefit for those who received personalized technical and business consultations was more than $10,900 per farm. The project worked towards enabling farmers to create sustainable businesses for long term economic success.

BROWN L.E.A.D.S.: PLACE-BASED LEADERSHIP

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Brown L.E.A.D.S. (Leaders Educating, Accelerating, And Developing through Service-Learning) is a comprehensive place-based leadership program designed for business professionals who are passionate about making a positive impact in both their professional and local environments. This program aims to empower individuals to lead with integrity, educate through continuous learning, accelerate personal and organizational growth, and foster development through meaningful service-learning experiences. By equipping participants with the necessary skills, knowledge, and resources to create a dynamic network of leaders who collaborate, innovate, and contribute to the sustainable development and well-being of Brown County and beyond. Business leaders come from both rural and urban interfaces in the county. Business professionals will gain a sense of community and promote remaining in the county to live and work. This is accomplished through a10-month leadership development program partnered with the Brown County Chamber of Commerce and OSU Extension Brown County. Educational activities in the place-based program include a leadership component and service learning. Through the development and implementation of this program, multiple community partnerships have been developed. This has been made possible through both presenters and folks opening their businesses for sessions to foster the place-based component. The program is off to early success, 98% of participants have indicated in post class evaluations gaining more county knowledge than expected. The total community support dollars for Brown LEADS is approximately $25,000, this does not include the economic impact of the retained trained business leaders living and working in their home communities. Overall, participants indicated they had positive knowledge gains in the program and benefited from participating.

A NATIONAL TRACTOR SAFETY TRAINING WEBSITE: AN ONLINE LOCATION TO SUPPORT TRAINING AND TESTING RESOURCES

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A national tractor and machinery safety training website was established to create awareness for training resources, testing options, and provide support for instructors in Extension and Ag Science classrooms who teach young tractor operators about safe operation of agricultural tractors.

A website of this nature has a broad target audience. Whether it is a young worker looking for a certification class, a parent or employer needing to understand the types of training required for youth employment, or an Extension educator/ high school agriculture teacher seeking training resources, the website contains relevant content to answer their questions. The website also has application for rural landowners, new and beginning farmers, and farm supervisors seeking training resources for general safety equipment operation.

The purpose of a national tractor safety training website is to promote training information in one comprehensive location, providing links to national resources. A function

of this site is to provide non-biased, credible and reliable information for tractor and machinery safety training programs, as well as training requirements for agricultural employees 16 years of age and under.

Tractors and machinery are the primary equipment used in agriculture, and also the leading cause of injuries on farms and ranches. This website helps identify training resources, certification programs (including testing processes), and best practices for safe operation of agricultural equipment. The site also highlights youth training requirements of the federal Hazardous Occupations Order in Agriculture.

Having an established national website helps promote tractor and machinery safety resources and training requirements for agricultural workers. The ultimate goal is to improve safe operation of agricultural equipment.

WILDLIFE AND THE OUTDOORS, FROM THE CLASSROOM TO NATURE

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Iowa has a rich agricultural history that has shaped the culture and economics of the state and its people. Natural Resources education is lacking within schools' science curriculum and agriculture classes. To create a balance between agriculture and natural resources education, I created the Wildlife and the Outdoors curriculum. This class used two existing programs frameworks, the adult Master Conservationist Program and the youth Wildlife Habitat Education Program. This unique class was offered at the IGNITE Pathways Regional Center, a Career and Technical Education facility. Harrison County is a rural county dominated by row crop agriculture but blessed with distinctive landscapes. The Wildlife and the Outdoors class taught ninth grade students using classroom and field outings focused on conservation practices, soils, landforms, and forest/prairie/aquatic ecosystems management and the wildlife found in these ecosystems. Post-class survey results showed that awareness of natural resources increased, and knowledge of the proper management of those critical resources increased too. This curriculum was effective in integrating natural resources education into agricultural classes, with the opportunity to expand throughout Iowa and the Midwest.

FLOWERSINSEASON.COM

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In 2021, Central State University Extension (CSUE) was approached by Ohio Cut Flower Growers to help address a recurring challenge: buyers frequently requested unavailable flower species. This issue stems from a market largely driven by imports from Central and South America, where flowers are grown and supplied year-round. Ohio cut flower growers, however, operate within distinct seasonal constraints, making it difficult to compete in an on-demand market. To stay competitive, local growers specialize in niche flowers with varying shelf lives, favoring direct sales that enhance sustainability and reduce carbon footprints—an approach well-aligned with environmentally conscious consumers.

Recognizing the need for a solution, CSUE and five Ohio Cut Flower Growers applied for and received a Sustainable Agriculture Research and Education (SARE) Partnership Grant in 2022. This grant supported the development of a digital tool to bridge the gap between growers and buyers. Toward the end of 2022, CSUE engaged MarketMaker, an established web-based agricultural marketplace, to explore modifying its "What's in Season" produce-tracking application for the cut flower industry. This new adaptation required additional functionality, allowing buyers to not only see what flowers were currently in season but also project future availability. Given that flower selection is often based on color as well as species and variety, the application also needed a filtering system for color-specific searches.

Throughout 2023, the partnering growers collected and provided extensive planting and harvest data on various cut flower species cultivated across Ohio. This data was essential in mapping out seasonal availability, accounting for factors such as the use of protected culture (e.g., high tunnels, low tunnels, and greenhouses), which can extend bloom periods.

By 2024, MarketMaker completed the framework for

the cut flower database and digital application. Testing commenced with Ohio growers creating profiles and inputting data, while additional growers were recruited to refine the tool. The resulting application, FlowersInSeason.com, is designed to enhance market accessibility for cut flower growers nationwide. Over time, it aims to strengthen grower-buyer relationships, foster grower-to-grower collaborations, raise consumer awareness of sustainable flower purchasing options, and bolster the U.S. floriculture industry as a whole.

THE MISSOURI PRODUCE GROWERS VIDEO NEWSLETTER: ENGAGING, IMPACTFUL & REPLICABLE EXTENSION EDUCATION

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Maintaining impactful, ongoing digital engagement with specialty crop farmers is challenging. Extension educators must compete with social media content creators to capture and hold audiences' attention. Farming information found on social media often lacks supporting research and may be informed solely by the creator's opinions. The bi-monthly Missouri Produce Growers Video Newsletter (MPGVN) was developed in 2020 by a team of six horticulture educators to support the adoption of research-backed farming practices by Missouri's specialty crop farmers, and to serve as a resource hub for the specialty crop industry. A video-based format was chosen to engage learners who prefer educational videos over written content. Newsletter issues are created using the Dotdigital engagement platform and consist of five to seven educational videos three to five minutes long. The interdisciplinary content includes live shot recordings and narrated PowerPoint presentations. Resource hub content includes a "Contact Your Local Horticulture Specialist" map, lists of upcoming classes, grants, publications, partner agencies, and email listservs for growers. In 2023, a survey to assess impacts of the newsletter was sent to 948 subscribers using the Qualtrics survey tool, with a 14% response rate (N=132). Of respondents, 55% identified as "currently growing and selling produce or growing produce and planning to sell in the future" (growers). The survey showed that of growers; 85% indicated knowledge gains; 78% reported adoption or change of farming practices; 63% attended an extension class; 56% connected with a partner agency; 23% applied to grants; and 5% received grant awards, thanks to information delivered in the newsletter. Additionally, an analysis was performed to assess MPGVN subscriber engagement. Email newsletter engagement metric data, tracked by issue in Dotdigital, was collected for issues released from 2020-2023.
The MPGVN engagement metrics relative to industry benchmarks for educational email newsletters are higher by (66%) for unique opens, (190%) for unique clickers, and (77%) for click-to-open rate. The MPGVN is an effective educational tool and resource hub supporting knowledge gain and adoption of research-driven farming practices. The engaging content and format of the MPGVN can be easily replicated by other Extension programs to support their state's specialty crop industry.

FOOD SAFETY MODERNIZATION ACT FOR ANIMAL FEED FACILITIES

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The Food Safety Modernization Act (FSMA) animal feed safety division requires feed mills and elevator firms to develop and maintain documentation on the firm's current good manufacturing practices for processing and retail animal feed.

My objective with FSMA is to provide an affordable service to small firms, which helps sustain healthy communities, while adding tax dollars to local and state economies.
In 2017, I became certified as a Preventive Control Qualified Individual and created a plan manual template which includes a feed safety plan modifiable for each firm's unique manufacturing practices. These manuals also contain firm specific documentation and forms that firms use to record trainings and compliance with FSMA

guidelines. I provide routine consultations to help firms document changes in firm operations or interpretations of FSMA regulations by state agricultural feed inspectors.

In 2021, the Missouri Agricultural and Small Business Development Authority released a study of Missouri's agriculture and forestry industries, and the impact these industries added to the state's economy. This study reported that the animal and pet food processing sector contributed $3.8 billion to Missouri's economy and accounted for 37,078 jobs in the state. From 2017 to current time, a total of 4,063,526 tons of livestock feed and pet food were manufactured by 40 firms that I consulted. This tonnage has resulted in a total economic impact of $1,959,608,968 added to Missouri's economy.

STRATEGIC PLACEMENT OF EMERGENCY RESPONSE TO ACCIDENTS INVOLVING LIVESTOCK (ERAIL) RESPONSE TRAILERS AND SUBSEQUENT TRAILER TRAININGS ACROSS MICHIGAN

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Livestock-related emergencies can occur unexpectedly, requiring quick and effective response to ensure both animal welfare and public safety. The Emergency Response to Accidents Involving Livestock (ERAIL) program, led by Michigan State University Extension (MSU Extension), aims to support Michigan's animal agriculture industry by providing resources and training for first responders, animal haulers, and local stakeholders on how to manage livestock-related accidents effectively. In 2024, the MSU Extension ERAIL team strategically placed five additional ERAIL response trailers throughout Michigan near known livestock transportation routes for a total of eight statewide. Counties where ERAIL trailers were placed in 2024 included: Berrien, Gratiot, Lapeer, Midland and Monroe counties. Along with the placement of these trailers, the MSU Extension ERAIL team delivered a series of ERAIL trailer training events. ERAIL trailer training is designed to 1) create awareness that ERAIL trailers exist and how to access this resource and 2) familiarize first responders with the trailer equipment by providing scenario-based activities while utilizing the ERAIL trailer and equipment as an educational tool. Since 2021, the MSU Extension ERAIL team has completed seven trailer training sessions with a total of 127 participants completing the trailer training. Post survey responses indicate that 96% of participants increased their knowledge of the ERAIL program, including where trailers are located, how to access the trailer and use the equipment. ERAIL trailers have been deployed to accidents involving livestock on multiple occasions throughout Michigan. Cooperation and coordination between various organizations and individuals has brought the ERAIL response trailer resource to communities across Michigan to ensure public safety related to the accident scene, aiding in mitigation of animal welfare concerns and equipping first responders and the animal agriculture industry with the necessary tools when responding to accidents involving livestock.

EUTHANASIA TRAINING PROGRAM FOR FIRST RESPONDERS AND VETERINARIANS ACROSS MICHIGAN AS PART OF THE EMERGENCY RESPONSE TO ACCIDENTS INVOLVING LIVESTOCK (ERAIL) PROGRAM

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When an animal is ill or injured with no chance of recovery, it is best to humanely euthanize it as soon as possible. This can be a difficult task for some people and understanding how to do this safely, quickly, and efficiently is in the best interest of the person and the animal. A device that can be used on farms, by veterinarians, and when an accident occurs, for the euthanasia process is a captive bolt device (CBD).

A captive bolt device is classified as a firearm and thus the protocols for offering a training/program using these devices differ greatly from the traditional Extension program. The training team created standard operating procedures (SOP), developed a safety plan and received extensive training prior to receiving approval to offering these trainings. Additionally, the team sought approval through numerous University departments including; emergency management, risk management and the MSU Police Department so that they could offer these hands-on training. By completing this process the team has gained the skills and knowledge to help mentor others through the risk assessment approval process.

The euthanasia training employs a hands-on process, using model livestock heads and captive bolt devices to properly train attendees. This process allows the user to become comfortable with the method before having to complete it on an animal. The team has found that allowing users to “practice” the process increases competency and accuracy, which are extremely important when completing the euthanasia action. The training program also allows the team to identify participants that should not be responsible for euthanasia by observing users completing the action and recognizing those that do not have this skill set.

EMPOWERING WOMEN LANDOWNERS

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University of Missouri Extension (MU Extension) launched ‘Farm Management – On My Own’ to empower and equip older female landowners and farm operators to minimize financial and legal risk. Beginning in late winter of 2024, the Farm Management – On My Own program equipped Missouri women and women from three other states with 1) Ag Lease programming, 2) Farmland Values programming, 3) Rental Rate Programming, 4) Custom Rate Programming, and 5) Ag Lease resources. One goal was to provide women with targeted education designed specifically for them that would give them the knowledge they needed to understand what their land was worth if sold or leased. A second goal was to equip them with the tools and skills to successfully design and negotiate a lease specific to their farm’s needs and goals. Several characteristics were intentionally included in the designed delivery of ‘Farm Management – On My Own’, including 1) opportunities to get to know other participants and network; 2) an organized participant take-home folder including ten printed handouts of the program presentation and resources included in the presentation, including sample leases; 3) periodic in-presentation questions about the topic posed by the presenter to the audience to encourage discussion and engagement, 4) graphics designed to be eye-catching and artistically pleasing; 5) an informal presentation style to allow maximum audience participation; and 6) a small-group setting. Programming was delivered in-person in eleven Missouri counties as well as online, and eventually included participants from four states. In 2024 and early 2025, fourteen workshops were held across the state. Participant feedback revealed high satisfaction levels, with an average rating of 3.86 out of 4.0 across instructional quality, relevance, and program delivery. Participants demonstrated significant knowledge gains, with an average increase of 1.59 points on a 5-point scale. The most notable improvement was in custom work pricing

knowledge, which increased by 1.90 points. Fifty-seven percent reported they planned to change the type, terms, or pricing of their ag leasing following this program.

EMPOWERING YOUTH: BREAKING BARRIERS WITH SHOW STOCK BUDDIES

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ISU Extension and Outreach Cerro Gordo County is dedicated to empowering all youth, including those with disabilities. To expand opportunities for everyone, the Show Stock Buddies program was introduced in Cerro Gordo County. This initiative, a collaboration between 4-H/FFA and the Iowa Special Olympics, offers a safe, noncompetitive environment for youth with disabilities to participate in livestock showing. The program pairs "buddies" (youth with disabilities aged 10 or older) with "mentors" (4-H teen and FFA members) to assist them during educational workshops and exhibitions. The program addresses the need for more opportunities for youth with disabilities. Through livestock showing, participants developed responsibility, teamwork, work ethic, and animal care skills. They also enhanced their communication abilities by discussing their animals with families, judges, and the public. Teamwork was developed by participants working with their animals and families. To prepare for the final show at the North Iowa Fair, a practice show was held at Central Gardens of North Iowa during a Fresh on Friday's event. This allowed participants to practice showing their animals and answering questions from a judge and the public. The final show was the culmination of their efforts and hard work. The program is organized by ISU Extension and Outreach Rising Star interns of Worth and Cerro Gordo counties, along with county extension staff. It is sponsored by the David and Phyllis Murphy Charitable Foundation, Iowa 4-H Foundation, and the Hanson Family Foundation, whose generous contributions made the orientation, workshops, practice show, and fair event possible.

TWO NOVEL SPOTTED LANTERNFLY OUTREACH PROJECTS

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The Spotted Lanternfly (SLF) is a non-native invasive pest, first detected in Berks County PA in 2014. By 2020, low populations of SLF were confirmed in Jefferson County Ohio and by the fall of 2024, significant and nuisance level populations could be found in Toledo, Cleveland, Cincinnati, Columbus and other cities throughout the state. While this pest posed undetermined risk to Ohio's fruit and vegetable industry, it posed a significant risk to grape growers and wine production. Programs specific to management of this pest were presented in commodity focused grower meetings. To inform primarily Ohio's general public about this new pest, two distinct educational campaigns were undertaken in 2023. The first approach was based on printing 3D SLF life stages (egg masses, red and black nymphs, adults) for use in educational and identification training programs. Thousands of 3D printed life stages were used and given away to participants in over a dozen outreach programs across Ohio. The other outreach mode involved a novel campaign to mount SLF posters on food trucks to spread the awareness of SLF throughout several key Ohio cities. The colorful posters clearly highlighted all three stages of SLF for easier identification, and each poster was embedded with QR codes linked to the Ohio Department of Agriculture reporting website and a short video about SLF biology and distribution. By the end of the 2024 campaign, 33 food trucks in Dayton, Cincinnati, Columbus, Cleveland, and Toledo used the SLF posters on their vehicle to raise customer awareness about this invasive pest potentially coming to their neighborhood soon.

BERRY PRODUCTION TRAINING FARM PROJECT

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Berry production offers huge potential for farmers who are focused on local markets. Discussions with farmers market managers in southwest Missouri reveal a shortage of berries at all markets. Previous outreach efforts demonstrate the value of hands-on experiential training for farmers, especially for minority and socially disadvantaged farmers, and the value of peer-to-peer learning. The Berry Production Training Farm Project team included University of Missouri Extension, Webb City Farmers Market, Lincoln University Extension, and Hmong farmer Lykou Lee of Newton County. The project team obtained Missouri Department of Agriculture Specialty Crop Block Grant funding to establish an on-farm berry production demonstration site. The demonstration site, established in 2022, included plantings of 4 berry crops (strawberry, blackberry, elderberry and blueberry) utilizing advanced production technology (recently developed berry cultivars; RCA trellis for blackberry; high tunnel production for strawberry; drip irrigation, fertigation, and weed barrier fabric for all crops; a CoolBot® cold storage room; and a harvest/postharvest handling area using produce food safety guidelines). Farmer Lykou Lee managed plantings, directed activities targeting Hmong farmers and provided Hmong translation. The project included 16 hands-on workshops on all aspects of successful berry production. A fruit production tour visited two area commercial berry production farms. Four production and food safety videos were produced, including Hmong-language videos. Two displays at area farmers markets promoted local berry production. 220 direct contacts with farmers (including minority and socially disadvantaged farmers), youth, and home gardeners were made at project activities. The workshop demographic surveys revealed diverse audience participation. Workshop attendees consistently reported 90% or greater satisfaction with workshop experience and content. 85% or more workshop attendees reported a knowledge gain of a moderate to great amount, with Likert ratings (1-4 scale) revealed knowledge gain of workshop topics ranging from 1.00 to 2.47 (remarkably high). Documented planting of 2 acres of berries and a strawberry high tunnel resulted from the project. Mr. Lee has also taken initiative to contact Hmong farmers (both in Missouri and elsewhere) to continue the impact of the project beyond the conclusion of the project in September 2024.

RESEARCHING AND EVALUATING A NEW MANAGEMENT STRUCTURE IN OHIO STATE UNIVERSITY EXTENSION

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Based on the need for a new management model in Ohio State University Extension, a cross-section of Extension professionals, college representatives, and statewide stakeholders was appointed to a task force charged to propose a management structure that best supports county level operations. Three sub-committees were established. The OSU Extension Structure Review Sub-Committee took a deep dive into a historic timeline of Extension administrative models. They investigated the strengths and weakness of past models to inform future decision making. The Other Extension Models Sub-Committee compared management models from approximately 24 benchmark Extension systems. Through this, committee members took stock of management structures across other systems that were similar in size and demographics to Ohio. They contacted employees at different universities with a set of questions that covered funding models, mentoring, promotion and what the system does extremely well. The Communication Sub-Committee strategically managed communication to the rest of the organization to keep employees abreast of progress. Additionally, Extension professionals were afforded opportunities to provide feedback through

surveys and focus groups. Key areas identified for improvement were moving to full time supervisors and dedicated programmatic support. Based on their research, the task force suggested a two-part plan that included full-time regional managers and additional full-time personnel to provide program development support in each Extension program area. Extension has not been immune to turnover rates impacting all industries across the U.S. We believe this structure will provide support in this new era of employee management.

UNDERSTANDING THE MOTIVATIONS OF OSU EXTENSION PROGRAM PARTICIPANTS: MEETING THEIR SPECIFIC NEEDS FOR LEARNING AND ENGAGEMENT

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As Extension professionals we work with different stakeholder groups. The stakeholder differences can influence our engagement strategies and affect learning outcomes (Herremans et al., 2016). Therefore, it is important that we are aware of what motivates individuals to participate in Extension programming. This session will focus on the motivations for engaging with Extension of two of our primary programming audiences: attendees of Pesticide & Fertilizer Recertification trainings and Master Gardener Volunteers. Pesticide & Fertilizer Recertification programming requires individuals' attendance. Master Gardener-related programming invites individuals to learn more about a topic of interest and offers them the ability to volunteer their time assisting with educational activities. By exploring these two distinct groups, we can better understand how motivational drivers can affect program planning and participant engagement. There has been research that showed adults who participate in non-formal education settings goals were to acquire new knowledge and skill but also gain fulfillment from "internal" needs: strengthening self-confidence, improving social relationships, and avoiding everyday life stresses (Karalis & Koskeris, 2016). When we are better able to recognize these non-obvious motives, we can become more effective with the engagement tailored to fit adult learners' needs. Within these two distinct programs, we are faced with intellectual curiosity and practical benefits. As volunteering is seen as lifelong learning motivation. This is delved from the difference in adult participation is the focal point of Houle's (1961) Typology: classifying adult learners as being goal-oriented, activity-oriented, and learning-oriented learners. Strong and Harder (2010) describes how these adults motivations connect with Extensions objectives to design, implement, and evaluate educational experiences with increasing their knowledge and skills. Master Gardener Volunteers demonstrate significant commitment through an intensive first year involving a 12- week program, 50 educational hours, and 50 volunteer hours. Whereas private applicators in the Pesticide & Fertilizer Recertification program participate out of requirements, having to fulfill a mandated three hours of educational training every three years to renew their license. This is essential to acknowledge motivations in required and volunteer programs, as both programs play a critical role in achieving Extension's outreach goals with consumer demands and stakeholders.

EXPANDING OPPORTUNITIES AND KNOWLEDGE THROUGH A COMMERCIAL SWINE PROJECT

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The Brown County Ohio Commercial Swine project began in 2023 to increase the number of swine projects while also providing an alternative to the traditional market swine project. Commercial Swine project members sign up during enrollment and then choose to purchase one or two hogs. All hogs are barrows sourced from the same location and at market price. Each exhibitor pays the same amount per hog, and they are assigned through a lottery process on pick-up day. The pigs are commercial-quality hogs, not show hogs. The Commercial Swine project is its own show with its own judge, selected specifically for their knowledge of the commercial industry. A grand and reserve overall commercial swine project is selected, as well as rate of gain. In the two years the program has been offered, 22 individual youth have participated, over half of which had never taken a market hog before. The commercial swine project has opened the door for more youth in 4-H and junior fair to participate in a swine project, learn about the swine industry, and focus on the marketability of their animal. Exhibitors, parents, and community members support the program, which is now being replicated in other Ohio Counties.

EFIELDS: GROWING FARMER ENGAGEMENT IN ON-FARM RESEARCH

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Ohio State University Extension has a long-standing tradition of using on-farm research to provide practical answers to producers' questions about new agricultural technologies and farming practices. Since 2017, the OSU Extension Digital Ag Team has built relationships with farmers to address local, farmer-driven research questions using reliable experimental methodology. Between 2017-2024, 1,434 on-farm trials have been conducted in 70 counties in the state. Annually, the team releases a summary report to share the results of those trials, with 17,000 copies distributed in both printed and electronic versions.

In 2024, the team conducted a survey to evaluate the reach and impact of the on-farm research program and to inform future program strategies. The purpose of the survey was to document the current level of Extension educators' engagement in on-farm research and farmers' knowledge of the eFields program. Another element of the survey was to determine the level of impact that eFields had with farmer decision-making.

Nearly one-third of respondents sought the report each year, while one-third had no knowledge of the program. When asked if their experience with the publication had changed their use of on-farm research-based information, almost half responded that they utilize information more since learning about the publication. Regarding the influence of the research publication on decision-making on their farm, about half were considering changes in production practices and had already made changes. About 40% were considering changes in technology adoption due to the publication's information, and 27% had already invested in new or improved technology.

A general conclusion from this initial inquiry is that agricultural producers perceive value in the team's on-farm research efforts. The survey results gave researchers a better understanding of how farmers utilized the publication in their farming operations and how they valued the work. Future programming recommendations include conducting in-depth focus groups with farmer cooperators, expanding county-based research groups for collaboration, and building knowledge of new Extension professionals through in-services.

NORTH EAST REGION

TRAINING NEW URBAN FARMERS IN CONNECTICUT

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Connecticut is a densely populated, geographically small state with a growing urban agriculture presence. Challenges to urban food production in the state's urban centers include minimal growing space, lack of capital resources, and policy differences between cities. In 2022, the University of Connecticut Extension, in partnership with Green Village Initiative, Inc., reactivated a beginning urban farmer training program to grow the number of urban farmers in the southwest region of CT and increase the amount of fresh produce available to the region. The 7-month course consists of indoor classroom and lab activities, hands-on production training in an outdoor growing space, and participation at a farmers' market. In-field topics included intensive vegetable production, irrigation, soil science, IPM, and food safety. Agribusiness development and food justice topics are also incorporated into classroom activities. In the first three cohorts, participants indicated they gained knowledge in all topics presented and that the most helpful part of the training program was the in-field and at-market experience. Forty-three individuals have enrolled, and twenty-one have completed the program. Graduates have started their own farms, acquired positions with non-profit organizations, and are serving in other urban agriculture leadership capacities. The program has extended to New Haven, Connecticut. The course is now offered online to serve a

statewide audience. The 2025 cohort includes participants from two additional states.

KALE YEAH! GARDENING FOR WELLNESS

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There is increasing evidence showing that exposure to plants and green space, particularly gardening, benefits mental, physical, and social well-being. Gardening increases exercise, reduces stress, and allows for skill development, creative expression, sensory stimulation, a sense of productivity and self-satisfaction, and social connections. The program "Kale Yeah!" allowed patients at the Eastern Shore Hospital Center (ESHC), a mental health facility located on the Eastern Shore of Maryland, the opportunity to learn to plant, grow, and harvest cool-season crops, such as leafy greens and brassica crops. The program was organized and managed by Emily Zobel, Senior Agent Associate, for Dorchester County, University of Maryland Extension, MD, with the help of Master Gardener volunteers and hospital staff. The goal of the program was to increase participants' sense of productivity and self-satisfaction by growing a vegetable crop that can be eaten or sold to the facility staff. Each session ran for 10-13 weeks, with the class meeting weekly for 1 hour. Two sessions were held between September 2024 and March 2025. Participants worked in pairs or as small groups to care for and harvest plants, providing them with a supportive environment for further developing social skills and improving their social self-awareness. At the end of each session, they held a plant sale and sold bags of kale, broccoli leaves, and baby leaf lettuce cups to hospital staff and volunteers. During each session, participants had a cooking demonstration conducted by Lynn Matava, Extension Agent for Wicomico County, University of Maryland Extension, MD, where they used the produce they grew to make a dish to eat. At the Hospital Center's request, no formal survey was given to the participants. Outcomes are based on feedback from the participants about what they learned and feedback from program volunteers and staff. All participants said they enjoy learning about growing plants, and cooling with them. The following is a quote from hospital staffer Tonya Askins about the program: "I think this class is really good for the patients. They are learning and opening up more, since the class is hands-on and they have their own space."

AT-HOME MEAT PROCESSING

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The end point for most livestock production systems ends on the plates of the consumer. The understanding of this conversion from muscle to meat has become a broken link within the system. As the generational gap from the farm continues to increase so does the lack of understanding of just what it takes to "put the meat on the table". During the worldwide pandemic of 2019 it was made all too clear just how fragile the animal protein food chain is. Extension has provided programing in meat processing over the years, a long-standing example that is well established throughout the state is the Ham, Bacon, and Egg program. In the Greenbrier Valley 4-H has played a large role in making the program successful. Not only have 4-H and FFA participants learned how to properly handle, cut, cure, process, and label meat products but they have also benefited from the sale of these products at our annual 4-H and FFA Ham, Bacon & Egg Sale. The first of our at home processing classes was held in 2022, it was well received, and the program was further expanded in 2023 and further still in 2024. Pork and beef processing seem to be viewed as new and exciting something that people are willing to come and learn. This has led to a great response in the number of individuals showing interest in the class. Participants of the class are taken through proper steps in harvest and exsanguination. Standards for product holding temperatures are covered as well as issues that can take place during postmortem metabolism that can affect the final product. Participants learn the proper breaking points of a carcass to yield the primal cuts. The primals are then broken down into the various retail cuts. Finally, participants are allowed to demonstrate their gain in knowledge as they then break down a carcass under the supervision of the instructors. Since 2022, 151 participants have taken part in our adult classes with participants saving up to $3,000 annually.

DOCUMENTING PROGRAM IMPACT: FLEXIBLE AND VALID EVALUATION STRATEGIES FOR EXTENSION EDUCATORS

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Extension educators provide educational programs for diverse audiences in a variety of learning environments. While pre-defined lesson series offer greater opportunity to demonstrate measurable outcomes, educators need flexibility to teach programs in settings that vary from the requirements set by the curriculum. Fewer sessions or one-time lessons may be more practical in certain situations.

While developing a new program, the WVU Extension Financial Literacy Education Team reviewed curricula to select a research-based, peer-reviewed curriculum, which provided flexible program delivery options. The Team was committed to creating a program evaluation tool that would establish a flexible evaluation process that allows educators to customize the program for unique circumstances without compromising the integrity of program outcome data.

The Financial Literacy Team trained WVU Extension faculty and staff in a one-stop-shop evaluation hub that allows them to build an evaluation tool that fits their unique needs based on three assessments – pretest, posttest1, and posttest2. Educators customize the tool based on two criteria: the program module(s) presented and the audience (youth, adult). The evaluation and reporting session introduced trainees to the anticipated outcomes and indicators, overarching evaluation goal, and the three assessment tools. Educators were trained to choose the appropriate questions and conducted practice activities with each audience type. Extension Educators collect and report the evaluation data for each program. Data is compiled and is available annually for county and statewide reporting.

Since its creation, at least one other program within WVU Extension has replicated this type of program evaluation. This evaluation approach is applicable to a variety of Extension programs, increasing the opportunity for flexibility in program delivery while capturing comprehensive evaluation outcomes.

THE CENTER FOR AGRICULTURAL CONSERVATION ASSISTANCE TRAINING

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The Center for Agricultural Conservation Assistance Training (CACAT) in Penn State Extension was formed in January 2023 with the mission to help farmers, agricultural landowners, and conservation professionals implement best practices, ensure the health of land and water in our communities, and leverage funding and partnerships. The vision for the Center began to take form in 2016 when a group of partners convened at a conference called “PA in the Balance,” where they discussed barriers and innovative solutions for promoting both environmental goals and profitable agriculture in Pennsylvania. A major barrier that surfaced repeatedly was the lack of technical assistance available to implement agricultural best management practice (BMP) projects for any available funding programs. Through legislative action as a dedicated line of state funding called the 2022 Clean Streams Fund, the Agriculture Conservation Assistance Program (ACAP) formed and allowed a portion of its funds to be delegated to Penn State to create the Center. To accomplish its mission, the Center will provide professional development opportunities for existing conservation professionals, additional coursework and on-farm training experiences for undergraduate students, and technical assistance for ag conservation and ag outreach.

As of January 2025, the Center has provided outreach to 57 counties through office and field visits to assist conservation professionals in coordinating ACAP projects. The Center has worked with the PA Natural Resource Conservation Service (NRCS) and the Pennsylvania Association of Conservation Districts (PACD) to plan and run an NRCS Boot Camp Basic Training for new conservation professionals across the Commonwealth.

In June 2024, the Center hosted its first annual Ag Conservation Convention, focusing on strengthening connections with farmers and agricultural producers, building conservation skills, and improving knowledge of resource concerns and best management practices to mitigate them. The monthly newsletter "Conservation Currents" has a higher than industry average open rate for electronic newsletters. The Center aims to grow its impact and be a part of the solution to achieving environmental goals and profitable Pennsylvania agriculture.

EQUIPPING FARMERS WITH DROUGHT MANAGEMENT STRATEGIES THROUGH MULTI- AGENCY COLLABORATIVE EDUCATION

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From the Summer through the Fall of 2024, West Virginia experienced a record-breaking drought, which led to the declaration of a state of emergency for most of the state. Producers spent a large portion of their time hauling water and feeding hay or grain as early as mid-June. The length and severity of the drought prompted farmers to take drastic measures and reduce livestock numbers or completely disperse their herds.

WVU Extension Agents from across the state provide outreach to livestock producers with a two-fold strategy. All stakeholders such as the USDA funding bodies, WV Department of Agriculture and WVU Extension were brought to the table, and a list of resources, and a plan was developed to promote Drought Management Education. In-person meetings across the state were hosted regionally and topics such as drought management techniques, stress management, federal assistance, and technical support from supporting agencies were covered.

In total, eleven (11) in-person meetings and a four-part webinar series were hosted, yielding more than 550 views/ attendance, multiple articles, and three podcast episodes. The topics gave farmers tools to get through the current and future droughts.

Farming is a high stress career, and the addition of a severe drought had many farmers overwhelmed. Stress management is not a common topic that a farmer will attend, but at several meetings, a portion of the education was spent on stress management. The stress management was positively received and noted when several farmers called thanking us for reminding them they were not alone in this devastating weather event.

As a result of these meetings, the collaboration between agencies has seen an influx of new producers signing up through the USDA Farm Service Agency. WV Department of Agriculture was able to allocate 10 million dollars to producers who signed up for the programs and NRCS has increased the weather stations around the state for better monitoring. WVU Extension Agents are currently in the process of analyzing data from a post-program evaluation to determine the impact of the programming and how farms invested the government payments, and the effectiveness of the collaborating agencies.

SOUTHERN REGION

EVALUATION OF BEEF CATTLE ARTIFICIAL INSEMINATION SCHOOL'S IMPACT ON CATTLE PRODUCERS

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The LSU AgCenter Louisiana Producer Beef Cattle Artificial Insemination School was started in 2015 in response to address a need amongst Louisiana's cattle producers for educational content related to artificial insemination (A.I.) in beef cattle. Beginning in 2015, this annual event has been held at the LSU AgCenter Hill Farm Research Station in Homer, Louisiana. Over the course of three days, students learn the science and practices involved in implementing an A.I. program in their cattle herds through a mixture of classroom learning and laboratory experience utilizing live cattle. Since inception, each school has been evaluated with the focus primarily on the mechanics of the school and students' experience while enrolled. In 2023, an evaluation was conducted to determine the success, long-term, of past students who enrolled in the A.I. School, and the impact of the school on their operations. Past students were surveyed on topics such as demographics, types of cattle operations, implementation of A.I. and related skills, production information related to their cattle operation. When asked who performs A.I. at their farm, 65.38% of students responded that they personally A.I. their herd. Due to A.I. class participation, use of A.I. increased by 300%, estrous synchronization increased by 171.4%, and the use of embryo transfer increased by 150%. School participation resulted in a 50% increase in the utilization of body condition scoring and pregnancy determination. When asked if their farm profitability increased due to participation in the A.I. class, 42.31% answered yes and 50% were unsure. Of those that indicated their profitability increased, 36.6% indicated an increase of $201 per head or more while 27.27% believed it increased by $51-100 per head. Data from this evaluation highlights the effectiveness of the A.I. School in educating our producers. Participation in the A.I. School has benefitted not only the students enrolled but also their cattle herds in the form of increased quality of genetics by utilizing A.I. Moving forward, evaluation will continue to be utilized to gauge effectiveness of the A.I. School.

HELPING PRODUCE FARMS ADDRESS FOOD SAFETY RISKS AFTER HURRICANE HELENE IN WESTERN NORTH CAROLINA

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Hurricane Helene hit western North Carolina (NC) as a tropical storm on September 27, 2024 bringing catastrophic flooding and landslides. Hurricane Helene left in its wake an estimated 4.9-billion-dollar in damage to the agriculture industry. The storm caused major disruption to produce farms due to flooding in and around production fields, destruction of waste and water distribution systems and loss of power for extended periods of time that can lead to contamination and food borne illness. Shortly after the storm, Agents started identifying critical needs and food safety issues that needed to be addressed. One of the most urgent needs was to create awareness of water quality issues with municipal/city water and surface water. Water was needed for crop sprays and harvest operations. The storm hit at a time when apples and certain vegetables were still in harvest. Farmers also needed to know when it was safe to replant crops in flooded areas or if there was a chance to salvage plants that made it through the flood. And yet other farms, needed help starting from scratch. Flooding resources (short videos and infographics) from California LGMA were shared with growers, extension agents and others via text messages due to lack of communications. These resources provided concise information in English and Spanish. An estimated 50 visits have been completed by area and county agents since the storm and are still ongoing. Flood assessments focus on the impact from flood waters to crops, agricultural water

systems, soils and equipment. FDA guidance, resources from industry partners and recent research helped inform producers. No evidence of heavy metal contamination has been found on soil samples. Indicators of microbial contamination were found but were expected with an event of such magnitude. The assessments support the 30-60 day waiting period before replanting produce crops recommended by the FDA after a flood. As a result of this effort, farms have been able to identify food safety issues and address them. Natural disasters can happen anytime, we hope our experience in Western NC and the resources identified can help Agents respond to similar events.

BUILDING CLIMATE RESILIENCE FOR FOOD SYSTEM WITH LOCAL WEATHER NETWORKS

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The Clemson Extension Weather Network initiative aims to address critical weather information needs in South Carolina using WeatherFlow technology. The project focuses on filling gaps in local and rural weather data, creating a comprehensive historical database, and providing on-farm weather information to enhance climate resiliency. The network has successfully installed weather stations in all 46 counties of South Carolina, with some counties having multiple stations. A total of 65 stations have been installed, with 82% (54 stations) located near food production areas. The website interface provides real-time weather data and custom point forecasts based on hyperlocal weather data modeling, serving producers, researchers, and industry partners. The initiative aims to improve South Carolina's ability to respond to climate challenges by monitoring and addressing natural disasters, droughts, floods, frost and freeze events, and sea level rise. The collected data will be used for historical comparisons, forecast modeling, and implementing weather alerts via text and email. Key features of the Clemson Extension Weather Network include real-time lightning alerts, custom point forecasts by location, real-time rainfall start/volume, and temperature monitoring. The project emphasizes the development of decision-making tools to help farmers and researchers effectively utilize the gathered weather information. Future plans include building calculators and alerts to assist growers in making management decisions based on hyperlocal, real-time, and projected weather data. This approach will contribute to building resilience in the food system by providing accurate, localized weather information for agricultural decision-making. Public and private partnerships are integral in locating and processing weather data, as well as the development of decision tools to build climate resilience. By implementing this comprehensive weather network, Clemson Extension aims to significantly improve South Carolina's ability to anticipate, prepare for, and respond to climate-related challenges in the agricultural sector.

THE OUTDOOR SKILLS CHALLENGE: PROGRAMMING FOR A YEAR

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This session will introduce session attendees to the development, implementation, and future goals of the Arkansas Outdoor Skills Challenge. The Arkansas Outdoor Skills Challenge is a competitive event for youth ages 9-19. However, the event was also designed for counties to be able to incorporate the activities related to the challenge into their monthly programming at the club or county level. Most activities can be introduced to all ages. The idea behind this contest was to provide a competitive activity that incorporates a wide range of skills that might appeal a wide range of youth with varying interests – camping, canoeing, shooting sports, survival, fishing, etc. It is also structured in a way that does not favor any one event over another. Youth are able to compete as a team or an individual. The overall program provides youth an opportunity to explore a wide variety of outdoor programs/activities. It gives them an opportunity to interact with other youth with similar interests.

IMPROVING VEGETABLE GARDENING KNOWLEDGE AND ADOPTION OF PRACTICES THROUGH WORKSHOPS

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Background: Vegetable gardening in Florida can be challenging, particularly for newcomers. Central Florida's sandy soils leach nutrients quickly, making determining proper watering and fertilization difficult. Additionally, planting times differ significantly from northern states and nearly stop during the hot, humid summer months. Classes offered in August and January attract both long-time residents and seasonal visitors. The August sessions focus on fall gardening, while the January sessions address late winter and early spring gardening. Objective: The goal is to teach Florida vegetable gardening through 11 horticultural practices, aiming to increase participants' knowledge by 50% and encourage the adoption of at least 4 of the 11 practices. Methods: Three-hour lectures are held on the second Saturday in August and January. Participants receive a 100-page booklet from the University of Florida's Electronic Data Information Source (EDIS), containing research-backed articles on Florida vegetable gardening. Pre- and post-tests (10 questions each) are used to assess knowledge before and after the class. Follow-up surveys are sent 3-6 months later to gauge the adoption of the 11 practices. Results: From 2019-2024, 763 residents attended the workshops, with 702 completing pre- and post-assessments. Pre-test scores averaged 49%, while post-test scores averaged 83%, indicating a 69% knowledge gain—19% above the 50% target. A follow-up survey was sent to participants, with 91 responses received. Of those, 64% reported being inspired to plant a vegetable garden after attending the class. Each respondent was asked to select which of the 11 gardening practices they had adopted, and all participants reported adopting at least one. On average, each participant adopted 4.2 of the 11 practices.

UTILIZING MACHINE COUNTING TO TRACK MANGROVE EXPANSION IN COASTAL HERNANDO COUNTY, FLORIDA

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Situation:
Hernando County's coastal landscape is undergoing a shift from salt marsh to mangrove-dominated ecosystems. Over the past 15 years, significant expansion of red mangroves (Rhizophora mangle) and black mangroves (Avicennia germinans) suggests ongoing ecological and climatic changes. Understanding and quantifying this expansion is critical for evaluating habitat transitions, coastal resilience, and environmental conservation strategies.

Methods:
This study utilized a SenseFly eBeeX drone to conduct aerial surveys across a 27.3-hectare marsh between Bayport and Alfred McKethan Pine Island. RGB imagery was processed into an orthomosaic and analyzed with ImageJ software, applying a color threshold to isolate mangrove coverage. Surveys were conducted in December 2022, 2023, and 2024 to measure year-over-year expansion.

Results:
Over a three-year period, mangrove coverage expanded by 60.84%, highlighting a rapid ecosystem transformation. Machine counting provided a more objective and quantifiable alternative to traditional visual estimates, ensuring accurate tracking of mangrove encroachment into salt marsh areas.

Conclusion:
This study demonstrates the effectiveness of machine counting and drone-based monitoring in tracking coastal vegetation changes. By establishing a baseline for mangrove expansion, these methods support long-term ecological monitoring and climate adaptation planning. The findings emphasize the value of remote sensing and AI-driven image analysis in conservation efforts, land management policies, and climate resilience studies. Future research should explore the broader implications of mangrove expansion on local biodiversity, hydrology, and carbon sequestration.

FORSYTH COUNTY URBAN FARM SCHOOL

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The Forsyth County Urban Farm School (UFS) is addressing pain points of our changing agriculture system in an urbanizing county with the goal to aid aspiring farmers in the development of small urban farms or in gaining employment in the agriculture industry and strengthen local food systems. Large scale farm acreage is reducing annually in Forsyth County, due, in part, to the rising value of real estate. Additionally, fresh food access in Forsyth County and many other urban NC counties is inconsistent (Winston-Salem ranks 7th on a national list for food hardship), further positioning urban food production education as a key focus in North Carolina Cooperative Extension (NCCE) Forsyth County Center horticulture programs. To meet the needs of beginner urban and peri-urban farmers, NCCE Forsyth County Center offers a unique 3 month UFS course where new and beginner small farmers receive research-based hands-on training on small scale market gardening practices to equip students with skills and resources to grow and sell their products out of small urban spaces to supplement participant income. The curriculum balances classroom lectures with in-field crop management culminating in a student-led farmer's market. This class is taught at no cost to the participants. Based on pre- and post-program survey data from 2022, 2023, and 2024, participants not only reported increasing their knowledge and competency levels in a variety of production topics but also their active usage of a variety of best management practices. Within 2 years of completing this course, 7 students reported that they are operating a farm and 11 students have gained employment related to or as a direct result of training received and connections made in the UFS program. Participants also indicated that they have saved (47%) or anticipate saving (43%) money on household food expenses by growing their own produce as a result of this course and have further shared skills and knowledge from the course with 1243 other community members.

WATER EDUCATION RESULTS IN PARTICIPANT WATER CONSERVATION

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Situation. The Villages, the largest retirement community in the country, continues to grow exponentially. While the largest portion of The Villages is located in Sumter County, FL, both Marion and Lake Counties also have The Villages expanding in their counties. The newest district of The Villages has almost doubled in size and has become home to the newest residents. Most of the residents who are from other states or countries coming from areas with which may have different practices related to water conservation.

Methods. WISER Lawns and Landscapes for New Residents, a program which promotes protection and conservation of water resources is offered is offered monthly at two locations. Residents discover sound practices for efficiently watering lawns and landscapes, implementing integrated pest management, and following proper fertilization practices. practices can adversely affect water resources. Residents learn through this workshop how to conserve and protect water resources.

Results. Participants responded to a Qualtrics survey n=99) which documented a change in behavior resulting in potential water savings and other practices which may lead to protection of water resources. As a result of participant changes in water-saving practices (n=99), they demonstrated an estimated water savings of 5,137,858 gallons of water which represents a water savings value of $17,725 based on $3.45 per 1,000 gallons. Responding residents changed behavior related to pesticide use including identifying a pest before spraying 39% (n=28), reading and following the label before applying the product 49% (n=35), chose the least toxic pest control at 45% (n=32), and match the correct pesticide for the pest 45% (n=32). As a result of fertilizer changes, participants 52% (n=38) minimize fertilization in the winter months, and some use a slow or controlled release fertilizer on landscape plants 37%(n=27).

Conclusion. New residents who responded to the survey have indicated by changed behavior that resulted in

significant changes that conserved and protected Florida's water resources.

OYSTER ADVOCACY: EDUCATING ABOUT LOCAL AQUACULTURE

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Mathews County is a central hub of oyster production for Virginia's aquaculture industry. While boasting the most coastline of any county in Virginia and directly boarding the Chesapeake Bay, Mathews houses many aquaculture businesses. There is a clear need to teach local stakeholders in Mathews County about the importance of the oyster lifecycle, its environmental effects, and how to enjoy it, whether through consumption or growing it at home.

Aquaculture education helps bolster advocacy for the county's oyster producers and promotes careers in aquaculture. Virginia Cooperative Extension (VCE) partnered with Oyster Seed Holdings (OSH) and other private oyster production farms on Gwynn's Island to host numerous tours, educational video recordings, and aquaculture internships for STEM students. This educational programming, has increased the community's understanding of how Mathews' County oyster production has assisted in cleaning the Chesapeake Bay.

BERRIES & BEEF: FARM FIELD TRIPS THAT EDUCATE STUDENTS AND BENEFIT FARMERS

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Hernando County spans approximately 323,700 acres, with over 5,000 acres dedicated to agriculture, including hay production, cow-calf operations, container nurseries, and fruit crops such as berries and citrus. According to the 2017 USDA Agricultural Census, the county's agricultural market value exceeds $20 million. However, rapid urbanization threatens these operations, and their importance is often only truly recognized once they are gone. This shift presents an even greater challenge for Florida's youth, many of whom have little to no exposure to agriculture. As a result, there is a growing disconnect between consumers and food production, leading to a lack of understanding and appreciation for the industry.
To bridge this gap, extension agents partnered with a local U-Pick farm to provide an educational experience for school groups. Students experienced farming firsthand, engaging their senses as they saw, smelled, and touched the environment while learning about food production and natural resource management. The program was designed to benefit both students and the farm owner. The farm aimed to increase weekday revenue and attract new customers through word-of-mouth marketing as students shared their experiences with their families. For Extension agents, the farm provided the perfect setting to teach students about cattle ranching, ecosystem services, and best management practices for pest control in berry crops. By highlighting the challenges that farmers face in food production, the program fostered a greater appreciation for the agricultural industry.

The program has demonstrated positive outcomes for both education and agritourism. In 2025, the farm has hosted three school visits, with three more scheduled through April, generating an additional $3,000 in revenue, excluding potential return visits from students' families. On-site polling indicates that at least 90% of participants learned a new fact about farming or ranching, with many beginning their reflections with, "I didn't know…" Students get to hand feed cattle and pick a pound of strawberries before they leave. This initiative shows how hands-on learning can connect kids with agriculture while also supporting local farmers. By combining education with agritourism, this program serves as a model for strengthening the bond between communities and the farms that feed them.

UGA COUNTY AGENTS FACILITATE WATER CONSERVATION PROGRAMMING IN MULTIPLE WATER RELATED DISCIPLINES ACROSS SOUTH GEORGIA IN 2023-2025 THROUGH COLLABORATIONS WITH THE UGA AG WATER TEAM

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Proper utilization and conservation of water resources has a significant impact on the sustainability and profitability of Georgia agriculture. Numerous water educational programs reach across South Georgia along the coastal plain region of the state. Farmer educational opportunities like the use of soil moisture sensors, gives farmers concise data to determine timely irrigation scheduling applications to supplement rainfall events. Multiple soil moisture sensors options are accessible to farmers to gain familiarity and acceptance. The use of irrigation apps and crop water use curves are other available educational tools. Conducting pivot uniformity tests is a simple but highly effective means to increase efficiency with providing both water and energy savings. Educational efforts like field days, tours, county production meetings, and workshops provide outlets to share technology with farmers. Educational tools such as the rainfall simulator show the importance of cover crops to increase water infiltration while the Enviroscape teaches students about the water cycle, water conservation and the impacts of pollution and runoff. The Master Irrigator Program is an example of one area of focus providing learning through classroom, in-field training, and multiple interactions during the growing season. Water related county programming efforts and applied research projects impact local farmers and often reach across the state and region. Multifaceted programs help create a localized approach providing learning opportunities all within reach through the local county extension office.

HORTICULTURE LUNCH AND LEARN SERIES

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The Lunch and Learn Program is an ongoing horticultural education initiative in Roane County, developed in collaboration with the Master Gardeners of Roane County (MGRC). This program aims to provide free, research-based learning opportunities to individuals of all ages and experience levels. The primary objective is to enhance public knowledge of sustainable gardening practices, environmental stewardship, and innovative horticultural techniques through expert-led presentations, hands-on demonstrations, and interactive discussions.

The program employs a multimodal learning approach, offering in-person attendance at the Roane County Extension Office, as well as live streaming via Zoom, Facebook, and YouTube to increase accessibility. Educational topics are tailored to seasonal gardening needs and community interests, with popular sessions including dehydrating produce, raised bed gardening, and guided garden tours. Post-session surveys and participant feedback are used to refine and expand programming, ensuring continued relevance.

In 2024, the Lunch and Learn Program reached over 2,200 participants across various media platforms. Impact assessments revealed that 100% of respondents gained new insights into environmental stewardship and sustainable gardening practices, while 80% reported improved plant selection knowledge. Additionally, over 90% of attendees rated the program as highly relevant and beneficial. Emerging topics of interest, such as winter sowing, landscape design, and growing grapes, have been identified for future sessions, demonstrating an engaged and evolving audience.

Moving forward, the program will expand its educational offerings, enhance hands-on learning opportunities, and strengthen community outreach through strategic partnerships and digital content development. The success of this initiative highlights the critical role of Extension education in fostering informed, environmentally conscious gardening communities. By adapting to participant needs and advancing horticultural knowledge,

the Lunch and Learn Program will continue to serve as a leading educational resource in Roane County.

PROMOTING GENERATIONAL AND PROGRAM INTERACTION THROUGH GARDENING CAMP

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In Prairie County, Arkansas, a concerning trend of stakeholder isolation has emerged within the 4-H Youth Development, Family & Consumer Sciences (FCS), and Agriculture extension programs. Youth, adults, seniors, and program leaders were observed to operate independently, indifferent to intergenerational and interdisciplinary collaboration. This disconnect had seemingly obscured the inherent benefits of mutual interaction and engagement with extension programming.

To address this issue, a novel program was proposed to foster unity and teamwork across age groups and program areas. The objectives were multifaceted: to deliver concurrent programming in 4-H, FCS, and Agriculture; to amplify the visibility of Prairie County Extension Programs; to educate youth in gardening through hands-on experience; to provide intangible benefits to seniors and retirees; and to enhance community participation in extension initiatives.

The primary focus of this initial program was to establish its presence and gauge its popularity among county residents. While precise research to evaluate its effectiveness is still needed, preliminary results demonstrate promising outcomes. The program reached 24 youth, engaged 4 Master Gardener volunteers, and significantly boosted extension team morale. Furthermore, a noticeable surge in programming requests within Prairie County suggests a renewed interest in extension activities. However, to fully assess the program's impact, future evaluations should delve deeper into learning outcomes and measure how much it achieves its objectives. This initial effort lays a foundation for fostering a more cohesive and collaborative extension community in Prairie County.

sUAS – "DRONES" – APPLICATIONS IN COUNTY PROGRAMMING

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Small Unmanned Aircraft Systems (sUAS), commonly known as drones, have become an increasingly valuable tool in row crop agriculture. Equipped with various sensors, drones can perform a wide range of tasks, including monitoring crop health, identifying potential field issues, mapping crops with high-resolution imagery, and gathering elevation data for improved irrigation system design. These capabilities help farmers make more informed management decisions, ultimately improving productivity and resource efficiency.

Beyond individual farm operations, drones are also proving to be an asset in county programming. They enhance efficiency in data collection by reducing the time required for field assessments and increasing the accuracy of the gathered data. One significant application is the use of drones to collect elevation data for optimizing furrow irrigation systems. The drone's ability to gather continuous elevation points along polypipe allows for more precise computer-generated hole selection, leading to improved water distribution and conservation.

As drone technology continues to advance, its applications in agriculture and county programming will likely expand. By integrating sUAS into these programs, professionals can enhance decision-making, reduce labor costs, and improve overall agricultural sustainability. The continued adoption of drones represents a promising step forward in precision agriculture and resource management.

TRAIN THE TRAINER: EMPOWERING MASTER GARDENER VOLUNTEERS TO EXPAND EDUCATIONAL REACH

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Master Gardener Volunteers (MGVs) extend the reach of the MGV Coordinator, enabling educational programs to scale beyond the capacity of an individual Extension Agent. Through structured training, volunteers gain the skills and confidence needed to serve as effective educators, expanding the program's overall impact.

Since 2022, trained MGVs have conducted 85 classes, educating 1,472 members of the general public. A longstanding program within the Orange County Master Gardener Volunteer Program is the HeadStart preschool gardening curriculum. This initiative originally followed a Train the Trainer model, and now veteran volunteers take the lead in training new volunteers. Since 2022, MGVs have conducted 224 preschool gardening classes, reaching 8,923 students.

To build confidence and effectiveness in volunteer educators, three key training programs were implemented. The Vegetable Garden Teacher Training, led by Calvin Gardner, Extension Faculty, resulted in six classes reaching 69 participants in 2024–2025, with five additional sessions scheduled. The Garden Guided Tours transitioned from Agent co-taught sessions to completely volunteer-led tours, with volunteers independently leading 2 tours to 18 participants in 2025, with 2 additional tours scheduled. The Community Educator Bi-Monthly Training program provided volunteers with tools and technical skills to enhance their presentations, including training on PowerPoint, Canva, accessibility, and copyright compliance. By equipping volunteers with teaching skills, we have increased the number of public-facing programs offered and improved the sustainability of Extension's educational outreach. The continued training of new volunteers by experienced MGVs ensures program longevity and long-term impact.

REPLANTING FORAGES AFTER AN INDAZIFLAM HERBICIDE APPLICATION

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A Miller County producer in Texarkana, AR has an 80-acre field under irrigation used to produce high-end Bermuda horse hay. In late February of 2023 this producer applied a herbicide burndown applying 3oz per acre of indaziflam tank mixed with a 32oz rate of 41% glyphosate. Unfortunately, due to some severe winter kill damage in conjunction with the late herbicide burndown, the producer had significant yield loss nearing 80% in damages. Because of this, the producer chose to do a complete field renovation with a replant.

Noting the label's 22-month plant back restrictions on cereal crops, root crops, and soybeans, and worried this might impact some of our potential replant options, we conducted a soil sample for nutrient analysis and a soil bioassay by collecting soil from multiple different areas throughout these two fields. Using the soil collected we planted Cheyenne II Bermuda seed for this bioassay and within seven days had germination. After the successful bioassay and with approval of the producer, we conducted a plot trial using seven different species to determine germination success.

The trial was implemented in September of 2023, utilizing cool season forages and the plots were fertilized according to soil test analysis results. The stands were assessed on September 27th for stand occupancy and all species achieved 85% -100% rating.

Due to the success of the other species with 85-100% stand occupancy counts, there was strong evidence that showed the producer he could replant in the spring with success in germination.

In April of 2024 the producer planted a full stand of Texas Tuff Bermudagrass. In May of 2024 a stand occupancy count was conducted with an 82% success rate. Within that same year the producer was able to harvest 1.4 tons

of DM acre-1. In 2025 we anticipate approximate yields to be approximately 5 tons DM acre-1.

As a direct result of this trial, the producer was more confident he could re-establish Bermudagrass on this hay meadow and only lost one growing season, instead of the suggested 22 months.

BRINGING CHEER TO WESTERN NC- SERVICE THROUGH SEWING

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On September 27, Hurricane Helene traveled more than 500 miles inland, devastating many parts of the Southeast but especially Western North Carolina. Many people lost not only their homes, farms but unfortunately lives as well. In an effort to bring some sort of normalcy to a chaotic holiday season, Asheville Cotton, a local quilting shop, put out a call for individuals to make stockings to spread cheer. At around the same time, Chris Heintze, Piedmont District Director, asked if we had any ideas for a service project for the upcoming December District Inservice Training. It seemed like a natural fit, making stockings for those in Western North Carolina would be a fantastic opportunity for service for our district but at the same time would be a fun activity for the staff in the district to possibly learn a new skill.

Initially, this was tested with Extension Staff as a means for a Community Service Project. Stations were created so all staff could be involved in the process. Staff was able to learn measuring, cutting, pinning, machine sewing, hand sewing and construction skills. This program could be easily duplicated with other adult or youth audiences. In just a short time, Extension staff were able to make more than 24 stockings. Stockings were delivered to WNC along with a small Christmas Tree. 3D printed ornaments and toy fidget trees were also provided with each stocking. In conclusion, we would love to help train agents and help give them the skills necessary to duplicate this community service project for future disaster-stricken areas, nursing homes, or possibly hospitals.

CUATRO PATAS 4-H: A HANDS-ON APPROACH TO ANIMAL WELFARE

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Early exposure to proper pet care fosters responsible pet adoption, which is essential in reducing animal abuse and abandonment in Puerto Rico. Over half a million animals are estimated to be abandoned on the streets, contributing to a public health crisis due to the transmission of zoonotic diseases. The Cuatro Patas 4-H Project, part of the 4-H program, aims to educate children and youth about responsible pet care, promoting the health and well-being of both animals and humans. The project's primary objective is to teach youth the responsibility of pet ownership, emphasizing that dogs and cats are sentient beings deserving of care and attention. A Project Guide was created with eight lessons and activities, that included general information on dogs and cats, anatomy and physiology, nutrition, reproduction, pests and diseases, veterinary care, general care and protective laws. Additionally, the project introduces participants to animal-related careers, entrepreneurship opportunities focused on companion animal needs, and volunteering. Since 2023, seven additional educational publications, including a video, have been created to further its outreach and educational goals.

The project has offered two summer camps and a conference, in both modes, virtual and in person. Coordinated two National 4-H Week Dropbox events that gathered and distributed supplies and approximately 1,100 pounds of pet food, impacting 13 organizations. The participants also had the opportunity to engage in the work done in an animal sanctuary, on a 4-H Volunteer Day. As part of the sustainability of the project, twenty-two Extension workers and 4-H leaders have been trained and have already replicated the project and participated in volunteer work at animal sanctuaries. The project has established collaborations with veterinarians and lawyers and has directly impacted 178 students from across Puerto Rico, including Texas.

In the future, we plan to continue integrating these and other extension strategies to further expand our outreach and enhance the impact of the Cuatro Patas 4-H Project.

ROOTED IN COLLABORATION: ADVANCING HORTICULTURE ACROSS TENNESSEE

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The UTHORT team, composed of Agents and Specialists in residential and consumer horticulture, collaborates statewide to assess needs, develop educational content, and equip agents with the resources to effectively engage local horticulture audiences. In 2024, the team launched three key programs to support agents and expand outreach: Edible Crop Lunch and Learn, Office Hours, and Welcome Home. Office Hours is a live, interactive question-and-answer session conducted via Zoom during the active growing season. Held monthly, this program encourages participants to submit questions and photos in advance for the opportunity to have their inquiries addressed live. A panel of UTHORT experts provides insights across four specialized areas, with all responses documented in an interactive ArcGIS map for easy public access. In post-production, the one-hour program is divided into four 15-minute mini sessions, posted on the UTHORT YouTube channel, and shared with UTHORT social media accounts for additional outreach. In 2024, the program engaged 400 participants in the live ZOOM and addressed over 260 submitted questions. Edible Crop Lunch and Learn was a four-week Zoom series held in May, featuring hour-long sessions that paired a management strategy with a highlighted crop. Two expert speakers led each session, drawing 628 participants who highly praised the content and requested additional education in this area through post-survey responses. While agents promoted the series locally, participation was independent and entirely online. Welcome Home followed a similar format but utilized a hybrid delivery approach with extended class instruction. Agents hosted in-person meetings while the UTHORT team delivered lecture content synchronously via Zoom to all participating counties. Agents then instructed hands-on learning activities, outlined in a facilitation guide, to reinforce the material. This program specifically targeted new gardeners, particularly those relocating from other states. It was fee-based, with proceeds benefiting the county programs, and included a printed magazine-style publication titled Welcome Home. In 2024, 175 participants from 17 counties took part, with 90% reporting that they had already implemented or planned to implement learned practices. The success of these programs exemplifies the effectiveness of a collaborative approach in identifying, developing, and delivering impactful horticulture education across diverse audiences.

HOME HORTICULTURE FOUNDATIONS

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Studies show that between 2019 and 2023, over 160,000 people moved to South Carolina from states with different climates, soils, and growing seasons. For these newcomers and existing residents interested in their home landscape, accessible and reliable horticultural information is essential. Home Horticulture Foundations addressed this need through a statewide hybrid educational program. The program delivered content via online webinars and optional field days. Webinar topics included soil basics, lawn and weed management, integrated pest management, landscape plant selection for the Southeast, landscape design, and weather-wise gardening for South Carolina's climate challenges. Two optional field days at the South Carolina Botanical Garden and Brookgreen Gardens provided hands-on experiences through guided tours and workshops on proper planting, irrigation, landscape equipment, and plant problem identification. In 2024, 41 people participated in the program: 23 chose the webinar-only option, 11 attended the webinar series plus the South Carolina Botanical Garden field day, and 7 participated in the webinar series plus the Brookgreen Gardens field day. Post-module and field day surveys revealed overwhelmingly positive responses with constructive feedback suggesting adjustments to fully on-demand delivery and more practical instruction surrounding "how-to" methods instead of conceptual theory. Program impacts include increased knowledge of proper horticultural practices, greater awareness of Clemson Extension resources, and establishing a

sustainable educational model that efficiently serves South Carolina's growing population of home gardeners. This program successfully demonstrates how Extension can adapt traditional programming to meet the needs of today's residents through flexible learning options while maximizing agent resources.

SEED IT YOUR WAY: AN EXTENSION PROGRAM TO GET FRESH VEGETABLES IN LOCAL RESIDENTS DIETS

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Background:
The Gadsden County Extensions Program is a collaborative initiative between the county government, the United States Department of Agriculture (USDA), the University of Florida (UF), and Florida A&M University (FAMU). This partnership extends university research and resources to residents, fostering agricultural excellence and sustainability. Gadsden County supports a diverse range of farming enterprises, all of which benefit from science-based education, seed distribution, and technical assistance provided through this initiative.

Objectives:
This project aims to:

Expand access to high-quality seeds for schools, community gardens, low-income families, ranchers, and farmers.
Provide educational support on seed selection, planting techniques, and sustainable crop management.
Strengthen community engagement through gardening and self-sufficiency initiatives.
Promote environmentally sustainable agricultural practices.

Methods:
The program implements a comprehensive, multi-pronged approach:
Seed Distribution: Partnerships with nurseries and seed suppliers ensure access to resilient, climate-appropriate seeds. Seeds are distributed through extension offices, schools, and community events.
Educational Outreach: Workshops and seminars led by agricultural experts from UF and FAMU cover topics such as seed viability, pest management, soil health, and sustainable agriculture.
Community Engagement: Local gardening projects encourage collaboration, knowledge-sharing, and skill-building. Educational materials are developed and disseminated to schools and community centers.
Sustainability Programs: Training sessions emphasize soil conservation, water-efficient farming, and climate adaptation strategies.

Results:
Preliminary data indicate increased seed accessibility, higher participation in extension workshops, and improved community engagement in gardening initiatives. Farmers and gardeners report enhanced crop yields, greater resilience to weather challenges, and increased adoption of sustainable farming techniques. Additionally, low-income families benefit from improved food security and self-sufficiency.

Conclusion:
By addressing key agricultural challenges—such as seed quality, affordability, and knowledge gaps—this initiative strengthens local food systems and enhances economic resilience. The program demonstrates that small-scale interventions, such as seed distribution and education, can have a substantial impact on agricultural sustainability and community well-being. As the project continues, further evaluation will refine best practices and expand its reach, ensuring a bountiful future for Gadsden County, one seed at a time.

MASTER IRRIGATOR PROGRAM LEADS TO INCREASED ADOPTION RATE OF NEW TECHNOLOGIES FOR IRRIGATION MANAGEMENT

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Irrigating without an irrigation scheduling method can have a significant impact on crop yield, irrigation water use efficiency, and water consumption. Technology aids us in better understanding where irrigation water ends up, whether the amount was sufficient, and can guide producers in setting the frequency of irrigation events. In 2018, only 11 percent of Georgia producers reported that they were using soil moisture sensors. The UGA Extension Ag Water team received a seed grant to begin the Master Irrigator Developmental Program in Georgia, which has led to 40 farmers being trained on irrigation water management using new technologies during the 2023 and 2024 growing seasons. The Master Irrigator Developmental Program was designed to train irrigation managers on advanced irrigation scheduling methods through several avenues including indoor seminars, in field one-on-one trainings, and guidance throughout the growing season. Participants were surveyed before and after participation concerning their preferred methods of irrigation scheduling. Prior to participating in the program, fifty-five percent of responses were either visible plant stress or feel of soil, both of which are not reliable-scientific methods. The post survey showed a fifty-nine percent reduction in the utilization of non-scientific methods such as feel of soil and visible plant stress in future irrigation scheduling procedures. With utilization of the knowledge gained and innovative technologies in the field, these producers are irrigating crops when the crops need moisture, and state water resources are being utilized more efficiently.

EXPANDING ANNIE'S PROJECT TOGETHER

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Annie's Project is a nationally recognized educational program designed to empower women in agriculture by providing essential business and risk management skills. Participants gain knowledge in financial management, marketing, human resources, production, legal considerations, and entrepreneurship. This poster aims to help Extension agents understand their role in the program and identify strategies for recruiting diverse community partners. Implemented as a six-week hybrid program, Annie's Project was developed through a multi-county collaboration between Family and Consumer Sciences and Agriculture Extension agents. Recruiting participants and establishing partnerships with organizations such as Farm Credit, USDA, local Public Relations Associations, attorneys, and insurance professionals are key components of program success. The curriculum includes weekly educational sessions, hands-on activities, and networking opportunities, supported by strategic marketing and evaluation tools to maximize outreach and impact. Through collaboration across multiple counties, Annie's Project expands its reach, equipping women with the skills and resources needed to build sustainable farm businesses. The program fosters confidence, strengthens

business acumen, and enhances professional networks. Conference attendees will gain insight into best practices for program implementation, marketing strategies, and interactive learning opportunities. Additional resources and facilitator training information will be provided to support ongoing efforts in empowering women in agriculture.

LADIES RAISING LIVESTOCK

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The 2025 Ladies Raising Livestock Conference provided a vital platform for female livestock producers, offering education, networking, and hands-on learning opportunities. Women play an essential role in agriculture, yet they continue to face unique challenges in a historically male-dominated industry. This event aimed to bridge that gap by equipping participants with knowledge in farm financials, veterinary practices, marketing strategies, and adaptive tools for efficiency. A highlight of the conference was the keynote address by Courtenay DeHoff, who emphasized the power of storytelling in agriculture to shift narratives and strengthen community connections. The conference demonstrated significant educational impact, with measurable knowledge gains across sessions, particularly in storytelling, which saw a 48% increase in participant understanding. Economic benefits from the event totaled $246,000, reflecting the growing influence of female producers in the livestock industry. Moving forward, the conference aims to expand outreach, integrate participant-recommended topics, and enhance hands-on learning opportunities to further support and empower women in agriculture.

EDUCATING DAIRY PRODUCERS OF PUERTO RICO IN AUTOMATIZED EQUIPMENT

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In Puerto Rico, dairy milk production represents the main agricultural enterprise. Producers are facing increases in feedstuff, electricity, among other input costs, while at the same time labor resources are decreasing. This has forced producers to become more efficient and technological. Innovators have adopted automatized systems in their dairies. However, most producers still need to understand how these new technologies work. Therefore, a field day (FD) to educate producers in automatized systems, like calf's feeder (ACF), milking systems (AMS), supplement feeder (ASF) and manure collector (AMC) was organized. The field day provided a theoretical component where the basic functionality of the automatized equipment, advantages and considerations to take into account for adoption of the technologies mentioned were discussed. Also, there was a walk through the dairy with the producer to watch the equipment working while the producer shared experiences with the technologies. At the end of the educational activity a questionnaire was delivered to participants. When asked the participants about their knowledge previous to the field day related to ACF, 10% of the participants reported neutral, 30% reported a few knowledge, while no knowledge was 10%. For AMS, 20% reported neutral knowledge and 50% reported a few knowledge. In the case of ASF 30% reported neutral knowledge, and 40% a few knowledge. Lastly, knowledge related to AMC was reported neutral at 10%, 50% few knowledge, and 10% no knowledge. However, when asked about technologies after field day, an increase in knowledge was observed. For ACF, participants reported some knowledge (10%) and a lot of knowledge (90%). For AMS and ASF, it was reported some knowledge (30%) and a lot of knowledge was obtained (70%). In the case of AMC some knowledge (20%) and a lot of knowledge (80%) was

obtained. In addition, 47% of the participants are willing to share what they learned with other people; 40% are willing to talk with their Extension Agent for more information. Therefore, the field day accomplished the goal of increasing the knowledge in automatized equipment for dairies, and that would help in the decision-making during adoption of such technologies by dairy producers.

LIVING ON A FEW ACRES: ENGAGING SMALL FARMERS IN NORTHEAST FLORIDA

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Northeast Florida agriculture is facing drastic changes as continued urbanization and population growth alter the landscape and structure of communities. Local agriculture plays a fundamental role in sustaining economies, ensuring food security, and regulating environmental health; therefore, major changes to local agriculture have extensive implications for society. Relevant programming for small farmers has the opportunity to provide sustainability and resiliency to the changing communities of Northeast Florida. Agents developed the Living on a Few Acres (LOFA) program to drive regional impact in St Johns, Clay, and Duval Counties through multi-county collaboration. The program aimed to educate participants in managing farming operations on small acreages and encourage the adoption of recommended management practices to improve the longevity and profitability of these operations. In turn, the program intended to contribute to the growth and sustainability of local agriculture. The LOFA program was designed as a monthly workshop series and ran from April through October of 2024 in three Florida counties. Class topics included farm basics, pasture management, pond management, cool season forages, small ruminant management, and backyard poultry. Scheduling was staggered across the three hosting counties to give participants flexibility in choosing topics relevant to them and locations that were convenient to them. There were 69 total attendees, many of whom were repeated participants. 95% of respondents indicated knowledge gain as a result of the workshops, and 93% indicated their intention to implement a new farm management practice. The Living on a Few Acres workshops series has been successful in drawing a new small farmer audience to Extension programming and has offered new opportunities for small farm production education in northeast Florida.

COLLABORATIVE CREATIVITY: CRAFTING THE STALK NEWSLETTER

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Discover the art of teamwork and innovation in newsletter production. Accomack & Northampton County Virginia Cooperative Extension (VCE) ANR agents and the Virginia Tech Eastern Shore Agricultural Research and Extension Center (ESAREC) Director produce a monthly collaborative newsletter: “The Stalk” designed for maximum impact reach to their stakeholders. Following is a deep dive into the collaborative processes that drive the success of The Stalk.

From brainstorming sessions to final edits, we will highlight the generation process of engaging and relevant content that resonates with our audience, making each edition of The Stalk a must-read. Design and layout are crucial elements of our work. Learn about the principles that make their newsletter visually appealing and easy to read. We will share tips on using design tools and software to create professional-looking publications that captivate our readers.

Managing the production timeline is another critical aspect. We will review best practices for planning, setting realistic deadlines, and allocating resources efficiently. We will share how we handle unexpected challenges in newsletter production, turning potential obstacles into opportunities for innovation.

Celebrate the power of collaborative creativity. Whether you’re a seasoned professional or just starting out, we

trust you will find practical advice and creative ideas to enhance your work and build a community of like-minded individuals passionate about content creation and communication.

VASEYGRASS: ENCROACHING PROBLEM IN NORTHEAST ALABAMA HAYFIELDS

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Vaseygrass (Paspalum urvillei) is an invasive warm season grass that is native to South America. Historically, vaseygrass has been most problematic in pastures and hayfields along the Gulf Coast. However, its range is beginning to move north and it is encroaching on pastures and hayfields in North Alabama. There are few herbicide options for controlling vaseygrass in warm season grass systems such as bermudagrass and bahiagrass. Controlling vaseygrass in cool season grasses, such as tall fescue, presents a greater challenge and management options are minimal. To address farmers' concerns, a demonstration was established in a field of vaseygrass located on Sand Mountain in Jackson County, Alabama. Three herbicide options at different rates were evaluated for vaseygrass and tall fescue survivability. Cornerstone Plus (3 lb ae/gal glyphosate) at rates of 6, 8 and 12 oz per acre, Panoramic (imazapic) at 6 and 12 fl oz per acre, and Pastora (nicosulfuron + metsulfuron) at 1.5 oz per acre. Herbicide application was made on August 24, 2022 using a 4-nozzle, CO2 backpack sprayer that delivered 15 gallons per acre water carrier volume on vaseygrass approximately 3.5 feet tall. Visual control assessments were made at 8 and 47 weeks after treatment, Oct. 20, 2022 and July 20, 2023, respectively. Evaluations at both dates indicated that 12 fl oz per acre Cornerstone Plus and both rates of Panoramic provided the greatest reduction in vaseygrass and the greatest increase in tall fescue. Future research includes further investigation into control options for vaseygrass in cool season grass pastures and hayfields.

LANDSCAPE UNIVERSITY: MEETING CONTINUING EDUCATION NEEDS THROUGH ENGAGING VIRTUAL LEARNING

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In Florida, the nursery and landscape industries generate $25.4 billion in sales and support 242,000 jobs annually, highlighting their economic significance. Many green industry professionals must hold a state pesticide and/or fertilizer license to legally apply products as part of their job duties. Depending on the type, licenses are renewed annually or every four years with requirements ranging from 4-20 continuing education units (CEUs). While COVID-19 initially drove the demand for virtual CEU opportunities, post-pandemic needs assessments confirmed the ongoing need for online extension programs specific to this audience. To meet this need, three Extension agents developed Landscape University, an annual webinar series, first launched in 2021. The program consists of weekly one-hour webinars over six weeks from January to February, aligning with the industry's slow season when professionals have more time for continuing education. Held via Zoom, the webinars provide interdisciplinary training on integrated pest management and sustainable landscaping best practices. Since its inception, Landscape University has featured topics like weed management, pollinators, pruning trees, palms, agroecology, composting, and more, all in the context of Florida landscapes. The series engaged participants through presentations, real-world case studies, poll questions, and live Q&A to accommodate diverse learning styles. Post-webinar surveys and 6-month follow-up surveys, sent via Qualtrics, were used to measure outcomes. From 2021-2025, Landscape University has engaged 1,241 live participants and issued 734 CEUs, with an additional 182 views of recordings on YouTube. In post-webinar surveys, 93.4% (733/785) of respondents increased their knowledge with an average gain of +1.21 on a 5-point scale (n=195). In 6-month follow-up surveys, 90.4% (47/52) of respondents adopted at least one learned practice since attending the webinars (i.e.

properly identifying pests prior to treatment, rotating modes of action, checking environmental conditions prior to applications, etc.). The success of Landscape University demonstrates the effectiveness of virtual extension programming in delivering critical continuing education to horticulture professionals. Through interdisciplinary content, engaging virtual delivery, and impactful post-training results, the program met a critical need for accessible, quality education on sustainable landscape practices while ensuring professionals can maintain compliance with license requirements.

COOKING LIKE A CHEF SUMMIT

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To mitigate the overweight problem in SC and to elevate cooking and healthy food choice for youth, the Healthy Living Committee offers Cooking Like a Chef (CLC). In 2024 the CLC event provided hands-on experience with food professionals. While CLC is a one-day event, the goal is for the youth in attendance to take their knowledge learned and share it within counties as a summer camp. CLC summit hosted 34 high school youth from 14 SC counties and 23 4-H agents/volunteers. A prequestionnaire was administered. The youth worked with culinary professionals on skills, techniques, and kitchen safety while rotating through five menu stations. They then divided into 4-person county groups to complete a team cooking challenge. Post questionnaires were administered. The pre score average was 71%; the score increased to 87% on the post. Focus groups via zoom were conducted with participants as well as with agents. The focus groups provided feedback about what worked at the summit and provided an opportunity to share changes they would like i.e. continuing to allow collaboration and teamwork, continuing to provide autonomy during the cooking process and providing more time for rest and reflection. Feedback provided from participants and volunteers will be considered while planning the 2025 CLC Summit. The next summit will be conducted as a culinary teaching session in the morning and a coaching practical with the team cooking challenge in the afternoon.

THE ROLE OF EXTENSION IN URBAN PEST MANAGEMENT: IMPACT OF THE PEST PROGRAM

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Urban pest management is an increasingly vital component of Extension programming as urbanization expands, bringing humans and pests into closer contact. Over 80% of the U.S. population resides in urban areas, increasing the need for proactive pest education. The CDC reports that cases of tick- and mosquito-borne diseases have nearly doubled in the past two decades, and pests cause billions of dollars in structural damage annually. Extension programs play a critical role in equipping communities with integrated pest management (IPM) strategies to mitigate these risks.The Pest Educational Series & Training (PEST) program provides accessible, research-based training on urban pest control. Delivered through virtual and in-person sessions, PEST educates residents, government employees, and volunteers on termites, bedbugs, ants, rodents, and mosquitoes. Virtual sessions use polling to measure engagement, while in-person workshops reinforce learning through interactive instruction. A follow-up survey via Qualtrics assesses long-term behavior change.

By the program's conclusion, 80% of attendees adopted at least two pest control practices. Key outcomes included 100% (n=29) trimming trees and shrubs to prevent pest access, 97% (n=28) regularly inspecting homes for pests, and 93% eliminating moisture sources (n=26) and wood-to-ground contact (n=27). Additionally, 90% (n=26) planted landscape plants at least two feet from exterior walls, 83% (n=24) removed indoor pest food, water, and shelter, and 79% (n=23) sealed home entry points. Regarding mosquito management, 81% (n=22) removed larval habitats, 70% (n=19) used CDC-recommended repellents, and 28% (n=8) implemented biological mosquito control methods. Tick-related practices included 66% (n=19) checking pets and 72% (n=13) properly removing feeding ticks. PEST's success underscores the value of Extension programs in promoting sustainable pest management. By offering a dual-format approach, the program ensures accessibility and engagement across diverse audiences, fostering more proactive pest prevention behaviors. Ongoing assessment will further refine program strategies and long-term impact.

THE 4-H YOUTH COASTAL CLUB

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Objectives: Coastal and upland habitats are plentiful in Gulf county. The historical focus of 4-H youth development programming has been in the upland region. The 4-H horse club has been a fixture for forty years of existence and the recently created livestock club has flourished. Gulf county is also home to St. Joseph Bay, a pristine bay system with miles of beaches and a network of sand dune habitat. The objective of this programing endeavor was to create a well-rounded youth education experience.
Methods: Needs assessment feedback was provided by the advisory committee and both local/state organizations. Based on response, a plan was formed to offer an after school, special interest club as a pilot program to educate 3rd – 5th grade youth about sustainability and conservation of the Gulf Coast. Eight after school club meetings were held for an hour and a half each and were formatted to have a short presentation, hands on activity and time to reflect and journal on the day's topic. Curriculum included lessons on coastal habitats, coastal animals, living on the coast and the importance of sand dunes and sea oats. A community service activity was organized and implemented where club youth and their family, as well as instructors and volunteers planted five hundred sea oat seedlings at a sand dune restoration project located at St. Joesph Beach.
Results: Twenty-two members enrolled in the club and twenty-seven participants helped with the field day activity. The goal of this pilot program was two part: (1) to gauge interest and build enthusiasm for coastal education; and (2) to evaluate and convert the short-term special interest coastal club into a full 4-H Youth Naturalist Program for the next school year.
Conclusion: Special interest clubs, like the Coastal Club, can kickstart engagement of environmental awareness and result in a better understanding of coastal sustainability and conservation. Experiences such as this can lead to long-term youth education opportunities.

SPROUTING LEADERSHIP: HOW GARDENING CULTIVATED 4-H AT COOSA

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School gardens and outdoor classrooms offer transformative experiences for students and educators, fostering academic growth, sustainability awareness, and community engagement. In 2021, Coosa Elementary School, located on Lady's Island, South Carolina, partnered with Clemson Extension to establish a dynamic school garden program. The school, serving a diverse population of 30% military families, enrolled thirty-nine faculty and staff members in Clemson Extension's School Gardening for SC Educators online program. This research-based, five-week course provided educators with specialized horticultural training and resources, including The Garden STEM Curriculum (K-8), Seasonal Planting Guide & Calendar for South Carolina Schools and Community Gardens, and grade-level-specific materials. These tools enabled teachers to integrate garden-based learning into their classrooms, promoting interdisciplinary connections across science, math, language arts, and social studies.

After completing the program, educators collaborated with 4-H Youth Development and Master Gardener volunteers to implement monthly Garden STEM lessons, where students participated in hands-on rotations in the garden. Coosa's garden features seventeen raised beds, a small fruit orchard, and a Tower Garden™, which has become a hub for experiential learning and community outreach.

Harvested crops are donated to local food banks, fostering social responsibility among students. All grade levels within the school participate in planting, harvesting, and donating the crops.

While the initial goal of the project was to support the school's desire to create a school garden, an even broader impact was fostered through the partnership. 4-H Youth Development was offered to all grade levels through school enrichment. Youth learn about agriculture and natural resources through chicken embryology, engineering design challenges, stormwater education, and more. Coosa Elementary's commitment to developing the whole child is reflected in its status as a Leader in Me school, where students are encouraged to make thoughtful decisions, work collaboratively, and care for their well-being.

The initiative contributed to Coosa Elementary's recognition as a National Blue Ribbon School and inspired similar garden-based partnerships across Beaufort County. The program exemplifies the impact of school gardens in cultivating curiosity, sustainability, and community engagement.

EMPOWERING SMALL FARMERS: AFFORDABLE AI SCHOOL FOR ENHANCED HERD GENETICS AND PRODUCTIVITY

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In the dynamic landscape of modern agriculture, small farmers are seeking cost-effective ways to enhance their cattle herd genetics and overall productivity. Artificial insemination (AI) is a tool producers can utilize to introduce high quality genetics into their herds without the additional cost of maintaining a bull. Traditional training opportunities can charge upwards of $500, making it difficult for producers to afford. Recognizing the pivotal role of genetic improvement in cattle production as well as the need for a non-cost prohibitive training, this program aims to empower small farmers with the knowledge and techniques of AI during a one-day training at Paris Stockyard. The program was designed to explain the AI process, and offered hands-on instruction that covered the fundamentals of reproductive anatomy, estrus detection, semen handling, insemination procedures and pregnancy checking. Seventeen participants of a range of ages and farm sizes attended the program. After five hours of classroom instruction, all participants were given the ability to work hands on with cattle chute side. Participants completed the entire AI process including removing semen from a semen tank, palpating and inseminating a live cow, placing a heat detection patch and pulling blood for an IDEXX pregnancy blood testing kit. The instructional program is facilitated under the expertise of Dr. Les Anderson, a distinguished UKY Extension Beef Specialist, with instructional materials provided by ANR Cooperative Extension Agents Lindsay Arthur and Levi Berg. The cost to producers was only $100. All fourteen participants planned to implement at least one of the techniques taught at the school within the next year. Several plan to improve genetics by implementing a crossbreeding program and utilizing Expected Progeny Difference to meet breeding objectives.

FARMFEST: FROM SOIL TO SUPPER

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Farm Fest, an annual agricultural awareness, education, and networking event in Russell County, Alabama, has grown significantly since its inception in 2023. The program aims to connect local producers, educate consumers, support beginner farmers, and engage youth in agricultural activities. The 2025 event, held at the Fort Mitchell Historic Site, attracted 300 participants and featured an expanded lineup of educational opportunities, interactive exhibits, and hands-on learning experiences. Key activities included an indoor vendor space showcasing agricultural resources and partner agencies, a pop-up vegetable market, a mobile health unit for youth, and a multi-county 4-H Chicken Que BBQ competition. Ignite Educational Sessions provided expert-led discussions on critical farming topics such as estate planning, seed starting, backyard poultry, fire ant control, and farm business development. The Russell County Cattlemen's Association, along with local culinary arts students, contributed to the event by offering a grilled hamburger lunch. The 4-H Chicken Que BBQ competition saw increased participation, with nine youth contestants compared to five in 2024. Through this contest, youth enhanced their understanding of food safety, nutrition, and cooking techniques while demonstrating grilling skills under timed conditions. A detailed evaluation conducted in 2025 provided insights into attendee demographics and interests. Of the 35 evaluations received, 51% of respondents were Russell County residents, while others traveled from neighboring counties and states. Most identified as home gardeners, with 57% attending primarily for gardening resources and educational opportunities. Ignite Sessions were highly valued, particularly those on seed starting and farm demonstrations, and 33% of attendees indicated plans to implement gardening techniques learned at the event. Farm Fest continues to be a vital initiative led by the Russell County Extension in partnership with local agricultural organizations. The program's expanding reach and impact highlight its importance in fostering self-sustainability, strengthening local food systems, and supporting the next generation of farmers and agricultural enthusiasts.

JOURNEYMAN FARMER CERTIFICATION BENEFITS SMALL AND BEGINNING FARMERS

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In the growing suburban/rural interface counties that hosted this series of Journeyman Farmer courses, there is a growing demand for clientele assistance in agriculture. Many people from larger suburban counties still view outlying counties like Carroll, Haralson, and Paulding as more agricultural and rural settings and many move to these areas, for the appeal of pastoral and forested landscapes. Homes are purchased with small acreage with the intention of raising animals or small fruits and vegetables, but they come with little experience or knowledge of farm business, land, and herd management. Agents use the Journeyman curriculum to teach best management practices including the importance of soil fertility testing, nutrient management, insect/disease management, water availability, animal selection, and variety selection. A team of Agents, Educators, and the area director for UGA Small Business Development Center offered the Journeyman Farmer Certification training series yearly between 2017 and 2024, alternating the focus between small ruminants and small fruit and vegetable production. Agents found that after the Journeyman programs, participants were more confident in their farming practices. We also learned that although some participants did not farm, or were no longer farming, they used the knowledge they gained on their homestead, making home gardens and small ruminant production more efficient for their families.

UF/IFAS ARTIFICIAL INSEMINATION CERTIFICATION

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The Beef Cattle Reproduction Management School, organized by the Central Florida Livestock Agents Group (CFLAG), initially focused on teaching palpation for pregnancy determination. This event is held in partnership with allied industry groups and Deseret Cattle and Citrus Ranch. However, some participants expressed interest in additional education on Artificial Insemination (AI). In response, the school expanded its curriculum to include AI training.

As the program progressed, participants began asking whether there was a certification for AI proficiency. While industry partners offer AI training and certification, there is no official standard for AI certification. To address this gap, we developed the UF/IFAS CFLAG Artificial Insemination Certification. This certification was designed to be a prestigious and challenging way to demonstrate proficiency in AI, while still being attainable for those with genuine skill.

To earn the certification, participants must first demonstrate proper semen handling, including tank retrieval and rod loading. They must then successfully pass a rod beyond the cervix on four separate occasions, with each attempt completed within a four-minute time limit. While participants of the Beef Cattle Reproduction Management School with AI are not required to attempt the certification, they are encouraged to continue developing their skills. Each participant receives a punch card, and for every successfully completed task, an instructor punches a hole. A fully punched card signifies eligibility for certification. All attempts are evaluated by UF/IFAS Agents, Researchers, or allied partners.

Although the certification has only been in practice for two years, the UF/IFAS CFLAG Artificial Insemination Certification has quickly become a respected standard. The goal is to build a highly skilled workforce in AI and have these professionals represent the CFLAG Beef Cattle Reproduction Management School, thereby attracting more motivated participants to the program. Currently about 29% of the participants (n=54) have become certified.

MASTER GARDENERS, MASTER DETECTIVES: EVALUATING AND ENHANCING VOLUNTEER PLANT DIAGNOSTIC SKILLS

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The UF/IFAS Extension Orange County Plant Clinic plays a crucial role in meeting the gardening needs of our growing community. Serving nearly 2,000 clients annually, dedicated Master Gardener Volunteers (MGVs) process plant samples and offer expertise. Therefore, strengthening their diagnostic skills is crucial to delivering quality support. The objectives of this initiative was to improve MGVs' understanding of plant diagnostic topics in order to better support gardening needs in Orange County. A pre-workshop survey, distributed to 79 MGVs, assessed interest, confidence, and knowledge of plant triage processes, pest identification and management, and other diagnostic topics. Based on survey results, a 3-hour workshop was developed covering plant diagnostic basics, plant pathogen fundamentals, pest identification, and appropriate referral resources. Post-workshop surveys measured improvements in knowledge and confidence. With a 92% response rate (n=73/79), pre-survey results revealed strong interest in plant diagnostics (94%) and

pest management (94%), but low confidence in identifying pests (33%) and diseases (28%). Most respondents expressed a need for additional training in pest (86%), disease (94%), and abiotic plant issues (89%). Sixty-four MGVs attended the 3-hour workshop. Post-workshop assessments showed notable improvements: 90% could distinguish pest and disease signs vs. symptoms, 80% identified viral symptoms accurately, and 64% improved their knowledge of diagnostic processes. Participants' awareness of UF Faculty resources for plant pests and diseases surged, rising between 48% and 63% across categories. This training workshop effectively boosted MGVs' diagnostic skills and preparedness to assist clientele with gardening issues. Enhanced confidence and knowledge highlight the value of ongoing education to strengthen volunteer expertise in plant diagnostics. By equipping MGVs with updated techniques and resources, they are better prepared to tackle complex plant health challenges and offer more informed guidance to the community.

CAROLINA YARDS: A MULTIFACETED APPROACH TO ENCOURAGING ENVIRONMENTALLY FRIENDLY LANDSCAPING

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Residential landscapes are an integral part of the environment. Thus, the management of these landscapes can have positive or negative impacts on local ecosystems. Carolina Yards was developed to assist South Carolinians in conserving water and making positive changes in the environmental quality of their yards, neighborhoods, and surrounding waterways by implementing twelve basic principles. Originally developed as Florida Yards & Neighborhoods by the University of Florida – IFAS in 1994, the program was first adapted for South Carolina in 2002 with the creation of the Carolina Yardstick Workbook (printed publication) and a CD of electronic resources. Over the years, the program has expanded to provide property owners with research-based information that empowers them to take action in their own landscapes. Highlights of this multifaceted approach to encouraging environmentally friendly landscaping include a formal yard certification program, a hybrid online course, electronic resources including a native plant database, and a demonstration site. To date, 824 people have successfully certified their Carolina Yards with representation in 41 out of 46 counties. The online course has had a total of 307 participants, with the Spring 2025 offering seeing the highest registration since it was launched. Future plans include the expansion of the yard certification program to include neighborhoods, HOA landscaping requirements, and non-residential sites, additional advertising through rack cards, updates to course content to reflect emerging research, and increased field day locations across the state.

PREPAREDNESS FUNDAMENTALS FOR SMALL AND LIMITED-RESOURCE FARM FAMILIES

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According to national survey data from the Federal Emergency Management Agency (FEMA), less than half of Americans are familiar with local hazards, and fewer than 40 percent have created a household emergency plan and discussed it with household members. Fifty-six percent of Americans believe that estate planning is important, but only 33% of adults in the U.S. have documented their end-of-life plans. Many limited-resource families do not perform estate planning due to a complex mix of historical factors including systemic racism, lack of access to legal services, a perception that estate planning is not necessary for those with limited assets, mistrust of the legal system, and the resulting phenomenon of "heirs' property" where land is passed down without a will, leading to fragmented ownership and difficulty managing the land effectively which often results in the loss of generational wealth in the form of farmland. North Carolina Cooperative Extension in Robeson, Hartnett, and Duplin Counties organized Preparedness Fundamentals for Farm Families Workshops, in Lumberton, Lillington, and Kenansville respectively. The objectives of the workshops were to have families learn about disaster preparedness strategies, conduct risk assessments on their farm and the basics of estate planning. A total of 62 persons attended the three workshops. Evaluations conducted at the beginning and end of the workshops showed that

the participants knowledge of estate planning, disaster in knowledge of disaster preparedness, estate planning and heirs' property had increased from an average of 2 to an average 4 on a scale of 1 to 5. Follow-up interviews and surveys taken nine months after the last workshop showed 79% of participants had discussed estate planning with family members and four particpants had established a farm succession plan. Several other participants stated that they have worked with family members to set goals and strategies to put a farm succession plan in place. By understanding and implementing strategies in estate planning, managing heirs' property effectively, and preparing for disasters, individuals and communities can safeguard their assets, preserve their legacies, and enhance their resilience in the face of uncertainties.

FIRE FESTIVAL: PROMOTION OF HEALTHY FORESTS AND FIELDS THROUGH HEALTHY BURNING

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Effingham County Extension and the Longleaf Alliance have created an annual event that started as a simple prescribed burn field day, and since transformed into an annual prescribed burn event to teach landowners, new and existing, about the benefits of burning, the assistance programs available, as well as connect the public with natural resource organizations, and teach the youth in the community about forestry as a future career path. The results have been incredible, seeing an average of 500 attendees from Effingham and the surrounding counties the past four years. Kids have the opportunity to see forestry as a potential area that may interest them as they grow up and choose their career paths. Landowners and adults have opportunities to meet with NRCS representatives, foresters, and specialists to learn more about natural resource conservation and the opportunities that planting pines can have for them long term. Since 2021, there have been four Fire Festivals that have taken place. The first year saw 300 attendees and has since seen an over 200% increase in attendance in 2023 boasting 650 community members participating, while 2024 saw a bit of a decline, potentially due to weather, hosting only 450 community members. The attendees' feedback has been extremely positive, with only suggested additions as constructive criticism. The attendees all have sited that the event is educational for the kids and adults. One quote said, "it gives the kids plenty to do and learn from, while at the same time allows dads and moms to 'talk business' with the different organizations that are in attendance."

BE SEPTIC SAFE: NATURE CALLED & CLEMSON EXTENSION ANSWERED WITH VARIOUS OUTREACH PROGRAMS TO EDUCATE CITIZENS ON TAKING CARE OF BUSINESS AND KEEPING THEIR SEPTIC SYSTEMS FLOWING

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Clemson Cooperative Extension (CCE) has employed varied innovative outreach methods as a strategy to educate the citizens of South Carolina (SC) on septic systems for the health and wellness of individuals and our environment. A residence is not only four walls and a roof, it also must contain a sewer or septic system. Many communities in SC rely solely on septic systems regardless of socio-economic demographics and every user needs knowledge of how to properly operate and maintain their septic system to keep you, your family, our community, and our environment healthy. Be Septic Safe is a CCE program created to help provide septic system users with a resource for all things septic-related. Bacteria is the top pollutant for SC waterways, with approximately 350 current impairments. Septic Systems that are not operating as designed and/or improperly maintained may fail and leak which can contribute to harmful bacteria entering our watershed and contributing to these impairments, making septic systems an essential target for water quality education. Waterbodies affected by bacteria pollution may be unsafe for swimming, fishing, harvesting shellfish, or supplying drinking water. CCE has developed virtual webinars, in-person presentations, a FAQ-style website, videos, factsheets, magnets, a variety of promotional items, a user's guide, and a mass media campaign as part of its Be Septic Safe program. These resources provide education and outreach about different types of septic systems, state regulations, proper maintenance, and how to survive when unique situations arise. These resources raise awareness in our communities of proper septic system maintenance and care, ultimately helping to better protect the well-being of our states' citizens and waterways against bacteria

pollution. CCE has successfully used these resources in conjunction with community engagement programs to positively impact the citizens of SC. The poster summarizes the Be Septic Safe program impacts from the different ongoing education and outreach methods; over 56,000 individuals have been reached: 62% HGIC Factsheets, 24% Website & Youtube, 7% promotional items, 5% printed materials, and 2% presentations. In addition, the one-time mass media campaign reached over 13 million through the billboard and almost 2 million through the commercial.

PROTECTING TERRAPINS AND PRESERVING FISHERIES

Brittany Scharf
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The accidental drowning of diamondback terrapins in crab traps led the Florida Fish and Wildlife Conservation Commission (FWC) to mandate bycatch reduction devices (BRDs) on all recreational blue crab traps in state waters. Research revealed significant conservation concerns, particularly in the Mid-Atlantic states, where large numbers of terrapins were found drowned in traps. While Florida had fewer reported incidents, its unique and smaller terrapin populations raised concerns about long-term sustainability. In response, UF/IFAS Extension Agents and Florida Sea Grant, in collaboration with FWC, launched a statewide educational campaign to inform the public about the new ruling and the importance of BRDs. This comprehensive effort included a fact sheet, PowerPoint presentation, and educational video to increase awareness. To further encourage compliance, Florida Sea Grant distributed free BRDs through UF/IFAS County Extension offices. This initiative resulted in 6,372 BRDs distributed among 391 stakeholders statewide, equipping 3,186 recreational blue crab traps with the necessary gear to meet legal requirements. This statewide distribution saved fishers $31,797 (compared to purchasing BRDs) and avoided fines totaling between $742,338 and $1.59 million. By combining education, outreach, and free BRD distribution, this initiative successfully promoted compliance and advanced conservation efforts. The initiative showcased the effectiveness of partnerships, proactive outreach, and community engagement in promoting responsible environmental practices among recreational blue crab fishers.

WORK SMARTER-IMPROVING AN AGENT'S RETURN ON TIME INVESTMENT

Zachary Snipes
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Clemson Extension
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Ongoing staffing issues within the Extension system often result in high turnover, burnout, and gaps in coverage, affecting our ability to serve clients effectively. In light of these challenges, how can we continue to fulfill our mission of providing unbiased information that improves our clientele's lives? One potential solution is to reassess how we view our return on time investment, focusing on more efficient ways to serve our clients while better supporting our agents.

Visiting growers is a vital part of Extension work, but not every inquiry requires an in-person visit. SCGrower, a weekly crop report available at SCGrower.com, is sent to 546 subscribers to keep growers informed. This resource helps reduce the number of farm visits agents need to make, providing essential updates without the time investment of in-person visits. Agents spend fewer than 15 minutes each week preparing the crop report, and in return, it reaches over 700 clients every week.

In-person meetings are crucial to Extension's success, but they require significant time, energy, and financial resources. To broaden our reach, our team began offering webinars as an alternative. We quickly discovered that on-demand webinars—where participants can choose the time, place, and date of participation—led to a 363% increase in attendance. These on-demand sessions allow agents to spend less time on scheduling and preparation while reaching a larger audience compared to in-person or scheduled webinars.

Teaching new farmers essential skills is critical but time-consuming, often involving repetitive content.

To address this, we developed Farming Foundations, a free, on-demand class designed to teach the basics of farming. Created from recycled presentations combined into a cohesive course, Farming Foundations has served 1,032 clients since its launch in 2022. This class frees up hundreds, if not thousands, of agent work hours annually, requiring fewer than 10 hours of management each year. Since 2019, our team has been implementing systems to improve each agent's return on time investment. These systems have enabled us to significantly increase our reach, serving more clients in a timely manner while reducing agents' workloads.

EQUINE WELFARE ASSESSMENT SKILLS CERTIFICATION COURSE

Robyn Stewart
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Lincolnton

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Livestock contribute $1.59 billion in economic impact to the state of Georgia, with 12.1% or $192 million attributed to the equine industry. Animal welfare and neglect continues to remain a concern of the general public, but individuals responding to these concerns may lack agricultural background or education on acceptable equine welfare and management practices. A 3-day course targeting law enforcement, state agencies, animal control, equine rescues, and veterinarians was piloted in 2024. The objective of the program was to increase participant knowledge of equine best management practices and improve participants' ability to make informed decisions regarding animal welfare. The program had 35 participants from 7 states, representing veterinarians, 501c3 equine rescues, and state agencies. Teaching methods included a combination of lectures on social license to operate, best practices for non-profits, defining welfare, behavior and handling, trailer safety and transportation, body condition scoring, herd health management, and nutrition, hands-on activities, and a 501c3 rescue tour. The participants had a positive experience with the program (96%) and excellent satisfaction with presenters (70%) and take-home materials (71%). Participants reported an increase in knowledge, with 85.6% reporting being very or extremely knowledgeable after the course compared to 53.5% prior to it. In addition, 98% of participants agreed that attending the program would improve their ability to make informed decisions regarding equine welfare, 78% felt attending the program increased their understanding of equine welfare and 78% improved their confidence in making equine management decisions. A certificate of completion was provided upon completing the course and scoring 60% or better on a final competency exam, and all participants (100%) received certificates. Participants gave open-ended feedback such as "this was an innovative idea and well done for a first event." Future plans include hosting this course again in the future and expanding the use of this curriculum to meet this need in other states.

THE FLORIDA CATTLE MARKET UPDATE MONTHLY SERIES: AN INDIRECT AND DIRECT RESOURCE FOR FLORIDA CATTLE PRODUCERS

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Ona

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Background: There are several sectors and challenges of the cattle industry that affect prices a cow-calf producer receives for cattle. Florida producers need timely information about the market to make profitable marketing decisions. Often times, producers rely on county livestock Extension agents for such information. The Florida Cattle Market Update Monthly Series consists of applicable market information for both cattle producers and county livestock Extension agents. Objectives: Increasing knowledge among producers about the cattle market is accomplished in two ways: 1) sharing information directly with producers through the use of the articles, and 2) sharing information indirectly with producers through the knowledge of county livestock Extension agents. For

the indirect approach to be successful, knowledge and confidence among agents is crucial. The objective of the series is to increase knowledge and confidence among agents by 25%. Methods: Market information is presented in monthly articles using simple terms and visuals. Each article is emailed directly to all livestock county Extension agents. In January, an annual report is published to provide a "big picture" overview of the cattle market. The monthly, one-page articles then highlight a specific topic or segment relevant to that month. This resource provides applicable and easy-to-read material without overwhelming readers. They are shared through multiple outlets, reaching approximately 40,000 readers each month. Results: Of the 52 agents surveyed at the end of 2024, 70% (n=36) provided feedback. Among the 36, 94% (n=34) indicated an average knowledge gain of 35% since the series began in July 2023. Confidence in teaching market material to producers increased by 37%. This increase in knowledge and confidence resulted in 60% of all Florida county livestock Extension agents incorporating market information into programmatic efforts for cattle producers. Additionally, 32% (n=17) forward the monthly article to a total of 11,217 producers. Conclusion: The Florida Cattle Market Update Monthly Series is an example of how a statewide Extension agent or specialist can maximize efforts in reaching clientele. It is a concise, timely, and applicable resource that is used to teach clientele both directly as tangible information and indirectly through knowledgeable and confident county agents.

EMPOWERING PRODUCERS TO THRIVE AT LOCAL FARMERS MARKET

Jennifer Davidson
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Phenix City

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In 2015, representatives from the local farmers market requested a meeting to discuss the dwindling sales of the market due to poor location and no marketing. After becoming aware of the community needs, Extension provided leadership to begin managing the market in earnest. Signage was created and installed, social media posts and newspaper write ups began. After two years of meager sales increases. Extension led the group to a new location and schedule. In 2017, the market was moved to a more visually prominent location with afternoon shade and signage on a major roadway. By 2018, due to the increase in drive by traffic, visibility, strategic marketing efforts and change of dates, farmers reported significant increases in sales. To date, the market has seen steady growth in annual gross sales, according to vendor surveys. Russell County Extension administers the Russell County Farmers Market, yearly, from May through November. In 2018 the farmer market generated approximately $24,000 in gross receipts in fresh, locally-grown vegetables. During the 2020/2021 Covid years, the market continued with pandemic related precautions and very little impact- with similar income estimates. In 2023, the market changed names for greater marketing impact to "Phenix Fresh Open Air Market" – to provide the market with a fresher name that includes the locally grown plants the market offers- not just the fresh food items. In 2024, vendors reported an aggregate $99,250 in sales (a 104.64% increase). Annually, hundreds of limited income seniors that meet the Alabama Department of Ag and Industries income requirements received the Senior Farmers Market Nutrition Vouchers in the estimated amount of $40-$50.

WEEDY RICE RESISTANCE SURVEY IN THE ARKANSAS RIVER VALLEY

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Arkansas ranks #1 in rice production in the United States. Approximately 10,000 acres are grown in the River Valley Region of Arkansas. The #1 weed of Arkansas rice fields is weedy rice which is closely related to the rice that producers grow. This makes control with herbicides almost impossible until the introduction of Clearfield rice in 2002. Over the years, producers did not adopt a 0% tolerance of weedy rice in their fields leading to weedy rice resistance to Newpath. With weedy rice again becoming a problem, there was a new herbicide resistant variety introduced in 2018 which was called Provisia rice. Provisia has provided great control of weedy rice over the years, but in 2024 a field in Faulkner County was suspected of being Provisia resistant. The goal for this survey was to determine what

kind of resistant weedy rice populations were present in the Arkansas River Valley. In the fall of 2024, 25 rice fields were sampled in Faulkner, Perry and Yell County. Samples were taken before the fields were harvested, but when the seedheads of the weedy rice were mature. Results showed that 2 fields of the 25 sampled were not resistant to any herbicide, 23 fields were resistant to Newpath and 3 of the fields were resistant to Provisia along with Newpath. The confirmation of Provisia resistance is troubling. Currently there are no other technologies to control weedy rice in a rice crop. This is an opportunity for the University of Arkansas Division of Agriculture Cooperative Extension Service to work with these producers to determine best practices to be able to continue to grow rice. This information is crucial to producers when deciding what commodity to plant, and if going with rice, what variety to plant. To get the word out to other producers, these results were shared with rice producers in the region at the Arkansas River Valley Rice Production meeting held on March 4, 2025.

COMPARISON OF PLASTICS FOR HIGH TUNNEL SOIL SOLARIZATION

Kim Rowe
Hope

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Traditionally, soil solarization has been demonstrated in field settings. With the expansion of high tunnel production, soil solarization has the potential to reduce herbicide applications for growers if done in an effective manner. The purpose of this demonstration was to compare the effectiveness of two plastic coverings for the purpose of soil solarization, primarily to observe differences in weed seed germination in a high tunnel. The cooperating producer prepared his high tunnel for the next season before installing the demonstration to leave the soil seed bank undisturbed so that effective solarization would not be interrupted by turning the soil prior to planting for the next season. Two polyethylene films in clear and black, both 6 mil, were utilized over half of the tunnel beds, respectively. Over ten weeks, soil temperature, air temperature, soil moisture were monitored under each covering. Temperatures of over 100 degrees Fahrenheit were reported for fifty-eight days of the demonstration period. At the end of ten weeks, the plastics were removed and differences in weed seed germination were noted. The area of clear plastic solarization showed crabgrass and spotted spurge had survived and were actively growing under the clear plastic, which had degraded under the high temperatures. The area of black plastic occultation showed no weed emergence. Observations will continue throughout the next growing season. Early results were promising to the producers, and they expressed they would consider incorporating black plastic occultation into their production practices.

BAHIA BUCKET TRIALS BENEFIT BEEF & FORAGE PRODUCERS IN ARKANSAS

Shaney Hill
Hampton
Abstract

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Bahiagrass is a prominent warm-season perennial forage in southwestern Arkansas. It has a reputation for being a low-input alternative to bermudagrass. Most bahiagrass acreage in Arkansas is considered “Pensacola”. Variety trials in other states have led to interest in using improved varieties, such as “Tifton-9” and “TifQuik”. Previous specialists have questioned whether the yield advantages seen in improved varieties will translate under common producer practices. This demonstration project sought to evaluate three varieties of bahiagrass under best management practices and common producer practices. Buckets of field soil were sown to one of the three varieties in May 2024 and then grown out with rainfall. A one-time watering event occurred in August 2024 to offset excessively dry media during a fall drought. Stands were monitored for canopy height, emergence, and success weekly. The trial was a blind study; agents did not know which bucket was assigned to which variety. Agents reported weekly to the forage specialist, and regularly discussed trial logistics, weather, and weed concerns. Fifteen counties across the Ouachita district were involved initially, however only eight reported regularly. Stands were harvested in July and October. The average dry

matter yield for the season was 3000 lbs/acre. The trial suggested that bahiagrass plantings in Arkansas can be ready for harvest ~60 days after planting and produce two modest harvests. Agents were able to transport buckets to meetings for education and outreach. A field trial will follow in spring 2025.

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HYDROPONIC SYSTEMS FOR HOME GARDNERS AND EDUCATORS

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The Alabama Extension Home Horticulture Team recognized a growing public interest in sustainable and innovative gardening practices, particularly hydroponics. Historically, hydroponic education within Alabama Extension had been limited, with only one webinar session offered in 2021. However, survey assessments from online and in-person workshops indicated a strong demand for more comprehensive hydroponic education.

To address this need, the team participated in an immersive two-day training with UF/IFAS Extension in March 2024. This hands-on experience provided Extension agents with the knowledge and skills to develop tailored hydroponic workshops for Alabama residents. In 2024, three full-day, in-person Hydroponic Systems for Home Gardeners and Educators workshops were launched across the state, targeting these groups as well as small-scale farmers. These workshops introduced participants to various hydroponic systems, including Dutch bucket, deep water culture, Nutrient Film Technique (NFT), and Vertical Hydroponic Towers. Team members constructed and documented these systems, integrating visual and hands on demonstrations into workshop presentations. Workshop activities included detailed discussions on hydroponic principles, fertilization, water quality, lighting, plant selection, seed-starting, media selection, and harvesting techniques. A hands-on component allowed each participant to construct and take home a deep-water culture system, fostering practical application and confidence.

Program Outcomes:
93 participants attended workshops across Alabama, with 60% completing evaluations.
41% of participants engaged with Alabama Extension for the first time.
Prior to training, 28% had no knowledge of hydroponics; post-training, 96% reported at least moderate knowledge, with 56% reaching high competency levels.
Knowledge of NFT and Floating System Technology increased significantly, with 85% and 91% of participants, respectively, achieving moderate to expert proficiency.
98% expressed confidence in implementing a home hydroponic system.
100% committed to applying learned techniques.
64% reported continued use of their hydroponic system, with 80% planning expansion.
The success of these workshops demonstrates the effectiveness of hands-on hydroponic education in increasing public knowledge and adoption. Alabama Extension's initiative has empowered participants with the confidence and resources to integrate hydroponic practices into their homes, classrooms, and small farms, contributing to a more sustainable and innovative gardening culture in the state.

GARDEN TO PANTRY: AN INTERACTIVE AND INTERDISCIPLINARY APPROACH TO GROWING AND PRESERVING PRODUCE

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The Garden-to-Pantry (G2P) program aims to provide participants with a comprehensive, one-day experience covering everything from planting and pest management to food preservation and cooking seasonal crops. Based on the Home Food Preservation Needs Assessment for

Alabama stakeholders, there is significant interest in the G2P program, with 91% (843 respondents) expressing a preference for a cross-discipline approach to educational events. The G2P program offers multiple benefits, including improved food safety, increased variety, better flavor, and positive environmental impacts. By consuming food grown in home or community gardens, participants gain access to produce that may not be readily available elsewhere. The G2P program appeals to a diverse group of people that may grow their own food, including homesteaders, rural families, health-conscious individuals, novice gardeners, and food preservationists. G2P sessions, which last 4 hours, include topics on growing basics, pest management, nutrition education, food preservation techniques (e.g., pressure canning, water bath canning, freezing), and hands-on cooking demonstration that can benefit these groups of people. In 2024, the program hosted 10 events, with 129 participants (83% female, 17% male). Of these, 92% were white, 7% were Black, and less than 1% identified as American Indian, Asian, Pacific Islander, or other races. Evaluations showed that 41% of participants reported a significant increase in their knowledge of growing produce (up from 17% before the workshop). Over 80% of participants indicated plans to apply the concepts and techniques learned. Testimonials highlighted the program's impact, such as one participant stating, "I fully intend to use what I learned when gardening and preserving food this fall." The program will expand in 2025, aiming to reach 20 counties across Alabama. These results demonstrate the effectiveness of the G2P program in increasing knowledge and encouraging the adoption of sustainable gardening and food preservation practices.

HELPING VOLUNTEERS THRIVE! PROFESSIONAL DEVELOPMENT SERIES PUTTING VOLUNTEER TRAINING RESOURCES INTO PRACTICE

T. Ashley Burns
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Clemson

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The Southern Region Volunteer Specialists developed and implemented a five-part virtual professional development series aimed at connecting the 4-H Thriving Model's developmental context with practical applications of the updated Volunteer Research Knowledge Competency (VRKC) taxonomy. This innovative program, conducted via Zoom from April to October 2023, featured facilitators from 11 states and attracted 366 live attendees across its five sessions. The series employed diverse educational methods to cater to various learning styles, including live virtual sessions, recorded content, and interactive resources. Participants received digital badges upon completion of each session's evaluation, with an additional badge awarded for completing all five sessions. This approach not only incentivized participation but also allowed for ongoing engagement and resource access. Post-session evaluations (n=116) revealed significant improvements in participants' awareness of Thrive and VRKC resources, as well as enhanced understanding of key concepts such as developmental context, youth-adult partnerships, diverse teaching strategies, and program quality evaluation. Notably, 95% of respondents reported increased ability to facilitate activities with volunteers, 94% could better contextualize content, 88% made connections between VRKC and the 4-H Thriving Model, and 87% felt equipped with necessary resources for volunteer development. This professional development series demonstrates a successful integration of theoretical frameworks with practical application in volunteer development. Its innovative approach to virtual professional development, coupled with measurable positive outcomes, presents a valuable model for future Extension programming. The series effectively addressed the need for comprehensive volunteer training, aligning with both the 4-H Thriving Model and VRKC taxonomy, thus contributing significantly to the field of positive youth development.

Award Winners

(Ag Awareness, Search For Excellence, Hall of Fame, Daniel Kluchinski Memorial Scholarship, Distingiushed Servie Award, Achievement Award, Communications)

2025 NACAA

110th
Annual Meeting
and
Professional Improvement Conference

Billings, Montana

Agriculture Awareness and Appreciation Award

NATIONAL WINNER

A ONE HEALTH PROGRAM TO KEEP YOU, YOUR FAMILY, AND YOUR ANIMALS TICK SAFE

Timothy McDermott
Ext. Educ., ANR
Columbus

McDermott, T[1]
Assistant Professor, Ext. Educ., ANR, Ohio State University Extension, Columbus, Ohio, 43210

It has been said that our next major pandemic will be tick-vectored disease. In my 29 years as a veterinarian, I have seen us go from one tick of medical important to humans, companion animals, and livestock 20 years ago to five now, including two new species in the last few years. This trend is widespread at the local level in Franklin County, but also throughout Ohio and the United States. Ticks, and the diseases they vector such as Lyme disease cause devastating illness that can be difficult to diagnose and treat. The true invasive Longhorned tick has proven capable of killing cattle through feeding and disease transfer, having the potential to severely impact how we raise livestock for the foreseeable future. A tick bite can make you allergic to red meat. Imagine being allergic to bacon cheeseburgers! The most impacted cohorts in Ohio by Lyme Disease are youth in the 5-9- and 10-14-year age groups. We need to do a better job keeping our kids safe. Ohio has had a 35-fold increase in Lyme disease in the past 13 years. It is estimated we have over 500,000 cases of Lyme disease in the United States yearly, with nearly 10% of those living in North American having had Lyme disease already. Recognizing the need for One Health outreach to address the rapidly expanding threat of ticks and tick-borne disease, this program was created using webinar, video, in-person, hybrid, and print outreach and education that can be easily accessed and easily shared to multiple audiences. Since 2023, this program has reached over 29,380 residents through educational outreach for our 4-H program area, all 88 Ohio county Agriculture and Natural Resources Extension Educators, our Pesticide and Safety Education Program, livestock producers, Master Gardener Volunteers, naturalists, and county, state, and regional public health officials with 98% of respondents stating that they have a better understanding of the risks of ticks and 98% of respondents stating that the information gained will help protect their families and their animals from the risks of ticks.

REGIONAL WINNERS

AGRICULTURAL & CULTURAL HERITAGE TOUR IV: NEW ENGLAND

Lindie Huffman
ANR Agent
University of Kentucky
Falmouth

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The Agricultural & Cultural Heritage Tour to New England was developed by the Pendleton County Extension Office as a cross-programmatic initiative between Agriculture & Natural Resources (ANR) and Family & Consumer Sciences (FCS) to provide affordable, immersive educational experiences for rural Kentuckians. With agriculture in Pendleton County rooted in beef cattle, forages, tobacco, and expanding horticulture, many producers have limited exposure to agricultural practices outside their region. This tour aimed to broaden agricultural awareness through experiential learning, cultural immersion, and hands-on interaction with diverse farming systems, fostering an appreciation for the challenges and innovations shaping modern agriculture. The 2024 tour spanned 12 states over 8 days, featuring direct engagement with diverse agricultural practices, such as dairy diversification, cranberry harvesting, maple syrup production, and aquaculture. A highlight was visiting a Vermont dairy farm that had diversified into saffron cultivation in partnership with the University of Vermont's North American Center for Saffron Research & Development. This inspired a citizen science project where 18 Kentucky participants initiated saffron trials on their own farms, tracking soil pH, planting dates, bloom periods, and harvest yields. Participants also completed daily reflection logs to deepen engagement and reinforce learning. The tour included visits to cultural landmarks like Niagara Falls, Portland Head Lighthouse, and the Gilded Age Mansions of Newport, Rhode Island, connecting agriculture to broader historical and industrial themes. Measurable outcomes included 100% of participants reporting increased agricultural awareness, 90% gaining insight into regional food systems and specialty crop production, and 85% expressing increased confidence in discussing sustainability and diversification. Unexpected impacts included enhanced

social connections, increased participation in Extension programs, and personal growth, with participants overcoming challenges such as widowhood, health setbacks, and isolation. The tour's success is reflected in the launch of new projects, like the saffron research trial, and the adoption of alternative farming practices. Through immersive learning, reflection, and community engagement, the tour fostered innovation, broadened perspectives, and reinforced the value of agriculture as both a cultural and economic cornerstone.

PIZZA 4 PRODUCERS

Don McMoran
Agriculture and Natural Resources Extension Faculty-Director
Washington State University
Burlington

McMoran, D[1]

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Pizza for Producers was created by Washington State University Professor, Don McMoran recognizing the unique stressors faced by those in agriculture - from climate change threats to financial worries - to provide a platform for individuals to come together, share experiences, and seek support.

Research indicates that a significant portion of agricultural producers experience stress that affects their well-being and relationships. However, barriers such as limited access to mental health resources and cultural stigmas often deter individuals from seeking help. The prevailing notion of self-reliance within farming communities compounds these challenges.

Farmworkers, who endure physically demanding labor and face additional stresses like low pay and language barriers, are also impacted. Despite the prevalence of mental health concerns, reliable data on depression and suicide rates among farmers and farmworkers remains elusive.

Yet, amidst these challenges, there exists a deep-rooted attachment to the land and a sense of pride in agricultural work. For many, farming is not merely a livelihood but a calling driven by the "Agrarian Imperative" - a genetic predisposition to persevere through adversity for the sake of producing life's essentials.

First-generation farmers also exemplify this dedication, finding purpose in sustainable agriculture despite facing personal crises. However, the culture of stoicism within the farming community often hinders discussions about mental health needs.

Pizza for Producers events serve as a model for building community and reducing stigma surrounds mental health in agriculture. additionally, programs offering free or reduced-cost counseling aim to make mental health services more accessible.

By fostering a supportive environment and encouraging dialogue, Pizza for Producers aims to break the cycle of stress and isolation prevalent in the agricultural sector. Just as dough needs time to rest and stretch, farmers and farmworkers serve the opportunity to relax, connect, and support one another in their shared journey.

STATE WINNERS

Alabama	Jennifer Davidson
Arkansas	Rachel Bearden
Florida	Alicia Halbritter
Georgia	Sierra Burke
North Carolina	Taylor Chavis
Oklahoma	Liana Palmer
South Carolina	Laura Hair
Tennessee	Lindsay Stephenson

Search for Excellence in Sustainable Agriculture

NATIONAL WINNER

SOIL MANAGEMENT SUMMIT

Jodi DeJong-Hughes
Extension Educator, Water Quality
University of Minnesota Extension
Willmar

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[4] Extension Educator - Crops, University of Minnesota, Buffalo, Minnesota, 55313
[5] Regional Extension Educator - Crops, University of

Minnesota, Worthington, Minnesota, 56187
[6] Regional Extension Educator - Water Resources, University of Minnesota, Farmington, Minnesota, 55024
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The Soil Management Summit has grown into a premier educational event by continuously adapting to meet the evolving needs of farmers, agronomists, and agricultural professionals. Over the past 20 years, the Summit has expanded its scope beyond conservation tillage, incorporating a holistic approach to soil health management. Through thoughtful planning, diverse educational formats, and strong industry partnerships, the event has successfully built, changed, and sustained its impact.

Led by University of Minnesota Extension and the Minnesota Office for Soil Health, along with a diverse planning committee, the Summit was designed to provide research-based, practical education on conservation tillage and soil health practices. The traditional format of keynote speakers and breakout sessions established credibility and attracted a committed audience, ensuring a high level of engagement from the start.

As agriculture evolved, so did the Summit. Attendee feedback played a critical role in shaping its expansion. The introduction of 30-minute Table Talk discussions provided focused, small-group conversations on key topics, while farmer panels offered real-world perspectives on implementing soil health practices. Additionally, the Beer and Bull session in the evenings created a relaxed networking environment where participants could connect with speakers, exhibitors, and peers. These additions enhanced the conference experience, making it more interactive and tailored to attendees' needs.

Maintaining long-term success requires continuous evaluation and reinvestment. Post-event surveys consistently show that networking and access to research-based information are the top reasons attendees participate. The impact of the Summit is evident in its measurable results—many attendees adopt or consider conservation practices after attending, with a growing number of government agency representatives seeking soil health training. Sponsorship growth has strengthened financial sustainability, with exhibitor and sponsorship fees now covering 70% of conference costs.

Beyond the event itself, the Summit's influence has spread regionally, inspiring similar conferences in Wisconsin and North Dakota. By listening to participants, finding the best resources, and ensuring financial stability, the Soil Management Summit has remained a model for building, adapting, and sustaining a great agricultural conference.

NATIONAL FINALISTS

BUILDING RESOURCES TO RESPOND TO FARM STRESS IN PENNSYLVANIA

Ginger Fenton
Dairy Extension Educator
Penn State Extension
Mercer

Fenton, G[1], Catalone, C[2], Fetzer, L[3], Hughes Otis, A[4], Isaacson, A[5], Ittig, M[6], Murillo-Williams, A[7], Nace, S[8], Pollich, C[9], Spackman Kibe, A[10], Spelman, R[11], Varner, J[12], Amor-Zitzelberger, J[13], Becot, F[14]

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[2] Extension Educator, Penn State Extension, Ridgway, Pennsylvania, 15853
[3] Extension Associate, Penn State Extension, University Park, Pennsylvania, 16802
[4] Extension Educator, Penn State Extension, Montrose, Pennsylvania, 18801
[5] Extension Educator, Penn State Extension, Dauphin, Pennsylvania, 17018
[6] Extension Educator, Penn State Extension, Somerset, Pennsylvania, 15501
[7] Extension Educator, Penn State Extension, Bellefonte, Pennsylvania, 16823
[8] Extension Educator, Penn State Extension, Dauphin, Pennsylvania, 17018
[9] Extension Educator, Penn State Extension, Lancaster, Pennsylvania, 17601
[10] Extension Associate, Penn State Extension, University Park, Pennsylvania, 16802
[11] Extension Educator, Penn State Extension, Martinsburg, Pennsylvania, 16662
[12] Extension Educator, Penn State Extension, Erie, Pennsylvania, 16510
[13] Extension Educator, Penn State Extension, Clearfield, Pennsylvania, 16830
[14] Professor Agricultural Safety & Health, Penn State University, University Park, Pennsylvania, 16802

Penn State Extension formed a farm stress team in 2020 in response to a need to address the challenges experienced by farmers. The objectives of the program included building the communications surrounding farm stress resources, preparing the agricultural community

to respond to farmers during difficult times, and utilzing support systems and networks to connect with the agricultural community. Various activities and teaching methods were applied including workshops, webinars, podcasts, print materials, media, and collaborations. Increased outreach was observed from 23 podcasts reaching 38 states and 12 countries, dozens of additional partnerships and connections resulted from participation in 42 workshops or presentations, and ag community connections led to expanded programming requests from industry and organizations. When reporting results from attending workshops, evaluations demonstrated improved confidence in participants' ability to respond to and support farmers, increased knowledge of the signs and symptoms of stress, and improvement in active listening skills. Evaluation methods included the tracking of downloads, new partnerships and collaborations, and post-workshop surveys.

ALABAMA DROUGHT REACH

Kent Stanford
Associate Extension Professor/Extension Specialist
Auburn University
Crossville

Stanford, K[1], Brantley, E[2], Minton, B[3]

[1] Associate Extension Professor/Extension Specialist, Auburn University, Crossville, Alabama, 35962
[2] Associate Extension Director, Auburn University, Auburn, Alabama, 36849
[3] Climate Services Coordinator, University of Alabama - Huntsville, Huntsville, Alabama, 35805

Alabama Drought Reach is a statewide drought communication and outreach program focused on increasing drought literacy and completed its pilot year in 2024. Agriculture is Alabama's #1 industry and is affected by drought approximately twenty percent of the time. Drought can have devastating impacts on agriculture, which affects not only the farmers dependent on that income but also on citizens relying on goods and services. The United States Drought Monitor (USDM) is a national tool that shows the location and severity of drought across the U.S. and its territories. Although not an agricultural drought product, it directly instigates some USDA funding, as well as private insurance coverage. This money helps in a tangible way, so producers expect the USDM maps to accurately reflect the impacts of drought they are experiencing. Alabama Extension and the Auburn Water Resources Center recognized a need for improved condition monitoring and drought communication, leading to this new endeavor. Alabama Drought Reach is building a bridge between Extension and the State Climate Office to provide a more accurate assessment of field conditions. Data collected from Extension agents is used weekly by the State Climate Office to write the summary report submitted to the USDM. Information flows back to Extension agents through weekly graphics that highlight the current drought conditions and emerging trends. This bridge between the two agencies will outlive ADR, making it a sustainable solution to drought mapping in Alabama.

AG WELLNESS - A COMMUNITY-BASED APPROACH TO MENTAL HEALTH

Jake Hadfield
Extension Assistant Professor
Utah State University
Nephi

Hadfield, J[1], Dallin, J[2], Wilde, S[3]

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Mental health is a significant concern threatening the sustainability of agriculture. As stressors like drought, fluctuating commodity prices, and natural disasters increase, so do mental health challenges and the need for targeted training in agricultural communities. To address this need, USU Extension developed Ag Wellness, a community-based program aimed at increasing awareness of mental health issues, informing agricultural producers about available resources, developing additional tools, and building participants' confidence in recognizing and assisting those struggling or in crisis. Ultimately, Ag Wellness seeks to reduce stigma and promote a culture of support in rural communities.

Early assessments revealed that agricultural producers preferred brief (one hour or less), straightforward mental health trainings integrated into existing meetings, such as crop schools, beef education nights, and pesticide licensing sessions. In response, the Ag Wellness team developed "The Biggest Asset is You," a 30- to 50-minute presentation highlighting that agricultural producers are the greatest asset to their farms and how mental health challenges can undermine well-being. The presentation covers signs and symptoms of mental health conditions, suicide awareness, and available resources. Since 2022, "The Biggest Asset is You" has been delivered 14 times to 231 participants. Pre- and post-workshop evaluations showed notable improvements:

70% strongly agreed that mental health is a problem in agricultural communities (up from 39%).
53% reported very positive feelings toward mental health (up from 32%).
49% strongly agreed they were aware of mental health resources (up from 14%).
29% expressed confidence in helping others struggling with mental health issues (up from 8%).
The program's success led to collaboration with the Utah Department of Agriculture and Food (UDAF) on a mental health grant, funding much of the travel for presentations and establishing a mental health voucher program. The voucher program addressed financial barriers, reimbursing $266,896 for 1,607 therapy appointments, benefiting 241 agricultural producers across Utah.

Evaluation methods, including pre- and post-surveys, revealed significant attitude shifts, increased awareness of mental health resources, and greater confidence in supporting those in crisis. Ag Wellness continues to break down barriers and foster resilience in agricultural communities.

STATE WINNERS

North Central

Nebraska	Jennifer Brhel

Northeast

Maryland	Sarah Hirsh
New York	Desiree Keever

Southern

Florida	Luis Rodriguez
Kentucky	Reed Graham
North Carolina	Cindi Knudson
Oklahoma	Kennedy McCall
South Carolina	Nicole Correa
Virginia	Jennifer Ligon

West

New Mexico	Will Jaremko-Wright

Search for Excellence in Crop Production

NATIONAL WINNER

IMPROVING CROP PRODUCTION IN NC AND NW KANSAS

Sandra Wick
District Extension Agent, Crop Production
K-State Research & Extension
Smith Center

Wick, S[1], Falk Jones, J[2], Campbell, S[3], Dinkel, C[4], Hyland, A[5], Miller, C[6], Luman, K[7], Noterman, L[8], Giefer, H[9], Van Skike, K[10]

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[2] Multi-County Agronomist, K-State Research and Extension - Sunflower District, Colby, Kansas, 67701
[3] District Crop Production Agent, K-State Research and Extension, Cottonwood District, Hays, Kansas, 67601
[4] District Crop and Horticulture Agent, K-State Research and Extension - Midway District, Ellsworth, Kansas, 67439
[5] Rawlins County Agriculture Agent, K-State Research and Extension - Rawlins County, Atwood, Kansas, 67730
[6] District Agriculture Agent, K-State Research and Extension - Phillips/Rooks District, Phillipsburg, Kansas, 67661
[7] District Agriculture Agent, K-State Research and Extension - Golden Prairie District, Grainfield, Kansas, 67737
[8] District Director and Agriculture Agent, K-State Research and Extension, Dighton, Kansas, 67839
[9] County Agriculture and Natural Resources Agent, K-State Research and Extension - Thomas County, Colby, Kansas, 67701
[10] District Crop Production Agent, K-State Research and Extension - Twin Creeks District, Norton, Kansas, 67654

Producers in the crop production enterprise need access to research-based information to operate an efficient and profitable operation. Crop producers deal with many decisions throughout the growing season and we are always looking for ways to help producers make more knowledgeable and sound decisions. Our main emphasis was on the agronomic aspect of production agriculture. In the last three years, we have utilized multiple program activities along with unique teaching methods realizing that producers learn in different ways. The educational activities included 12 NC/NW Kansas Fertility Schools, 15 NC/NW Kansas Weed Schools, 13 Crop Talk

Webinar sessions, and 6 NC/NW Crop Pest Management Schools that reached approximately 3,548 producers/ agribusiness consultants in NC and NW Kansas along with 6 other states and 7 countries. We also provided Kansas State University's research-based information through radio programs along with personal columns as well as social media platforms such as Facebook, Instagram and X. The producers and agribusiness partners that participated in our activities indicated the value of knowledge they gained from these educational events in the form of savings or increased profits to their operations at approximately $5.2 million.

NATIONAL FINALISTS

UNL TESTING AG PERFORMANCE SOLUTIONS (UNL-TAPS)

Chuck Burr
Extension Educator
Alma

Burr, C[1], Nygren, A[2], Proctor, C[3], Stockton, M[4], Rhoades, K[5]

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[2] Extension Educator, Nebraska Extensin, Ithaca, Nebraska, 68033
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[4] Extension Ag Economist, Nebraska Extension, North Platte, Nebraska, 69101
[5] TAPS Program Manager, Nebraska Extension, Cozad, Nebraska, 69130

The TAPS program was established in 2017 at the WCREEC in North Platte, Nebraska. The two primary agricultural production challenges in the area were and continue to be limited water resources and increasing levels of nitrate in the groundwater. In addition, crop prices at the time were at economically challenging levels. To address these issues, our TAPS team focused on profitability and input use efficiency when developing the TAPS program. Primary goals of the program were to: Increase adoption of practices to reduce cost of production; Increase use of marketing tools to improve profitability; and Increase adoption of best management practices to improve water and nitrogen efficiency. The program was designed to incorporate and engage agricultural researchers, technology providers, industry personnel, state and federal agency partners along with farmers. TAPS participants make a series of farm management decisions. The agronomic decisions are imposed on replicated plots in a single field. Yield and water nitrogen efficiency are calculated to determine a Highest Input Use Efficiency Award ($1,500). Economic decisions are kept track of to calculate the Most Profitable Award ($1,500). 2024 TAPS competitions included Sprinkler Corn, Continuous Corn, Soybeans and Grain Sorghum. At the end of the year we have an awards banquet attended by 150+ individuals and produce a TAPS Project Report that is released as an Extension Circular. In 2024 we had 171 participants, of which about half were new to the program. We have 968 Twitter followers, 86 Facebook followers and 468 Digital Newsletter subscribers. An interview of participants after the 2022 growing season showed that 75% of 2022 survey participants have adopted new ag technology and 86% have adopted new management practices on their farm, at least on a trial basis, as a result of competing in TAPS.

UTILIZING FLORIDA BEST MANAGEMENT PRACTICES WHILE EVALUATING GRAIN CORN VARIETIES

Keith Wynn
Extension Agent III
University of Florida
Jasper

Wynn, K[1], Beach, E[2], Dufault, N[3], Korus, K[4], Kumar, S[5], Love, J[6]

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[2] Extension Agent II, University of Florida, Mayo, Florida, 32066
[3] Associate Professor and Extension Specialist, University of Florida, Gainesville, Florida, 32611-0680
[4] Extension Agent II, University of Florida, Newberry, Florida, 32669
[5] Regional Specialized Agent, University of Florida, Live Oak, Florida, 32060
[6] Best Management Practices Outreach and Education Coordinator, University of Florida, Live Oak, Florida, 32060

Grain corn is an important commodity crop in the Suwannee River Valley of North Florida. Approximately 30,000 acres of corn is harvested annually in the counties surrounding the North Florida Research and Education Center-Suwannee Valley (NFREC-SV). Grain corn production requires adequate nutrition to maximize yields under optimal conditions. Florida's Basin Management Action Plan (BMAP) requires producers to implement Best Management Practices (BMPs) to remain compliant with the Florida Department of Environmental Protection. Each year, these producers must choose a corn variety when making planting decisions. To assist producers a variety trial has been implemented over the past 6 years to assess the performance of varieties using best management practices that comply with Florida regulations. In the past,

producers have depended on yield data generated from similar trials conducted by industry and Extension from regions with differing environmental and soil conditions using nutrient rates not compliant with Florida regulations. The objectives were to encourage producers to incorporate new grain corn varieties and increase knowledge of Florida Best Management Practices. Grain corn seed companies provide two varieties that are recommended for the North Florida area along with $400 to help encumber the cost of incorporating this trail at the NFREC-SV near Live Oak. Current recommended production practices are followed during the production season to manage fertility and irrigation to remain in compliance with Florida Best Management Practices. Harvest data is collected and used to create fact sheets and presentations that are distributed or presented at local and regional production meetings in North Florida. Post-training evaluations from Hamilton County grain corn production meetings showed that 94% of attendees (244 of 260) increased their knowledge of grain corn variety selection and 92% of attendees (239 of 260) increased their knowledge of production practices that encourage Best Management Practices. This research has allowed Extension agents the opportunity to provide producers with timely information to assist with variety selection while encouraging the adoption of Florida Best Management Practices. Follow-up discussions with local producers have indicated that this data has been utilized to implement new varieties in their existing production system.

UNION COUNTY FIELD CROPS SMALL GRAINS EXTENSION PROGRAM

Morgan Menaker
Field Crops Extension Agent
NC State University
Monroe

Menaker, M[1], Baucom, A[2]

[1] Field Crops Extension Agent, NC Cooperative Extension, Monroe, North Carolina, 28112
[2] County Extension Director, NC Cooperative Extension, Monroe, North Carolina, 28112

The Union County Field Crops Small Grains Extension Program enhances wheat production in North Carolina's top grain-producing county, where 51,000 acres yield an average of 75 bushels per acre. The program optimizes variety selection, input management, and best management practices through on-farm research, technical assistance, field days, and collaborations with NC State Extension. From 2021 to 2024, the program secured $215,190 in funding, $125,000 in county equipment support, and 3,700+ volunteer hours from growers and members of industry, saving $74,553. Economic gains from technical assistance totaled $246,125 in 2021–2022, $638,250 in 2022–2023, and $897,100 in 2023–2024. Small-plot trials addressing fungicide use, nutrient management, and growth regulators expanded from 9 in 2021 to 12 in 2023. Since 2019, annual regional field days have drawn 115+ attendees, while targeted "Whistle Stop" workshops engage ~50 growers. From 2017 to 2022, county-wide wheat production increased by 12.2%, with average yields rising from 55 to 75 bushels per acre (+26.6%), generating an estimated $5.58 million in added economic value. Adoption of split nitrogen applications rose from 20% in 2012 to 75% in 2022, demonstrating the program's lasting impact on sustainable and profitable small grains production.

STATE WINNERS

North Central

Missouri	Anthony Ohmes
Ohio	Elizabeth Hawkins
South Dakota	Sara Bauder

Southern

Arkansas	Trapper Padgett
Georgia	Blake Carter
Kentucky	Miranda Rudolph
Tennessee	Terrell Davis

West

Guam	Bindu Poudel-Ward
Idaho	Steven Hines

Search for Excellence in Consumer or Commercial Horticulture

NATIONAL WINNER

HYDROPONIC SYSTEMS WORKSHOP FOR HOME GARDENERS AND EDUCATORS

Carmen Flammini
Extension Agent
Auburn
Bay Minette

Flammini, C[1], Brown, B[2], Carrroll, D[3], O'Rear, B[4], Turner, J[5]

[1] Extension Agent, ACES, Bay Minette, Alabama, 36507
[2] Extension Agent, ACES, Guntersville, Alabama, 35976
[3] Extension Agent, ACES, Opelika, Alabama, 36801
[4] Extension Agent, ACES, Cleveland,, Alabama, 35049
[5] Extension Agent, ACES, Talladega,, Alabama, 35160

The Alabama Extension Home Horticulture Team recognized a growing public interest in sustainable and innovative gardening practices, particularly hydroponics. Historically, hydroponic education within Alabama Extension had been limited, with only one webinar session offered in 2021. However, survey assessments from online and in-person workshops indicated a strong demand for more comprehensive hydroponic education.
To address this need, the team participated in an immersive two-day training with UF/IFAS Extension in March 2024. This hands-on experience provided Extension agents with the knowledge and skills to develop tailored hydroponic workshops for Alabama residents. In 2024, three full-day, in-person Hydroponic Systems for Home Gardeners and Educators workshops were launched across the state, targeting these groups as well as small-scale farmers. These workshops introduced participants to various hydroponic systems, including Dutch bucket, deep water culture, Nutrient Film Technique (NFT), and Vertical Hydroponic Towers. Team members constructed and documented these systems, integrating visual and hands on demonstrations into workshop presentations. Workshop activities included detailed discussions on hydroponic principles, fertilization, water quality, lighting, plant selection, seed-starting, media selection, and harvesting techniques. A hands-on component allowed each participant to construct and take home a deep-water culture system, fostering practical application and confidence.

Program Outcomes:
• 93 participants attended workshops across Alabama, with 60% completing evaluations.
• 41% of participants engaged with Alabama Extension for the first time.
• Prior to training, 28% had no knowledge of hydroponics; post-training, 96% reported at least moderate knowledge, with 56% reaching high competency levels.
• Knowledge of NFT and Floating System Technology increased significantly, with 85% and 91% of participants, respectively, achieving moderate to expert proficiency.
• 98% expressed confidence in implementing a home hydroponic system.
• 100% committed to applying learned techniques.
• 64% reported continued use of their hydroponic system, with 80% planning expansion.
The success of these workshops demonstrates the effectiveness of hands-on hydroponic education in increasing public knowledge and adoption. Alabama Extension's initiative has empowered participants with the confidence and resources to integrate hydroponic practices into their homes, classrooms, and small farms, contributing to a more sustainable and innovative gardening culture in the state.

NATIONAL FINALISTS

TRAINING EXTENSION EDUCATORS IN HYDROPONICS ACROSS MISSOURI

Donna Aufdenberg
Field Specialist in Horticulture
Cape Girardeau County
Jackson

Aufdenberg, D[1], Cabrera-Garcia, J[2]

[1] Field Specialist in Horticulture, , Jackson, Missouri, 63755
[2] State Horticulture Specialist, University of Missouri Extension, Columbia, Missouri, 65211

Interest in hydroponic crop production has increased significantly in the state of Missouri in the last 5 years. As a result, a training program was developed to enhance the capacity of extension educators to provide technical support and coaching on commercial hydroponic specialty crop production. The goal was to facilitate knowledge transfer from extension educators to farmers to encourage local farms to increase the availability of specialty crops. The project trained 17 extension educators in 2023 in a two-day workshop covering the basics of hydroponic growing with specialty crops such as lettuce, tomatoes and cucumbers. Each educator was supplied with hydroponic units with supplies and were required to assemble and

operate hydroponic systems: NFT, deep water, and Dutch bucket systems. In turn, each person was expected to educate at least 10 farmers through trainings conducted in their geographic region. Educators had access to resources, videos, and slide decks to assist with education efforts. Over 50 events were conducted (presentations, day-long programs, and workshops ranging from 30 minutes to 3 hours) with 463 farmers and 970 non-farmers participating from 29 counties in Missouri. This included a day-long training focused on socially disadvantaged farmers and ranchers and a multi-state conference with a day-long track devoted to hydroponics. The addition of 36 demonstrations, 68 individual consults, 7 consults with schools, 11 youth events, and 6 Master Gardener events gave a reach to 3892 stakeholders from over 109 events. In evaluations, 100% of participants surveyed indicated an increase in knowledge of hydroponics. Over 78% of participants reported "understanding pH and EC" as one of the biggest challenges to hydroponics. Farmers reported attending trainings to learn how to grow hydroponic crops to supplement income on the farm. Some challenges keeping farmers from adopting hydroponics included startup costs, cost of materials and supplies, space required and the learning curve. Project funded by Specialty Crop Block Grant through Missouri Department of Agriculture.

PAWPAW FIELD DAY

Celine Richard
Winston-Salem

Richard, C[1], Boring, S[2], Craps, R[3], Lopez, V[4], Mauney, C[5], Rose, L[6], Morris, D[7]

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[2] Horticulture Agent, N.C. Cooperative Extension, North Carolina
[3] Environment and Natural Resources Agent, N.C. Cooperative Extension, North Carolina
[4] Family and Consumer Sciences Agent, N.C. Cooperative Extension, North Carolina
[5] Commercial Horticulture Area Agent, N.C. Cooperative Extension, North Carolina
[6] Horticulture Agent, N.C. Cooperative Extension, North Carolina
[7] Agricultural Technician, N.C. Cooperative Extension, North Carolina

Extension clients express year-round interest in learning more about new-to-them native and niche plants, including obtaining & growing their own pawpaw trees. Pawpaw trees offer benefits both environmental for ecosystems as well as nutritional for people, though due to the fruit's short shelf life, it is an elusive crop that consumers often can't get their hands on. Growers can capitalize on this niche in direct market channels, meeting demands and further educating the public on the crop. The N.C. Cooperative Extension (NCCE) Forsyth County Center is home to a 30-tree demonstration plot of pawpaw trees, an ideal location to host a hands-on program to educate community and farm clients on the benefits of incorporating pawpaw tree plantings in landscapes and on farms along with the most up-to-date best practices for doing so. In 2022, 2023, and 2024, 2018 individuals attended an annual Pawpaw Field Day with booths offering hands-on activities, demonstrations, and custom factsheets and scheduled formal lectures. Guests sampled pawpaws and took seeds and plants home to plant themselves. Invited regional nurseries reported and combined local economic impact of at least $46,240. Post-survey responses indicate that 54% respondents tried pawpaw for the first time at this event with 81% planning to plant pawpaw trees in their landscapes. 90% respondents indicated leaving with a greater appreciation for niche crops, and 90% with a greater appreciation for the role that pawpaws & other native plants play in healthy ecosystems. 81% respondents would like to participate in other Cooperative Extension educational opportunities. We look forward to continuing serving them.

TENNESSEE EXTENSION MASTER GARDENER COLLABORATIVE INTERN TRAINING

Natalie Bumgarner
State Specialist
UT Extension
Knoxville

Bumgarner, N[1], Duncan, A[2], Scott, C[3], Richards, E[4], Treadway, H[5], James, E[6], Reeder, T[7], Upchurch, G[8], Dunlap, A[9]

[1] Assoc Prof and Ext Specialist, UT Extension, Knoxville, Tennessee, 37996
[2] Extension Specialist , UT Extension , Manchester, Tennessee
[3] Extension Specialist, UT Extension, Jackson, Tennessee
[4] Extension Agent, UT Extension , Gallatin, Tennessee
[5] Extension Agent, UT Extension, Chattanooga, Tennessee
[6] Extension Agent, UT Extension, Cleveland, Tennessee
[7] Extension Agent, TSU Extension, Franklin, Tennessee
[8] Extension Agent, UT Extension, Crossville, Tennessee
[9] Extension Agent, UT Extension, Nashville , Tennessee

In Tennessee, population growth and urbanization are increasing the demand for research-based outreach that

supports both success and sustainability in residential and community horticulture. Our Tennessee Extension Master Gardener (EMG) program equips volunteers to support the Extension mission and extend our educational outreach across all areas of non-commercial horticulture. Over 3,000 active Tennessee Extension Master Gardener volunteers are trained in research-based information and work closely with Extension personnel to address local needs through a range of dynamic outreach including teaching, community events, help desks and much more. Each year the demand for high-quality horticultural information increases from rural to urban areas. So, it is crucial for local and state leadership in the EMG program to balance the needs of current volunteers and the wide range of stakeholders with the necessity to maintain a high-quality, cohesive, and consistent intern training for the 500-700 new EMG volunteers trained each year. In the past, this intern training had been accomplished solely through individual county trainings that were inconsistent as well as very time and resource demanding for specialists and agent coordinators. This unsustainable training model was replaced by a collaborative training model that integrates high-quality teaching with local expertise to deliver a consistent, flexible training that links local programs together while highlighting local expertise and impact. Our collaborative model was first implemented in 2021 with this application highlighting the format, activities, successes, and impact of the 2022, 2023, and 2024 intern trainings. Across these three years, 1,504 interns have been trained successful and sustainably. Highlights of our training model include the integration of technology such as dedicated training websites, self-paced learning activities, and live and recorded teaching from our best content experts as well as utilization of hands-on and interactive teaching and local training. Our goal is to draw from the best of current technology while remaining focused on the important role of local teaching, interactive learning and relationship building locally and across the state.

STATE WINNERS

North Central

Illinois	Ken Johnson
Kansas	Pam Paulsen

Northeast

New Jersey	Timothy Waller

Southern

Florida	Danielle Sprague Williams
Georgia	Sierra Burke
Kentucky	Annette Heisdorffer
Mississippi	Brenton Breland
South Carolina	Brad Fowler

West

Wyoming	Chance Marshall

Search For Excellence in 4-H Programming

NATIONAL WINNER

NEBRASKA YOUTH CROP SCOUTING COMPETITION – INTEGRATED PEST MANAGEMENT (IPM) EDUCATION

Brandy VanDeWalle
Ext. Educator
NE Extension
Geneva

VanDeWalle, B[1], Nygren, A[2], Timmerman, A[3], Prochaska, T[4], Charlson, D[5], Freire de Oliveira, M[6], Lamichhane, R[7], Patias Lena, B[8], Broderick, K[9], Koch, K[10]

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[2] Extension Educator, UNL, Ithaca, Nebraska
[3] Extension Educator, UNL, Nebraska
[4] Extension Educator, UNL, Nebraska
[5] Extension Educator, UNL
[6] Extension Educator , UNL, Nebraska
[7] Extension Educator, UNL, Nebraska
[8] Extension Educator, UNL, Nebraska
[9] Extension Educator, UNL, Nebraska
[10] Extension Educator, UNL, Nebraska

The Nebraska Youth Crop Scouting Competition is a hands-on, team-based program designed to engage middle and high school students in agricultural education, specifically Integrated Pest Management (IPM). The program aims to reduce pesticide reliance by teaching students sustainable pest control strategies such as biological, mechanical, and

cultural practices. Aligned with the USDA's 2024 Farm Labor Report, which highlights the demand for agricultural workers, this program seeks to equip the next generation of agricultural professionals to address challenges such as pest resistance, environmental degradation, and food security.

The program has several key objectives: developing students' pest identification and management skills, teaching science-based decision-making, engaging students in non-chemical pest control practices, and introducing career pathways in agriculture. It also aims to increase awareness of agricultural degree options available at the University of Nebraska-Lincoln (UNL) and other institutions.

Held at the Eastern Nebraska Research and Extension Center (ENREEC), the competition includes seven activity stations where students learn about pest biology, precision agriculture, and crop scouting. Students also work in teams to solve real-world problems, fostering teamwork, critical thinking, and collaboration. Participants interact with UNL faculty, graduate students, and Extension experts, providing exposure to agricultural programs and careers. The top two teams advance to a regional competition with seven land-grant universities.

In 2024, 93% of participants gained awareness of UNL agricultural degree options, and 93% improved their pest identification and control skills. Additionally, 97% enhanced their crop scouting knowledge, a critical component of IPM. Over $2,500 in support was provided by external partners and UNL's Doctor of Plant Health Program.

The program has a lasting impact on its participants, with over 276 youth engaged over 11 years. A long-term evaluation shows that more than 80% of participants gained valuable career insights, improved pest management skills, and developed a greater interest in agricultural careers. The program has also forged lasting industry connections, leading to job opportunities for students.

NATIONAL FINALISTS

GROWING TEACHERS THROUGHOUT THE SEASONS

Timothy McDermott
Ext. Educ., ANR
Columbus

McDermott, T[1], Smathers, C[2]

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U.S. graduates with expertise in food and agriculture are anticipated to fill only 61% of the expected 57,900 average annual agriculture-related employment openings. Growing Teachers Throughout the Seasons (GTS) is nationally, the first of its kind guide to starting agricultural engagement in schools that is academic calendar based, data-driven, teacher informed and includes future thinking agriculture. In essence, it is Step One for teachers. Funded by USDA NIFA, the curriculum materials include a guidebook and 20 supplemental online modules created by Extension and pilot tested by 46 Columbus City Schools teachers through focus groups and survey results. The guidebook and modules provide a week by week, month by month, curriculum for students to plant, maintain, harvest, prepare, and taste a different vegetable or herb grown under teacher leadership, and includes recipes and subject matter connections. It is designed to provide engagement of students and teachers in agriculture for the purpose of introducing them to agriculture's opportunities through workforce development. We don't grow students on farms like we used to, our next generation of skilled agriculture workers need to come from urban kids from urban schools. The guidebook is hosted on OSU Extension Publications website and has been distributed via direct sales, at presentations, conferences, and workshops. A total of 1,326 copies have been sold with the first run of 1000 copies being sold in the first months, outselling 4-H publications in that time span for the first time. Copies of the guidebook have been distributed nationally with the furthest copy being shipped to Honolulu! The guidebook web address is: https://extensionpubs.osu.edu/growing-teachers-throughout-the-seasons/ A total of 451 users have accessed the course with 19,376 pageviews!
I developed the initial concept created the team from OSU Farm to School, Columbus City Schools, and OSU Extension Publications and Learning and Organizational Development. I sourced funding for start-up from Scotts Miracle-Gro, co-wrote the grant to support developmental funding from USDA NIFA and provided content expertise

on controlled environment agriculture, season extension, growing methods, and variety selection. I served one of the editors, videographers, presenters, and distributed workbooks and flyers at workshops and conferences.

CLOSE ENCOUNTERS WITH AGRICULTURE

Kelly Nichols
Ag Agent
University of Maryland Extension
Derwood

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[4] 4-H Agent, University of Maryland Extension, Derwood, Maryland, 20855
[5] Program Coordinator, Montgomery County Office of Agriculture, Derwood, Maryland, 20855

Montgomery County is in central Maryland, just north of Washington, D.C. According to the U.S. Census Bureau, its population was approximately 1 million in 2020, with 97.3% located in urban areas and 2.7% located in rural areas. There is minimal interaction between the urban population and the farming community; this gap is only widening. The average consumer has limited knowledge about how their food is produced and farmers' role in protecting the environment. Close Encounters with Agriculture, an educational program for 4th grade students, was started to bridge this gap and increase agricultural awareness. Close Encounters with Agriculture is an annual field trip held at Montgomery County's Agricultural History Farm Park. For approximately 14 days in the fall, fourth grade students, along with their teachers and chaperones, visit the Farm Park. Students rotate through three tracks: agriculture, nutrition, and environment. In 2024, Close Encounters with Agriculture was held for 16 days in October. Students from 45 schools (34 public and 11 private) attended. A total of 3,360 students and 246 adults (teachers and chaperones) were reached, and 71 volunteers were trained. Ten stations were taught by University of Maryland Extension educators and volunteers. Each station includes teaching and a hands-on activity. IRB approval was obtained to do pre- and post-testing for a subset of students (n=367). Students were given a pre- and post-test onsite using response clickers before and after the field trip. The pre- and post-tests consisted of the same 14 multiple choice questions. Overall, students scored an average of 32% correct on the pre-test. After participating in the program, their test scores rose to an average of 83% correct on the post-test. For individual questions, differences from ranged from 6% to 81%. In conclusion, Close Encounters with Agriculture is a successful multi-disciplinary program providing students with the opportunity to learn more about agriculture, nutrition, and the environment.

LOUISIANA 4-H LIVESTOCK AMBASSADOR PROGRAM

Ashley Edwards
Assistant Professor and Livestock Specialist
LSU AgCenter
Alexandria

Edwards, A[1], Braud, T[2], Barlow, T[3], Devall, H[4]

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[2] Instructor, LSu AgCenter, Baton Rouge, Louisiana, 70803
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[4] Instructor, LSU AgCenter, Baton Rouge, Louisiana, 70803

Over 2,000 Louisiana 4-H students validate more than 5,000 livestock animals annually. Although numerous state level leadership opportunities were offered, a state level livestock leadership program was nonexistent. Thus, in 2022 Louisiana 4-H developed a new program to provide a high school level, statewide, leadership, and educational opportunity for livestock exhibitors. The annual Louisiana 4-H Livestock Ambassador program begins with an application process that includes an online form, a video explaining why they want to serve as a Louisiana 4-H Livestock Ambassador, and an interview. The selected Ambassadors are then invited to Louisiana State University campus for a four-day training course covering collegiate level animal science instruction as well as leadership and advocacy skills. Utilization of industry partners during this training affords a multi-dimensional educational experience. Upon training completion, Ambassadors are administered a one-hundred question exam which they are required to attain no less than 80% correct to continue within the program. A survey is correspondingly conducted at the conclusion of the training event. Of the twenty-five topics covered during the training, the Ambassadors gave a majority rating of satisfied or strongly satisfied on a five-point rating scale ranging from strongly dissatisfied to strongly satisfied. Favorite parts included the animal reproduction demonstration, animal nutrition, the people and the advisors, learning about the livestock industry, and Change Theory. When asked what their

largest takeaway was, responses included etiquette and professionalism, how to market themselves and the livestock industry, learning new ways to advocate, and how to handle difficult situations and understand the perspective of others. Ambassadors noted that they would like to see more information on small ruminants and poultry in the future. Following this initial training, Ambassadors are sent into the field to attain no less than 40 hours of service through various activities including livestock clinics and assisting in agriculture science or livestock programming across the state. Subsequent training is offered later through a multi-day farm and industry tour. Together, the 2022-2023 and 2023-2024 Louisiana 4-H Livestock Ambassadors contributed 1,425 hours at over 245 events and served over 26,960 people across Louisiana for a contribution valued at $41,929.07.

STATE WINNERS

North Central

Illinois	Bruce Black
Missouri	Kate Kammler

Southern

Alabama	Vanessa Roberts
Arkansas	Courteney Sisk
Florida	Wendy Mussoline
Georgia	Sierra Burke
Kentucky	Kendal Bowman
Mississippi	Jennifer Williams
North Carolina	Grace Atkins
Oklahoma	Crystal Ashalintubbi-Shipman
South Carolina	Laura Hair
Texas	Katie Pace
Virginia	Mackenzie Gunn

West

Colorado	Amber Comer
Idaho	Audra Cochran
New Mexico	Teresa Dean
Utah	Mark Nelson
Washington	Linda McLean
Wyoming	Sara Fleenor

Search for Excellence in Farm and Ranch Business Management

NATIONAL WINNER

AG 101 – AN OVERVIEW OF MARYLAND FARMING FOR GOVERNMENT AGRICULTURAL SERVICE PROVIDERS

Andrew Kness
Agriculture Agent
University of Maryland Extension
Street

Kness, A[1], Crowl, E[*2]

[1] Senior Agriculture Agent, University of Maryland Extension, Street, Maryland, 21154
[2] Senior Agriculture Agent Associate, University of Maryland Extensio, Cockeysville, Maryland, 21030

The “Ag 101” training program was developed by the University of Maryland Extension to bridge the knowledge gap in agricultural production among government agricultural (ag) service providers. Many new hires in agencies such as USDA-NRCS, Maryland Department of Agriculture, and Soil Conservation Districts come from environmental and biological science backgrounds but lack hands-on agricultural experience. The program aimed to enhance their understanding of Maryland farming, improve client interactions, and strengthen relationships with producers, collectively helping farm businesses thrive in Maryland. Ag 101 was structured as a two-day seminar, combining classroom instruction with on-farm field experiences. The curriculum covered key farming sectors in Maryland, including agronomic crop production, livestock management, nursery operations, and commercial fruit and vegetable farming. From 2020 to 2024, 174 government service providers completed the training. Pre-course evaluations revealed significant knowledge gaps, with 43% of participants having no prior agricultural experience. Post-course assessments demonstrated marked improvements, with 89–91% reporting increased knowledge across different agricultural domains. Additionally, 96% of participants expressed greater confidence in engaging with farmers, up from 48% before the course. This program will continue to serve as valuable on-boarding for new government ag service provider hires with future training offerings.

NATIONAL FINALISTS

WOMEN MANAGING FARMLAND

Madeline Schultz
Women in Ag Program Manager
Iowa State University Extension and Outreach
Ames

Schultz, M[1], Scarbrough, L[2], O'Rourke , M[3], Leibold , K[4], DeLong , C[5], Hatting , P[6], Drollette , R[7], Tidgren , K[8], Zhang , W[9], Tong , J[10], Schultz, M[11], Schultz, M[12], Lensing , J[13], Christensen, T[14], Stevens , A[15], Wright , G[16], Martin , P[17], Brown , C[18], Johanns , A[19], Harrington , J[20], Tovar Jensen , K[21]

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[2] Communication Specialist, Farm Management , ISU Extension and Outreach , Ames , Iowa, 50011
[3] Attorney , Former ISU Extension and Outreach Farm Management Specialist , Decorah , Iowa, 52101
[4] Farm Consultant , Former ISU Extension and Outreach Farm Management Specialist , Iowa Falls , Iowa, 50126
[5] Water Quality Program Manager , ISU Extension and Outreach, Natural Resources , Ames , Iowa, 50011
[6] Farm Management Specialist , ISU Extension and Outreach , Altoona , Iowa, 50009
[7] Farm Management Specialist , ISU Extension and Outreach , Iowa City , Iowa, 52246
[8] Adjunct Professor, Director, Center for Ag Law and Taxation , ISU Extension and Outreach, and Dept of Ag Education , Ames , Iowa, 50011
[9] Professor, Economics , Cornell University, NY / Former ISU Dept. Economics , Ithaca , New York, 14853
[10] Graduate Student, ISU Dept. of Economics , Ames , Iowa, 50011
[11] Assistant Director, ISU Extension and Outreach, Ag and Natural Resources , Ames , Iowa, 50011
[12] Farm Management Specialist , ISU Extension and Outreach , Ames , Iowa, 50011
[13] Farm Management Specialist , ISU Extension and Outreach , Decorah , Iowa, 52101
[14] Farm Management Specialist , ISU Extension and Outreach , Guthrie Center , Iowa, 50115
[15] Field Outreach, Landus , Former ISU Extension and Outreach Farm Management Specialist , Jefferson , Iowa, 50129
[16] Farm Management Specialist , ISU Extension and Outreach , Spirt Lake , Iowa, 51360
[17] Farm Management Specialist , ISU Extension and Outreach , Wapello, Iowa, 52653
[18] (deceased), Former ISU Extension and Outreach Farm Management Specialist , none , Iowa, 50011
[19] Extension Specialist, Ag Decision Maker , ISU Extension and Outreach Farm Management , Nashua , Iowa, 50658
[20] Attorney , Former ISU Extension and Outreach, Farm Management , Algona , Iowa, 50511
[21] Attorney , Former, ISU Extension and Outreach, Farm Management , Des Moines , Iowa, 50317

Women landowners and farmers have significant roles in Iowa agriculture. The 2022 Census of Agriculture showed they made key decisions as nearly three-fourths were involved in financial management, and more than half were involved in land use decisions, and estate or succession planning. To meet the educational needs of this important audience, a four-year project was developed and financially supported by a National Institute of Food and Agriculture – Critical Agriculture Research and Education grant (2021-68008-34180) and a Farm Credit Services of America gift. The team's research led to publication of two journal articles. The educational objectives were to empower women landowners and farmers with research-based education focused on three essential and interwoven farm management tasks: 1) farmland leasing and access, 2) adoption of conservation practices, and 3) estate and succession planning. The "Women Managing Farmland" program activities included: 9 three-hour local workshops, 3 nine-hour local courses, 4 one-day regional forums, 9 statewide conference tours or breakout sessions, 11 webinars, and 10 Ag Decision Maker news articles. There were 745 women who attended in-person programs. Webinars reached 1,212 people from Iowa and 18 other states. News articles were viewed more than 10,000 times. Programs were team-taught by the Farm Management Team, Water Quality Program, and Center for Ag Law and Taxation. At the end of each regional forum, retrospective survey responses demonstrated women's knowledge of the three essential farm management tasks improved significantly. At the conclusion of the entire project, focus group participants discussed the actions they took to manage farmland. They did their leases earlier, looked into conservation programs, and started generational conversations. Women were more confident in making management decisions and felt supported by a network of women in agriculture as well as local professionals. When Iowa State University Extension and Outreach extends knowledge and empowers women landowners and farmers, they can be effective change agents for more equitable farmland leasing and access, greater adoption of conservation practices, and improved efficiencies in transitioning to next generation farmers. All Iowans benefit when women are supported in improving the three pillars of agricultural sustainability including the economy, environment, and community.

THE BUSINESS OF FARMING

Lindie Huffman
ANR Agent
University of Kentucky
Falmouth

Huffman, L[1]

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The Business of Farming program was developed in response to the evolving agricultural landscape in Pendleton County, Kentucky, as highlighted by the 2022 USDA Census of Agriculture. Between 2017 and 2022, the county experienced a 4% decrease in the number of farms, falling from 919 to 878, and a 14% reduction in average farm size, from 121 acres to 104 acres. Despite these declines, the average market value of products sold per farm increased by 15%, from $10,282 to $11,794, reflecting a shift toward more efficient, diversified, and profitable operations. At the same time, many new farmers are entering the industry for the first time, with pre-assessment data revealing that 18 participants had been farming for less than 10 years and only 2 had developed written business plans prior to the program. This multi-session workshop series was designed to help both new and experienced farmers navigate the complexities of diversifying their operations and creating sustainable business models. The program addressed frequently asked questions from farmers, such as “I bought a farm, now what?”, “What can I grow to make money?”, and “Tell me about programs that pay me to farm?” Expert-led sessions included The Basics of Farming in Kentucky by Lindie Huffman, Opportunity or Obligation? by Dr. Steve Isaacs, Exploring and Identifying New Markets with Dr. Brett Wolff, and Preparing for the Ag Lender presented by Eli Mann. Participants were guided through actionable business planning, covering essential topics such as market identification, financial strategy, and succession planning. The program attracted 44 participants, with 22 attending two or more sessions, 14 completing comprehensive farm business plans, 5 initiating essential family discussions about the future of their operations, and 21 receiving personalized consultations tailored to their specific needs. By focusing on diversification and the unique challenges faced by new farm owners, The Business of Farming empowered participants to develop sustainable, profitable strategies for long-term success.

THE OREGON STATE UNIVERSITY EXTENSION AGRICULTURAL TOURISM PROGRAM

Audrey Comerford
Agritourism Coordinator
Oregon State University
Salem

Comerford, A[1], Fery, M[2]

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The Agricultural Tourism Extension program engages the agriculture and tourism communities to foster connections through researched-based knowledge and education and seeks to strengthen the understanding of agricultural tourism and on-farm-direct sales to help build ?nancially viable farms, encourage sustainable practices and industry resilience through networks and educational resources. The development of an online PACE course combined with small group peer learning activities and individual contact teaching provides high quality and personalized support. Producers that engage in the program receive information that can be applied to their own operation and in turn helps them make decisions on whether agritourism is a good ?t for them and their farm or ranch. The program delivers information in person, digitally on multiple platforms, in larger groups, and through one-on-one teaching. These educational activities consisted of over 20 group activities with 832 participants and 338 individual contacts for a total of 1,170 participants over the past 3 years. There is also outreach and engagement tools employed consisting of an e-newsletter, a producer network, and social media platforms with a total of 1,532 participants. The OSU Extension Agricultural Tourism website has over 10,000 users since its creation. The program also conducts applied research, including the first-ever Oregon agritourism economic impact analysis and is currently in the process of conducting agritourism consumer sentiment research. Just in the Willamette Valley, agritourism contributes $985 million to Oregon’s economy.

STATE WINNERS

North Central

Ohio	Emily Marrison

Northeast

New Jersey	Madeline Flahive DiNardo

Southern

Alabama	Calen B. Monroe
Florida	Christa Kirby
Oklahoma	Liana Palmer

West

Colorado	Jenny Beiermann
Montana	Kari Lewis

Search for Excellence in Livestock Production

NATIONAL WINNER

EXTENSION PROGRAMS AIM TO IMPROVE REPRODUCTIVE EFFICIENCY FOR CATTLE PRODUCERS

Ashley Edwards
Assistant Professor and Livestock Specialist
LSU AgCenter
Alexandria

Edwards, A[1], Holmes, J[2], Mallette, R[3], Salley, J[4], Terrell, J[5], Faulk,A.L[6]

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[3] Assistant/Associate Extension Agent (ANR), LSU AgCenter, Natchitoches, Louisiana, 71458
[4] Assistant Extension Agent, LSU AgCenter, Grand Cane, Louisiana, 71032
[5] Assistant Extension Agent, LSU AgCenter, Shreveport, Louisiana, 71105
[6] Associate Extension Agent and Regional ANR Coordinator,, LSU AgCenter, Homer, Louisiana, 71040

Profitability in beef cattle operations is driven by a cow's ability to produce and wean a calf annually. The LSU AgCenter's Hill Farm Research Station offers two annual programs to assist cattle producers with optimizing herd reproductive efficiency and cattle performance. First, the Louisiana Producer Artificial Insemination School (AI School) started in 2015 to address a need for educational content related to artificial insemination (AI) in beef cattle. This three-day course provides students with the science and practices involved in implementing an AI program in cattle herds through a mixture of classroom learning and laboratory experience utilizing live cattle. Second, the Cattle Pregnancy Determination Clinic began in 2019 after repeated requests for education of pregnancy determination techniques. This one-day program teaches multiple methods of pregnancy determination to assist producers in effectively making keep/cull decisions and improving reproductive efficiency. Each program is evaluated primarily on the mechanics of the school and students' experience. A post-class evaluation of the first ten AI Schools determined the success of past students and the impact of the school on their operations. When asked who performs AI, 65.38% of students responded that they personally AI their herd. Their use of AI increased by 300%, use of estrous synchronization increased by 171.4%, and use of embryo transfer increased by 150%. When asked if their farm profitability increased due to participation in the A.I. class, 42.31% answered yes and 50% were unsure. Evaluation of the first ten Pregnancy Determination Clinics asked participants to rate their overall impression of the clinic on a scale of 1 to 10 (1 = poor; 10 = great), 77.6% responded "10," 21% responded "9," 2% responded "8 or lower." When asked to rate their likelihood of implementing pregnancy determination in their herd (1 = not likely and 10 = very likely), 83% responded "10." When asked which portion of the program was most beneficial, most responses were reflective of this selected comment, "The hands-on part only because it tied into the classroom part and made a better understanding." Participant feedback and continued requests for enrollment illustrate a demand for continuation of these programs.

NATIONAL FINALISTS

MEAT AND TASTE WITH EXTENSION

Melanie Barkley
Extension Educator
Penn State University
Bedford

Barkley, M[1]

[1] Extension Educator, Bedford, Pennsylvania, 15522

The Meat and Taste with Extension workshop was developed to increase livestock producers and general public knowledge about meat cuts, cooking methods, and food safety. The purpose of the program was to increase

knowledge about meat cuts, meat cut selection, and confidence in preparing meat cuts. Livestock producers would then be able to share information with their meat customers. Three workshops were held at two locations in January, February, and June 2024. Two workshops were held on Saturday mornings, while the third was held on a Thursday evening. To keep the cost low, the entrant solicited financial support from the PA Livestock Association (PLA) to cover educator travel costs, meat cuts, handouts, and refreshments. Teaching methods included presentations on where meat cuts come from, cooking methods, resting meat after cooking, and grading and quality factors. Participants participated in an activity to identify recommended methods to prepare various meat cuts. In addition, teaching methods included demonstrations on meat handling, food safety with how bacteria spread, cutting board care, and cooking. Participants received recipes for preparing beef, pork, and lamb and then could taste these recipes. Recipes included Mississippi pot roast, Greek seasoned pork chops, and either leg of lamb or spinach and feta stuffed lamb burgers. A total of (N=57) people participated in the three Meat and Taste with Extension programs. Results of the post-evaluation (n=49) indicated that 100% learned something new, 96% learned a moderate to extreme amount, and 92% planned to make changes. A total of (N=21) people who responded to a follow-up survey via Qualtrics reported implementing practice changes to improve food safety, save money on meat purchases, or save money by preparing meals at home. 70% indicated saving an average of $505.56 by eating at home rather than eating out, and 53% indicated saving an average of $142.86 by purchasing lower-cost meat cuts. 76% indicated they changed food safety practices: 69% use cutting boards specifically for raw meat, 69% pay closer attention to kitchen cleanliness or sanitation, and 56% changed practices for using a meat thermometer.

SEASONAL EXTENSION PROGRAMMING TO SUPPORT COMMERCIAL POULTRY PRODUCTION

Jeremiah Davis
Professor and Director
National Poultry Technology Center at Auburn University
Auburn University

Davis, J[1], Campbell, J[2], Griggs, K[3], Smith, C[4], Sroda, L[5]

[1] Professor and Director, National Poultry Technology Center-Auburn University, Auburn, Alabama, 36849
[2] Associate Extension Professor, National Poultry Technology Center-Auburn University, Auburn, Alabama, 36849
[3] Research Engineer, National Poultry Technology Center-Auburn University, Auburn, Alabama, 36849
[4] Research Engineer, National Poultry Technology Center-Auburn University, Auburn,
[5] Research Engineer, National Poultry Technology Center-Auburn University, Auburn, Alabama, 36849

The purpose of this educational program was to provide poultry producers and company professionals with actionable seasonal content to address the challenges associated with commercial poultry production in Alabama and beyond. Cold Weather Workshops, offered in October, prepared farms for winter. Topics included generators, heating and ventilation systems, heating fuel, bedding, and water systems. Hot Weather Workshops, offered in April, prepared farms for summer. Topics included generators, summer ventilation and evaporative cooling, lighting, and water supply. A total of 1,852 participants attended 33 training events (12 seasonal workshops, 13 corporate, and 8 producer meetings). We trained all the live management teams from Tyson Foods, Pilgrim's, Wayne-Sanderson, Koch Foods, and Perdue Farms; 62% of U.S. production. Evaluation of program outputs was conducted through post-workshop surveys, oral testimonials, and other feedback. In 2024, the average years of experience in poultry for participants was 12.4 years, with a range of experience from one month to 50+ years. The overall net promoter score (NPS) was 9.7/10 for 517 respondents. Reflexive thematic analysis was performed on qualitative responses. In addition to comments regarding specific workshop topics, two learning themes emerged. The first was that participants were able to better understand complex concepts because they got to experience the processes with hands-on sessions. They were more confident in communicating these concepts with their teams and their producers. The second was that participants were more confident in prioritizing processes and the need to perform maintenance processes before changing system management. Additionally, respondents found our new postcard learning curriculum very helpful with a mean response of 9.5/10. Thematic analysis found that: 1) each postcard with an illustration and acronym made the concepts simple to understand and easy to remember, 2) many respondents stated that they were more confident in being able to train their teams and their farmers, and 3) the physical size was helpful to keep in their pocket and easy to share. Companies and producers have found NPTC training efforts impactful with increasing participation and financial support. The estimated annual economic impact that NPTC educational programs have had on the U.S. poultry industry exceeds $50 million.

UNIVERSITY OF ARIZONA COOPERATIVE EXTENSION ARTIFICIAL INSEMINATION CLINIC

Ashley Hall
Area Associate Agent, Agriculture and Natural Resources
University of Arizona Cooperative Extension
Globe

Hall, A[1], Brischke, A[2], Brawley, N[3], Hazlewood, K[4], Cannon, K[5]

[1] Area Associate Agent, Agriculture and Natural Resources, University of Arizona Cooperative Extension , Globe, Arizona, 85501
[2] Area Associate Agent, Agriculture and Natural Resources, University of Arizona Cooperative Extension , Kingman, Arizona, 86401
[3] Assistant Agent, Livestock, University of Arizona Cooperative Extension , Solomon, Arizona, 85551
[4] Assistant Agent, Livestock, University of Arizona Cooperative Extension , Prescott, Arizona, 86305
[5] Director, V Bar V Research Ranch , University of Arizona Cooperative Extension , Rimrock , Arizona, 86335

The University of Arizona (UA) Cooperative Extension developed a biannual Artificial Insemination (AI) clinic based on input from livestock producers. For the last five years the clinic has provided education to over 100 producers. The clinic takes place at UA V Bar V Research Ranch over 2.5 days and covers key topics such as: reproductive anatomy, AI equipment, semen handling, estrous synchronization, genetic selection, and record keeping. Hands-on learning is a main element of the clinic in combination with formal presentations. Some of the objectives of the AI clinic are for participants to 1) gain knowledge on completing the AI process, 2) feel confident to perform AI on their own, and 3) improve their understanding of livestock genetics. Evaluation surveys are distributed at the conclusion of each clinic. Participants are generally asked to evaluate change in knowledge for each topic covered, how beneficial each of the hands-on methods was, how likely they are to implement AI, how confident they feel in their ability to perform AI, and overall quality of the clinic. On average participants rate their confidence level as 3.5, with 5 being very confident. Recently a post-clinic evaluation survey was sent to all past participants to determine AI success and the overall change in various management practices after attending the clinic. Survey results indicated 80% of respondents incorporated AI technology into their operation. Out of those that attempted AI, 71% successfully inseminated at least one cow.

STATE WINNERS

North Central

Iowa	Denise Schwab
Kansas	Justine Johns
Michigan	Katie Ockert
Minnesota	Sarah Schieck Boelke
Missouri	Jason Morris
Nebraska	Erin Laborie
North Dakota	Mary Keena
Ohio	Shelly Dee Jepsen

Northeast

Maine	Colt Knight

Southern

Arkansas	Bronc Finch
Florida	Caitlin Justesen
Kentucky	Kendal Bowman
North Carolina	Margaret Ross
Oklahoma	Michael Trammell
Tennessee	Harold Woods
Virginia	Amy Byington

West

New Mexico	Savannah Daniels
Utah	Cheyenne Reid

Search for Excellence in Young, Beginning, or Small Farmers/Ranchers

NATIONAL WINNER

SETTING BEGINNING FARMERS UP FOR SUCCESS WITH THE MAINE NEW FARMERS PROJECT

Christina Howard
Monmouth

Howard, C[1], Handley, D[2], Knight, C[3]

[1] Risk Management and Crop Insurance Education Professional, University of Maine Cooperative Extension, Monmouth, Maine, 04259
[2] Extension Professor and State Vegetable and Fruit Specialist, University of Maine Cooperative Extension, Monmouth, Maine, 04259
[3] Associate Extension Professor and State Livestock Specialist, University of Maine Cooperative Extension, Orono, Maine, 04259

The Maine New Farmers Project (MNFP) brings beginning farmers into comprehensive, individualized training programs to increase profitability, improve decision-making, and consider life balance when starting a farm in Maine. Farmers build a portfolio of knowledge and experience for successful farming through hands-on and classroom training, one-on-one support, and text and video materials. After year three of the project, 183 people started agricultural businesses in Maine; at least 40% of the participants were women and at least 10% were veterans.

To prepare beginning farmers to start or advance their farm businesses, the project enacted three initiatives:
1. Intensive Business Planning. In three years, 464 beginning farmers increased their knowledge and skills in business planning by participating in group and one-on-one business planning education and assistance. We developed courses on farm record keeping, farm management, and business plan development. Of the project participants, 76 completed their business plan and 24 obtained financing for their agricultural businesses.

2. Filling the Gaps in Production Knowledge. Beginning farmers learned about, observed, and experienced many aspects of crop and livestock farming through on-farm tours and mentoring. In three years, 88 events were held that included hands-on experience on University farms and commercial farms. Mitigating heat stress in livestock, utilizing IPM strategies for vegetable and fruit crops, and new weeding strategies were some of the improvements made on farms by the 1838 participants.

3. Increasing Access to Resources and Networks. Existing resources and networks for beginning farmers were strengthened, augmented, and refined. We developed 14 new documents and 30 new videos, which were posted to our webpage and distributed to our network via newsletter and social media (including a Facebook Group and new podcast). We encouraged beginning farmers to network through our in-person events and our "connect" page on our website. New farmers in Maine were introduced to new networking opportunities and ag service providers, including SCORE Maine, Farm Service Agency, Maine Department of Agriculture, Natural Resources Conservation Service, and the Maine Farmers Resource Network.

NATIONAL FINALISTS

NEBRASKA BEGINNING FARMERS AND RANCHERS: BEGINNING, MANAGING, AND TRANSITIONING

Anastasia Meyer

University of Nebraska
Beatrice

Meyer, A[1], Groskopf, J[2], Sand, S[3]

[1] Agriculture Economist, University of Nebraska - Lincoln, Beatrice, Nebraska, 68415
[2] Agriculture Economist, University of Nebraska- Lincoln, Scottsbluff, Nebraska, 69361
[3] Agriculture Economist, University of Nebraska - Lincoln, North Platte , Nebraska, 69101

The Nebraska Beginning Farmers and Ranchers: Beginning, Managing, and Transitioning program, developed by the Center for Agricultural Profitability (CAP) Regional Agriculture Economists Anastasia Meyer, Jessica Groskopf, and Shannon Sand, addresses critical challenges in farm and ranch transition planning. While asset transfer is often a focus, management transitions are frequently overlooked. This program provides targeted education on intergenerational communication, financial management, and employee retention to support successful farm and ranch transitions.

Through five webinars, three public meetings, and five guest lectures at Nebraska colleges across the state, CAP engaged with 456 individuals interested in returning to family operations between October 2024 and March 14, 2025. Participants learned essential skills, including conducting productive family meetings, setting job expectations, planning for change, and developing communication strategies to ensure smooth transitions. CAP also hosts a two day Returning to the Farm workshop, with 15 individuals present, designed to bring multi-generational family farms and ranches who are bringing a younger generation. The families develop financial plans and successful working arrangements to meet their unique needs. It also guides families in developing estate and transition plans, setting personal and professional goals and improving the communication process between family members.

Total survey results from attendees demonstrated the following impacts: 59% reported learning strategies to improve business and family communications, 15% wrote a plan to improve communications, and 44% adopted strategies to improve communication. Additionally, 27%

learned strategies to improve training and management of employees/family members, 4% wrote job descriptions for their farm or ranch, and 25% reported adopted strategies to improve the training and management as a direct result of these programs.

By equipping beginning farmers and ranchers with essential tools, CAP strengthens rural economies, improves family communication, and preserves Nebraska's agricultural heritage. The program fosters sustainable farm and ranch management, ensuring long-term success for the next generation of producers. These efforts contribute to healthier communities and a more resilient agricultural industry.

Funding for this project was provided by the North Central Extension Risk Management Education Center, the USDA National Institute of Food and Agriculture Award Number 2023-70027-40444.

PANHANDLE CATTLEMEN'S COLLEGE

Kalyn Waters
CED/Agriculture Agent
University of Florida
Bonifay

Waters, K[1], Simmons, N[2], Gonella-Diaza, A[3]

[1] CED/Agriculture Agent, , Bonifay, Florida, 32425
[2] CED/Agriculture Agent, UF/IFAS Extension Escambia County, Cantonment, Florida, 32425
[3] Assistant Professor, UF North Florida Research and Education Center, Marianna , Florida, 32425

Background: Cattle production is evolving, with long-established multi-generational ranchers alongside a rising number of new producers with little to no background in the industry. Both groups face steep learning curves. The Panhandle Cattlemen's College (PCC) addresses these issues in a program designed to support cattle producers in the Southeast through experiential learning and to create a dynamic learning community. Objectives: The program objectives are 1): create a hands-on learning platform that teaches cattle producers skills that will enhance practice change, 2) provide a learning environment for new/beginning producers to learn applied cattle handling/management skills in the field with repeated practice/application on live animals, and 3) develop a learning community/network of industry experts, professionals, program attendees to provide post-program support. Method: PCC is a three-day hands-on field event that has two training tracks: Chute Side Skills track (CST) and Artificial Insemination track (AIT). Participates in the CST learn basic and advanced skills on live cattle. Over the three days, CST participants learn skills such as blood sampling, tagging, cattle handling, implanting, injections, castration, and more with the capstone being to work a group of 80 head of cattle as a team. The AIT focuses on reproductive management, with participants becoming certified as an A.I. technician through 3 days of in-cow practice. All participants (CST/AIT) complete Beef Quality Assurance (BQA) training and are certified. Results: Over three-years, 267 certifications have been issued to 192 individual participants (some participants have completed both tracks). Continued educational programs under the PCC programmatic umbrella include webinars (16) and a pasture field day, which reached an additional 6,927 producers. Post-program survey data indicated that 100% reported knowledge gain, 92% of participants implemented change and utilized skills learned to increase the profitability of their operation, 42% are applying the skills they learned to other herds, 95% are teaching others skilled they learned, and 100% increased profits of operation from learned skill. Impact: The PCC is innovative and effective. Documented actual practice changes are supported by producers demonstrating skills learned in their operation. This shows the impact of the program and the educational materials developed.

TRI-STATE HOMESTEADING CONFERENCE

Lindie Huffman
ANR Agent
University of Kentucky
Falmouth

Huffman, L[1], Allen, D[2], Benitez, J[3], Bullock, V[4]

[1] ANR Agent, , Falmouth, Kentucky, 41040
[2] ANR Agent, University of Kentucky, Independence , Kentucky, 41051
[3] Educator, Agriculture and Natural Resources, The Ohio State University, Hamilton, Ohio, 40511
[4] Agriculture and Natural Resources Educator | County Extension Director, Purdue Extension, Brookeville, Indiana, 47012

Every year, new and aspiring homesteaders embark on the journey of self-sufficiency, eager to grow food, raise livestock, and build sustainable farm enterprises. However, these beginning farmers face significant challenges in land management, marketing, production strategies, and resource access. To bridge this knowledge gap, The Cooperative Extension Services of the University of Kentucky, The Ohio State University, and Purdue University launched the Tri-State Homesteading Conference, the first multi-state Extension-led homesteading conference of

its scale. The inaugural event attracted 80 homesteaders, with 60% having five years or less experience. Participants attended 18 educational sessions, covering topics such as sustainable gardening, soil health, livestock care, and direct farm sales. Post-event evaluations showed 100% of attendees gained new skills applicable to their homesteads, with many planning to implement mushroom cultivation, no-till gardening, maple syrup tapping, and diversified livestock enterprises. The conference also fostered critical networking opportunities, with 50 participants building connections with fellow homesteaders and experts. Notably, 40% of attendees were engaging with Extension for the first time, demonstrating the event's success in reaching new audiences. With 100% of respondents expressing interest in future events, including hands-on workshops and farm tours, this conference has established a new model for beginner farmer education. Through this initiative, Extension is equipping the next generation of homesteaders with the tools to thrive, ensuring that small-scale, diversified agriculture remains a viable pathway to food security and rural economic growth.

STATE WINNERS

North Central

Missouri	Jennifer Lutes
South Dakota	Heather Gessner

Southern

Georgia	Sierra Burke
Mississippi	Matthew Thornton
North Carolina	Celine Richard
Oklahoma	Crystal Ashalintubbi-Shipman
Texas	Jordan Voges

West

Idaho	Meranda Small
Utah	Victoria Xiong

Search for Excellence in Environmental Quality, Forestry and Natural Resources

NATIONAL WINNER

BACKYARD WILDLIFE HABITAT SHORT COURSE

Mallory Maher
Natural Resources Extension Associate
Clemson Extension
Pendleton

Maher, M[1], Porzelt, S[2], Belken, T[3], Hamilton, M[4]

[1] Natural Resources Extension Associate , Clemson Extension, Pendleton, South Carolina, 29670
[2] Water Resources Agent, Clemson Extenion, Charleston, South Carolina, 29401
[3] Forestry Wildlife Agent, Clemson Extension, Florence, South Carolina, 29505
[4] Director, Clemson Extension, Clemson, South Carolina, 29634

The Backyard Wildlife Habitat Program, developed by Clemson Extension in collaboration with various partners, aims to educate homeowners on creating wildlife-friendly landscapes amidst South Carolina's rapid urbanization. The program's core objectives include promoting an understanding of wildlife needs and offering research-based guidance to enhance residential yards with food, shelter, water, and space for wildlife. It features an online self-paced course, a demonstration garden at the South Carolina Botanical Garden, a Native Plant Lecture Series, and additional resources to support wildlife-friendly practices. Since its launch, over 566 participants from South Carolina, North Carolina, and Virginia have engaged with the online course, which was developed in partnership with Clemson Extension and Clemson Online, with 84% of participants indicating their intention to adopt these practices. The demonstration garden, visited by 350,000 people annually, serves as a practical showcase of native plants and wildlife-enhancement techniques. Positive feedback and high quiz scores reflect the program's success in increasing participants' knowledge and fostering sustainable backyard habitats. Through these efforts, the program has contributed to a deeper connection between people and nature, aiding the preservation of South Carolina's natural resources amidst

growing development. The Backyard Wildlife Habitat Course was designed and created by Mallory Maher, Clemson Extension Natural Resources Extension Associate, along with Samantha Porzelt, Water Resources Agent in Charleston County, who also coordinated the Native Plant Series, and Tancey Belken, Forestry and Wildlife Agent in Florence County. The demonstration garden was installed and designed by Dr. Martin Hamilton, Director of the South Carolina Botanical Gardens, his staff, and Mallory Maher.

NATIONAL FINALISTS

CULTIVATING CONSERVATION FOR MARYLAND AND DELAWARE'S HISTORICALLY UNDERSERVED FARMERS

Sarah Hirsh
Agent
University of Maryland
Princess Anne

Hirsh, S[1], Dill, S[2], Todd, M[3], Nichols, K[4], Little, N[5], Beale, B[6], Crowl, E[7], Kness, A[8]

[1] Agent, University of Maryland Extension, Princess Anne, Maryland, 21853
[2] Principal Agent, University of Maryland Extension, Easton, Maryland, 21601
[3] Senior Legal Research Associate, University of Maryland Agriculture Law Education Initiative, Baltimore, Maryland, 21201
[4] Agent, University of Maryland Extension, Derwood, Maryland, 20855
[5] Senior Agent, University of Maryland Extension, Baltimore, Maryland, 21215
[6] Principal Agent, University of Maryland Extension, Leonardtown, Maryland, 20650
[7] Senior Agent Associate, University of Maryland Extension, Cockeysville, Maryland, 21030
[8] Senior Agent, University of Maryland Extension, Street, Maryland, 21154

Program partners University of Maryland Extension, University of Maryland Agriculture Law Education Initiative, University of Delaware Cooperative Extension, Maryland and Delaware Natural Resources Conservation Service, and Soil Conservation District field offices developed and taught the "Cultivating Conservation" program. This program educates farmers and other land managers who do not yet have a relationship with conservation program sponsoring agencies about conservation resources that are available to them. The curriculum emphasizes the special provisions that are available for Historically Underserved farmers. Specifically, the goals of "Cultivating Conservation" are for participants to gain an increased knowledge of conservation practices and contractual agreements, and increased comfort level to engage and visit with conservation partners. The team taught 96 participants at workshops in Maryland, Delaware, and virtually. Workshops were interactive, including PowerPoint presentations, activities, demonstrations, guest speakers from conservation agencies, and tours of conservation practices. An online self-paced course was developed, along with a printed guidebook, and videos housed on a YouTube Channel. Evaluations were conducted through distributing pre-class, end-of-class, and follow-up surveys. According to end-of-class surveys, 98% of workshop participants rated the program as good (15%) or excellent (83%), and 83% gained resource materials they could use. Participants reported an increase in knowledge, including 35% growth in understanding conservation programs, 37% in using the USDA Web Soil Survey tool, and 40% in contractual obligations and expectations. Follow-up surveys conducted one to two years later showed that 88% of respondents reviewed program literature, 69% implemented a conservation practice, and 64% began or created a conservation farm plan.

EMPOWERING PROFESSIONALS: INNOVATION AND EDUCATION FOR WATER EFFICIENT AND BIODIVERSE LANDSCAPING PRACTICES IN FLORIDA

Brooke Moffis
Commercial Horticulture Agent III
UF/IFAS Extension Lake County
Tavares

Moffis, B[1], Iannone, B[2], Bohlen, P[3], Jones, P[4], Kipp, J[5], Levey, R[6], Sallin, T[7]

[1] Commercial Horticulture Agent III, UF/IFAS Extension Lake County, Tavares, Florida, 32778
[2] Associate Professor and State Extension Specialist, UF/IFAS School of Forestry. Fisheries, and Geomatics, Gainsville, Florida, 32610
[3] Arboretum Director, University of Madison-Wisconsin, Madison, Wisconsin, 53711
[4] Program Director, UF/IFAS Program for Resource Efficient Communities, Gainesville, Florida, 32609
[5] Resource Economist, UF/IFAS Program for Resource Efficient Communities, Gainesville, Florida, 32609
[6] Managing Director, Levey Consulting, Orlando, Florida, 32856
[7] Co-CEO, IMG Enterprises, Groveland, Florida, 34736

This project addresses the ecological impact of residential landscapes in Florida, highlighting issues such as habitat loss, biodiversity decline, and water resource stress due to various landscaping practices. In response to a

developer's request for assistance in reducing water use and protecting local water bodies, the University of Florida/Institute of Food & Agricultural Sciences (UF/IFAS) Extension partnered in a collaborative effort with built environment professionals, green industry professionals, and academics. This team conducted a comprehensive research project within a Living Laboratory that tested the effects of compost amendments on urban soils and pollinators. The findings revealed that compost-treated soils maintained higher plant visual quality and increased the number of flowers and pollinators. Irrigating as needed versus weekly reduced water use by 79%, with no negative impact on plant quality. To disseminate these insights, UF/IFAS Extension engaged with industry professionals through educational sessions and tours at the annual Outside Collaborative Conference and other events for decision-makers such as the Florida Association of Counties Policy Conference. Presentations highlighted sustainable development practices, including soil health improvement, wildlife conservation techniques, and the use of native plants. Survey results indicated that 98% of surveyed attendees increased their knowledge regarding land development and sustainable landscaping, with over 30% of surveyed attendees indicating intention to adopt compost amendments, select and install native plants, and reduce irrigation use. A master-planned community of 33,000 to 37,000 homes adopted compost amendments, native plants, and irrigation techniques for their next phase of development. This initiative further aims to foster dialogue between UF/IFAS Extension, industry stakeholders, and municipalities, ultimately encouraging the implementation of resource-efficient and biodiverse landscaping in master-planned communities across Florida.

BREATHITT COUNTY ANNUAL CANOE TRIP

Reed Graham
CEA for Agriculture & Natural Resources
Jackson

Graham, R[1]

[1] CEA for Agriculture & Natural Resources, Breathitt County Extension Office, Jackson, Kentucky, 41339

In the last three years, the Breathitt County Natural Resources Education Canoe Trip has provided more than 100 community members with hands-on environmental education while paddling 10 miles of the North Fork of the Kentucky River. Through interactive discussions, guided exploration, and experiential learning, participants of all ages have gained a deeper understanding of watershed conservation, riparian buffer zones, amphibian ecosystems, and the critical role of solid waste management in protecting Kentucky's waterways.
With Breathitt County experiencing three major flooding events in the past five years, this program has played a vital role in educating residents on how their actions—both positive and negative—can impact local waterways. Partnering with six key organizations, including the local park service, the public library, local school district, solid waste management, UK Extension specialists, and dedicated community volunteers, this event fosters collaboration and community-driven conservation efforts.

STATE WINNERS

Southern

Alabama	Jennifer Davidson
Georgia	Nathan Eason
Mississippi	Kelby King
North Carolina	Paige Patterson
Texas	Katie Pace

DAN KLUCHINSKI MEMORIAL SCHOLARSHIP AWARD

NATIONAL WINNERS

NORTHEAST REGION WINNER

Justin Brackenrich
Extension Educator
Penn State University
Waynesburg

I will use this scholarship money to attend the 2025 NACAA AM/PIC meeting in Billings, Montana. This event is from June 29 through July 2. If a pre-tour is relevant to my work

and interests with Extension, I plan to attend. Pending the final agenda, this will make my travel dates June 27 through July 2 or 3. As the NE Regional Vice-Chair for Agronomy and Pest Management, I will be responsible for attending, assisting, and possibly moderating the sessions within our track. I will participate in other general sessions and educational presentations when not attending my required sessions. Many event details are unavailable at the time of submission, so final travel plans, itineraries, and tour arrangements cannot be stated.

2. I hope to gain knowledge in three different areas: networking, research, and professional development by attending this meeting. Networking is crucial to the Extension model and outreach mission. I co-host a bi-weekly podcast, Agronomy Highlights, with a colleague from Penn State Extension, receiving about 5,000 downloads and views a year. One primary goal of this trip is to attend presentations, interact with speakers, and make connections with potential guests for the podcast. Not only does this help our mission, but it also provides an outlet for Extension professionals to share their knowledge and research with a larger audience. Research is my second area of emphasis. I am currently working on two funded projects related to cool-season grass hay production. I hope to garner guidance for my research projects, provide insight into things I have not considered, and inspire new questions for future projects. My last goal is professional development. In the future, I would like to present my current projects at a conference such as AM/PIC. Interacting with speakers, seeing their styles, and understanding how to convey scientific knowledge are essential as I prepare to do this. I will enhance in my presentation style and preparation by attending sessions and symposiums.

SOUTHERN REGION WINNER

Daniel Leonard
County Extension Director
UF/IFAS Calhoun County Extension
Blountstown

The Extension Leadership Conference (ELC) is a professional development event designed to enhance leadership skills, foster innovation in Extension programming, and ultimately advance the mission of Extension professionals nationwide. Hosted annually, the conference brings together Extension educators, administrators, and stakeholders to engage in sessions and networking opportunities focused on leadership development, communication, program impact assessment, and fostering collaboration.

With the help of the Dan Kluchinski Memorial scholarship, I plan to attend the 2026 ELC in Savannah, GA on February 4-5, 2026. While the itinerary for the 2026 ELC has not been published yet, 2025's program should serve as a guide to the types of sessions and networking events that will be available. I plan to submit an abstract for presentation at the 2026 ELC on my efforts in rebuilding the overall Extension program in Calhoun County and empowering my employees to grow as leaders in their roles. While the call for abstracts won't occur until fall 2025, I have a long history of abstracts being accepted and presenting my work to peers at the ELC will be valuable to me professionally in the UF/IFAS promotion system.

In addition to presenting, attending the 2026 ELC will be invaluable for continuing my leadership journey within FACAA and NACAA. Within FACAA and NACAA, I have already held several leadership roles. I was the State Communications Chair from 2017-2019 and am currently serving as the NACAA Southern Region Communications Vice Chair. I was elected Secretary of FACAA in 2020, have since held each officer position, and am currently serving as Past-President. I helped facilitate two virtual AM/PICs and host the 2022 AM/PIC in West Palm Beach (Special Events Chair) and this year, I was selected into the 2024-2025 NACAA Leadership Academy Cohort. These experiences have honed my leadership skills within FACAA and NACAA and taught me that our association can offer much for those that are willing to serve others.

Additionally, I have applied to be the NACAA Program Council Chair and attending the 2026 ELC will allow me to learn more about the workings of the organization through attending the association meeting there, attending leadership sessions, and networking with officers of the various state organizations under the NACAA umbrella. I also have a goal of running for the office of NACAA Vice-President in the next couple of years (by 2027 at the latest) and am seeking leadership development opportunities like the 2026 ELC to enhance my ability to succeed in that role. Thank you for your consideration and I look forward to representing NACAA and the legacy of Dan Kluchinski well at the ELC if I am selected.

2025 NACAA
Distinguished Service Award Winners

WESTERN REGION

California
David Haviland

Colorado
Travis Taylor

Idaho
Doug Finkelnburg

Montana
Marc King

New Mexico
Jason Lamb

Oregon
Sergio Arispe

Utah
Michael Caron

Washington
Linda McLean

Wyoming
Jeremiah Vardiman

NORTH CENTRAL REGION

Illinois
Ken Johnson

Indiana
Danielle Walker

Iowa
Jennifer Bentley

Kansas
Krista Harding

Kansas
Shannon Blocker

Michigan
Benjamin Phillips

Minnesota
Emily Krekelberg

Missouri
Charles Ellis

Nebraska
David Lott

North Dakota
Brian Zimprich

Ohio
Nanette Neal

Ohio
Eric Richer

Ohio
Beth Scheckelhoff

Wisconsin
Heather Schlesser

NORTHEAST REGION

Connecticut
Jacqueline Kowalski

Maine
Kate Garland

Maryland
Jonathan Moyle

New Jersey
Amy Rowe

New York
Elizabeth Higgins

Pennsylvania
Nicole Thompson

West Virginia
John Murray

SOUTHERN REGION

Alabama
David West

Alabama
Gavin Mauldin

Alabama
Kristen Roberson

Arkansas
Jan Yingling

2025 NACAA
Distinguished Service Award Winners

Arkansas
Lance Blythe

Florida
Mark Mauldin

Florida
Nicholas Simmons

Florida
Kalan Taylor

Georgia
Joel Burnsed

Georgia
Tripp Williams

Georgia
Raymond Fitzpatrick

Georgia
Nathan Eason

Kentucky
Corinne Belton

Kentucky
James (Jay) Stone

Kentucky
Levi Berg

Louisiana
Lee Faulk

Mississippi
Jim McAdory

Mississippi
Jessica Sibley

Mississippi
Lurlinda Soignier

North Carolina
Colby Griffin

North Carolina
John Cothren

North Carolina
Melissa Huffman

North Carolina
April Bowman

Oklahoma
Earl Ward

Puerto Rico
Jose Ramos

South Carolina
Barbara H Smith

South Carolina
Derrick Phinney

South Carolina
William Hardee

Tennessee
Blake Ramsey

Tennessee
Celeste Scott

Tennessee
Shannon DeWitt

Texas
Amber Walden

Texas
Jo Smith

Texas
Zachary Davis

Texas
Chadd Caperton

Texas
Bobby McCool

Texas
Justin Gilliam

Virginia
Adria Bordas

Virginia
Jennifer Ligon

2025 NACAA
Achievement Award Winners

WESTERN REGION

Arizona
Ashley Hall

California
Tracy Schohr

Colorado
Christine Schinzel

Idaho
Grant Loomis

Montana
Kari Lewis

New Mexico
Savannah Daniels

Oregon
Christy Tanner

Utah
Kalen Taylor

Wyoming
McKenna Julian

NORTH CENTRAL REGION

Illinois
Bruce Black

Indiana
Lais McCartney

Iowa
Tim Christensen

Kansas
Cassie Thiessen

Kansas
Wendie Powell

Minnesota
Dana Lynn Adams

Missouri
Justin Keay

Nebraska
Leslie Johnson

North Dakota
Ron Haugen

Ohio
Carri Jagger

Ohio
Stephanie Karhoff

Ohio
Clifton Martin

South Dakota
Kristine Lang

Wisconsin
Kim Kester

NORTHEAST REGION

Connecticut
Jennifer Cushman

Maine
Nicholas Rowley

Maryland
Erika Crowl

New Jersey
Belinda Chester

New York
Amy Barkely

Pennsylvania
Genevieve Christ

West Virginia
Jody Carpenter

SOUTHERN REGION

Alabama
Abby Peters

Alabama
Rebecca Catalena

Alabama
Kerry Steedley

Arkansas
Jesse Taylor

2025 NACAA
Achievement Award Winners

Arkansas
Cody Salmon

Florida
Hannah Eason

Florida
Caitlin Justesen

Florida
Laura Bennett

Georgia
Shanna Reynolds

Georgia
Colby Royal

Kentucky
Matthew Futrell

Kentucky
Katie Hughes

Kentucky
Jessica Hopkins

Louisiana
Joe Willis

Mississippi
Cody Mills

Mississippi
Michael Pruden

Mississippi
Sandra Havard

North Carolina
Beth Burchell

North Carolina
Tommy Batts

North Carolina
Ashley Robbins

North Carolina
Anthony Growe

North Carolina
Laura Elmore

Oklahoma
Melissa Koesler

South Carolina
Robert Last

South Carolina
Charlotte Maxwell

South Carolina
Stephanie Turner

Tennessee
Amy Dunlap

Tennessee
Haley Treadway

Tennessee
Ryan Brown

Texas
Angie Nors

Texas
Callie Zoeller

Texas
Cassidy Smolik

Texas
Laramie Kettler

Texas
Christine Lansford

Texas
Katie Pace

Virginia
Edward Olsen

Virginia
Morgan Paulette

2025 NACAA
Hall of Fame Award Winners

2025
Western Region
Hall of Fame Award

Ron Cunningham

Wyoming
38 Years - Retired

Ron Cunningham began working as an Extension agent with the University of Wyoming in 1977 and retired in 2015. During this time, Ron made a profound impact on the clientele in Fremont County, his colleagues, and everyone around him.

Ron has been awarded countless awards and honors over the years at every level (county, state, national). As a life-member of NACAA and our state association WACAA, he was awarded the Career Achievement Award in 1981. He then went on to win the Distinguished Service Award in 1986 and was Wyoming's Outstanding Educator of the Year in 2011. Throughout his career, he was also recognized several times for his outstanding abilities winning the Jim Dubree Excellence in Extension Award in 1998 (highest honor in UW Extension) and the Meritorious 4-H Award in 2003. Finally, in 2023 following his retirement from Extension, Ron was inducted into the Wyoming Cowboy Hall of Fame.

During Ron's Extension career, he was always the epitome of a leader and organizer of educational events. He served as the president of the Wyoming Association of County Agriculture Agents multiple times (1982-1984 and 2001-2004). He also led major organizing efforts and initiative teams for Agriculture and Natural Resources programming across Wyoming unlike any other person in UW Extension's history. Many of the major events that he organized are still ongoing today. Major programs such as the Fremont County Farm and Ranch Days, Cattle Artificial Insemination schools, and the Lander Valley Garden Expo were started during Ron's tenure and continue to be some of the absolute best annual Extension programs offered in Wyoming today!
Ron has always been a valued member of his community and has continued to be involved in a variety of youth development efforts. Ron has especially excelled in using meats judging and livestock 4-H projects as a tool to help multiple generations of youth realize their full potential. Also, Ron has always been committed to maintaining the Fremont County Youth Camp and keeping summer camp opportunities available to youth. Ron continues to have an everlasting positive influence on futures of nearly every young person that he meets. His commitment and dedication to helping people has never wavered. Even nowadays, Ron is an active and valued 4-H volunteer. He is currently the board Director of the Fremont County Youth Camp and member of the Wyoming Animal Damage Management Board.

Having Ron inducted into the NACAA Hall of Fame makes us all in Wyoming very proud! He is the perfect person to receive this great honor.

DSA Awarded: 1986

2025
North Central Region
Hall of Fame Award

Stan Moore

Michigan
32 Years - Retired

Stan Moore's gentle, patient, humble leadership has been proven effective locally, statewide and nationally, both professionally and personally. He is effective because of his approach and the respect he affords others.

His service as President (2011) of the National Association of County Agricultural Agents (NACAA), President (2012) of the Board of the Joint Council of Extension Professionals (JCEP) and NACAA Policy Chair (2017-19) only highlights his lifetime of service within NACAA, Michigan Association of Extension Agents (MAEA) and within his role as a Sr. Extension Educator with Michigan State University. In retirement, Stan continues to serve the association through his involvement with the NACAA Foundation as Trustee. He has been recognized in

2021 by the Michigan State University President with the Distinguished Academic Staff Award. He is a 2008 NACAA Distinguished Service Award (DSA) honoree.

Through his work with employees and employers, he helped many agricultural employers navigate changing employment rules and grow in their ability to effectively lead and develop employees. His research has been published and cited in peer reviewed journals and he is often invited to speak at major conferences, most recently at the 2021 Ag Labor Forum of the National Council of Agricultural Employers and at the 2021 MILK Business conference.

As a Farm Management Educator, Moore worked to help farm families better understand their business through farm financial analysis. Sitting together at kitchen tables, in farm offices or in Zoom meetings, he taught and counseled as he analyzed. He developed a monthly Zoom users group of farmers across the state interested in improving their skill of farm financial record keeping. One farmer said of Stan: (he) "has been an exceptional leader in MSU Extension. He is committed to helping farmers and always demonstrates his ability and desire to go above and beyond."

Mentoring others is a large part of how Stan develops people. In 2021 he underwent a series of professional development training to become an approved coach with the Great Lakes Leadership Academy Fellowship Program.

Stan is a positive force in his rural Michigan Community. He served as chair of the Antrim County Petoskey Stone Festival, an annual weekend festival that draws thousands in celebration of a unique fossil stone found along the Lake Michigan coast. He also served on the Antrim County Planning Commission for 23 years.

Stan is active in his church, serving as a board member and member of the missions committee. He also serves in the community as a member of the board of Good Samaritan Family Services, a nonprofit organization that meets real needs of families. Serving as HR director since 2014 and chair from 2021-2024, Stan led the organization as it grew to serve over 2,000 clients per month, with a budget of almost $700,000 annually.

Through education, coaching, and servant leadership, Stan Moore meets the needs of individuals and families, on farms and in the community. He has led and continues to lead through faithful service, and he encourages individuals to become better and meet their goals.

DSA Awarded: 2008

2025
Northeast Region
Hall of Fame Award

Glenn F. Rogers

Vermont
35 Years - Retired

Glenn Rogers, (Extension Professor Emeritus) promoted knowledge, success, and the love of agriculture to all he encounters in the agriculture industry. Glenn was raised on the family farm in Westford,Vermont introducing him to his passion and dedication to the agriculture industry. The farm motivated him to work hard, learn more, have a passion and dedication to the Ag industry. He earned a B.S. in Animal Science/Vocational Technical Education (1973), a M.S. in Animal Science (1975), and took additional graduate courses in Ag Economics from UVM.

From 1975-1982 Glenn was a County Agriculture Agent in Grafton County NH. He worked in agronomy, horticulture, and dairy. He attended New England Ag Extension conferences and attended his first NACAA conference. The NACAA conferences soon became an integral part of Glenn's continued education for himself, his family, and those he served. He moved to UVM Extension serving many roles including Water Quality agent, County Agricultural Agent, Regional Dairy Specialist, Regional Farm Business Management Specialist achieving the rank of Extension Professor at the University of Vermont.

Glenn also served his country from 1971-1992 in the 134th Fighter Squadron as a Command Post technician, Air Operations Specialist, Administration supervisor, and a member of the NCO Council and NCOIC.

In 1990 U.S. Senator Patrick Leahy requested his assistance on the composition of the 1990 Farm Bill. He was granted a leave of absence, and the opportunity would also expand his comprehension and experience about varying philosophies, backgrounds, disciplines, and agriculture diversity of our nation. This contributed to his growth and mentorship in the agriculture industry.

Spreading knowledge was important to Glenn and he did so through publishing many articles in newsletters, newspapers, the NACAA Magazine, the American Agriculturist and communicating on local TV and Radio outlets.
He was member/Treasurer of Joint Council of Extension Professionals and on the policy committee. Glenn was a

member of Vermont Association of Ag Agents, Northeast Association of County Agricultural Agents, and National Association of County Agricultural Agents. Serving as NACAA Regional Vice Director, Regional Director, Vice President, President Elect, President, Past President, Policy Chair, Education Foundation (VP/Secretary and Treasurer), Vice Chair and chair NACAA Public Relations Ag Policy committee, and vice chair of NACAA Life Member committee.

After retiring from UVM Extension he continued to learn and share his expertise while working with the Yankee Farm Credit on Ag taxation, working with the UVM Income Tax School, and the UVM Extension Maple Grants.

Glenn also served his community through serving on boards including: Champlain Valley Exposition Board of Directors, Chittenden County Sugar Makers as Board Member -Treasurer, VHCB Ag advisory Committee, VT Land Trust ag advisor, Essex Technical Center Ag Advisory Board, Vermont Farm Show where he was a board member, floor manager/assistant manager, secretary and then a treasurer, a member and secretary of the Brookside Cemetery and then the Westford Cemetery Commission. He continues to be an active member of the Westford Historical Society spearheading the grants and building/establishment of it's current location and it's many educational programs.

DSA Awarded: 1987

2025
Southern Region
Hall of Fame Award

Robert Hochmuth

Florida
43 Years - Active

Robert (Bob) C. Hochmuth grew up on a vegetable farm on Maryland's eastern shore. After earning degrees in Agricultural and Extension Education and Entomology from the University of Maryland, Bob began his career in 1982 as a county agent with University of Delaware Cooperative Extension. Since 1988 he has worked for University of Florida IFAS Extension as a multi-county agent, regional specialized agent, and center director. Bob's 43-year career stands out for his expertise in specialty crops, impactful educational programs, exemplary leadership and mentorship, and unwavering support for the agricultural community.

A lifelong advocate for the watermelon industry, Bob has guided Florida growers in improving water, nutrient, pest and disease management, including conversion to plastic mulch and drip irrigation systems on about 6000 watermelon acres. To support the adoption of best management practices, Bob has used innovative blue-dye demonstrations to show soil water movement, provided petiole-sap testing services, and led on-farm trials of soil-moisture sensors, controlled-release fertilizer, and paper mulch. In 2009, Bob founded the Suwannee Valley Watermelon Institute, an annual program fostering education and collaboration among farmers, industry, and Extension.

As state co-leader of Small Farms and Alternative Enterprise programs from 2005 to 2017, Bob organized six statewide conferences attended by more than 2300 individuals from 60 Florida counties, 35 states, and 6 countries. He launched the Small Farms Academy (SFA) featuring hands-on interactive workshops, such as the Starting a Successful Hydroponic Business short course. Between 2010 and 2024, the SFA created 45 new programs in 24 locations serving a total of 3360 attendees. Bob's contributions to the profession include authoring or co-authoring 47 refereed journal articles and serving as PI or co-PI on grants totaling $15 million.

Since 2014, Bob has served as center director or assistant center director of the North Florida Research and Education Center – Suwannee Valley, overseeing expansions in programs, personnel, and facilities. Bob inspires others with his can-do attitude, humor, and team building. A servant leader, Bob generously credits the contributions of others, nominates colleagues for awards, and actively seeks opportunities to support their personal and professional growth. In 2013, he earned the first-ever UF/IFAS Extension Mentor of the Year Award.

Bob has been a member of NACAA since 1982. He served as chair on four committees for the 2004 AM/PIC and as fundraising chair for AM/PIC in 2022. He was FACAA president in 2001 and Florida Association of Extension Professionals board chair in 2002 and has served on scores of state committees. Bob is a national winner of seven NACAA awards.

Bob is active with several ag associations and community organizations. He received the first Extension Professional of the Year Award from the Florida Farm Bureau and the Trailblazer of the Year Award from the Suwannee Chamber of Commerce. Also known in the community as "Coach Bob," he served as a youth soccer and high school soccer coach for 20 years. Bob Hochmuth's distinguished career embodies NACAA core values of professional excellence, support for Extension colleagues, and public service.

DSA Awarded: 2003

2025 SERVICE TO AMERICAN/WORLD AGRICULTURE AWARD RECIPIENT

Justen Smith
Executive Director of Extension Agriculture & Natural Resources Department & Extension Professor
Utah State University

Justen Smith has dedicated his career to advancing agricultural education, extension programming, and global outreach. He started with Utah State University Extension as an Assistant Professor and County Extension Agent in 2002, he quickly established himself as a leader in the field. He was promoted to Associate Professor in 2008, and reached the rank of Extension Professor in 2017. Over the past 26 years, Justen has played a pivotal role in strengthening agricultural systems and improving the lives of farmers both in the United States and across the world.

Professional Experience and Leadership

As the Director and Department Head of the Extension Agriculture and Natural Resources Department at Utah State University, Justen has led statewide extension programs, ensuring that farmers and agricultural professionals have access to the latest research, training, and resources. His leadership as State Agriculture Extension Program Leader has further expanded the reach of these programs, benefiting communities throughout Utah and beyond.

Throughout his career, Justen has successfully secured over $11 million in grants and external funding, directly supporting extension initiatives and agricultural development. One of his notable achievements was leading the effort to secure $1.2 million in funding for the construction of the USU Extension building in Davis County, providing a dedicated space for agricultural education and outreach.

In addition to administrative leadership, Justen has created and implemented innovative programs that have left a lasting impact. His Cultures Around the World Youth Diversity Education Program has broadened students' understanding of global agricultural practices, while the 4-H High Adventure Program has provided hands-on learning experiences for youth interested in agriculture and natural resources.

International Impact

Justen's expertise in livestock management and agricultural extension services has been recognized on a global scale. He has worked in 24 countries across Africa, the Middle East, Latin America, and beyond, providing critical technical assistance to farmers and agricultural organizations. His work with USAID, USDA, and international NGOs has helped to improve livestock production, enhance food security, and develop sustainable agricultural practices in diverse regions.

His contributions in Iraq, for example, have been particularly impactful. He helped establish Iraq's first feed analysis laboratories, provided technical training for newly-formed 4-H Sheep Clubs, and assisted in the development of commercial cattle and sheep feedlots throughout the country. In South Sudan and Uganda, Justen played a key role in drafting a 25-year master plan for agricultural infrastructure, a project that will guide the nation's agricultural growth for decades to come.

From Lebanon to Armenia, Paraguay to the Philippines, Justen has worked with local farmers, government agencies, and universities to improve agricultural education and extension systems. Whether advising the U.S. Embassy in Lebanon on emergency livestock aid or working with dairy producers in Uganda, his efforts have led to tangible improvements in food production and sustainability worldwide.

Research and Creative Accomplishments

Justen's influence extends beyond direct service—his research and scholarly work have contributed significantly to agricultural knowledge and best practices. He has authored or co-authored 13 peer-reviewed journal articles, 6 peer-reviewed abstracts, 12 technical guides, 10 fact sheets, a handbook, and 11 published proceedings. His expertise has been sought after at international conferences, where he has delivered presentations on agricultural development, livestock management, and extension methodologies.

His ability to translate research into action is evident in the large-scale outreach events he has organized. USU Baby Animal Days, which he launched in 2012, has attracted over 35,000 attendees, providing families with an opportunity to learn about agriculture and animal husbandry while generating crucial funding for extension programs. The 4-H Donated Meat Program, another of his initiatives, has provided over 1 million pounds of meat to food banks and families in need.

Recognition and Lasting Impact

Justen's career is marked by a relentless commitment to improving agriculture at home and abroad. His work has transformed extension programming in Utah, provided critical agricultural support in developing countries, and shaped the next generation of agricultural professionals through education and mentorship. His efforts have strengthened food security, promoted sustainability, and fostered international collaboration in ways that will have a lasting impact for years to come.

2025 ABSTRACTS OF THE NATIONAL WINNERS AND FINALISTS COMMUNICATIONS AWARDS CONTEST

AUDIO RECORDING

National Winner

WEEKLY RADIO SPOT

Shad Marston
County Extension Agent
K-State Research and Extension
McPherson

Marston, S[1]

[1] County Extension Agent, McPherson, Kansas, 67460

As the Agricultural Agent of McPherson County, I was asked to do a weekly radio report covering agriculture. This radio spot airs every Monday, 52 weeks of the year on KMCP 89.9FM/1540AM & KMPK 96.7 and 89.9 FM. All preside from our local radio station which is listed as a "Small Market" radio station, with the McPherson County population of 30,000 and a listening audience of 90,000 including their streaming option. We also list these weekly radio spots on our MP County Extension website for community members to listen to if they missed hearing it on the radio. During the radio spot, I inform and update the community on all local and county events and offer helpful tips on anything agriculture. I use research based information that is current and present this knowledge to our local community. I always list a "But First" fact, that people enjoy and talk about throughout the week. Every time I walk into the local Wal-Mart or a church activity, someone always states "you're the guy on the radio". It's good to know people listen to my radio spot. For this radio spot, I compile all the material I use and ensure it's meaningful to the wide range of listeners. I have 3 to 5 different segments in each radio spot. My ag spot covers current news and hot topics of the week for ag producers, homeowners and community members. I gather the information in my office, put it in an outline form, then go and recorded each piece on Friday before it's aired on Monday, at the radio station located in McPherson. I edit each piece by myself in their sound/production room. Once finished, I download the file into their system to air at 7:40am on Monday morning, March 3, 2025. I also email a copy of the recording to our extension office to be added to our website, each week. Getting the agriculture news and Extension events out to more people in the community is a big benefit, and using the radio is a great method to do this.

National Finalists

THE MAINE FARMCAST - EP. 2 SWINE INDUSTRY WITH DR. BRETT KAYSEN

Colt Knight
State Livestock Specialist
University of Maine Cooperative Extension
Orono

Knight, C[1]

[1] State Livestock Specialist, University of Maine, Orono, Maine, 04469

On the second episode of the Maine Farmcast, Dr. Colt W. Knight, Associate Extension Professor and State Livestock Specialist at the University of Maine Cooperative Extension in Penobscot County, engages in a conversation with Dr. Brett Kaysen, Senior Vice President of Producer and State Engagement for the National Pork Board. Recorded at the National Swine Educators and Outreach Professionals Conference in Minneapolis, MN and aired on May 14, 2024, their discussion explores Dr. Kaysen's career path from academia at Colorado State University to his current leadership role in the pork industry. Dr. Kaysen shares insights into the mission of the National Pork Board, which focuses on research, education, and promotion within the U.S. pork industry. He explains the checkoff system, where pig farmers collectively fund initiatives to advance the industry, and highlights the board's commitment to supporting applied research that directly benefits producers. He also introduces a $1 million grant initiative aimed at Extension professionals to address key industry challenges, such as disease prevention, sustainability, and international market expansion. Additionally, the conversation touches on the role of small-scale pork producers and the resources available through the National Pork Board. Dr. Kaysen, who also

runs a swine farm, emphasizes the growing market for high-quality pork, particularly Berkshire and Duroc breeds, and encourages small producers to leverage available marketing tools. Dr. Knight, a fellow pork producer, shares his perspective on the importance of grassroots efforts and industry collaboration. The episode underscores the significance of cooperative efforts between producers, researchers, and industry stakeholders in advancing the pork industry. Dr. Kaysen expresses his enthusiasm for working with Extension professionals like Dr. Knight to continue fostering innovation and sustainability in pork production. This episode was recorded utilizing a Macbook Pro and a USB mic set on top of luggage in the storage room next to the ongoing conference. Colt Knight scheduled, recorded and edited the podcast. The podcast was hosted on Transistor.FM platform and distributed to all major streaming services. Please judge 0:18 – 15:18

NORMALIZING CONVERSATIONS CONCERNING MENTAL HEALTH

James (Jay) Stone
CEA FOR AG and NATURAL RESOURCES
Eddyville

Stone, J[1], Fourqurean, D[2], Shadrick, V[3]

[1] CEA FOR AG and NATURAL RESOURCES, KACAA (Kentucky), Eddyville, Kentucky, 42038
[2] CEA for ANR-Trigg County, KACAA (Kentucky), Cadiz, Kentucky, 42211
[3] CEA for ANR-Webster County, KACAA (Kentucky), Dixon, Kentucky, 42409

"Normalizing Conversations about Mental Health" was recorded at the Lyon County Extension Office and published on February 17th, 2025. The podcast was hosted on Podbean and shared with Apple Podcast, Google, Spotify, Amazon Music, and iHeart Radio. In this episode, Jay Stone, Lyon County ANR agent, along with David Fourqurean, Trigg County ANR agent, and Vicki Shadrick, Webster County ANR Agent, stressed the need for Normalizing Conversations concerning Mental Health. Kentucky Ag Matters podcast educates and informs our listeners about all things related to agriculture. As of March 7, 2025, we have recorded and published 156 episodes with various topics geared toward meeting the emerging needs of our clientele. With a weekly audience base that extends well beyond the state and national borders, Kentucky Ag Matters has developed a regular listening audience that receives weekly, research-based information. This allows everyone to access this information while commuting to work or while in the field. To date, the show has had over 13,500 downloads. Our guests range from Extension Specialists to commodity group leaders, as well as extension agents and law enforcement officers. Our goal is to offer timely, research-based information to the agriculture community consistently and reliably. We now have over 700 monthly listeners across the United States and several foreign countries. And we remind our listeners each week to remember…Kentucky Ag Matters!

EXTENSION TODAY: POINSETTIA CARE AFTER THE HOLIDAYS

Kellee Payne
Consumer and Commercial Horticulture Agent
North Carolina State University
Yadkinville

Payne, K[1]

[1] Consumer and Commercial Horticulture Agent, , Yadkinville, North Carolina, 27055

Extension Today is aired weekly on 100.9 WIFM Radio. This segment is sponsored by the NC Farm Bureau in Surry, Wilkes, and Yadkin Counties. Extension Today delivers educational content on diverse topics, featuring discussions between host Danny Hall and NC Cooperative Extension Agents from Alleghany, Surry, Wilkes, and Yadkin counties. The program rotates monthly, showcasing each county three times annually. These radio segments are recorded remotely, with the host conducting phone interviews from the office. Listeners gain valuable insights into topics relevant to their homes, families, and communities. This topic was selected for post-holiday coverage to address poinsettia owners' interest in long-term care. Kellee Payne, Yadkin County Cooperative Extension's Consumer and Commercial Horticulture Agent, provided guidance on poinsettia care, detailing ideal placement, water and fertility management, seasonal upkeep, and techniques for encouraging reblooming. With airings on January 1st and 4th, 2025, the segment successfully reached 27,200 listeners across four counties.

Regional Winners

KRWC RADIO SPOTLIGHT - 02/05/25

Emily Lindenfelser
Buffalo

Lindenfelser, E[1]

[1] Horticulture Extension Educator, University of Minnesota , Buffalo, Minnesota, 55313

You can find the radio recording at the following Spotify link with the time to be judged from 0:00 to 9:48: https://open.spotify.com/episode/5z3Mhsc6Z2J5KGMMZgBGhz?si=5b08fdc9ef60403e On February 5, 2025, at 10 a.m., a live radio broadcast aired on KRWC AM 1360 from Buffalo, MN, reaching listeners across Wright County and parts of Meeker and McLeod counties. As part of a monthly series, the program provided timely, research-based horticultural information, reinforcing the Extension office as a valuable community resource. The segment aimed to educate and engage local gardeners, homeowners, small farmers, and community members on seasonal horticultural topics. It addressed common questions received by the Extension office, within the past month, and offered practical recommendations tailored to the area. Scheduled during a prime listening hour, the estimated reach was in the hundreds based on KRWC's coverage area. The broadcast successfully delivered relevant Extension information, helping listeners make informed decisions about their landscapes and gardens. Recorded by KRWC staff, the segment was later made available for online streaming on Spotify, expanding its audience beyond the live airing. As the featured speaker, I selected the hot topics and prepared key messages to ensure clarity and engagement. My contributions included structuring the discussion and providing expert horticultural insights, ensuring the information was both accurate and applicable to the target audience.

BEEFING UP THE AIRWAVES WITH HERD HEALTH STRATEGIES

Madison Kovarna
Watertown

Kovarna, M[1]

[1] Beef Nutrition Field Specialist, SDSU Extension, Watertown, South Dakota, 57201

Effective herd health management is critical to the success of livestock operations. To provide producers with timely, science-based information, an episode of the Cattle HQ podcast titled "Beefing up Herd Health" was released on July 10, 2024. This episode featured Dr. Russ Daly, SDSU Extension's Veterinarian and State Public Health Veterinarian, who shared expert insights on key herd health topics, including best practices for introducing new animals, herd health plans, diseases to be on the lookout for, and vaccination effectiveness. This conversation was designed to engage and educate cattle producers, offering practical steps to improve overall herd health and profitability. The episode's approachable and conversational format allowed for an informative yet engaging dialogue, making complex veterinary topics more accessible to a broad audience. Additionally, releasing the episode in early July provided producers with timely information they could apply during the upcoming weaning season in the fall of 2024. Producers often have limited time to attend in-person meetings or read lengthy articles, making audio content an ideal solution. Podcasts are an effective educational tool for agricultural audiences, allowing producers to access expert insights while working in the field or tending to livestock. The flexibility and accessibility of this format ensure that crucial herd health information reaches producers in a way that fits seamlessly into their daily routines. This episode exemplifies the power of audio communication in agricultural education by delivering timely, research-backed information in an engaging format. The episode was entirely prepared and produced in-house. Madison Kovarna coordinated and conducted the interview with Dr. Russ Daly that was recorded via Zoom, edited the episode via Audacity, and then submitted it to SDSU's Educational Technology team for final upload to extension.sdstate.edu, PodBean, and Spotify. The impact of this episode is reflected in its engagement metrics, with 142 downloads from our webpage alone. "Beefing up Herd Health" is still available on SDSU Extension's website at https://extension.sdstate.edu/cattle-hq-episode-35 and Spotify. The original episode is 39 minutes and 9 seconds in length. The submitted file is a 14 minute and 56 second segment of the first half of the episode.

THE GARDEN THYME PODCAST: A BERRY GOOD TIME WITH DR. HALEY SATER

Emily Zobel
Associate Agent for Agriculture and Food Systems
University of Maryland Extension
Cambridge

Zobel, E[1], Rhodea, R[2], Boley, M[3], Sater, H[4]

[1] Senior Agent Associate, University of Maryland Extension, Cambridge, Maryland, 21613-0299
[2] Senior Agent Associate, University of Maryland Extension, Centreville,, Maryland, 21613
[3] Principal Agent Associate, University of Maryland Extension, Easton, Maryland, 21601
[4] Agriculture Agent, University of Maryland Extension, Salisbury, Maryland, 21801

In the last five years, Extension has felt the growing pains of a post-COVID world. Our educational programming has moved drastically from in-person classes to Zoom lecture series. Podcasts have become a proven tool for educators to disseminate information. They offer flexibility to our listeners, engage diverse audiences, and promote valuable educational knowledge sharing in an easily digestible format. The Garden Thyme Podcast is a monthly educational podcast developed by the University of Maryland Extension (UME) Educators to deliver non-biased research-based information on sustainable gardening techniques for novice to advanced gardeners in Maryland and the surrounding Mid-Atlantic area. Episodes are approximately 45-55 minutes long and feature a central topic or interview with a specialist, plus recurring segments for native plant, bug, and timely garden tips of the month. Episodes are recorded using Audacity (www.audacity.org) or Riverside (https://riverside.fm/), edited using Audacity, and housed on the podcast Buzzsprout website (https://go.umd.edu/gardenthymepodcast/). The episodes are available for download on iTunes, Spotify, and the Buzzsprout website. Transcripts are available for each episode on the podcast website for those with hearing impairments. Episodes are advertised on the Garden Thyme Podcast Facebook page (@GardenThymePodcast), the Maryland Grows Blog (https://marylandgrows.umd.edu), and by word-of-mouth sharing at UME horticulture events. As of March 2025, 59 episodes have been published, with 11 episodes produced in 2024. The Garden Thyme Podcast has 29,000 total downloads (~5,200 downloads in 2024). This entry is an edited 15-minute segment from the episode, A Berry Nice Time with Dr. Haley Sater, which was released on March 18, 2024. In this episode, The Garden Thyme Podcast host and UME Educators Mikaela Boley (Talbot County), Rachel Rhodes (Queen Anne's County), and Emily Zobel (Dorchester County), along with UME guest educator Dr. Haley Sater (Wicomico County) discuss how gardeners can be successful growing cane berries. Topics covered include season maintenance, common pests, varieties, and resources. As of March 2025, this episode has 380 downloads and a Facebook post reach of 456 people.

BOVINE BANTER PODCAST EPISODE: EPISODE 16.6: DAIRY MARGIN COVERAGE (DMC): WHAT FARMERS NEED TO KNOW

Emily Fread
Dairy Educator
Penn State
Mifflinburg

Fread, E[1], Williams, C[2]

[1] Dairy Educator, , Mifflinburg, Pennsylvania, 17844
[2] Dairy Educator, , Wellsboro, Pennsylvania, 16901

Emily Fread is a Dairy Educator in Union County, PA, and J. Craig Williams is a Dairy Educator in Tioga County, PA. Emily and Craig recognized a lack of knowledge regarding the Dairy Margin Coverage (DMC) Program in Pennsylvania. The DMC provides supplemental payments to farmers from the government based on the margin between milk price and feed costs. Even though this program is beneficial more times than not, adoption throughout PA is low. Emily and Craig created an episode of the Penn State Extension Dairy Team's Podcast called "Episode 16.6: Dairy Margin Coverage (DMC): What farmers need to know" to try and spread the word about this program. This episode was released on April 3, 2024, which was very timely, because dairy farmers had until the end of April last year to sign up. Emily created a list of interview questions for this podcast and then interviewed Craig, who is an expert on this subject. This podcast was recorded using Zoom and edited using Audacity. This podcast was then broadcasted using Buzzsprout and can be found on the Penn State Extension website, Apple Podcasts, Spotify, and Amazon Music. According to Buzzsprout, this podcast has been listened to 120 times. Please listen to the first 15 minutes of the recording.

COMMON MYTHS AND CONCERNS IN THE LIVESTOCK INDUSTRY/LEAN BEEF AND THE HOLIDAYS

Ashley Stonecipher
Agriculture and Food Systems Agent
UF/IFAS Extension
Winter Springs

Stonecipher, A[1], Claude, J[2], Justesen, C[3], Wilson, T[4], Marable-Williams , F[5]

[1] Agriculture and Food Systems Agent, University of Florida, DeLand, Florida, 32724
[2] Urban Horticulture and Master Gardener Agent, University of Florida, Bunnell, Florida, 32110
[3] Livestock and Crops Extension Agent, University of Florida, Ocala, Florida, 34470
[4] Agriculture Production and County Extension Director, University of Florida, St. Augustine, Florida, 32092
[5] Family and Consumer Sciences, University of Florida, Kissimmee, Florida, 34744

In this radio podcast, three Agriculture Agents and a Family Consumer Sciences Agent contributed to the Let's Talk Some Dirt episode that tackles common myths and concerns in the livestock industry, providing research-based insights to separate fact from fiction. The episode also explored the role of lean beef in holiday meals, emphasizing its nutritional, flavorful, and sustainable qualities for festive dining. The episode aired on Flagler Radio WNZF NewsRadio 94.9 FM and 1550 AM, and was later uploaded to Flagler Broadcasting's website, SoundCloud, the Flagler Radio mobile app, and Spotify. It was shared on social media platforms such as Facebook, LinkedIn, X (formerly Twitter), and Instagram, and distributed via mass email. The episode reached 2,500 active listeners on the radio, 1,400 streaming listeners on mobile and online platforms, and garnered over 2,480 clicks in 2024. The audience extended beyond Florida, including international listeners from the Dominican Republic and Panama, as well as several U.S. states. These agents played a key role in content creation, providing expert guidance and practical tips for incorporating lean beef into holiday meals. Judy Jean, Horticulture Extension Agent, hosted coordinated distribution, and audience engagement. This episode highlighted the podcast's growing influence in promoting educational content from Florida Cooperative Extension while offering valuable information on a popular holiday topic.

Link: https://open.spotify.com/episode/2Ex6Vye3UWVS8gnIX4pvMT?si=fiVhjSTjSRyo2tQekPxUkA
Please indicate to listen from: Time mark 12:02 to 27:02

PASTURE TO PROFIT PODCAST EPISODE 7 WATER FOR THE COW HERD

Scott Stinnett
Area Extension Specialist
Colorado State University
Burlington

Stinnett, S[1], Taylor, T[2]

[1] Area Extension Specialist, Burlington, Colorado, 80807
[2] Area Extension Specialist, Wray, Colorado, 80758

The Pasture to Profit Podcast was created as another avenue of social media to reach cattle producers on the eastern high plains of Colorado and surrounding areas who listen to educational podcasts while they work, travel or casually listen. Scott Stinnett and Travis Taylor research pertinent information, create the content and record podcast episodes using Zoom from their offices. They edit the audio content and release episodes via Podbean podcasting website. The Pasture to Profit Podcast began in 2024 and schedules bi-weekly episode releases on topics relevant at the time of release. Over 600 downloads of all podcast episodes can be accounted for from the Podbean website with more archived episode being listened to for the CSU Golden Plains Livestock website. The episode Water for the Cow Herd was released May 31st, 2024.

State Winners

North Central

Illinois	Chris Enroth
Ohio	Kendall Lovejoy

Northeast

Connecticut	Sara Tomis
New Jersey	Kaylynn Hyson

Southern

Alabama	Brian Brown
Arkansas	Courteney Sisk
Georgia	Scout Carter
Louisiana	Cole Gregorie
Mississippi	Eddie Smith
South Carolina	Brad Fowler
Tennessee	Tracey Sullivan
Texas	Matt Garrett
Virginia	Theresa Pittman

West

New Mexico	Will Jaremko-Wright

BOUND BOOK / eBOOK

National Winner

BE SEPTIC SAFE: A USER'S GUIDE TO TAKING CARE OF BUSINESS

Susan Lunt
Water Resources Extension Associate
United States
Pendleton

Lunt, S[1], Greenthaler, C[2], Comeau, E[3], Calhoun, B[4]

[1] Water Resources Extension Associate, , Pendleton, South Carolina, 29670
[2] Area Water Resources Agent, Clemson Cooperative Extension, Lexington, South Carolina, 29672
[3] Water Resources Agent, Clemson Cooperative Extension, Beaufort, South Carolina, 29906
[4] Water Resources Agent, Clemson Cooperative Extension, Charleston, South Carolina, 29401

The Be Septic Safe: A User's Guide To Taking Care Of Business, developed by a team of Clemson Cooperative Extension (CCE) agents during 2023-2024 and printed in the first quarter of 2024, provides South Carolina (SC) septic system owners with a quick reference resource on how a septic system works and ways to care for systems, to answer questions when issues arise, and to document location of tank, drain field, connections, and maintenance. In addition, the guide provides QR codes linking users to the CCE Be Septic Safe website where expanded information and videos on all things septic-related can be found. The Be Septic Safe: A User's Guide To Taking Care Of Business was created to encourage individuals to properly operate and maintain their septic system keeping you, your family, our community, and our environment healthy. Bacteria is the top pollutant for SC waterways, with over 350 impaired waterbodies found through the state. Septic Systems that are not operating as designed and/or improperly maintained may fail and leak which can contribute to harmful bacteria entering our watershed, making septic systems an essential target for water quality education. Waterbodies affected by bacteria pollution may be unsafe for swimming, fishing, harvesting shellfish, or supplying drinking water. By properly operating and maintaining septic systems, individuals are saving money, protecting property values, keeping family and neighbors safe, and protecting the environment. Due to demand, a second printing of 1000 was needed to the initial 2000, and all 3000 have been or will be distributed through site visits, tabling and community events including fairs/festivals, invited presentations and educational outreach programs, conservation groups, municipalities, and utility companies. The guide is included in the SC State Documents Depository. The guide was created as a collaborative team effort by agents for content and layout, and peer reviewed by CCE Specialists; in addition, I coordinated logistics and deadlines, and facilitated the completion, printing, and distribution of the guide. Clemson Extension's Communications and Marketing team aided with final layout and branding, and a professional printing company was employed for the final deliverable.

National Finalists

GROWING TEACHERS THROUGHOUT THE SEASONS

Timothy McDermott
Ext. Educ., ANR
Columbus

McDermott, T[1], Smathers, C[2]

[1] Assistant Professor ANR, Ohio State University Extension, Columbus, Ohio, 43210
[2] State Specialist Youth Wellness and Nutrition, Ohio State University Extension, Columbus, Ohio, 43210

U.S. graduates with expertise in food, agriculture, and the environment are anticipated to fill only 61% of the expected 57,900 average annual agriculture-related employment openings. Growing Teachers Throughout the Seasons (GTS) is nationally, the first of its kind guide to getting started with agricultural engagement in schools that is academic calendar based, data-driven, teacher informed and includes future thinking agriculture including LED lighting and hydroponics. In essence, it is Step One for teachers. Funded by USDA NIFA, the curriculum materials were created by the Extension team of content experts and pilot tested by 46 Columbus City Schools teachers during an academic calendar with evaluation from focus groups and survey results. The guidebook provides a week by week, month by month, curriculum for students to plant, maintain, harvest, prepare, and taste a different vegetable or herb grown at school under teacher leadership, and includes recipes and subject matter connections. It is designed to provide engagement of students and teachers in agriculture for the purpose of introducing them to agriculture's opportunities through workforce development. We do not grow up students on farms like we used to, our next generation of skilled agriculture workers need to come from urban kids from urban schools. The guidebook is hosted on OSU Extension Publications website and has been distributed via direct sales, at presentations, conferences, and workshops for educators. A total of 1,326 copies have been sold with the first run

of 1000 copies being sold in a few months, outselling 4-H publications in that time span for the first time. Copies of the guidebook have been distributed nationally with the furthest copy being shipped to Honolulu! The guidebook web address is: https://extensionpubs.osu.edu/growing-teachers-throughout-the-seasons/
I developed the initial concept and worked to create the team of members from OSU Farm to School, Columbus City Schools, and OSU Extension Publications. I sourced initial funding for start-up from Scotts Miracle-Gro, co-wrote the grant to support developmental funding from USDA NIFA and provided content expertise on controlled environment agriculture, season extension, growing methods, and variety selection. I served one of the editors and distributed workbooks at workshops and conferences.

GARDEN JOURNAL MONTH-BY-MONTH

Sidonia Trio
Education Coordinator/Extension Horticulture Assistant
South Dakota State University
Brookings

Trio, S[1], Buterbaugh, R[2], Lang, K[3], Burrows, R[4], Bachmann, A[5], Botzet, C[6]

[1] Education Coordinator/Extension Horticulture Assistant, SDSU Extension, Brookings, South Dakota, 57007
[2] Horticulture Field Specialist, SDSU Extension, Sioux Falls, South Dakota, 57106
[3] Assistant Professor and SDSU Extension Consumer Horticulture Specialist, SDSU Extension, Brookings, South Dakota, 57007
[4] Professor and SDSU Extension Horticulture Specialist, SDSU Extension, Rapid City, South Dakota, 57703
[5] SDSU Extension Pesticide Education and Urban Entomology Field Specialist, SDSU Extension, Pierre, South Dakota, 57501
[6] SDSU Extension Nutrition Field Specialist, SDSU Extension, Mitchell, South Dakota, 57301

A garden journal helps gardeners stay organized and informed about their garden by keeping good records each year. The production of the journal is a collaboration between SDSU Extension colleagues, with a mix of capstones from horticulture, entomology, and nutrition. The SDSU Extension Educational Technology team put together all of our collaborative work into one to help complete this project. There are 98 pages included in this garden journal which consist of monthly garden tips and blank weekly pages to write notes each month. A few of the topics within the journal include: seed starting, composting, pest and disease issues, produce harvest and storage, and food preservation. Additionally, this journal has several pages for other notes and maps to design different garden spaces. Lastly, it includes a pocket in the front to put seeds and other papers like receipts. This garden journal is a free resource created for all gardeners, beginning and experts alike. A total of 3,500 copies of the journal have been printed so far. The first 1,000 were printed in May 2024 and handed out within the first few months. We distributed them at different county fairs, the South Dakota State Fair, and other educational programming events. The second printing was in October 2024 and all 13 of the Master Gardener Clubs across the state were given 100 copies each to distribute at Farmers Markets and other gardening events. The remaining copies have been handed out at the various regional centers throughout the state and continued to be distributed at various educational events for all garden enthusiasts to utilize. These journals are also non-dated, so they can be used year after year! This is not available online, a copy was sent to Sara Bauder- SD State Chair.

SOUTHERN REGIONAL STRAWBERRY PLASTICULTURE PRODUCTION GUIDE, SECOND EDITION

Erin Eure
Area Specialized Agent - Commercial Fruits & Vegetables, Northeast Region
NC State University
Gatesville

Eure, E[1], Holmes, K[2], Simmons, C[3]

[1] Area Specialized Agent - Commercial Fruits & Vegetables, Northeast Region, Gatesville, North Carolina, 27938
[2] Extension Agent, Horticulture, Reidsville, North Carolina, 27320
[3] Area Specialized Agent - Fresh Produce Food Safety, Eastern Region, Raleigh, North Carolina, 27695

The Southern Regional Strawberry Plasticulture Production Guide, Second Edition serves as a comprehensive source of research-based information for strawberry growers, Extension Agents, and the agribusiness industry. The information and pictures contained in the guide function as an A to Z explanation of how to grow and market a successful plasticulture strawberry crop in the southeastern United States. In 2022, North Carolina, ranking 3rd in the nation in strawberry production and having strawberry farms statewide, led the charge to revise and expand the original production guide, initially published in 2005. This revision evolved into a multi-state collaborative effort that took more than two years from conceptualization to finished product, culminating in a 72 page all-encompassing production guide. Mark Hoffman, NC State Small Fruits Extension Specialist, served as Editor

in Chief and invited Rockingham County Horticulture Agent Kathryn Holmes, and Area Specialized Agents Chip Simmons and Erin Eure, to help write and edit various portions of the text. The guide is structured into four chapters. The first chapter is an introduction to strawberry production in the Southeast and includes a "Quick List" for those who are new to strawberry production. Chapter 2 focuses on currently available strawberry cultivars, marketing, and economics of the annual plasticulture system. Chapter 3 provides an in-depth description of what it takes to produce this crop in the Southeast. The final chapter highlights food safety considerations, cover crops, crop rotation, and high tunnel production. More information, including a monthly grower check list and an enterprise budget for u-pick operations, can be found in the Appendix. The Southern Region Small Fruit Consortium financially supported publishing this second edition, while NC State Extension provided funding to print an initial 300 copies. Printed copies were distributed statewide to NC County Extension Agents and new or beginning growers in their counties. The guide is available online (https://content.ces.ncsu.edu/southern-regional-strawberry-plasticulture-production-guide), and has received over 2,600 page views. The authors have received a considerable amount of positive feedback from growers and Extension Agents on the usefulness of this updated and expanded publication, already resulting in both time and cost savings for users.

Regional Winners

IT'S STILL EDIBLE - THE PICTURES AND POETRY OF GARDENS AND PESTS

Edward Sikora
Professor and Extension Plant Pathologist
Alabama Cooperative Extension System
Auburn University

Sikora, E[1], Sisson, A[2], Mueller, D[3]

[1] Professor and Extension Plant Pathologist, Auburn University, Auburn, Alabama, 36849-5624
[2] Extension Specialists, Iowa State University, Ames, Iowa, 50011
[3] Extension Plant Pathologist, Iowa State University, Ames, Iowa, 50011

It's still Edible - The Pictures and Poetry of Gardens and Pests is a bound book produced as a collaboration between Extension workers at Iowa State University and Auburn University. The book is a compilation of images and accompanying poetry or text dealing with Integrated Pest Management (IPM) for gardens dealing with plant diseases and insect pests. This in the second book in a series created to thank Extension workers who have contributed to teaching IPM to home gardeners. With poem titles such as "Vegetable Flu," "Bramble Busters," "Wheelbarrow Purgatory," and "Garden Requiem," this soft cover book brings attention to plant diseases and pests of the home garden in a humorous fashion while also demonstrating the importance of using IPM practices to combat these problems. Although entertaining in nature, the book directs readers to land-grant Extension for disease and pest management expertise. At this time, 500 copies have been printed and over 325 copies have been distributed typically at agricultural-related events or through other dispersal routes. The authors provided the concept, imagery, text, and review of this bound book, which was first printed in January 2025.

State Winners

Southern

Arkansas	Kevin Lawson
Florida	Michelle Atkinson
Tennessee	Alaina Boyd
Texas	Katie Pace

COMPUTER GENERATED PRESENTATION WITH SCRIPT

National Winner

HIDDEN ARCHITECTS: THE ROLES AND IMPACTS OF WOOD DECAY FUNGI IN SHAPING OHIO'S WOODLANDS

Erika Lyon
Extension Educator - ANR
Ohio State University Extension
Steubenville

Lyon, E[1]

[1] Extension Educator - ANR, Ohio State University Extension, Steubenville, Ohio, 43952

Forest fungi are often portrayed in popular media as either villains to woodland management, causing disease and decay, or as the "wood wide web" heroes responsible for sharing nutrients, defense, and information among trees. In reality, fungi play a wide variety of roles in these complex woodland ecosystems that are still often not well understood. To better inform audiences about claims they may encounter about these fungi, I developed

the "Hidden Architects: the Roles and Impacts of Wood Decay Fungi in Shaping Ohio's Woodlands" presentation for woodland managers and nature enthusiasts. This presentation provides scientific insights into what we know about woodland fungi and their hidden roles in nature. The presentation covers how fungi function in woodlands, their overlapping roles, and their influence on woodland structures. It also addresses why fungi are important in woodland systems and offers an overview of management strategies to help fungi meet our woodland goals. To date, this presentation has reached 179 woodland managers, gardeners, nature enthusiasts, and volunteers through webinars and in-person trainings. In 2025, the presentation was further adapted for inclusion in the Ohio Certified Volunteer Naturalist training program.

National Finalists

POND BUFFER PLANT SELECTION AND MAINTENANCE

Samantha Porzelt
Charleston

Porzelt, S[1]

[1] Water Resources Agent, Clemson Extension, Charleston, South Carolina, 29401

The "Pond Buffer Plant Selection and Maintenance" presentation was developed to provide educational information on the importance and benefits of stormwater pond buffers and to provide insight into native plant recommendations that thrive in these conditions. The presentation also included key information on how to install pond buffer plants and essential maintenance considerations. I was invited to present on this topic at the Grand Strand Stormwater Pond Conference on February 19th, 2025. This presentation was one of four presentations covering stormwater pond buffer topics. At the end of the session, all four speakers, including myself, participated in a discussion panel to answer stormwater pond buffer questions collectively. The target audience of the conference included stormwater pond management professionals, municipal managers, academic researchers, and stormwater education professionals. Of the 55 conference attendees, 38 participated in the post-conference evaluation. Of those who participated in the evaluation, 86% said they learned something that they will apply in their work or future decisions. 15 of the participants said that the plant recommendations and buffer panel were the most useful component of the event. The presentation was created using Microsoft PowerPoint and the Clemson Extension template. The presentation transcript can be viewed in the PowerPoint slides. Educational information that was included in the presentation was gathered from Clemson Extension's Master Pond Management course and Home and Garden Information Center Factsheet 1855: Shorescaping Freshwater Shorelines. Here is the URL link to the presentation:
https://clemson-my.sharepoint.com/:p:/g/personal/sporzel_clemson_edu/Efqw4aJ2mSdIgoQZXdesILcBnRtUlAEIyb5922n3OGevsg?e=JDiblj

DEVELOPING A FARM BUSINESS PLAN

Rachel Painter
Extension Specialist
United States
Manchester

Painter, R[1], Bell, E[2], Humpal, L[3]

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[3] Extension Farm Management Specialist, University of Tennessee, Columbia, Tennessee, 38402

The purpose of this educational presentation was to provide agricultural producers with practical guidance on developing a comprehensive farm business plan to improve financial stability and long-term sustainability of Tennessee farms. Developing a Farm Business Plan was created in response to the need expressed by agricultural producers and a request from the Tennessee Department of Agriculture to support producers in writing business plans, ultimately helping farmers improve applications for funding opportunities. Rachel Painter, Eryn Bell, and Les Humpal, all Farm Management Extension Specialists with the University of Tennessee MANAGE Program, assisted with developing a presentation and then recorded portions of the PowerPoint presentation using Zoom, and Rachel edited the video segments using Adobe Rush before publishing the video on The Center of Farm Management YouTube channel on May 20, 2024. The video was also posted on the Center for Farm Management website to coincide with the publication series on the same topic, allowing users to engage with both written and video-based content to accommodate various learning preferences and online access at any time. The video has 132 views on YouTube. Rachel has presented the presentation at 14 in-person Master Farm Manager trainings and two conferences, with a total of 604 farmers gaining knowledge on business planning live from May 2024 until March 2025. This impact data does

not include the number of farmers at in-person trainings when other farm management specialist including Eryn and Les presented the presentation. The Tennessee Department of Agriculture has shared the quality of business plans submitted for funding programs has greatly improved. By providing accessible and practical business planning knowledge, this video serves as a vital tool in strengthening farm operations, improving financial planning, and supporting agricultural success and sustainability across Tennessee.

FARM EQUIPMENT SAFETY

Jacob Powell
Assistant Professor (Practice)
OSU Extension Service
Moro

Powell, J[1]

[1] Assistant Professor (Practice), Oregon State University Extension, The Dalles, Oregon, 97058

This presentation, Farm Equipment Safety, is part of an online course, Farm Safety and First Aid still under construction by Oregon State University Extension and OSU Professional and Continuing Education program. This presentation was developed by the author and has also been presented to in person audiences during eight Farm Safety classes put on in Oregon from January through March 2025, reaching over 100 individuals. The primary audience for this presentation is orchard and field crop producers in Oregon, though it is also applicable to any type of agricultural operation using machinery and tractors. The number of fatalities in Oregon is the greatest in the agricultural industry compared to other occupations in the state with an average of 6 agricultural related fatalities each year over the last decade. Local farmers in North Central Oregon continue to want better training for employees to mitigate the risks of working with farm machinery. This presentation was developed to address tractor, ATV, UTV, and other equipment safety for agricultural operations. This presentation and the online course is being developed with grant support from the Western Extension Risk Management Education Center. The presentation can be accessed here: https://oregonstate.box.com/s/75pb9yg5htzle1c7agv1i4rtyf23urma

Regional Winners

NAVIGATING FRAGMENTED LANDSCAPES

Jeremy Jubenville
Extension Floriculture & Greenhouse Educator
Michigan State University Extension
Kalamazoo

Jubenville, J[1]

[1] Floriculture and Greenhouse Educator, Michigan State University Extension, Kalamazoo, Michigan, 49007

Habitat loss is widely recognized as one of the most significant threats to plant and animal species worldwide. A decline in biodiversity can impair the functioning of ecosystems where these losses occur, leading to broader environmental deficiencies. Human development, driven by agriculture and infrastructure, fragments natural habitats into smaller isolated pockets. This results in a landscape of smaller natural areas scattered within a mosaic of ecologically simplified land. Recommendations from land grant universities and non-profit environmental advocacy groups highlight the importance of using native plants in the landscape, but one is left to wonder whether a small urban garden can make a positive impact when the scale of habitat loss is so large. To address this question, I developed a short presentation for the Michigan State University Consumer Horticulture team to use in a 10-week online course for Extension Master Gardeners. The objective of this presentation was to explain: 1) how populations of organisms persist in landscapes that have become increasingly fragmented and 2) how we can apply these concepts in our own yards to help sustain biodiversity. I developed the presentation using canvas-based presentation software, which provides dynamic visual features that help keep an audience engaged. The presentation was recorded and uploaded to our university website in October 2024 and is currently being used as a module in the MSU Foundations of Gardening curriculum. As of March 2025, 175 program participants have viewed the presentation.

SETTING PRODUCTION GOALS FOR THE BEEF HERD

Kim Kester
Regional Livestock Educator
University of Wisconsin - Madison
Darlington

Kester, K[1]

[1] Regional Livestock Educator, University of Wisconsin-Madison, Darlington, Wisconsin, 53530

Setting production goals is an important task for beef producers, regardless of whether beef markets look great or less than desirable. Goal setting allows them to manage their herd more strategically by evaluating records, identifying areas for improvement, and making intentional efforts to do better. At several Extension events over the past year, the Regional Livestock Educator gleaned that many beef producers did not have specific goals for their herds. In response, she developed a presentation about goal setting for the beef herd, including why goals are crucial, what goals look like, and how to evaluate progress. The Educator presented the information as part of UW Extension's School for Beginning Beef Production for about 45 participants via live Zoom webinar, as well as in-person for 12 attendees at the Western Wisconsin Beef Producers (WWBP) annual meeting. WWBP attendees completed an evaluation for all sessions at their meeting. For the goal setting presentation, they indicated a 60% knowledge increase (2.7/5 before, 4.4/5 after). When asked what they learned at the meeting as a whole, 4 producers mentioned goal setting specifically. The Educator intends to include goal setting with future cow-calf field days and workshops.

TREES OF THE LIVING DEAD: HOW TO PROPERLY REMOVE AGGRESSIVELY SPROUTING, INVASIVE TREES

Jean Epiphan
County Agent
Rutgers University
Morristown

Epiphan, J[1]

[1] County Agent , Rutgers Cooperative Extension, Morristown, New Jersey, 07960

Most trees that require removal are handled successfully by arborists' traditional practices of felling and then stump grinding. However, there are a certain tenacious tree species with pervasive root systems that will sprout even after a stump grind. Most arborists and landowners are not aware of this problem, fell trees and suffer the consequences of managing continuous sprouts. In New Jersey, the three most aggressively sprouting tree species are also harmful invasive plants that degrade their new environments as they spread, even after felling and stump grinding. The three "trees of the living dead" are black locust, Angelica tree, and the tree-of-heaven. This presentation begins with some basics, such as: what invasive species are, why invasive plant management is critical to supporting biodiversity, and why biodiversity is essential. Then, the in-depth topics include: how to accurately identify each tree when young and mature, where they often are found, the step-by-step options for timed herbicide pre-treatment, and post-treatment felling. Importantly, the presentation explains how this methodology reduces pesticide use, harm to the environment, and maintenance. Since this presentation was first presented the day before Halloween, October, 30th 2024, it was created using a Halloween theme to make it more enjoyable for the audience. Humor and entertaining aspects in presentations help audience members pay attention and retain information. This presentation was given live over zoom to 115 people and has since been viewed 169 times. It was then presented to 30 contractors as part of the Riverdale, NJ Shade Tree Commission Integrative Pest Management Training Workshop. Teaching evaluations were filled out by 53 people; 100% considered teaching effectiveness and program content "Good" (6%) or "Excellent" (94%). In addition, 100% of the audience thought the information was valuable, they each plan to use or share what they have learned and will make changes in their personal or business activities based on the presentation. One comment received sums up many others, "Presentation was excellent! Full of information, clearly presented, well-paced, clear and helpful graphics on slides to accompany talk. Also, excellent use of the Halloween theme without overdoing it." Access the URL here: https://www.youtube.com/watch?v=dMSWt01H_rI&t=368s

PROTECTING WATER QUALITY ON AND AROUND YOUR HORSE FARM

Laura Kenny
Equine Educator
Penn State
Collegeville

Kenny, L[1], Christ, G[2]

[1] Equine Educator, Penn State Extension, Collegeville, Pennsylvania, 19426
[2] Extension Educator, Penn State Extension, University Park, Pennsylvania, 16802

Equine operations are notorious for neglecting pasture care and overgrazing fields, generally due to lack of knowledge. In addition to not providing fresh forage to animals, this results in erosion and the transport of sediment and nutrients to ground and surface water, impairing water quality. While the Penn State Extension Equine Team has developed several programs to meet this need, we lacked a free one-hour webinar/recording for the casual watcher. On June 20, 2024, Laura Kenny (Montgomery County, PA) and Genevieve Christ (Centre County, PA) presented a live webinar titled "Protecting Water Quality On and Around Your Horse Farm" via Zoom. Nutrient management credits were also offered for conservation professionals who work with horse farms. One hundred-five people registered and received the webinar recording via email. A post-webinar survey revealed that respondents rated the program value 4.3 on a scale of 1 to 5 (with 5 being very high value) and had a knowledge gain of 24% (n=21). Eighty-six percent plan on using something they learned during the webinar, and the remaining 14% selected "not applicable." Some of the practices that will be implemented include evaluating and improving manure storages to reduce nutrient runoff, sharing knowledge with others, and increasing plant cover on the farm to reduce erosion.

ATTRACTING BACKYARD WILDLIFE- HOW TO CREATE SUITABLE WILDLIFE HABITAT ON A SMALL SCALE

Carsen Dean
Watkinsville

Dean, C[1]

[1] Oconee County Agriculture and Natural Resources Agent, Oconee County Extension, Watkinsville, Georgia, 30677

Wildlife is often displaced in urban and suburban counties to make room for humans. Urban sprawl removes options for food, water, and shelter that wildlife need. However, it's possible to create suitable wildlife habitats for pollinators, songbirds, and other wildlife vital to our ecosystem in small spaces like suburban backyards. The Oconee County Extension ANR Agent, Carsen Dean, presented a guide on creating suitable backyard habitats to help provide what native wildlife lacks in these significantly developed spaces. This presentation was aimed toward homeowners and hobby naturalists looking to promote native wildlife in their backyard. The presentation covered steps to building a backyard habitat, how to manage nuisance wildlife, how to sustain the habitat for future seasons, and tips on improving backyard wildlife spaces. The pilot presentation in February of 2025 had five attendees, and more presentations are scheduled for the rest of the spring of 2025. Post-program surveys revealed that 100% of participants increased their knowledge of these subjects, and 100% said they were extremely likely to implement these new practices to create backyard habitats.

ORGANIC APPLE TREE IPM FOR BACKYARD ORCHARDS IN NEW MEXICO

Will Jaremko-Wright
Agricultural Extension Agent
New Mexico State University
Taos

Jaremko-Wright, W[1]

[1] Agricultural Extension Agent, , Taos, New Mexico, 87557

This presentation (an excerpt of a larger Fruit Tree IPM focusing on more species of fruit trees and pests) covers the basics of organic and holistic IPM strategies for apple trees in small scale, backyard and home-orchards. The work was developed as part of an ongoing Organic Fruit Tree IPM Project in Taos County coordinated by the New Mexico State University Taos County Cooperative Extension Office. This excerpt focuses on concepts of organic IPM strategies, the use of pheromone traps and growing degree day (GDD) models for tracking flight patterns, and methods specific to the most widespread pest of apples, the codling moth. A history of apple evolution, fruit migration and horticultural treatment of apples is also discussed for context. IPM strategies and principles are discussed with specific examples of physical, cultural, chemical and biological control mechanisms. A strong emphasis is placed on creating diverse orchard ecosystems, encouraging biological organisms, healthy trees, and the targeted use of kaolin clay, horticultural oils, and best practices on timing and application of spinosad and Bt insecticides.

State Winners

North Central

Kansas	Anthony Reardon
Missouri	Jason Morris

Southern

Florida	Susan Haddock
Kentucky	Corinne Belton
Louisiana	Cole Gregorie
Mississippi	Bill Burdine
North Carolina	Blake Szilvay

PERSONAL COLUMN

National Winner

GOOD GROWING

Ken Johnson
Horticulture Educator
University of Illinois Extension, Calhoun/Cass/Greene/Morgan/Scott Unit
Jacksonville

Good Growing is a weekly column that provides timely horticultural information and tips to readers. It started as a weekly column in the Quincy Herald-Whig and is now distributed to media outlets (newspaper, radio, and television) in 15 counties in west-central Illinois.
The The cicadas are coming! Periodical cicadas in Illinois in 2024 article was published on March 2, 2024, in the Jacksonville Journal-Courier. It discusses what people could expect with the upcoming emergence of periodical cicadas and steps they could take to protect trees and shrubs in their landscapes. The It's May; is it time to stop mowing? article was published on May 3, 2024, in the Jacksonville Journal-Courier. This article discusses No Mow May, some of the issues it may pose, and more sustainable ways for readers to support pollinators. In addition to appearing in print format, the articles are also published as blog posts on the Good Growing blog. Since there are no space limits, these blog posts are often expanded to go into more detail on the given topic.
The cicadas are coming! Periodical cicadas in Illinois in 2024 post: https://extension.illinois.edu/blogs/good-growing/2024-02-22-cicadas-are-coming-periodical-cicadas-illinois-2024
It's almost May; is it time to stop mowing?: https://extension.illinois.edu/blogs/good-growing/2024-04-26-its-almost-may-it-time-stop-mowing

National Finalists

DAIRY STAR ARTICLES

Brenda Miller
Extension Educator
University of Minnesota
Long Prairie

The Dairy Star is a newspaper publication based out of Sauk Centre, MN. The paper is available to read in printed form and online. It reaches over 5,000 dairy farms and industry affiliates. These articles were printed for paper distribution in Zone 1 which includes 5 states: North Dakota, South Dakota, Minnesota, Iowa, and Nebraska. The articles are to provide farmers with timely and useful information. "Know Your Cow Zones" was printed in the August 24, 2024 edition and is about handling cattle. It explains the importance of knowing the pressure and flight zones and where to position yourself when working with cattle. These practices are important for the safety of both the animal and handler. "The Power of a Hobby" was printed on February 8, 2025. It discusses the importance of having something to focus on or do outside of the farm which can help to keep a positive mental health status. Mental health is a huge concern in the farming community and to be able to provide some ideas to combat those issues is beneficial to all. The articles are edited by state Extension staff and then submitted to the Dairy Star for publishing.

EXTENSION BITS AND PIECES AND ROOF GARDEN HOME AND FAMILY NOTES

Melanie Barkley
Extension Educator
Penn State University
Bedford

This personal column appears weekly in the weekend edition of the Bedford Gazette, called the Shoppers Guide, and in the home and family section of the Somerset Daily American. The objective of the column is to provide educational information to the general public to help them improve their daily lives or help them better understand agriculture. The entrant writes monthly articles for the column, while colleagues write articles for additional issues. The newspapers that the column appears in are distributed countywide, with a circulation of 19,000 for the Bedford Gazette and 12,500 for the Somerset Daily American. The objective of these agricultural-related articles is to help the general public better understand agriculture principles and, for some topics, to help the public apply these concepts to their home environment. Why Isn't My Ground Beef Bright Red, published October 138, 2024, discusses color changes in ground beef and why these occur. The article also explains the safe length of time that ground beef should be used or frozen after purchase. Why Are Those Animals Outside, published January 4-5, 2025, explains why animals might live outside during cold temperatures. The article aims to ensure readers that farm animals can be perfectly comfortable outside and that farmers provide additional feed and care to their animals when temperatures drop below freezing. The column articles were prepared using Microsoft Word and sent to the newspaper editor electronically.

TIERRA Y COMMUNIDAD

Will Jaremko-Wright
Agricultural Extension Agent
New Mexico State University
Taos

Tierra y Communidad is a regularly occurring article written by Will Jaremko-Wright in the Taos News, a weekly full-service newspaper and Taos County, New Mexico's largest publication. The column covers a variety of topics related to agriculture, natural resource management and community development. This collaborative effort between the Taos News and the Taos County Cooperative Extension Service came about after the extension office approached the Taos News with an offer to write a column for the paper touching on agricultural topics. The paper was initially hesitant to have an article written by a government official. After the agent's first 6 months on the job and regularly appearing as quoted in many Taos News articles as an expert voice in agriculture, land and water topics, the paper reached out again with an offer to run a regular column by Taos County Extension Agent Will Jaremko-Wright. The initial article, 'What I've learned after one year as Taos County's Extension Agent' (Link: https://shorturl.at/kfRzY) explored themes and FAQs from the public during the initial year. Subsequent articles focused on topics like fall harvest traditions, 'Getting into the Rhythm of Fall' (Link: https://shorturl.at/iRLD1) and plant physiology during the winter months, 'What Plants do in the Shadows' (Link: https://shorturl.at/4e9W1). The Taos County CES office was without a full-time agent for nearly 3 years following the onset of the Covid-19 pandemic, leaving many newcomers to Taos without any connection to the extension office. These efforts of partnering with the local paper for an extension presence in plain-language articles has helped bridge this gap and make many new connections between community and the local extension office.

Regional Winners

"FIELD FODDER" - WISCONSIN AGRICULTURIST

Jordyn Sattler
Regional Crops & Soils Educator
University of Wisconsin - Madison
Monroe

The Regional Crops & Soils Educator for Grant, Green, Iowa, and Lafayette Counties writes a regular column called "Field Fodder" for the Wisconsin Agriculturist magazine. Articles are related to crop production and contain an educational component. The selected columns addressed local and timely needs. The "Scouting soybean pests: What's bugging you?" article from July 2024, was written in response to insect pressure commonly seen in soybean fields during the summer months in order to educate readers about evaluating economic thresholds for defoliation and emphasize the importance of beneficial insects. The "Crop residue: Take it or leave it?" article from November 2024, was written to inform producers about the cost of replacing nutrients that are removed when crop residue is harvested for livestock bedding, a common situation and question for many producers in the fall. Wisconsin Agriculturist circulation is roughly 24,000 via print edition each month plus 2,500 viewers via e-mail blast.

ALABAMA CATTLEMEN'S ASSOCIATION EQUINE ARTICLES

Courtney Heaton
Lecturer and Equine Extension Specialist
Auburn University
Auburn University

Equine articles are included as a component of the Alabama Cattlemen's Association (ACA) magazine on a bimonthly basis. This monthly magazine is circulated via print to an average of 10,500 members per month and is available online to subscribers or free for anyone to access from the educational articles archive. The Alabama Cattlemen's Association works to protect the interests of the $2.5 billion dollar beef cattle industry in the state through active county chapters, the Alabama State Beef Checkoff, and lobbying state government on behalf of cattle producers through the Alabama BEEF Political Action Committee.

Although the bulk of ACA articles target cattle producers, many ACA members have an equine interest, have equine enthusiasts in their household, own their own horses, or utilize horses to work cattle on their beef operations. The aim of the equine articles is to educate ACA membership on scientifically based equine content that often centers around management and nutrition. Articles between March 16, 2024, and March 15, 2025, included: "Feeding Last Trimester Broodmares" (March), "AAEP Updates Equine Internal Parasite Guidelines" (July), "Golden Oldies" (September), "Super Fibers, Super Byproducts" (November), "Dental Details" (January), and "Visual Assessment of Hay Quality for Horses" (March).
The articles selected for consideration for the personal column communications award include "Golden Oldies" which was published in the September 2024 ACA magazine edition and "Super Fibers, Super Byproducts" which was published in November 2024. "Golden Oldies" focuses

on how modern horses are living longer, more productive lives due to advances in veterinary care, dental care, and anthelmintic management. “Super Fibers, Super Byproducts” highlights various byproducts, such as beet pulp, soy hulls, and citrus pulp, that can be utilized to meet a horse’s daily forage requirements. These articles are solely authored by Dr. Courtney Heaton in her role as the state equine extension specialist.

FLORIDA-FRIENDLY GARDENING ADVICE

Cynthia Nazario-Leary
Environmental Horticulture Agent
UF/IFAS Extension Alachua County
Newberry

I am part of a group of UF/IFAS Environmental Horticulture and Agriculture & Natural Resources Extension Agents for both Marion and Alachua counties, who share a rotating gardening column in the Gainesville Sun and Ocala Star-Banner newspapers. Daily circulation for both newspapers combined is estimated at 100,000 and the average online view is 500,000. The gardening column provides agents an opportunity to provide science- and place-based horticultural, landscaping, and other plant-related information to residents in both print and online formats. The column is limited to 500 - 600 words, so articles need to be brief and concise while also piquing interest and providing useful information. I author one article per month, providing seasonal gardening tips and landscape advice, based on Florida-Friendly Landscaping™ practices. On March 31, 2024, I wrote an article on the value of groundcovers and how they can be used to create visually appealing, ecologically beneficial outdoor spaces while reducing long-term upkeep requirements. On June 30, 2024, I authored another article on heat stress in plants and provided tips on management strategies homeowners can use to reduce heat stress in their landscapes. The aim of my articles is to provide timely information with an approachable and conversational tone that keeps the reader engaged while providing information that they can easily put into practice. I include personal observations and stories to share knowledge as if it were coming from a friend or neighbor. Feedback from readers has been positive, and I generally receive two to three requests for gardening or landscape advice because of that month’s article. Comments from readers include, “Thank you for writing about groundcovers, I have a couple of questions about perennial peanut.” “Very helpful information – can’t wait to get planting.” and “Great article – clear, thoughtful, engaging.”

INDEX JOURNAL EXTENSION COLUMN

Stephanie Turner
Extension Agent
Clemson Cooperative Extension
Greenwood

This is a weekly gardening column for the Greenwood Index-Journal, which I have been writing since 2020. The column covers timely information on different gardening topics, highlights various garden plants, and provides updated news from Clemson Extension. Circulation is close to 10,000 individuals in the greater Greenwood area, with print and online readership. “What’s the (Organic) Matter?” covers the benefits of incorporating leaves and compost to improve soil and was published Friday, November 15th,2024, in print and online. “Giftable Amaryllis” provides some interesting facts about Amaryllis and general growing advice and was published Friday, November 8th, 2024, in print and online.

THE NEPHI TIMES NEWS

Jake Hadfield
Extension Assistant Professor
Utah State University
Nephi

The Nephi Times News serves the residents of Juab County (circulation: 1,000) as the primary local news source. Despite Juab County’s relatively small population of 13,023 (2023), the area is experiencing significant growth due to pressures from larger population centers to the north. Even with this growth, the Nephi Times News maintains its small-town newspaper feel and continues to provide valuable information to the community. Jake Hadfield, the Agriculture and Natural Resources Extension agent, writes a regular column covering local agricultural news and research-based agricultural information. Two of his articles from the past year are highlighted below.

Come Enjoy the County Fair
Published on August 7, 2024, this article was released during the week of the Juab County Fair. Hadfield aimed to boost fair attendance while educating the public on the history and significance of county fairs. Recognizing that many residents are unfamiliar with the purpose of the Extension service, the article also clarified the mission of the Land-Grant University and Extension. Written with a personal touch, it encouraged residents to enjoy the fair’s festivities and learn about its community value.
Considerations for Raising Chickens for Egg Production
Published on February 5, 2025, this article addressed the sharp rise in egg prices locally and regionally. Hadfield

explained the factors behind the price increases and educated the public on the costs and considerations of raising chickens for egg production. Responding to numerous inquiries at the Extension office, the article aimed to inform a wider audience. While not discouraging people from raising chickens, it provided a realistic perspective on the responsibilities and costs involved in poultry production. The article served as a practical guide for individuals interested in starting egg production operations during a period of heightened public interest. In conclusion, the articles in the Nephi Times News provide valuable resources for Juab County residents. By addressing topics like the county fair and raising chickens for egg production, these pieces offer timely, relevant information that educates the community on local agricultural issues and strengthens their connection to sustainable farming practices.

State Winners

North Central

Kansas	Sandra Wick
Missouri	Ben Brown
Ohio	Christine Gelley

Southern

Arkansas	Rachel Bearden
Georgia	Campbell Vaughn
Kentucky	Amanda Sears
Louisiana	Clark Robertson
Mississippi	Eddie Smith
North Carolina	William Kelley
Tennessee	Justin Stefanski
Texas	Matt Garrett

FEATURE STORY

National Winner

HUMANIZING THE PROBLEM OF BOVINE TB

Phillip Durst
Sr. Extension Dairy & Beef Educator
MSU Extension
West Branch

Durst, P[1]

[1] Sr. Extension Educator - Dairy & Beef Cattle, MSU Extension - Ogemaw County, West Branch, Michigan, 48661

For 26 years, dairy and beef farmers, as well as hunters, in NE Michigan have been under the burden of Bovine tuberculosis (TB). They have grown weary of the increasing requirements to prevent new herd infections (there have been 83 herd infections to date since 2001) from the wild deer that carry the disease. Working with USDA and the Michigan Departments of Agriculture, Natural Resources and Health & Human Services, I am a partner in hosting educational meetings for farmers and hunters several times each year. One of those meetings featured a young woman, via Zoom, who told her compelling story of battling a Bovine TB infection. I wanted to bring that story to more people by writing it down. Working with two community health physicians who specialize in TB, we planned the article and its use. I went through a recording of her speaking, as well as my notes from her talk and information about Michigan's TB history to create the article. AI was neither used nor consulted. Adriana provided a photo of herself and her nurse and the video from which a frame was captured. The draft article was reviewed by Adriana as well as by the doctors, revised, and then published on the Michigan State University News website on March 18, 2024 https://www.canr.msu.edu/news/a-fight-for-life-against-bovine-tuberculosis-adriana-jarrett. The timing of the article's release was just before World TB Day on March 24 and the annual Michigan TB conference. Through this article, the requirements on farmers and hunters took on a new light. The disease became more real, more immediate, more important. The article was also posted on my LinkedIn page. Through these two media, the article has had more than 1300 reads and has been republished in Michigan Farm News online (approximately 22,000 weekly reads) and print edition (30,800 copies).

National Finalists

FROM THE DIRECTOR'S DESK, GARDENER NEWS

Ruth Carll
State Leader, Consumer Horticulture
New Brunswick

Carll, R[1]

[1] State Leader, Consumer Horticulture, Rutgers , New Brunswick, New Jersey, 08901

The Gardener News is a statewide publication for both the professional and hobbyist agriculture and horticulture communities. Brian Schilling, Extension Director, has a monthly column, however, it is written by faculty and staff from across Rutgers Cooperative Extension. Ruth Carll, Rutgers State Leader for Consumer Horticulture, coordinates the monthly authorship of this

column, ensuing that the columns represent the broad spectrum of knowledge and activities found throughout Extension. Through the Gardener News, she ensures that the horticulture community is exposed to the breadth of knowledge and work done by the faculty and staff throughout the state. She ensures that faculty, staff and specialists alike, have the chance to showcase their work. Over the past year, articles from Agriculture and Natural Resources shared current, practical horticultural science regarding plant selection, turf care and important regulations of which homeowners should be aware. These columns were interspersed with features about 4H, the Rutgers Center for Turfgrass Science, Rutgers Gardens and the Office for Continuing Professional Education. Ruth also writes columns, representing the Master Gardener program as well as general horticulture subjects. Her combined botany and education backgrounds create an informative and accessible style that connects the popular audience to horticulture subjects with ease. The article submitted here shares her passion for winter interest gardens – both in the yard and inside the house. It represents her approachable style and delivery of practical information appropriate for the publication's audience. Her background in teaching is evident through her use of analogies and clear concepts. Please accept this submission of the December, 2024 column "Winter Wonders for Your Home Gardens" as a nomination for the Feature Story submission. The Gardener News does not share its distribution data and, therefore, this data cannot be shared here.

PROTECTING YOUR CITRUS TREES: TIPS FOR SURVIVING GULF COAST FREEZE EVENTS

Jacob Kelley
Extension Agent
Alabama Cooperative Extension System
Mobile

Kelley, J[1]

[1] Extension Agent, Auburn University , MOBILE, Alabama, 36608

This article was written to be featured in the February 5 – February 11, 2025, "Ask a Master Gardener" column of the local Lagniappe newspaper, which serves the Gulf Coast region of Alabama, Florida, and Mississippi. They have 80,000 subscribers to their paper, and over 100,000 copies of the article were distributed to the public at kiosks within the region. The article provides essential guidance for home citrus growers in the Gulf Coast region to protect their trees during freeze events. The record-breaking snowfall in January, with over seven inches in Mobile and nearly nine inches in Pensacola, highlighted the need for effective freeze protection strategies. Key recommendations include selecting the right tree and rootstock, such as locally grown varieties grafted onto trifoliate orange rootstock, which offers significant cold tolerance. Cold-hardy citrus varieties like kumquats and Satsuma mandarins are ideal for the region, capable of withstanding temperatures as low as 15°F when adequately acclimated. Site selection is crucial, with sheltered locations away from structures providing additional protection. Container growing is a practical solution for those concerned about freezing temperatures, allowing trees to be moved indoors during cold weather. For in-ground trees, soil banking and protective coverings can reduce freeze damage. Post-freeze care involves patience and proper pruning to ensure tree recovery. Following these tips, Gulf Coast residents can maintain healthier, more resilient citrus trees during unpredictable winter months.

LAMBERT RANCH - 2024 CBCIA PRODUCER OF THE YEAR

Tracy Schohr
Livestock and Natural Resources Advisor
University of California
Quincy

Schohr, T[1], DeAtley, K[2]

[1] Livestock and Natural Resources Advisor ,Quincy, California, 95971
[2] Professor , California State University, Chico, California, 95926

Extension advisors have the opportunity to work with innovative livestock producers and land managers who are not only leaders in their communities but also collaborators on university research projects. These projects are diverse and cover everything from sustainable grazing management practices to cattle production, wildlife, public policy and beyond. Tracy Schohr, a University of California Cooperative Extension Advisor, has partnered with Steve Lambert on key topics such as invasive weed management using biological controls, drought resiliency, grazing management, cattle health, and disaster preparedness. Beyond his progressive efforts at the ranch level, Schohr highlights Lambert's leadership on the County Board of Supervisors, where he helped shape a general plan that protected agriculture and played a critical role during the Oroville Dam Crisis and the Camp Fire. Lambert was also instrumental in developing the Butte County Ag Disaster Pass Program, a state model. Alongside Dr. Kasey DeAtley, a professor at a local State College,

Schohr co-nominated Lambert for an industry award from the California Beef Cattle Improvement Association where they serve on the Board of Directors. In their nomination, they emphasized the importance of recognizing producers who support their communities and lead by example. Schohr explains that Cooperative Extension agents play a vital role in helping ranchers of all sizes tackle challenges. She believes it is crucial to celebrate those producers who exemplify dedication and innovation through award nominations. Schohr was the primary author for the article, responsible for interviewing Steve Lambert to develop feature article. She interviewed both Logan Ipsen and Justin Hamilton who provided supporting quotes. Lastly Schohr was responsible for acquiring photos and coordinating with the managing editor of the California Cattleman Magazine. The co-author DeAtley providing clarity and editing of article. Schohr concludes, "We should take every opportunity to thank ranching collaborators, and one meaningful way is through industry awards that acknowledge their contributions to sustainable livestock production." An article about Steve Lambert that Schohr lead writing, was featured in the January 2025 edition of California Cattleman Magazine, with over 8,000 copies distributed statewide. The article is also available online at https://issuu.com/calcattleman/docs/ca_january_2025_online.

Regional Winners

SAFE SILAGE HARVEST: PREPARE NOW TO PREVENT ACCIDENTS LATER

Emily Krekelberg
Extension Educator
University of Minnesota Extension
Rochester

Krekelberg, E[1]

[1] Extension Educator, University of Minnesota Extension, Rochester, Minnesota, 55901

"Safe silage harvest: Prepare now to prevent accidents later" was published in Progressive Forage on August 1, 2024. Since 2022, I have been contributing articles on various farm safety and health topics to Progressive Publishing. I was asked by the editor to contribute regular articles about various mental health topics. As this partnership has continued, I have expanded my writings to include safety topics as well. Specifically for the Progressive Forage publication, I opted to write an article about safe silage harvest.

I worked with the editorial staff on the timing of the article to ensure it came out just as silage harvest was about to start. The purpose of this article was to provide actionable safety tips for farms to make silage harvest safer on their farm. The information covered includes equipment checks, storage facilities, roadway safety, and personal safety and wellbeing. My goal was to take this often-overlooked topic and make it approachable for readers. Harvest is a dangerous time of year on many farms, and sharing the message of safety and prevention may help make it a little less dangerous.

This article was written by me and edited by Progressive Publishing staff. It appeared in the August 1, 2024 print edition of Progressive Forage and is also on the websites of Progressive Forage, Progressive Dairy, and Progressive Dairy-Canada. These platforms combined reach tens of thousands of readers each month.

LUCKY CLOVERS

Christine Gelley
Extension Educator, ANR
The Ohio State University
Caldwell

Gelley, C[1]

[1] Extension Educator, ANR, , Caldwell, Ohio, 43724

Lucky Clovers was a feature story in the March 2025 edition of Progressive Cattle magazine which is produced by Progressive Publishing in both print and online. The educator was invited to submit an article for the March edition with a timely topic related to cattle grazing. Given the close proximity to Saint Patrick's Day, 4-H Enrollment season, and time for frost seeding in her home state, the educator chose to focus on the diversity of clovers available for cattle production in the U.S. The educator did 100% of the research, writing, and table formatting for the article, which was originally prepared in Microsoft Word and submitted to the publication editor. The online version became available on February 20, 2025 (https://www.agproud.com/articles/print/60916-lucky-clovers) and in print on March 1, 2025. Progressive Cattle has a reach of 59,775+ subscribers across the United States. The article was reposted on the OSU Small Ruminant Team webpage (~700 subscribers) on March 4, 2025 (https://u.osu.edu/sheep/2025/03/04/lucky-clovers/) and the OSU Beef Team webpage (~5,400 subscribers) on March 5, 2025 (https://u.osu.edu/beef/2025/03/05/lucky-clovers/). The author was pleased to receive feedback in the weeks following from readers who found the information useful from Arkansas all the way to North Carolina.

SPARKING AGRICULTURAL CAREER EXPLORATION THROUGH UCONN 4-H

Stacey Stearns
Educational Program Administrator
University of Connecticut
Storrs

Stearns, S[1], Cushman, J[2]

[1] Educational Program Administrator, Storrs, Connecticut, 06269-4134
[2] State 4-H Program Leader, Farmington, Connecticut,

The article UConn 4-H Sparks Career Exploration for Tahlia Watson of Bloomfield highlights the transformative impact of UConn 4-H on Tahlia Watson, a young woman of color from Bloomfield, Connecticut. Through her journey of career exploration and personal growth, the piece underscores the importance of diversity, equity, and inclusion in 4-H programming. By centering Tahlia's voice and experiences, the article celebrates representation, opportunity, and the power of youth development programs in empowering individuals from underrepresented communities.

With over 22,000 youth members and 4,000 volunteers, UConn 4-H is committed to fostering equitable opportunities for youth across Connecticut. The article serves as an inspiring testament to the program's dedication to preparing all young people for future success, regardless of background. Written with a youth-centered voice, it authentically represents Tahlia's experiences and highlights the cultural richness of youth from urban and suburban communities, particularly in STEM and agriculture fields.

To develop the article, Tahlia was interviewed by Stacey Stearns in a single session. Her quotes and narrative were central to the piece, ensuring authentic representation. The story was reviewed by Tahlia and Jennifer Cushman, the State 4-H Program Leader, before its submission to UConn Today, where it was published in August 2024. The article was also shared on UConn Extension's social media platforms, further amplifying its reach.

The impact of the article was significant, garnering 384 reads on UConn Today and over 1,279 impressions on social media. With a reach of 1,030 and multiple interactions, the piece successfully engaged a broad audience, including 4-H youth, families, educators, alumni, and donors. The article reinforced UConn Extension's efforts to highlight the achievements of diverse 4-H participants and the importance of inclusive programming in youth development.

By showcasing Tahlia's success, the article not only celebrates individual achievement but also demonstrates the broader impact of programs like UConn 4-H in creating pathways to success for youth from underrepresented backgrounds.

Article link: https://today.uconn.edu/2024/08/uconn-4-h-sparks-career-exploration-for-tahlia-watson-of-bloomfield/

TO RAKE OR NOT TO RAKE

Rebecca Long
Coordinator of Horticulture Training Programs
University of Maine Cooperative Extension
South Paris

Long, R[1]

[1] Coordinator of Horticulture Training Programs, University of Maine Cooperative Extension, South Paris, Maine, 04281

The purpose of this feature article was to educate a general and home gardener audience about their options for fall leaf cleanup and address the nuanced arguments for and against the "leave the leaves" movement. The author accomplished this by researching the topic and writing an article titled "To Rake or Not to Rake" for the October 2024 issue of the Maine Home Garden News, the free monthly statewide home garden digital newsletter for University of Maine Cooperative Extension. This topic was selected based on reader feedback and increased media coverage of the topic. The article was edited and published by a team of UMaine Cooperative Extension staff and volunteers. The article was published alongside a photo provided by the newsletter editors. The newsletter reached 3,353 subscribers (email and surface mail). As a result of this article, the author was contacted by a writer for the Sun Journal, a regional newspaper. Large portions of the original article were re-published as part of the article "Leaves: Rake them away or leaf them alone? Locals weigh in on the matter of autumn cleanup," written by Mark LaFlamme and published November 24th, 2024, reaching an estimated 19,322 additional readers.

RESTORING CURB APPEAL AFTER HURRICANE HELENE

Campbell Vaughn
County Extension Coordinator
University of Georgia
Augusta

Vaughn, C[1]

[1] County Extension Coordinator, UGA Richmond County Extension, Augusta, Georgia, 30901

The feature story was written for the Augusta Magazine which is a 50-year-old every other month publication for the Central Savannah River Area which encompasses Augusta-Richmond County Georgia and 11 surrounding Georgia counties as well as six counties in South Carolina. The circulation for the print version of Augusta Magazine is 12,000 and online readership is over 7,000. After the Central Savannah River Area was devastated by Hurricane Helene, there is a substantial need to find ways to replace the massive losses of tree canopy as well as build green screens to hide views never seen before the storm.

The editor of the Augusta Magazine reached out to the Richmond County Agriculture and Natural Resource Agent to write a featured story on the best plants to recommend for replacing lost trees and shrubs. In December of 2024, the Richmond County Agent submitted the work that was in turn published in the Augusta Magazine in their February/March edition.

WHY THE 4-H PROGRAM PROVIDES THE PERFECT OPPORTUNITY FOR YOUR CHILD

Rebecca Coward
County Extension Agent- 4-H
Texas A&M AgriLife Extension
Gatesville

Coward, R[1]

[1] County Extension Agent- 4-H, , Gatesville, Texas, 76528

The Feature Story, “Dear Parents: Why the 4-H Program Provides the Perfect Opportunity for Your Child,” which was published in October of 2024, is a reflective piece that captures the mood of a thankful 4-H agent and former 4-H parent. The article describes the major benefits of 4-H membership including citizenship, leadership, scholarship, and healthy lifestyles. A heightened awareness is created of the 4-H program’s goal of helping students achieve personal growth and community involvement that will benefit them for life. After reflecting upon our busy society and how parents are pulled in many different directions hoping to offer great youth experiences for their children, the applicant opted to feature this story in the presented article. By addressing key character traits such as citizenship and leadership, the author agent hoped to attract new 4-H membership and encourage current members to pursue other 4-H leadership opportunities that could lead to scholarships when they graduate from high school.

INVASIVE ORNAMENTAL: BABY’S BREATH

Inga Hawbaker
Extension Agent
MSU
Scobey

Hawbaker, I[1], Seipel, T[2]

[1] Daniels County MSU Extension Agent, Montana State University Extension, Scobey, Montana, 59263
[2] Cropland Weed Extension Specialist, Montana State University Extension, Bozeman, Montana, 59717-3120

The feature story was written for the Spring-Summer 2024 issue of Lives and Landscapes, the magazine of Montana State University Extension. Lives and Landscapes features practical articles covering subjects such as improving nutrition, growing lawns and gardens, being good stewards of land, both small and large acreages, improving knowledge of family financial tools and more. The magazine serves as a free resource for both newcomers and longtime Montana residents. Three editions of the magazine are published annually and are available digitally and in print. 1,000 copies were printed to be distributed; 300 were mailed to print subscribers and mailing lists that include organizations, county, state, and federal representatives. Facebook and Instagram posts sharing the entire Spring-Summer 2024 issue had a reach of 2,214. Lives and Landscapes has 668 digital subscribers. Hawbaker and Seipel were asked to write this article due to their recent research on the subject. The purpose of the feature story is to educate residents and stakeholders of Montana about perennial baby’s breath (Gypsophila paniculata L.), an escaped ornamental plant that can form very dense stands, is associated with negative impacts on forage production, and is challenging to manage. Baby’s breath is not a state-listed noxious weed, but it has been listed as a county noxious weed in several counties across MT. Hawbaker took five of the photos included in the feature story. The graphic design and layout of the feature story is courtesy of MSU Extension Communications. The feature story appears in the online issue of the magazine at https://store.msuextension.org/Products/

Lives-and-Landscapes-SpringSummer-2024-LL23__LL23.aspx

GARLIC ENTHUSIASTICS PLANT VARIETY AT SITE LOCATED COLUMBIA RIVER ROAD

Feature Story
Linda McLean
Washington State University
Nespelem

McLean, L[1]

[1] 4-H Educator, Washington State University Colville Reservation Extension, Nespelem, Washington, 99155

This Feature Story was developed, written, edited, and submitted by NACAA member. The original article was submitted to four local newspapers on 9/30/24- the Wilbur Register (readership – 1000), the STAR (readership – 1700), the Ferry County View (readership – 1250, and the Tribal Tribune (readership – 3,300). All newspapers published the article. The Wilbur Register article was published in the 10/3/24 edition. The purpose of this article was to inform reservation residents and people in the surrounding area about the Inchelium Red garlic project. Food access, food sovereignty, and depressed economy are major issues on the Colville Reservation. This project reintroduced Inchelium Red Garlic to the Colville Reservation and tribal members. Inchelium Red is the oldest strain of garlic grown in North America. It was discovered growing on the Colville Reservation in the community of Inchelium, where it got its name. This garlic is not grown on a large scale in the local area. It is a popular variety of garlic, and it possesses potential for economic development for reservation residents. The Inchelium Red Garlic Revitalization Coalition was formed to increase opportunities for reservation residents to grow and market Inchelium Red Garlic. One main workshop/planting and distribution event was held to provide educational information on how to plant, grow, manage, harvest, and use Inchelium Red Garlic. Garlic bulbs were given to participants. New partnerships were leveraged to share in cost and education. The plan is to grow and harvest this garlic and use it for distribution in 2025. This will bring us closer to developing a food system whereby food is grown locally by reservation residents for reservation residents.

State Winners

North Central

Kansas	Sandra Wick
Missouri	Jennifer Schutter
Nebraska	Anastasia Meyer

Northeast

Pennsylvania	Cassie Yost

Southern

Arkansas	Rachel Bearden
Florida	Bonnie Wells
Louisiana	Abigail Sartin
North Carolina	Paige Petticrew
Oklahoma	Hannah Hough
South Carolina	Brad Fowler
Tennessee	Christopher Cooper

West

Arizona	Betsy Greene
New Mexico	Susann Mikkelson
Utah	Ethan Gilliam

NEWSLETTER

National Winner

WRIGHT, MCLEOD, AND MEEKER COUNTY - HORTICULTURE NEWSLETTER

Emily Lindenfelser
Buffalo

Lindenfelser, E[1]

[1] Horticulture Extension Educator, University of Minnesota , Buffalo, Minnesota, 55313

The Tri-County Horticulture Newsletter is a digital publication designed for residents of Wright, McLeod, and Meeker counties who have an interest in horticulture, natural resources, and small-scale farming. This newsletter serves as an educational resource for homeowners, gardeners, small farmers, and Extension Master Gardeners who have engaged with the local Extension service and seek ongoing updates on horticultural trends, events, and best practices. Distributed via email on the first Wednesday of each month, the selected issues were sent to 279 subscribers on June 5 and October 2, 2024. Residents can subscribe by completing a Google form, signing up at local events, or if the newsletter was forwarded to them, they can click a button at the bottom

of the letter. On average, 300 viewers open the newsletter each month, resulting in an annual reach of approximately 3,600 engagements. Each month, I developed the newsletter content using Google Docs, where I composed articles, curated resources, and structured information in an organized format. Once finalized, the Meeker County support staff transferred the content to the Smore newsletter platform. This platform allowed for the addition of visuals and interactive elements to enhance readability and engagement. The newsletter covered timely topics relevant to the season, with a strong focus on weather-related horticultural concerns and tasks. Additionally, it featured guidance based on common technical assistance inquiries received throughout the month, ensuring that readers benefited from solutions to frequently asked questions, or learning from the unique ones. To further support community education, I included information on upcoming local and statewide horticulture events that would be valuable to subscribers. By providing accessible and relevant horticultural information, the Tri-County Horticulture Newsletter serves as an essential tool for connecting residents with research-based gardening and farming insights, fostering a more informed and engaged community.

National Finalists

4-H SPECIAL AGRONOMY NEWSLETTER

Brandy VanDeWalle
EXT. EDUCATOR
NE Extension
Geneva

VanDeWalle, B[1], Nygren, A[2]

[1] Extension Educator, UNL, Geneva, Nebraska, 68361
[2] Extension Educator, UNL, Nebraska

The Special Agronomy Project (SAP), now in its fifth year, aims to engage youth who might otherwise lack access to agronomic crops or projects. As co-superintendent of the 4-H Agronomy, Weeds, and Range State Fair Exhibits, I played a key role in organizing exhibit judging, displaying projects, and engaging participants about SAP, which focused on sugar beets. The 2024 newsletter was distributed during the 2024 growing season to all 93 Nebraska County Extension Offices via email; offices print or email copies to the 4-H'ers participating in the program. The 2025 newsletter was recently created and will be shared in the same manner with 726 youth enrolled in this year's project. Eleven exhibits, including a video submission, were entered at the state fair, garnering positive feedback, with one participant's mother noting, "This is a neat program, and I'd love for our whole club to do this next year." I distributed nearly 700 seed packets to Nebraska 4-H and FFA youth. The project's impact was substantial, with 38% of participants (n=16) reporting it was their first time taking an agronomy project to the fair, and 81% noting they learned a valuable skill for the future. Additionally, 92% expressed intent to enroll in SAP again the following year. SAP gained statewide recognition, making headlines in IANR news and being prominently featured in a booth by Western Sugar. This initiative not only increased youth engagement in agronomy but also sparked greater interest in sugar beet cultivation across Nebraska, raising awareness of the field's relevance to the state's agricultural community.

UNIVERSITY OF MARYLAND EXTENSION VEGETABLE AND FRUIT NEWS

Emily Zobel
Associate Agent for Agriculture and Food Systems
University of Maryland Extension
Cambridge

Zobel, E[1], Sater, H[2]

[1] Senior Agent for Agriculture and Food Systems, University of Maryland Extension, Cambridge, Maryland, 21613-0299
[2] Agent for Agriculture and Food Systems, University of Maryland Extension, Sailsbury, Maryland, 21801

Timely news is crucial for vegetable and fruit growers because it allows them to make informed decisions regarding production, marketing, and pest/disease management, ultimately impacting their profitability and success. The University of Maryland Extension Vegetable and Fruit News is a free bi-monthly online newsletter that runs during the growing season, April - October. The newsletter aims to communicate timely, research-based information regarding vegetable and fruit production, pest and disease updates, changes to regulations, and upcoming extension events to farmers. The newsletter is distributed through a subscribed email listserv. Individual articles and a full pdf are available on the University of Maryland Extension webpage at https://go.umd.edu/UMEVegFruitNews. Paper copies are further distributed to clientele by local extension agents. PDFs of the newsletter are formatted through the Equidox website (https://equidox.co/) to ensure they are e-reader accessible. In 2024, 12 issues were published, including a winter issue and 11 issues during the growing season, April - October. These issues were published approximately every other week. The newsletter email list has ~470 subscribers, with an average open rate of 51% and an average click rate of 5-15%. This newsletter is prepared using Microsoft

Publisher by editors Emily Zobel, Senior Agent Associate, Ag and Food System, University of Maryland Extension, Dorchester County, and Haley Sater, Ag and Food System, University of Maryland Extension, Wicomico County.

THE INVASIVE SPECIES OF THE MONTH SERIES

Michele Bakacs
County Agent II/ Associate Professor
Rutgers Cooperative Extension
North Brunswick

Bakacs, M[1], Epiphan, J[2], Maguire, P[3]

[1] County Agent II/ Associate Professor, , North Brunswick, New Jersey, 08902
[2] Associate Professor/ County Agent, Rutgers Cooperative Extension of Morris County, Morristown, New Jersey, 07963-0900
[3] Program Coordinator II, Environmental Stewards Program/ Rutgers Cooperative Extension, Berkeley Heights, New Jersey, 07922

Legislation has been proposed in New Jersey that would prohibit the purchase, sale, distribution, and import of certain invasive plants without a permit. New Jersey is one of only a few states without regulations controlling the propagation and sale of invasive plants. In preparation, Rutgers Cooperative Extension has developed an "Invasive Species of the Month" series, taking a deep dive into individual species for landscapers, land managers and the public. The first notable invasions in New Jersey occurred in the 1950s with suburban developments but began to increase over the last 50 years, coinciding with increase in deer abundance starting around 1970. There are 98 plant species emerging as invasive, and 48 considered widespread. Many of these species have been introduced through the ornamental plant trade. Invasive plants reduce biodiversity, form monocultures on our natural lands, and outcompete native plants that are critical for supporting local food webs. Deer do not eat them which aids in their spread as some communities in New Jersey have upwards of 100 deer per square mile. Species are chosen for the "Invasive Species of the Month" based on time of the year when control is most effective, or when they are most easily identified in the landscape. For example, Jetbead, Rhodotypos scandens, was chosen for April ahead of when the flower is in bloom and the shrub is easily identified. Thus far, 8 issues have been written, designed, and distributed by the authors. The series has been sent to over 4000 individuals, distributed at landscaper trade shows and workshops, and has been used to educate over 200 Extension volunteers that have attended field trainings and virtual seminars to learn field identification and removal methods. Survey results increased from 25% before to 95% afterwards when participants were asked if they understood which ornamental species were invasive and their native alternatives (n=39). The series is also used by Extension staff to train "invasive volunteer strike teams" that manage invasives in county parks and monitor long term management progress. The series is available at https://envirostewards.rutgers.edu/tag/invasive-species/

Regional Winners

GRAPEVINE NEWSLETTER

Calla Edwards
El Dorado

Edwards, C[1]

[1] Horticulture Extension Agent, , El Dorado, Kansas, 67042

Gardening in Kansas's climate poses many challenges for new and experienced gardeners with its extreme weather and recent drought conditions. To help provide the gardeners of Butler County with research-based information related to issues that are being seen in Butler County, the Grapevine Newsletter was started by the K-State Research and Extension Horticulture Agent to provide up-to-date information and resources to the citizens of the county. Through the newsletters, the agent provides information regarding issues currently being found in the county, timely tips on activities gardeners should be doing, and a rotating section that includes gardening calendars, recipes, myths or misconceptions, and gardening projects they can try. The newsletter articles are written by Calla Edwards, K-STATE Research and Extension Horticulture Agent, and are sent out weekly during the growing season and bi-weekly during the winter months. Each newsletter reaches approximately 500 people and is distributed via email, social media, and the county website.

AG CONSERVATION CURRENTS

Chris Canfield
Extension Educator
Penn State University
Lewisburg

Canfield, C[1], Christ, G[2], Bussard, J[3]

[1] Extension Educator, Penn State University, Lewisburg, Pennsylvania, 17837
[2] Extension Educator, Penn State University, University Park, Pennsylvania, 16802
[3] Marketing and Communications Specialist, Penn State University, University Park, Pennsylvania, 16802

Effective communication is essential for promoting agricultural conservation, and "Ag Conservation Currents" has become a vital resource for engaging stakeholders, sharing research-based insights, and driving meaningful conversations. Designed to inform and inspire, this newsletter plays a key role in connecting farmers, conservation professionals, and policymakers with the latest developments in Best Management Practices. With 2,037 subscribers, "Ag Conservation Currents" consistently outperforms industry benchmarks, achieving an email open rate of 45.1% and a click rate of 7.3%, surpassing Extension standards. These metrics reflect the newsletter's value in delivering timely, relevant content that resonates with its audience.

Over the past year, "Ag Conservation Currents" has evolved to enhance reader engagement and accessibility. Each monthly edition features success stories from producers, updates on conservation funding opportunities, and practical guidance on implementing BMPs. We have made complex conservation topics more accessible and actionable for our audience.

The newsletter has amplified farmer voices, highlighted conservation success stories, and reinforced the importance of sustainable agricultural practices. The newsletter's ability to bridge the gap between research, policy, and on-the-ground implementation sets it apart as an essential communication tool in the agricultural conservation space.

This nomination recognizes not just "Ag Conservation Currents" itself but the dedication, creativity, and strategic thinking behind its success. By continuously evolving to meet the needs of our audience, Ag Conservation Currents exemplifies excellence in communication and serves as a model for impactful agricultural outreach. We are honored to be considered for this award, which would acknowledge the innovation and commitment driving our efforts to inform, engage, and inspire conservation action.

ALABAMA HOME HORTICULTURE QUARTERLY NEWSLETTER

Sonja Thomas
Extension Specialist
Alabama Cooperative Extension System
Auburn University

Thomas, S[1], Wismer, E[2], Halloway, M[3], Carroll, D[4]

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[2] Extension Agent, Alabama Cooperative Extension/ Auburn University, New Brockton, Alabama, 36351
[3] Extension Agent, Alabama Cooperative Extension/ Auburn University, Hamilton, Alabama, 35570
[4] Extension Agent, Alabama Cooperative Extension/ Auburn University, Opelika, Alabama, 36804

The goal of this educational newsletter was to keep Alabamians that were interested in Home Horticulture informed and up to date on current issues and upcoming events. This was accomplished through collaboration with the Home Horticulture team, who helped identify key subjects, address common landscaping challenges, and highlight ongoing programs. To achieve the overall objective of engaging homeowners, several targeted goals were set. We integrated various program activities, articles, and publications from ACES, while also catering to the diverse learning preferences of our audience. The quarterly newsletter was distributed to 11,388 citizens through Extension's network, including Extension TV, email, social media, and printed copies sent to all 67 County Extension offices across Alabama. Its success led to the creation of a combined Alabama Extension newsletter that encompasses Forestry, Wildlife and Natural Resources, Food Safety and Quality, Commercial Horticulture, Home Horticulture, Poultry Science, Animal Science and Forages, Farm and Agribusiness Management, Pond Management, and Agronomic Crops. This collaboration with all Alabama Extension Agriculture, Forestry, and Natural Resources (AFNR) teams will further broaden the reach of research-based information to all stakeholders throughout the state.

THE WILKES COUNTY AG NEWSLETTER

Newsletter

Allison Bailey
Washington

Bailey, A[1]

[1] Agriculture and Natural Resources Agent, University of Georgia Cooperative Extension, Washington, Georgia, 30673

The Wilkes County Ag Newsletter serves as a valuable resource for producers and homeowners by delivering timely and relevant information to support the county's diverse agricultural landscape. Each month, it delves into three carefully selected topics that provide foundational knowledge on key agricultural issues while encouraging engagement with the county extension agent. In addition to education, the newsletter fosters a stronger sense of community by informing readers about upcoming agricultural events, networking opportunities, and local initiatives. The discussions initiated by each issue play a vital role in shaping extension programming, ensuring that county efforts align with local producers' and homeowners' actual needs and interests. To improve accessibility and outreach, the newsletter is offered in multiple formats. Its digital distribution has experienced significant growth, increasing from an initial 90 recipients to over 200 email subscribers. Approximately 50 print copies are distributed monthly to key stakeholders, including the local Cattlemen's Chapter, county commissioners, and various commodity groups. A virtual copy is also accessible on the University of Georgia – Wilkes County Extension website. The newsletter has garnered positive feedback, with readers consistently praising its visually appealing design, clear readability, and diverse range of topics. The Ag Newsletter has established itself as an integral part of extension outreach in Wilkes County by providing high-quality, practical information while fostering connections within the agricultural community.

UT HORT HUB NEWSLETTER

Celeste Scott
Regional Extension Specialist
University of Tennessee
Jackson

Scott, C[1], Bumgarner, N[2], Treadway, H[3], James, E[4], Duncan, A[5]

[1] Horticulture Extension Specialist, UT Extension, Western Region, Jackson, Tennessee, 38301
[2] Associate Professor and Residential and Consumer Horticulture Extension Specialist, UT Extension, Knoxville, Tennessee, 37996
[3] Agriculture & Natural Resources Extension Agent I, Hamilton County Extension, Chattanooga, Tennessee, 37416
[4] Agriculture and Natural Resources Extension Agent I, Bradley County Extension, Cleveland, Tennessee, 37311
[5] Digital Certification and Training Program Coordinator Extension Specialist, UT Extension, Knoxville, Tennessee, 379996

The UT Hort Hub Newsletter is a periodic publication distributed 4-6 times per year as a collaborative effort identified as a need by the UT Hort Team, which consists of agents and specialists across the state. Melody Rose serves as Editor, with Natalie Bumgarner overseeing distribution, and all team members contribute by generating content ideas, supplying images, updating online resources, and participating in the review and editing process. UT Hort Hub Newsletter delivers timely gardening tips, promotes statewide Extension initiatives, and highlights upcoming learning opportunities, citizen science projects, and new publications and resources. Designed to communicate statewide horticulture efforts, the newsletter targets consumer and residential home gardeners. However, the content is strategically delivered through local county Agriculture and Natural Resources (ANR) Agents. The newsletter PDF and online link for each edition are e-mailed to all 189 ANR Agents, who can choose to share the content directly with stakeholders through e-mail lists, social media platforms, printed handouts, or other creative community outreach methods that connect with their local audience. Additionally, the newsletter is accessible to the broader public via uthort.com, with 268 unique visitors accessing the page. The ultimate reach of this project is exponential, relying on agent engagement and utilization. Agents consistently praise this resource as an effective tool for engaging new audiences with their program, providing inspiration for original social media content, and supporting their local programming efforts. UT Hort Hub Newsletter aims to engage both existing and

new audiences by fostering local relationships, sharing knowledge, and strengthening the connection between UT Extension and communities across the state.

MID-COLUMBIA FARMERS NEWSLETTER

Jacob Powell
Assistant Professor (Practice)
OSU Extension Service
Moro

Powell, J[1]

[1] Assistant Professor (Practice), , The Dalles, Oregon, 97058

The Mid-Columbia Farmers Newsletter is a newsletter written every other month by OSU Extension Agent Jacob Powell serving Wasco and Sherman Counties. The main audience is crop and livestock producers in the Mid-Columbia region covering multiple counties in North Central Oregon. Newsletter recipients include absentee landowners, hobby farmers, researchers, agricultural services and businesses, other extension faculty in the state, and landowners. The goal is to provide timely updates impacting agriculture in the region on topics covering weather, climate forecasts, commodity prices, market forecasts, local agricultural events, and ongoing extension programs and research. Monthly rainfall totals are also summarized and shared from 40 different producers located throughout the counties to help inform farming decisions. The newsletter is mailed to 600 individuals with about 100 going to landowners living outside of the region. In addition, the newsletter is emailed to 250 individuals. The newsletter is also made available online. Powell writes and organizes the newsletter with county office staff providing printing and mailing support.

State Winners

North Central

Illinois	Chris Enroth
Iowa	Josh Michel
Missouri	Jason Morris
Ohio	Amanda Douridas
South Dakota	Sara Bauder

Southern

Arkansas	Kevin Lawson
Florida	Alissa Hevesh
Kentucky	Megan Wetenkamp
Louisiana	Joshua Salley
Mississippi	Heather Jennings
North Carolina	Mackenzie Hall
Oklahoma	Kennedy McCall
South Carolina	Matthew Fischer
Texas	Tom Guthrie
Virginia	Daniel Frank

West

Utah	Reganne Briggs

EDUCATIONAL VIDEO RECORDINGS

National Winner

ON FARM RESEARCH: MRTN CALCULATOR

Rob Leeds
ANR Educator, Assistant Professor
The Ohio State University Extension
Delaware

Leeds, R[1], Smith, J[2], Hornyak, K[3], Cochran, R[4], Worthen, T[5], Leggett, R[6]

[1] ANR Educator, Assistant Professor, OSU Extension, Delaware, Ohio, 43015-1707
[2] ANR/4-H Educator, OSU Extension, Delaware, Ohio, 43015
[3] Program Coordinator, OSU Extension, Delaware, Ohio, 43015
[4] Water Quality, Extension Associate, OSU Extension, Paulding, Ohio, 45879-0087
[5] Student Intern, OSU Extension, Delaware, Ohio, 43015
[6] Program Assistant, OSU Extension , Delaware, Ohio, 43015

The team, consisting of Rob Leeds (Editor/Director), Jacci Smith (Editor/Director/ Script Writer), Kate Hornyak (Editor/Coordinator), Rachel Cochran (Featured Educator), Trey Worthen (Editor/Director), and Rachel Leggett (Editor), from Delaware County, Ohio, embarked on a project to create an effective delivery method for on-farm research information, focusing on MRTN (Maximum Return to Nitrogen) nitrogen rates and economics. Recognizing the target audience's preference for multiple formats of research information, the video aimed to highlight the eFields bulletin and the collaborative relationship between farmers and Extension Educators. The purpose of the video was to provide farmers with an alternative source of research information, showcase eFields on-farm research to encourage more trials and usage of the bulletin, as well as increase engagement during fertilizer applicator recertification meetings. Filming took place in the summer of 2024, with results collected and voiced in October 2024. The video was first shown at fertilizer applicator recertification meetings starting in December

2024 and was posted on YouTube on February 16, 2025. The project involved collaboration between educators and local farmers to discuss research trial and farming practices. The video was filmed, voice recorded, and edited to ensure clarity of the research and to heighten viewer engagement. To date, the video has been shown to 112 farmers at fertilizer applicator recertification meetings and has garnered 51 views on YouTube within its first 2.5 weeks online. Surveys conducted from 2019 to 2024 at fertilizer applicator recertification meetings revealed that 57.98% of participants were more likely to partner in research with OSU Extension, and 84.91% were more likely to use Extension as a resource after viewing the videos. This project exemplifies the innovative use of multimedia to enhance the dissemination of agricultural research and foster stronger connections between farmers and Extension educators. https://youtu.be/UsErd-_DXZ4

National Finalists

PRODUCE FOOD SAFETY SHORTS - HYGIENE

Patrick Byers
Commercial Horticulture Field Specialist
University of Missouri Extension
Marshfield

Byers, P[1]

[1] Commercial Horticulture Field Specialist, University of Missouri Extension, Marshfield, Missouri, 65706

While produce food safety outreach efforts in Missouri have effectively targeted commercial specialty crop producers subject to the FSMA Produce Safety Rule (PSR), resources for PSR-exempt small-scale farmers, community gardeners, and immigrant communities are lacking, especially in formats tailored to reach these groups. The video project "Produce Food Safety Shorts", developed to reach the above groups, was a 2024 collaboration of University of Missouri Extension produce food safety specialist Patrick Byers and Springfield Community Gardens (SCG) (nonprofit organization dedicated to local food production in Springfield MO), supported by funding from the USDA Food Safety Outreach Program. The video project includes 8 short training videos (3-6 minutes each) on key food safety topics as identified by the collaborating team. The target audience for the videos includes Chin immigrants (the project includes both English language videos and the same videos dubbed in Chin). The videos are a stand-alone resource and have been used as components in longer, more in-depth produce food safety trainings. The video selected for this award application is "Produce Food Safety Shorts – Hygiene", uploaded on 9 May 2024 to the SCG Resources YouTube channel at https://www.youtube.com/watch?v=OJHntnCwOlY&list=PLcRa29Jwaqujsi1DK5C7eSwvxzX8iLEpF&index=23. Patrick Byers had extensive input into the video project, including developing the concept list for the videos, the video storyboards, the shot lists, the scripts, and the resource packages for the shoots. Byers worked with videographer Harrison Palmer on the actual video shoots, which included site arrangements, preparation of props, and filming. Palmer edited the videos, and Byers reviewed all videos. All actors in the videos agreed to publication of their images, and the videos were close captioned for accessibility. The completed videos were posted to the SCG Resources YouTube channel at https://www.youtube.com/playlist?list=PLcRa29JwaquiUPZeYWSEoEUWVYzGlHaYo .

ENHANCING TURF TRAINING: INTEGRATING VIDEO AND PHOTOS TO IMPROVE HYDROSEEDING INSTRUCTION

Tom Butzler
Horticulture Educator
Penn State
Mill Hall

Butzler, T[1], Benner, R[2], Abbey, T[3], Feather, S[4], Barger, L[5]

[1] Horticulture Educator, , Mill Hall, Pennsylvania, 17751
[2] Extension Educator, Penn State Extension, Erie, Pennsylvania, 16510
[3] Extension Educator, Penn State Extension, York, Pennsylvania, 17402
[4] Extension Educator, Penn State, Pittsburgh, Pennsylvania, 15219
[5] Instructional Designer, Penn State University, University Park, Pennsylvania, 16802

Penn State Extension began developing a suite of online landscape workforce training courses in 2018 to address the industry's evolving training needs. This initiative resulted in the creation of 35 courses, completed in 2022, through collaboration with extension educators and university faculty. These self-paced courses provide instruction in key areas such as pruning, plant biology, taxonomy, and pest and disease management. Designed for professional development and new-hire onboarding, they incorporate educational videos, images, short readings, and knowledge-check questions. Participants have access to the courses for one year after registering. All are approved for Pennsylvania-Certified Horticulturist continuing education credits and some for Pennsylvania pesticide applicator recertification credits.

Developed by the Penn State Extension Green Industry Team, the courses were structured with entry, intermediate, and advanced learning levels to ensure accessibility for a diverse workforce.

As part of ongoing course enhancements, Penn State Extension focused on improving two turf offerings: Turfgrass Installation and Maintenance and Employee Landscape Training: New Lawn Establishment. A key objective was upgrading the hydroseeding content. Instead of relying on still images to explain the process, the team sought to incorporate dynamic video content to provide a more engaging learning experience. To achieve this, a field visit was coordinated with Scott's Landscaping—now part of Ruppert Landscape LLC—in the fall of 2023 to document the complete hydroseeding process, from material mixing and loading to on-site application. The recorded footage and images were reviewed over the winter months to develop an accurate and detailed script aligned with the visuals. In the summer of 2024, a professional recording session was conducted to produce high-quality narration, ensuring an entertaining and informative learning experience for course participants (https://youtu.be/3X1siA9FQn0).

Over the past year, 61 individuals participated in the two courses. When surveyed and evaluated, knowledge ratings improved overall, with the average score increasing from 5.5 to 6.7. Reasons for taking the training ranged from self-improvement to staying current in the business to fulfilling job requirements. One participant commented, "Covered topics well and very informative," highlighting the program's effectiveness in delivering valuable content.

POMEGRANATES: HOW AND WHEN TO PICK

Benjamin Scow
Extension Assistant Professor
USU Extension
Hurricane

Scow, B[1]

[1]Extension Assistant Professor, , Hurricane, Utah, 84737

https://www.youtube.com/watch?v=o_0SgQa1eOs&t=39s

This video provides a detailed guide on harvesting pomegranates to ensure optimal fruit quality and tree health. Identifying ripeness is crucial with this crop, and key indicators that need to be considered include color, shape, and skin texture. A ripe pomegranate typically exhibits a deep, rich color, varying from red to reddish-brown, depending on the variety. As the fruit matures, its shape transitions from round to slightly squared with flattened sides. The skin also becomes smoother and may feel slightly soft when gently pressed. These methods can be used while the pomegranate is on the tree or when in the store to determine optimum quality.
When harvesting, it is recommended to use pruning shears to cut the fruit from the tree, leaving a short stem attached. This method minimizes damage to both the fruit and the tree. Handling pomegranates gently is essential to prevent bruising, which can lead to spoilage. After harvesting, proper storage is necessary to maintain quality. Pomegranates should be stored in a cool, dry place, where they can last several weeks under the right conditions. They can be consumed fresh, juiced, or used in various culinary dishes. By following these guidelines, gardeners can effectively harvest pomegranates, and ensure high-quality fruit while maintaining the health of their trees.

Regional Winners

HPAI NASAL SWAB SAMPLING INSTRUCTIONAL VIDEO

Cora Okkema
Michigan State University
Big Rapids

Okkema, C[1]

[1] Big Rapids, Michigan, 49307

Following the detection of Highly Pathogenic Avian Influenza (H5N1) in a Michigan dairy herd in March 2024, Michigan State University Extension mobilized a team to support dairy producers and livestock owners potentially impacted by the outbreak. In response, the Michigan Department of Agriculture and Rural Development (MDARD) issued an HPAI Risk Reduction Response Order and an Extraordinary Emergency Amendment, mandating testing for livestock exhibitions. A subcommittee of the Animal Disease Response Team focused on assisting 4-H exhibitors, collaborating with the MSU Veterinary Diagnostic Laboratory to develop Nasal Swab Sampling Kits. These kits, totaling 150, allowed exhibitors to collect and submit nasal swab samples from their cattle for testing at no cost, ensuring compliance with regulations while safeguarding Michigan's animal agriculture industry. Recognizing that many exhibitors had never performed a sterile nasal swab on cattle, Cora Okkema produced an instructional video to guide them through the process, which was posted July 29th, 2024. The video provides clear, step-by-step instructions to help exhibitors confidently and correctly collect samples, reducing errors and increasing participation in testing efforts. By making this resource widely accessible, the

initiative empowers youth exhibitors to play an active role in disease prevention and reinforces the importance of biosecurity in livestock management. This educational video serves as a critical tool in supporting livestock exhibitors, enhancing disease preparedness, and contributing to the overall health and safety of Michigan's dairy industry.
URL link: https://mediaspace.msu.edu/media/HPAI%20Nasal%20Swab%20Sampling%20Instructional%20Video%20by%20MSU%20Extension/1_7rgnna41

DISCOVERING CAREER PATHS AT THE BIG E: INSPIRING THE NEXT GENERATION IN AGRICULTURE AND STEM

Stacey Stearns
Educational Program Administrator
University of Connecticut
Storrs

Stearns, S[1], Burr, B[2], Cushman, J[3], Zaritheny, M[4], Syrotiak, M[5], Hovagimian, E[6], Cassidy, G[7]

[1] Educational Program Administrator, Storrs, Connecticut, 06269-4134
[2] Assistant Director & Department Head, Storrs, Connecticut, 06269
[3] State 4-H Program Leader, Farmington, Connecticut
[4] Videographer, Mike Zaritheny Productions, Mansfield Center, Connecticut
[5] State 4-H Program Coordinator, University of Connecticut, Storrs, Connecticut
[6] Director of Agriculture and Education, Eastern States Exposition
[7] President and CEO, Eastern States Exposition

The Discovering Career Paths at The Big E video highlights diverse career opportunities in agriculture, STEM, and education through 4-H and fairs like The Big E (Eastern States Exposition). Created as an educational resource, the video aims to inspire youth to explore career paths by showcasing real-world applications of 4-H and agricultural education.

Objectives
This project was designed to:
Raise awareness of career opportunities in agriculture, STEM, and education through fair participation.
Demonstrate 4-H's role in professional development and workforce readiness.
Provide an engaging, inspirational tool for youth exploring career options.

Methods
Produced in partnership with UConn Extension, The Big E, and Mike Zaritheny Productions, the video uses a storytelling approach with interviews, hands-on activity footage, and expert insights. High-quality visuals, professional audio, and subtitles ensure accessibility.
The video was distributed via YouTube, social media, and UConn Extension events, with plans for continued use at the 2025 Big E.

Target Audience
Youth in 4-H and agricultural education programs
Educators, parents, and guardians
Industry professionals looking to inspire future leaders
Fair attendees

Reach and Impact
The 2024 Big E drew 1,633,935 attendees, with UConn 4-H engaging approximately 22,000 youth and families. The video gained strong engagement across platforms:
YouTube: 1.8 hours watch time, 2:10 min average view duration.
Instagram: 846 views, 38 reactions, 6 shares, 70% female audience (ages 18–24).
Facebook: 1,131 views, 854 reached, 4:21 hours watch time, 53 reactions/comments.

The video was completed after the fair, and will be shared leading up to and at this year's fair, increasing its reach and impact. Additionally, anecdotal evidence indicates increased awareness of agricultural careers among youth, with educators and parents reporting a clearer understanding of workforce readiness opportunities.
By emphasizing skill-building, leadership, and career exploration, Discovering Career Paths at The Big E supports UConn Extension's mission to educate and empower youth, ensuring long-term impact in agricultural workforce development.
Video Link: https://youtu.be/LNsVGI8pCi0?si=HTKLF8jB9coLNEiM

RU READY TO FARM - "AS AMERICA'S FARMING POPULATION AGES, A NEW PROGRAM LOOKS TO CULTIVATE ITS NEXT GENERATION" CBS NEWS "EYE ON AMERICA'

William Hlubik
County Agent 1, Professor
Rutgers Cooperative Extension
North Brunswick

Hlubik, W[1], Errickson , W[2], Polanin , N[3], Muelbauer , M[4], Styles , T[5], Eberly, L[6]

[1] County Agent 1, Professor, member , North Brunswick, New Jersey, 08902
[2] County Agent, member , Freehold, New Jersey, 07726
[3] ANR Department Chair, member , New Brunswick , 08901
[4] Agricultural Agent , member , Flemington, New Jersey, 08822
[5] Program Coordinator , , North Brunswick, New Jersey, 08902
[6] Program Coordinator, , North Brunswick, New Jersey, 08902

Our RU Ready to Farm team at Rutgers Cooperative Extension was interviewed by CBS World News Tonight's Meg Oliver for an 'Eye on America' Segment regarding the ageing of America's farm population. The average age of farmers in New Jersey and across the United States is approaching 60 years old and there is a tremendous need to foster and train the next generation of farmers. As a result of this need, the USDA NIFA created the beginning farmer and rancher development program with details at https://www.nifa.usda.gov/grants/programs/beginning-farmer-rancher-development-program-bfrdp Agricultural Agent and Program Director/ Principal Investigator and NACAA member Bill Hlubik was interviewed by Meg Oliver along with program participant Christina Couch from PURA farms during the spring of 2024. Agent Bill Hlubik and Christina Couch and the entire RU Ready to Farm team helped to review questions and create responses for the national interview. The segment was filmed and produced by the CBS team under the supervision of their producer Betty Chin. Agent Bill Hlubik described the RU Ready to Farm program and participant Christina Couch described how the program prepared her to start farming and selling her products to a local restaurant. As a result of the 3:28 minute segment airing on CBS World News Tonight on August 1, 2024 and released to all nation wide affiliates, the segment was viewed by over 4 million viewers. After airing the RU Ready to farm program received hundreds of inquiries and went from a program waiting list of 70 to over 550 people now waiting to participate in the program. The CBS team reviewed questions and program outline with our team. The CBS producer Betty Chin and production team used digital video recording and editing equipment to produce the 3 minute and 28 second video that can be found at https://www.cbsnews.com/news/u-s-farming-population-ages-beginner-farmer-training-program-new-jersey-rutgers/

HOW TO PLANT BARE ROOT TREES

Krista Quinn
County Extension Agent
University of Arkansas
Conway

Quinn, K[1], Aaron, B[2]

[1] County Extension Agent, University of Arkansas System Division of Agriculture, Conway, Arkansas, 72034
[2] Video Production Specialist, University of Arkansas System Division of Agriculture, Little Rock, AR, Arkansas, 72204

Many non-profit organizations and state agencies give away bare root seedling trees in the spring to increase canopy cover in cities and towns. However, gardeners and landowners often have little or no experience planting bare root trees. The purpose of this video is to discuss the pros and cons of bare root trees and demonstrate the proper way to plant them. Some tips for caring for trees after planting are also provided. County Extension Agent, Krista Quinn, developed the content for the video. Extension Video Production Specialist, Benjamin Aaron, filmed and edited the video. The video was posted on the Arkansas Division of Agriculture YouTube channel in May 2024. As of February 2025, it has 696 views. The video can be viewed on YouTube at https://www.youtube.com/watch?v=O8N5VFb-ogI .

WHAT TO EXPECT IN THE LANDSCAPE, PEAR RUST AND BRANCH DIEBACK

Jennifer Olson
Extension Specialist Entomology Plant Pathology
Oklahoma State University
Stillwater

Olson, J[1], Hentges, C[2], Farris, D[3], Schmidt , J[4], Singleton, B[5]

[1] Extension Specialist, Oklahoma State University, Stillwater, Oklahoma, 74078
[2] OKG Host, Extension Specialist, Oklahoma State University, Stillwater, Oklahoma, 74078
[3] OKG Videographer, Oklahoma State University, Stillwater, Oklahoma, 74078
[4] OKG Video Editor, Oklahoma State University, Stillwater, Oklahoma, 74078
[5] OKG Field Producer, Oklahoma State University, Stillwater, Oklahoma, 74078

This segment from Oklahoma Gardening, a show on OETA (PBS) that provides researched-based horticultural information for home gardeners. In this segment, Jennifer Olson provides tips about what problems to expect in the landscape in late spring-early summer. It is difficult to predict which insects will be a problem each year, but if a certain insect was a problem in the past (aphids, bagworms), they are likely to reoccur. It is suggested to start scouting about 1 month before you noticed the problem in the previous season. Pear rust is one of the most common landscape diseases in Oklahoma. Symptoms, the disease life cycle, and management strategies are discussed. Many trees have individual branches that are dying or dead, mostly due to weather related injuries. If dead or dying wood is left in the tree, secondary problems may develop. This process of decline is explained and the primary management strategy (pruning) is demonstrated.

This segment content was prepared by Jennifer Olson and the production support (planning, site location, filming, editing) was supplied by the Oklahoma Gardening Team at Oklahoma State University. The goal of the project was to increase awareness about common pest and disease problems in the landscape and provide management information to home gardeners. Oklahoma Gardening is shown on OETA each week with 170,000 viewers, so a large number of Oklahomans were informed about these landscape pests and diseases. This segment aired live on June 15, 2024 and was part of a 30 minute show. There are 136K subscribers to the Oklahoma Gardening YouTube channel (https://www.youtube.com/watch?v=t9DHHchYg98) and this segment has had 186 views since June 17, 2024.

VIRGINIA GROWN TURF/SOD

Michael Parrish
Senior Extension Agent, Crop and Soil Sciences
Virginia Cooperative Extension
Dinwiddie

Parrish, M[1], Scott, T[2]

[1] Senior Extension Agent, Crop and Soil Sciences, , Dinwiddie, Virginia, 23841-0399
[2] Agriculture Extension Agent, Virginia Cooperative Extension, Rustburg, Virginia, 24588

The Virginia Grown Turf/Sod video was produced to highlight Virginia's Turf Grass industry at the 2024 Virginia State Fair in the Virginia Cooperative Extension Exhibit. The video explains the major steps for producing quality sod for Virginia's golf course and landscaping industries. Video production started in the spring of 2024, and visits were made to Bass Sod Farm to capture the important production steps throughout the growing season. The footage that was collected captures production activities from sod farm selection and seeding to sod harvest and installation. Virginia Grown Turf/Sod video was featured within the Virginia Cooperative Extension Exhibit at the State Fair along with a few other educational videos. The intention was to educate state fair attendees on Virginia's diverse agriculture industry. The Exhibit was on display for ten days and during that time, approximately 35,000 people visited the booth. The video was presented on a large monitor and a QR Code was also posted for visitors to view the video on their smart phones at their convenience. The Virginia Grown Turf/Sod video was also featured during several local county fairs and in High School agriculture classes as well as home school education. This video can also be found on The Desktop Farm Day Site, two YouTube channels, and numerous Extension Facebook pages. It is currently being utilized by educators during face-to-face classroom and virtual classroom activities. The production of this video was conducted by the listed Extension Agent, and filming was done on-site at the Bass Sod Farm in Glade, Virginia. The equipment used to capture the footage included a Canon XA15 HD Camera, a DJI Mavic Mini 4 drone, and a GoPro Hero portable camera. The editing software was Adobe Premier Elements 2024.
YouTube Link: https://youtu.be/esDCPeeLBww

BASIC EQUINE REPRODUCTION - NEWBORN CARE

Scott Stinnett
Area Extension Specialist
Colorado State University
Burlington

Stinnett, S[1]

[1] Area Extension Specialist, , Burlington, Colorado, 80807

The Colorado 4-H Horse Work Team produces annual educational webinars on equine subjects. I produced a video on Basic Equine Reproduction for the webinar series. One focus of the video was on newborn foal care and management. On April 24, 2024, during the evening webinar, there were 12 live participants and once recorded and available online, over 50 views have be documented. Full video can be viewed at https://vimeo.com/939607105?share=copy. Section for consideration begins at 1:15:54 and ends at 1:28:15.

MAKING SELECTION AND CULLING DECISIONS FOR YOUR HERD AND FLOCK

Carmen Willmore
Extension Educator Livestock & 4-H
University of Idaho Extension
Blackfoot

Willmore, C[1], Ellison, M[2]

[1] Extension Educator Livestock & 4-H, University of Idaho, Blackfoot, Idaho, 83221
[2] Extension Sheep Specialist, University of Idaho, Carmen , Idaho, 83462

The presentation titled "Making Selection and Culling Decisions for your Herd and Flock" was presented by a duo of extension educator and specialist live on Zoom on July 2024 to an international audience interested in learning management decisions to aid in their selection and culling decisions for their herds of sheep and/or goats. The target audience is sheep and goat producers of all production sizes and reaches an international audience through both our live Zoom webinars as well as our YouTube channel where this video was uploaded following the live presentation. The purpose of this presentation is to discuss selection criteria for which animals should be retained to add to the profitability of the viewers' operations. In addition, there is a lengthy discussion on how to determine what animals should be culled from an operation and the reasoning why. The speaker uses multiple real-world examples to describe causes for culling animals depending on their individual performance and how that impacts an operation's profitability. Throughout the presentation the presenter gives specific cases where physical attributes of the animal are cause for culling and gives good examples of animal comparisons to aid in livestock producer decisions. This presentation was presented to a live audience on July 10, 2024, via Zoom webinar and was later uploaded to University of Idaho Extension Livestock YouTube Channel on August 28, 2024. This presentation was viewed live by over 90 online participants and later was used by over 150 individuals on YouTube to enhance their knowledge on culling and selection practices for sheep and goats. The section of the video that should be viewed for judging starts at 25:40 and ends at 40:00.
Video URL - https://www.youtube.com/watch?v=lx3YJwVBXIk

State Winners

North Central

Illinois	Chris Enroth
Kansas	Adaven Rohling
Wisconsin	Heather Schlesser

Northeast

Maine	Colt Knight

Southern

Alabama	Jennifer Davidson
Florida	Tiare Silvasy
Georgia	Robyn Stewart
Kentucky	Joanna Coles
Louisiana	William Afton
Mississippi	Eddie Smith
North Carolina	Leslie Rose
South Carolina	Carmen Ketron
Tennessee	Celeste Scott

FACT SHEET

National Winner

LET 'EM GROW: SCALLOPING BEST PRACTICES

Brittany Scharf
Marine Agent
UF/IFAS Extension
Brooksville

Scharf, B[1], Blanco, V[2]

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"Let 'Em Grow: Scalloping Best Practices" is an educational publication designed to promote sustainable bay scallop harvesting along Florida's Gulf Coast. Available in both digital and print formats, this resource provides recreational scallopers with clear, step-by-step instructions on how to replicate and use the scallop sorter tool in the field. Once abundant in Florida's waters, bay scallop populations now face threats from habitat loss, harmful algal blooms, and overharvesting. While state wildlife officials enforce bag limits, seasonal restrictions, and designated harvesting zones, concerns remain among stakeholders regarding fishery management practices. The derby-style nature of the fishery, variability in scallop sizes, and confusion over bag measurement methods have all been cited as challenges that impact sustainability. To address these concerns, Florida Sea Grant Agents developed the scallop sorter tool alongside an educational campaign to promote responsible scalloping. Secured funding allowed for the production and distribution of over 4,000 scallop sorter tools, which were provided to fishery participants at launch points, marinas, charter operations, and fishing clubs. However, given the vast geographic scope of the fishery and the number of participants traveling from across the region, direct distribution to all scallopers remains a challenge. This short publication was created to complement these efforts by offering a DIY solution, guiding participants in crafting their own scallop sorter using readily available materials. The digital version was viewed 411 times during the 2024 season. By providing an opportunity to customize their own tool, the publication encourages additional stakeholders to adopt the voluntary best practice of selecting larger scallops and returning undersized ones to support future populations.

National Finalists

HAND POLLINATION OF PAWPAW FLOWERS TO INCREASE FRUIT-SET

Ann Chanon
Extension Educator, ANR
Painesville

Chanon, A[1]

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There has been increased interest in pawpaw (Asimina triloba) as both a niche orchard crop as well as a way for landowners to increase income from their woodlands. While trees may produce an abundance of flowers, plants are highly variable in their fruit set. The technique of hand pollination has been demonstrated to increase fruit set over natural pollination. The objective of this factsheet was to provide growers with information on the biology of pawpaw flowers as well as practical instructions on how to collect pollen and the method of pollination. It was distributed during the orchard tour at the Ohio Pawpaw Conference and Trade Show on May 18, 2024. Sarah Francino, a graduate student in the Environmental Science Graduate Program, and I demonstrated the pollen collection and pollination techniques during the tour. A paper copy of the factsheet was provided to each attendee. There were 106 participants in the event, and the audience was quite broad in scope, including professional orchard producers, woodland owners, and members of the general public who are pawpaw enthusiasts. Participants indicated an increase in knowledge and expressed appreciation for having a guide they could take with them for reference. I wrote the factsheet using information collected over the past two growing seasons, along with images to illustrate flower development. I used an approved template, and the factsheet was reviewed for compliance with branding guidelines through the College of Food, Agricultural, and Environmental Sciences at The Ohio State University. The copies were made at the Lake County Extension office.
Policy Brief - How the 2024 Farm Bill Can Support Wildfire

PREPAREDNESS AND RECOVERY

Tracy Schohr
Livestock and Natural Resources Advisor
University of California
Quincy

Schohr, T[1], Roche , L[2], Pinzón Jiménez, N[3]

[1] Livestock and Natural Resources Advisor, Quincy, California, 95971
[2] Cooperative Extension Specialist in Rangeland Management, University of California, Davis, Davis, California, 95616
[3] Postdoctoral Scholar, UC Davis Founder, Farmer Campus, University of California, Davis, Davis, California, 95616

Research can be essential to policy-making, as it offers data-driven insights that inform decision-making. The objective of this fact sheet is to provide a concise document for policymakers and stakeholders with clear, actionable recommendations for the next federal Farm Bill. This fact sheet summarizes research findings from a survey of farmers and ranchers impacted by Wildfires. It includes background information, evidence-based recommendations for future federal policies. The purpose of the fact sheet is to help guide Congress's development of the next Farm Bill to better support the recovery and resiliency to wildfire impacts to farmers and ranchers. NACAA member Tracy Schohr was responsible for layout and design of the fact sheet; outreach and distribution; and the lead author. Schohr, specifically was responsible for developing the section "2024 Farm Bill can Support Wildfire Preparedness and Recovery". The research project that supported the baseline data was led by Dr. Natalia Pinzón Jiménez, with survey design, survey outreach, and data interpretation support from Dr. Leslie Roche and Schohr. The survey has been broadly distributed to ranchers, community stakeholders, industry organizations and elected officials. The research team has had follow up directly from Congressional Offices and media. The policy brief findings have been published in industry trade publications such as the California Cattleman Magazine (February 2025 page 54 and November 2024 Page 27), Agri-Pulse news (November 6, 2024), and Western Farm Press (January 8, 2025). There has also been university extension on the research project, including the policy brief: University of California Agriculture and Natural Resources (January 2, 2025) and University of California, Davis (December 18, 2024). Schohr also presented the research project findings and policy brief during the statewide 2025 Rustici Rangeland Science Symposium that drew over 160 attendees who were ranchers, conservation organization leaders, university researchers and government agency staff. Schohr is hopeful with thousands of views of this policy brief, to have research to policy impact, with the next Farm Bill better serving wildfire-impacted ranchers from the team's research and extension efforts.

WHITE TOP (HOARY CRESS) CONTROL IN RESIDENTIAL AREAS

Taun Beddes
Horticulture Agent
UTAH STATE UNIVERSITY
Orem

Beddes, T[1], Caron, M[2], Hadfield, J[3], Ransom, C[4]

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[3] Agriculture Agent, USU Extension, Orem, Utah, 84097
[4] Extension Weed Specialist, USU Extension, Logan, Utah, 84322

There is often limited information available to property owners and professional landscape maintenance workers regarding weed control in residential areas, particularly for weeds that have recently become common in previously unaffected locations. However, information from fact sheets providing weed control guidance for agricultural settings is generally more accessible. These fact sheets do not translate well for residential use as the suggested herbicides are often not labeled for residential application, and other provided information may not be applicable. One example is white top (Lepidium draba). White top spreads rapidly through seeds and rhizomes, with a single plant producing between 1,200 and 4,800 seeds annually. Its roots can penetrate the soil from 12 to 30 feet deep, and one plant can extend several feet in all directions, generating dozens of new plants from its rhizomes. It quickly colonizes new construction sites and poses challenges in newly planted and established landscapes, swiftly spreading and outcompeting lawns, plants in landscape beds, and crops in vegetable gardens. In response, we researched and developed a factsheet for residential property owners and managers, focusing on readily available nonchemical and herbicide control options. The factsheet has been downloaded 82 times since June 2024, and several hundred copies were distributed at weed control meetings for green industry professionals. We will continue to create similar fact sheets for residential clients.

Regional Winners

SOIL COMPACTION IN UPPER MIDWESTERN CROP PRODUCTION

Gabrielle Bolwerk
Water Resources and Soil Health Educator
University of Minnesota
Cloquet

Bolwerk, G[1], DeJong-Hughes, J[2], Daigh, A[3]

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Soil compaction and the associated natural resource and agronomic issues that accompany it continue to be an issue in Upper Midwestern cropping systems. Compacted soils can lead to increased precipitation runoff, soil erosion, root growth restriction, and crop nutrient deficiencies. To inform audiences about soil compaction in cropping systems, Jodi DeJong-Hughes and Aaron Daigh created a 48-page publication, the Upper Midwest Soil Compaction Guide. Gabi Bolwerk (primary author, Carlton County, Minnesota) transformed this guide into a 2-page fact sheet targeted at a broader, more casual audience of farmers and agricultural advisors. Co-authors Jodi DeJong-Hughes and Aaron Daigh provided revisions. This fact sheet offers the audience simplified information on the causes, effects, diagnosis, and management of soil compaction. To improve accessibility to this broader audience, the fact sheet has a grade 8 readability score, which is in compliance with Web Content Accessibility Guidelines (WCAG 2.2). The University of Minnesota's University Digital Conservancy houses this fact sheet, and in its 5 months of publication has received 44 file views. In the future, the fact sheet will be distributed at soil health-related field days and conferences to amplify the message of healthy soil management.

USING COW BODY CONDITION SCORE TO MANAGE YOUR BEEF HERD

Brent Plugge
Extension Educator
University of Nebraska
Kearney

Plugge, B[1], Mulliniks, T[2], Rasby, R[3]
[1]Extension Educator, Nebraska Extension, Kearney, Nebraska, 68847
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[3] Professor and Extension Specialist, Nebraska Extension, Lincoln, Nebraska, 68583

Body Condition Score (BCS) describes the relative fatness or body condition of a cow using a nine-point system. A cow's BCS can be used to determine how effective the nutritional program is and if the ranches resources are a good match for the cow's requirements. In addition, the cow's BCS has a profound effect on reproduction and calf health. This front and back educational piece was developed to help beef cattle producers understand the importance of body condition scoring the cow herd and to help teach why to BCS, when to BCS and how to BCS beef cattle. A total of 5,000 sheets were printed. Within that total, 750 sheets were allocated to Livestock Systems Educators across the state for use in their local programming and individual consultation. This laminated sheet is also utilized in extension programming such as the Nebraska Ranch Practicum, Cow Clinics and the Midwest FEEDS Practicum as a teaching tool in the field and around the chute. In addition, these sheets have been a popular item at Extension booths during trades shows and conventions. Beef producers have stated that they value the clear and concise way the information was presented and in a form they can utilize in a variety of ranch settings. A total of 2,373 fact sheets have been distributed. When beef producers can successfully evaluate the BSC of their herds they can make more informed management decisions leading to healthier cows, stronger calves and more sustainable ranch operations.

INTRODUCTION TO GROWING COVER CROPS IN THE MID-ATLANTIC

Sarah Hirsh
Agent
University of Maryland
Princess Anne
Hirsh, S[1]

[1] Agent, University of Maryland Extension, Princess Anne, Maryland, 21853

Cover crops have many potential benefits to the land and the environment. The factsheet "Introduction to Growing Cover Crops in the Mid-Atlantic" was written for farmers, agricultural service providers, and others in the agriculture community in the Mid-Atlantic region. Cover cropping principles broadly apply to diverse farming systems, and the factsheet was intended to be relevant for all types and scales of farming operations. The purpose of the factsheet is to define cover crops, discuss potential cover crop purposes and benefits, and discuss cover crop species and management and the effect of cover crops on subsequent cash crops. University of Maryland Extension agent Sarah Hirsh wrote the factsheet and it went through the peer-review process. The factsheet was published on the University of Maryland website (https://extension.umd.edu/resource/introduction-growing-cover-crops-mid-atlantic-fs-2023-0692/) on April 15, 2024 and can be downloaded as a pdf. The factsheet is promoted and distributed at grower meetings and field days.

AVOID THESE PITFALLS WHEN GROWING A VALUE-ADDED AG BUSINESS

Sarah Cornelisse
Sr. Extension Program Specialist
Penn State Extension
University Park

Cornelisse, S[1]

[1] Sr. Extension Associate, , University Park, Pennsylvania, 16802

Farm-based value-added enterprises are often launched as a diversification strategy to increase and stabilize farm revenue. Typically, these value-added agricultural ventures start small and focus on a limited product line. For successful ventures, business owners may consider growing the business through product line expansion, adding market outlets - often in an expanded geographic area - or both. This factsheet briefly outlines several pitfalls that owners could fall victim to and provides reminders of fundamental business concepts to assist in navigating business growth. To highlight specific pitfalls, examples are shared using national brands that a broad audience of readers may be familiar with. Presenting scenarios from businesses that are unlike their own is intended to make it easier for readers to grasp the core concept. Sarah Cornelisse developed, wrote, and published the factsheet. The factsheet was published on the Penn State Extension website on March 6, 2024, using the organization's Plone content management system, which formats content using a standard template. The factsheet is available on Penn State Extension's website at https://extension.psu.edu/avoid-these-pitfalls-when-growing-a-value-added-ag-business and can be printed or shared via social media.

PLANT SCIENCE PROJECTS FOR 4-H AND YOUTH

Bill Burdine
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Mississippi State University
Houston

Burdine, B[1]

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Agronomy graduates from Mississippi State University have a 100% employment rate within six months of graduation. This shows a supply and demand shortage of incoming row crop professionals to service agricultural needs in the Mid-South. The main objective of this new set of youth projects is to recruit talented young people for careers in agriculture. The fact sheet outlines several new projects available for youth participation between 10 to 18 years of age which should generate interest in plant sciences as well as all science disciplines. Objectives will be achieved via three projects: 1. Agronomy Day Camp, 2. Science Experiments, and 3. Agronomy Bowl. The Science Experiment contest had 101 youth participate in 2024. The fact sheet was developed solely by the lead author with minor formatting assistance provided by MSU Ag Communications Department. Ag Communications professionally printed 500 copies with grant funding provided by the MS Soybean Promotion Board. It is available as Print-On-Demand over the internet thus the total number of copies is unknown. Copies were distributed to all 82 counties in Mississippi and at numerous youth and adult functions across the state.

SCREENING AND BUFFERING WITH PLANTS

Paige Patterson
Extension Agent
NC Cooperative Extension
Boone

Patterson, P[1]

[1] Horticulture Extension Agent, NC State Cooperative Extension, Watauga County Center, Boone, North Carolina, 28607

Watauga County Extension Horticulture Agent serves consumer horticulture clients in the southern Appalachian Mountains. The county population is approximately 59,000 people, with over 20,000 students attending Appalachian State University in Boone. The town of Blowing Rock attracts summer residents, retirees and visitors. With increasing availability of high speed internet, more people living year round in Watauga County. Many residents live on small in town lots, or in gated communities.

One of the top 10 diagnostic questions asked, relates to the decline of plants used to create privacy from neighbors and unsightly views. Homeowners lack the knowledge to design a privacy planting, leading to several common mistakes. First is that a single straight row of the same evergreen plant are installed, where they are placed close together, for immediate effect. As time goes on, the plants begin to outcompete each other, or become diseased. A situation is created by this design where you cannot simply replace a plant and have the same effect. A second mistake is selecting the wrong type of plants. A classic example is the use of the Colorado Blue Spruce, which is susceptible to needle cast diseases when grown in the southeastern environment. In response to these common mistakes, The Horticulture Agent and Extension Master Gardeners worked together to create a factsheet to guide homeowners in the selection and placement of plants to create a privacy planting that will be attractive, diverse, and long-lived.

A 4-page factsheet was created, and has been distributed in the front office, at tables at events, through our online "Ask a Master Gardener email," and used in classes. Over 250 copies have been distributed. The first page gives an overview of concepts such as framing views, massing, and using diverse sizes, shapes and textures. The second page gives a plan view and an elevation view of a privacy planting. Letters correspond with attached plant lists, allowing clients to select and place diverse plants of their choosing. Links and QR Code for the NC State Plant Database allow for more detailed research.

HIGHLY PATHOGENIC AVIAN INFLUENZA

Susann Mikkelson
Agricultural/4-H Extension Agent
NMSU
Santa Rosa

Mikkelson, S[1]

[1] Agricultural/4-H Extension Agent, NMSU Cooperative Extension Service - Guadalupe County, Santa Rosa, New Mexico, 88435

For several years, the NMSU Guadalupe County Extension Office has provided a monthly educational article entitled "Did You Know?", sponsored by the Singleton Ranches Foundation, in The Communicator, the newspaper that serves Guadalupe County, New Mexico. This article covers a variety of educational topics determined by the Cooperative Extension Agent. Topics chosen may be timely, in relation to current affairs, may be in conjunction to other Extension programming, and/or may be related to requests from constituents or needs otherwise identified by the Extension Agent.

The May 2024 article highlighted the growing concern over the Highly Pahtogenic Avian Influenza, which had just hit New Mexico and had closed down our one commercial hatchery, in a neighboring county to Guadalupe County. It was also impacting our dairy industry at an alarming rate in a very short time period. There was uncertainty and growing concern. The Extension Office has continued to provide information regarding this virus.

The publication the printed this factual article reaches approximately 2,500 subscribers, and an estimated 3,000 readers.

State Winners

North Central

Illinois	Ken Johnson
Kansas	Richard Fechter
Missouri	Donna Aufdenberg
North Dakota	Breana Kiser
South Dakota	Madalyn Shires
Wisconsin	Kim Kester

Southern

Alabama	Rishi Prasad
Georgia	Carsen Dean
Kentucky	Jason Vaughn
Louisiana	Jeremy Hebert
Oklahoma	Josh Campbell

South Carolina	Barbara H Smith
Tennessee	Jason de Koff
Texas	Jordan Voges

West

Arizona	Betsy Greene

PUBLICATION

National Winner

BASICS OF SURVEY REFERENCE MANUAL

Chris Canfield
Extension Educator
Penn State University
Lewisburg

Canfield, C[1], Tomlinson, J[2], Christ, G[3]

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[2] Extension Educator, Penn State University, University Park, Pennsylvania, 16802
[3] Extension Educator, Penn State University, University Park, Pennsylvania, 16802

Basics of Surveying Reference Manual is a foundational resource for conservation professionals and students who need essential surveying skills for environmental and land stewardship projects. This guide explains basic surveying techniques used to assess landscapes, support sustainable land management, and take accurate measurements for installing agricultural best management practices to address resource concerns.

The reference manual will be distributed to thirty participants at our 2nd Annual Ag-Con Conference in April. The reference manual has been utilized to train five extension educators and three state conservation commission staff in June of 2024. Two hundred copies were printed for distribution to conservation district staff as needed. Chris Canfield authored the manual, with assistance from Jacob Tomlinson and Genevieve Christ, during editing and revision. Penn State Creative Services provided the final layout and first copies. The Pennsylvania Agricultural Conservation Assistance Program provided funding for this publication through the Pennsylvania State Conservation Commission.

With step-by-step instructions, simple diagrams, and real-world conservation examples, the guide covers key topics such as measuring land elevations and determining slopes. It introduces essential tools such as the laser level, stadia rod, clinometer, and hand sight level, helping users collect accurate field data for conservation planning, erosion control, and habitat restoration.

By breaking down surveying concepts into practical, hands-on applications, this guide ensures that precise measurements and reliable data support conservation efforts. Its contribution to conservation education and fieldwork makes it a strong candidate for this award, recognizing its role in promoting sustainable land management and environmental protection.

National Finalists

CLIMATE CHANGE IMPACTS ON OHIO AGRICULTURE

Aaron Wilson
Assistant Professor and Field Specialist
Ohio State University
Columbus

Wilson, A[1], Brown, C[2], Beers, L[3], McMichael, R[4], Bendorf, J[5], Baule, W[6], Nowatzke, L[7], Andresen, J[8], Todey, D[9]

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[2] Educator, Agriculture and Natural Resources, The Ohio State University, Lancaster, Ohio, 43130
[3] Assistant Professor, Extension Educator, Agriculture and Natural Resources, The Ohio State University, Cortland, Ohio, 44410
[4] Educator, Agriculture and Natural Resources, The Ohio State University, Celina, Ohio, 45822
[5] Climate Outreach Coordinator, USDA Midwest Climate Hub, Ames, Iowa, 50011
[6] Research Assistant Professor, Texas A&M University, College Station, Texas, 77840
[7] Associate Director & Science Coordinator, USDA Midwest Climate Hub, Ames, Iowa, 50011
[8] Professor, Michigan State University, Lansing, Michigan, 48824
[9] Director, USDA Midwest Climate Hub, Ames, Iowa, 50011

In collaboration with the USDA Midwest Climate Hub (MCH) and Great Lakes Integrated Science and Assessment (GLISA; Now CAP/RISA), this bulletin describes how Ohio's climate has changed the last few decades. It illustrates how these changes in precipitation, growing season length, and temperature have impacted agriculture. The information in this publication targets agricultural and natural resource managers, enabling them to make science-based, region-specific, climate-informed decisions within their operations. Like other regions in the United

States, agricultural productivity in Ohio is vulnerable to weather and climate variability. In recent decades, changes in Ohio's climate, including rising temperatures and increased precipitation variability have emerged, with continued changes expected in the future. These climate changes are already impacting the agricultural and forestry sectors, not only in physical and direct impacts to farms and forestlands, but also through indirect impacts to the overall cultural, social, and economic resilience of Ohio's communities. The purposes of this publication are to describe how Ohio's climate has changed over the last few decades, provide data that illustrate how these changes have impacted agricultural and natural resource operations and production, explain how operations can adapt to climate change and prepare for future changes that are forecasted, and provide a list of Ohio climate change resources and extension programs available to assist agronomic and natural resource audiences. The lead author, A. Wilson worked closely with USDA MCH and GLISA to structure the framework of this document as part of a series of climate assessments for Midwestern states. The Ohio State University Extension team (Wilson, Brown, Beers, and McMicheal) wrote content on the climate changes, impacts, and adaptation strategies of each section and secured the figures and pictures. The USDA MCH published this bulletin on their website, and they are responsible for the peer-review process, final design, and website maintenance. The publication is available for viewing and download and may be accessed at https://www.climatehubs.usda.gov/hubs/midwest/topic/assessing-impacts-climate-change-midwest-agriculture. Due to recent federal agency cuts including the USDA, impact statistics are currently inaccessible.

FORAGES FOR HORSES | SPECIAL EDITION OF THE LEADING REIN

Robyn Stewart
County Extension Coordinator
University of Georgia
Lincolnton

Stewart, R[1], was, B[2], Duberstein, K[3], Best, A[4]

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[2] County Extension Coordinator, University of Georgia, Zebulon, Georgia, 30295
[3] Professor, Equine Science, University of Georgia, Athens, Georgia, 30607
[4] County Extension Coordinator, University of Georgia, Covington, Georgia, 30017

In 2023, the U.S. was home to 6.65 million horses, with the equine industry providing over 2.2 million jobs and $177 billion in economic impact (2023 Economic Impact Study of the U.S. Horse Industry, 2023). Research consistently shows that horse owners are highly engaged in seeking information on best management practices, preferring sources that provide accurate, research-based, and practical guidance. However, many struggle to find reliable, easily accessible resources that address their specific needs, particularly regarding forage management. To bridge this gap, the authors developed a 15-page special edition of The Leading Rein focused on equine forage management. This issue provides horse owners with timely, research-backed information on key forage topics, including hay testing, common hay types, extending the grazing season, and frequently asked questions related to forage selection and feeding strategies. The goal of this publication is to enhance horse owners' understanding of forage production and improve the nutritional management of their horses. The publication was written in Word, formatted in Canva, and published as a .pdf file. It underwent an internal peer review process with contributions from UGA Extension equine specialists and county agents. The special edition was shared with over 7,000 individuals, including participants in the 2024 Equine Exchange program, subscribers of The Leading Rein mailing list, and visitors to the Elevated Equine website.

OBTAINING UPC BARCODES FOR SALES OF VALUE-ADDED AGRICULTURAL PRODUCTS

Alaina Boyd
Extension Assistant
University of Tennessee
Columbia

Leffew, M[1], Boyd, A[2]

[1] Extension Specialist, University of Tennessee Extension, Columbia, Tennessee, 38401
[2] Extension Assistant, University of Tennessee Extension, Columbia, Tennessee, 38401

As of 2022, the estimated economic impact of agricultural sales to food hubs and retail markets in Tennessee is approximately $60.2 million. Many of the value-added agriculture entrepreneurs and direct farm marketers who contribute to this economic impact in Tennessee by engaging in the wholesale of products for resale through distributors, brokers and retail stores are required to have unique Universal Product Codes (UPCs), also referred to as UPC barcodes, to identify their products once on the shelf. In light of the need for UPC barcodes by producers selling to wholesale and retail markets, University of Tennessee Extension specialist Megan

Bruch Leffew and Extension assistant Alaina Boyd worked together to produce the recent publication, "Obtaining UPC Barcodes for Sales of Value-Added Agricultural Products (PB 1926)". This educational publication is intended to address common questions from value-added entrepreneurs concerning how to purchase and obtain UPC barcodes, as well as considerations for how many UPC barcodes are necessary for individual producers. Leffew and Boyd worked to refresh material previously sourced for an outdated publication on obtaining UPC codes. New information on the updated process for obtaining UPC barcodes and licensing considerations from GS1 was compiled by Boyd. Boyd also worked directly with value-added producers via farm visits to photograph and showcase real agricultural product photos in the publication. The publication's cover image was photographed by Boyd. This publication was initially available in digital format only, with print copies becoming available after initial release. Hard copies are available at the UT Center for Profitable Agriculture and were provided to all ninety-five county Extension offices across the state.

Regional Winners

BALSAM WOOLLY ADELGID IN MICHIGAN

William Lindberg
Extension Educator
Fremont

Lindberg, W[1]

[1] Extension Educator, , West Olive, Michigan, 49460

Balsam woolly adelgid (BWA) is an invasive insect that has caused widespread damage to fir species in several regions of the United States. BWA has not yet become established in Michigan. However, in the fall of 2023 several locations In Michigan were found with infestations of this pest. If BWA spreads in the State it could cause significant losses for Christmas tree producers. In the spring of 2024, an extension bulletin was created to educate Christmas tree farmers about BWA and management steps growers can take to mitigate and prevent BWA spread. The intended audience for this document is Christmas tree growers throughout Michgan. Bill Lindberg was a co-author of the document and worked to distribute this information to Christmas tree growers. The bulletin was published on the Michigan State University BWA website (5/28/24) and to date (1/13/2025) has 935 views.

USING LIVESTOCK TO PROMOTE BIODIVERSITY ON RANGELANDS

Jaelyn Whaley
Sturgis

Whaley, J[1], Wheeler, K[2]

[1] Sheep Field Specialist, South Dakota State University, Lemmon, South Dakota, 57638
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Rangelands are an invaluable resource that relies on a variety of plants, animals, and insects to remain resilient and healthy. Written collaboratively by Sheep Field Specialist, Jaelyn Whaley and Range Field Specialist, Kaylee Wheeler, this publication was written for anyone interested in rangeland health including livestock producers, soil scientists, and rangeland specialists. This variety of life on rangeland and pastures is incredibly valuable to grassland ecosystems for many reasons related to resiliency, soil health, carbon capture, pollinators, livestock nutrition, and more. Multi-species grazing in particular has a direct impact on biodiversity in a pasture based on what is grazed, when it is grazed, and how long it is grazed. Livestock and wildlife have developed unique grazing behaviors to reduce competition for plant species. These unique forage preferences allow species like sheep and goats to be used when wanting to reduce unwanted, often invasive plant species like leafy spurge, eastern red cedar, and cool season invasive grasses (i.e., Kentucky bluegrass and crested wheatgrass). Diversifying the livestock species on an operation also mitigates risk, improves cashflow, and increases the return per acre. Promoting biodiversity on rangeland provides both economic and environmental sustainability. Multimodal distribution was used to share this publication. It was published on the SDSU Extension website and has had 177 views since its release in August of 2024. It was also printed for 30 participants of Beef SD and 12 participants of a Conservation District training. Approximately 20 printed copies were shared at various open table booths. All but one figure was uniquely designed by Jaelyn and Kaylee.

CONNECTICUT NATIVE PLANT AVAILABILITY LIST

Victoria Wallace
Extension Educator
The University of Connecticut
Norwich

Wallace, V[1], Tomis, S[2], Siegel-Miles, A[3], Picone, P[4]

[1] Extension Educator, UConn Extension, Norwich, Connecticut, 06360
Assistant Extension Educator, UConn Extension, Norwich, Connecticut, 06360
Research Technician, UConn Extension, Norwich, Connecticut, 06360
Wildlife Biologist, CT DEEP, Burlington, Connecticut, 06013

Pollinators in the United States over the last century have been disappearing at alarming rates. Native plants are critical for pollinator health, biological diversity, and strong ecosystems. Establishing native plants within managed landscapes safeguards crucial wildlife habitat and provides valuable forage opportunities that sustain native pollinator populations. The CT Native Plant Availability List enables homeowners, landscape professionals, and conservationists purchase native plants for wildlife enhancement and revegetation of areas after invasive plant removal. Compiled from a list of state registered nurseries, the objective of this resource is to help Connecticut stakeholders locate and secure native plants that are available for sale throughout Connecticut. This resource supports the marketing of ecologically beneficial CT specialty crop nursery producers to enhance their economic viability. The listed species are all native to Connecticut. A numerical designation identifies where the species is available for sale. A numbered map of participating businesses identifies the locations within each of Connecticut's eight counties for easy navigation. Charts related to pollinator benefits, bloom time, and flower color are also included. Originally developed over twenty years ago by CT DEEP's wildlife division, the guide of native woody plants had not been produced or distributed until 2023, when it was revised and modernized as both an online webpage and PDF document. In 2024, the content was expanded to incorporate herbaceous perennials. There were over 11,000 webpage views of the Native Plant Availability List on the UConn IPM website in 2024. The document is also housed on CT DEEP's website, printed and distributed at workshops, and distributed electronically to numerous green industry businesses, school grounds managers, public works employees, garden clubs, Master Gardener classes, and others. Participating nurseries have reported an increase in customers purchasing native plants from their operations due to the list. Consumers have reported their appreciation that the list enables them to find the native plants they seek. Each year, additional businesses supply their plant inventory for inclusion to our list. 60 businesses are participating in the 2025 update, which was recently completed.

EVALUATION OF CONTAINER GROWN NATIVE AZALEAS IN FULL SUN AND 50% SHADE IN THE MID-ATLANTIC

William Errickson
Agriculture and Natural Resources Agent
Rutgers Cooperative Extension
Freehold

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This 18-page research-based Journal of NACAA article, that was primarily authored by William Errickson in cooperation Timothy Waller, investigated the impact of full sun versus 50% shade on nine species of native, deciduous azaleas, including R. arborescens, R. atlanticum, R. austrinum, R. canescens, R. cumberlandense, R. flammeum, R. periclymenoides, R. prunifolium, and R. vaseyi grown under standard nursery conditions. Native azaleas have potential for increased adoption in the ornamental sector given the steady increase of native plant demand and their pleasing aesthetics, yet these species lack in-depth performance data that would be valuable to future commercial growers. Key performance metrics related to growth index (GI), bloom phenology, and abiotic stress via normalized difference vegetation index (NDVI) in response to full sun or 50% shade treatments were collected and analyzed. This publication also contains detailed species summaries, collated from multiple disparate references. GI was greater under 50% shade, no difference in cumulative flower counts were observed between treatments, and NDVI was reduced in most species grown in full sun, indicating a higher degree of plant stress which could impact how these plants are grown and marketed in the commercial nursery, and displayed at retail markets, respectively. The intended audiences are Extension professionals navigating future native azalea grower outreach and the greater research community. The journal is open-access and available digitally.
Errickson, W. & Waller, T. 2024. Evaluation of Container Grown Native Azaleas in Full Sun and 50% Shade in the Mid-Atlantic. Journal of the National Association of County Agricultural Agents 17(2), 18pp. https://www.nacaa.com/journal/418085d1-bd33-4c8d-80ea-5bc07e53d4a2

A FIELD GUIDE TO HEMP DISEASES IN FLORIDA

Kevin Korus
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Gainesville

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With the legalization of industrial hemp production in the state of Florida, we worked on providing growers with a field guide for identification and management of diseases either found in Florida or that could be a threat to producers in the future. This guide is a complement to the "UF/IFAS Field Guide to Hemp Arthropod Pests" published in 2023. Both authors co-wrote the document and worked with members of the UF/IFAS Hemp Program Research and Extension Team as well as colleagues from other universities to obtain symptom descriptions and photos of the diseases shown in the guide. Since the crop is relatively new to Florida and researchers are still monitoring diseases and continue to evaluate the risk of various plant pathogens, additional expertise was sought from other universities in states that have longer experience with industrial hemp production. This guide allows producers, extension agents, and crop consultants to quickly identify diseases that may develop in their crop. The document has been uploaded to the UF/IFAS EDIS repository and is available on many reputable online journal search engines like Florida Online Journals and ResearchGate. The article was posted in December of 2024 and already has 699 views. Field copies are to be printed and distributed at UF/IFAS events and will be available through the UF/IFAS bookstore.

BARNY THE BARN OWL: A FARMERS FRIEND

Jason Thomas
Extension Educator
University of Idaho
Rupert

Thomas, J[1]

[1]Extension Educator, Rupert, Idaho, 83350

This coloring book, "Barny the Barn Owl: A Farmer's Friend," was developed to educate young audiences about the role of barn owls in sustainable agriculture, particularly in controlling vole populations that damage crops. Designed for elementary school-aged children, the book simplifies complex ecological relationships into an engaging, interactive format that promotes both learning and creativity. Through easy-to-read text, fun illustrations, and hands-on activities, children gain an appreciation for barn owls as natural pest managers and learn how they can support conservation efforts, such as building owl boxes.

The publication was authored, written, and designed by the educator, who developed all text, structured the learning progression, and created the illustrations using artificial intelligence tools. A University of Idaho graphic designer finalized the book's layout to ensure it met university standards, adding text to the cover and graphics to the maze. The educator directed the AI-assisted image generation process and refined the visuals to create a child-friendly, engaging style. The educator obtained grant funding to access AI technologies and print physical copies, ensuring broader accessibility for schools and outreach programs. The book was published as a University of Idaho Extension resource and has been distributed digitally and in print. Over 1,000 copies have been printed and distributed to schools, libraries, and Extension offices across Idaho for use in agriculture education programs and youth outreach. Additionally, the publication has been downloaded by educators in Idaho and Kansas for classroom use.

This project aligns with Extension's mission of science-based education by providing an innovative tool to foster agricultural literacy in a younger audience. By engaging children early, the book encourages future stewardship of Idaho's agricultural resources and reinforces the importance of wildlife in pest management.

INTERNAL PARASITE CONTROL FOR HORSES IN NEW MEXICO CIRCULAR 710

Jason Turner
Extension Horse Specialist
NMSU
Las Cruces

Turner, J[1], LaCount , S[2]

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The once simple recommendation of "deworm horses every two months" has become outdated and is strongly opposed by many experts in the field as it is believed

to hasten the development of anthelmintic resistance in parasites which renders common deworming drugs ineffective. Therefore, the horse specialist and a collaborating veterinarian wrote a circular, Internal Parasite Control for Horses in New Mexico Circular 710. The goal of this publication is to educate horse owners on how to integrate various methods of control, such as diagnostic tests, environmental factors, and management practices, to develop a strategic deworming program to minimize anthelmintic resistance. The circular was published by the New Mexico State University Cooperative Extension Service in October 2024 where it was posted to the following URL and announced to agents by email and to the public on social media posts. Since its release, the publication has over 625 views on Google, Instagram, and Facebook combined. The publication is available at the following URL: https://pubs.nmsu.edu/_circulars/CR710.pdf

POCKET GOPHERS

Mark Nelson
Extension Professor
Utah State University
Beaver

Nelson, M[1], Frey, N[2], Creech, E[3], Taylor, K[4], Hadfield, J[5], Greenhalgh, L[6], Farnsworth, C[7], Gale, J[8], Heaton, M[9], Clawson, J[10], Price, S[11]

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[3] USU Extension Agronomist, Utah State University, Logan, Utah, 84322
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[6] USU Extension Professor, Utah State University, Tooele, Utah, 84074
[7] USU Assistant Professor, Utah State University, Moab, Utah, 84532
[8] USU Extension Associate Professor, Utah State University, Richfield, Utah, 84701
[9] USU Extension assistant Professor, Utah State University, Panguitch, Utah, 84759
[10] USU Extension Assistant Professor, Utah State University, Logan, Utah, 84321
[11] USU Extension Associate Professor, Utah State University, Price, Utah, 84501

This peer-reviewed Extension publication was written to educate farmers and landowners on different methods that they can use to control pocket gophers in Utah. Valley pocket gophers are a common agricultural pest in many areas of Utah, and other western states. Pocket gophers predominantly eat roots, although they will pull vegetation into their burrows, and eat plants immediately adjacent to their mounds. They cost farmers and landowners hundreds of thousands of dollars annually in control cost and damage to haying equipment and loss of crops. A variety of methods are available to manage these populations but there are many questions about which method works best. Utah State University Extension has compared methods of controlling pocket gophers and conducted research plots in ten different counties throughout Utah. These methods include trapping, applying bait into the burrows, and using different kinds of fumigants. This publication identifies different methods to control pocket gophers and will help producers determine which methods will work best for them. This publication has been online since July 25, 2024 and has been downloaded 199 times throughout the United States and in other countries through out the world.

State Winners

North Central

Illinois	Bruce Black
Kansas	Pam Paulsen
Wisconsin	Kim Kester

Northeast

Maryland	Sarah Hirsh

Southern

Alabama	Jack LeCroy
Arkansas	Kevin Lawson
Mississippi	Brenton Breland
Puerto Rico	Jose Arocho
South Carolina	Zachary Snipes

West

Arizona	Andrew Brischke
Oregon	Audrey Comerford

WEBSITE/ONLINE CONTENT

National Winner

THE AGRICULTURE & NATURAL RESOURCES LIBRARY FOR NEW EDUCATORS AND PROGRAM STAFF

Erika Lyon
Extension Educator - ANR
Ohio State University Extension
Steubenville

Lyon, E[1], Hill, J[2]

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With over 50 new Educators and supporting staff having four years of experience or less, Ohio State University Extension's Agriculture and Natural Resources Program recognized the urgent and ever-changing need for an efficient system to onboard and transfer knowledge from experienced to new faculty and staff. Although onboarding in-services were provided during their first year, it was essential to make information easily accessible outside of these sessions whenever needed. To address this, Erika Lyon, ANR Educator in Jefferson, Harrison Counties, and Janessa Hill, ANR Educator in Holmes County, launched the ANR Library v2. The website complements the Ohio State University Extension Agriculture and Natural Resource's onboarding in-services and aims to be a comprehensive hub for current educators, providing easy access to program-specific information and eliminating the need to navigate through a multitude of complex websites. By curating a wide array of valuable resources from across the web, we have designed and kept up-to-date the ANR Library to reduce the time spent searching for content often referenced in our in-services. Our continually expanding collection includes factsheets for Getting Started as a New Educator, in-service recordings, curriculum resources, specialization information, how to obtain PI status and go through the IRB process, how to develop creative works, and how to complete annual reporting. Pages are updated based on feedback from ANR faculty and staff. Since 2024, the website has attracted 70 unique users who have collectively engaged in 417 sessions and viewed over 1,000 pages, demonstrating its growing utility and relevance. Users have reported finding the website useful for instructions on the fact sheet submission process, purchasing supplies for new employees, conducting farm visits, reviewing onboarding in-service recordings, and accessing example event schedules.
URL of website: https://u.osu.edu/anrlibrary

National Finalists

SUSTAINABLE YARD CARE RESOURCES FOR HOMEOWNERS

Steven Yergeau
Environmental and Resource Management Agent
Rutgers University Cooperative Extension
Toms River

Yergeau, S[1]

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Many programs in New Jersey encompass environmentally friendly landscaping or yard care. These programs provide guidance on various steps to reduce the environmental impact of land care practices. For example, planting native vegetation to reduce chemical fertilizer and pesticide use, conducting soil tests to maintain soil health, and strategies to conserve water used for irrigation. These programs are filled with a wealth of tools for homeowners minus one critical piece: information on professional landscape and yard companies capable of providing these environmentally friendly services. Many homeowners have approached County Agents and horticultural staff asking if they know of any "eco-friendly and native plant-friendly landscape companies" in their area. To meet the needs of our clientele, the Sustainable Yard Care Resources for Homeowners website (https://ocean.njaes.rutgers.edu/anr/sustainable-landscape-education/sustainable-yard-care-resources-for-homeowners/) was compiled to describe the various programs and certifications that landscapers or lawn care companies can receive to protect the environment and provide any available directories to homeowners to locate such companies. Examples of such resources include a directory of certified applicators from the Professional Fertilizer Applicator ?Certification and Training Program and the database of landscapers certified by Rutgers' Organic Land Care Program. The website went live in June 2024 and was researched and written by Dr. Yergeau, with maintenance conducted by Ocean County staff. The website has received 471 views since launching in the summer of 2024. Since September 2024, Dr. Yergeau has conducted three webinars for the public titled "Picking a Sustainable Landscaper: Yard Care Resources for Homeowners" to support the website. These webinars focused on exploring the website to help residents pick a sustainable landscaper. A total of 347 people registered and 211 attended the three webinars.

FLORIDA WELL OWNER NETWORK WEBSITE

Yilin Zhuang
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University of Florida
Apopka

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The Florida Well Owner Network (FWON) website, launched in fall 2024, serves as a key resource for Florida's 2.5 million private well users. The website has three primary goals: providing education on private well and septic system maintenance, water testing, and groundwater protection; improving drinking water safety by identifying and addressing potential issues; and fostering community engagement by connecting well owners with resources, workshops, and local experts. Since its launch, the FWON website has become the most viewed page on UF/IFAS' water website, consistently ranking first from September 2024 through February 2025. It leads in engaged sessions, with users exploring multiple pages, triggering conversion events, or spending extended time on the site. These metrics indicate a high level of user interest and interaction. The website is a comprehensive hub for private well and septic system education, offering fact sheets, blogs, webinar recordings, and upcoming event details. A dedicated FAQ section answers common questions, and a contact page allows users to reach the project team directly. Its clean, user-friendly design ensures easy navigation, optimized loading speeds, and high-contrast colors for improved readability and accessibility. By educating well owners on proper well management, the FWON website supports Florida's broader goals of water quality protection and public health, aligning with statewide and national efforts to ensure safe drinking water. Its rapid adoption and strong user engagement demonstrate its value as a trusted educational resource.
https://water.ifas.ufl.edu/well/

UT HORTICULTURE PUBLIC FACING WEBSITE

Justin Stefanski
Extension Agent II
University of Tennessee Extension
Murfreesboro

Stefanski, J[1], Bumgarner, N[2], Duncan, A[3], Scott, C[4]

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[4] Horticulture Extension Specialist, University of Tennessee, Jackson, Tennessee, 38305

The UT Hort website (https://uthort.tennessee.edu/) is a public facing site that houses a myriad of resources related to home and garden related topics. These resources include publications, fact sheets, videos, newsletters and helpful links to other UT sites. A collaborative effort was initiated in 2024 to overhaul the site, with the objective of making it easier for users to find information and to review the existing resources contained within the site and update or remove out-of-date information. These changes culminated in producing an aesthetically pleasing homepage, with easy to navigate block tiles for different topics. Each sub page was also updated, with main topic headings, making navigation smoother and more efficient for the end user. The ultimate goal was to allow users to find exactly what they were searching for in less than three clicks. This objective was met and user feedback has confirmed the improved navigation ease based on the updated layout. The site has received rave reviews from both external users and from internal staff. It has become a one-stop shop for both audiences, serving as an excellent resource to find all home and garden related information. Website traffic has increased tremendously since the re-design. In 2024, a total of 17,406 individual users from 72 countries visited the site. Of those users, 17,267 were first time visitors. A total of 59,576 individual page views were reported in 2024. The website has quickly become a favorite bookmark amongst many home gardeners and UT staff and has served to increase the overall effectiveness of sharing up-to-date, researched based information.

Regional Winners

SEED LIBRARY RESOURCE WEBSITE

Calla Edwards
El Dorado

Edwards, C[1]

[1] Horticulture Extension Agent, , El Dorado, Kansas, 67042

A growing number of citizens of Butler County are interested in getting started with their own vegetable garden driven by increasing prices at the grocery store and the desire to know where their food comes from. Many of these gardeners end up frustrated by the inconsistency of information they find online, leading to struggles in their gardens. To help new and existing gardeners navigate the changing climate and to help them be successful in their gardening journey, the Horticulture Agent for K-State Research and Extension, based out of Butler County, developed a website to provide all of the needed information in one location. Our Seed Library Resource page provides knowledge on how to grow new vegetables, tips on how to harvest and preserve the produce safely, and recipes to help new and current gardeners feel comfortable trying new vegetables in their gardens. The website was developed in response to starting seed libraries at 11 locations across Butler County by the K-State Research and Extension Butler County Master Gardener program. The website provides information on all the different vegetable varieties that can be found at the seed library locations, information on how to start seeds, and a link to all the locations where residents can find the seed libraries. Additional information, including agent articles, will be added to the website to provide additional information for gardeners. Information about this website, including links and a QR code directing people to the website, is available at every seed library location throughout the county, and it has been promoted through newsletters and other social media. The impacts are still unknown at this time, as the website has only been operational since January 2025.
https://www.butler.k-state.edu/horticulture/gardener-resources/seed-libraries/

VIRTUAL COVER CROP MAP FOR MICHIGAN FARMS

Monica Jean
Crop Production Educator
Michigan State University Extension
Escanaba

Jean, M[1], Celovsky, M[2]

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Cover crops are an important tool for Michigan farmers to achieve their production and conservation goals. In diverse Michigan cropping systems, there is no 'one size fits all' solution and cover crops can look different from farm to farm and even field to field. The Virtual Cover Crop Map for Michigan is an interactive map that highlights innovation on farms and research stations across the state that is advancing local implementation of cover crops. The collection aims to set realistic expectations for those starting with cover crops in Michigan, especially in terms of cover crop growth and species selection. The collection also aims to help inspire further innovation for those who are interested in advancing their cover crop management. This unique format allows users to explore cover crop projects by cropping system and location. Each site has a photo, short description of the project and key findings, and often a link to another website or resource for more detail. Since being published, 119 unique viewers from Michigan, across the United States, and from across the world have enjoyed the content in the Virtual Cover Crop Map. The map has been featured in 3 presentations for Michigan farmers and agricultural professionals (n=183). Moving forward, it will act as a database for all Michigan cover crop projects. Using a Geo Information System (GIS) database offers a blog like accrual of information, easier to produce than a video, but still allowing farmers and educators to tell the story of how cover crops can work on a farm.

DR. EUGENE'S BIOTECH LAB

Jennifer Cushman
University of Connecticut
Farmington

Cushman, J[1], Stearns, S[2], Gray, S[3], Tian, C[4], Connolly, C[5], at New Mexico State University, L[6]

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[4] Storrs, Connecticut
[5] Storrs, Connecticut
[6] New Mexico

Dr. Eugene's Biotech Lab is an educational game developed by UConn Extension in collaboration with New Mexico State University (NMSU) Game Design Lab to engage youth in biotechnology through interactive learning. This USDA Food and Agriculture Non-formal Education (FANE) Project-funded initiative aims to spark interest in STEM careers and enhance biotechnology literacy among 4-H youth, educators, and volunteers nationwide.

Collaboration and Development
An interdisciplinary team from UConn Extension, UConn faculty, and NMSU's Learning Games Laboratory worked with 4-H Biotech Club members to create the game. Youth actively participated in the design process, from conceptual development to beta testing and promotion. Their involvement ensured the game remained relevant, engaging, and educational.

Educational Value and Accessibility
The game introduces biotechnology applications in food, agriculture, and related careers through gamification, multimedia content, and interactive features. It includes additional educator resources such as lesson plans and how-to guides. To enhance accessibility, features like closed captions and screen reader compatibility were integrated.
I
mpact
Dr. Eugene's Biotech Lab addresses the growing need for STEM professionals by providing engaging biotechnology education. Key engagement metrics include:
350 youth participants engaged, surpassing the goal of 300.
Over 2,000 users and 13,000 recorded interactions in 2024.
Average gameplay duration of 7 minutes and 47 seconds.
1,200 webpage visits in the first month post-launch.
4,050 total page views and 1,971 active users in 2024.
1,400+ organic social media impressions and engagements.
Widespread media coverage, including USDA-NIFA and UConn Today.

437 views of downloadable instructional guides.
Evaluation mechanisms include educator feedback forms, in-game surveys, and analytics tracking. Feedback from educators indicates increased confidence in teaching biotechnology, while youth surveys confirm skill development and enthusiasm for STEM learning. One 4-H participant shared, "It was the opportunity of a lifetime and showed me that my career path is one I will enjoy." Dr. Eugene's Biotech Lab serves as a model for digital learning in STEM education. Play the game at: https://www.4hbiotechgames.org/

PENN STATE EXTENSION POULTRY TEAM - FACEBOOK PAGE

Torey Fischer
Pennsylvania State University
Lewistown
Team Members: Fischer, T[1], Bigge, A[2]

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[2] Poultry Educator, Penn State Extension, Gettysburg, Pennsylvania, 17325

The "Poultry Team, Penn State Extension" Facebook page was created to expand the current reach of the team's programming. Although the team has historically focused on commercial poultry producers, programming and resources in recent years have grown to include new audiences. The increasing interest in backyard poultry and small homesteading operations growing multiple species or crops presents a growing need for education and support to increase their success. There is also a growing disconnect between the average consumer and knowledge of where their food comes from. Both of these audiences utilize the internet as a source of information. The exact demographics of the following on this page are unknown. Still, past needs assessment data has illustrated that 70% of the small and backyard flock owners surveyed (n=476) by the poultry team are utilizing social media, blogs, and other online forums to find information about poultry. It can be more difficult to find accurate, science-based information from these sources. Therefore, this page provides the same quality of information provided to commercial producers in a format that small or backyard flock owners and consumers are seeking. The two educators applying for this award write, create, and post all the content for the Facebook page, often utilizing Canva for graphic design. Content varies but has included educational series covering topics such as biosecurity,

food safety, poultry breeds, and poultry careers. These pages also advertise different educational products and programs, such as new articles, bulletins, videos, webinars, workshops, conferences, and more. The content often includes links to Penn State Extension's website and other important pages, connecting social media users to resources that they may not otherwise have discovered. The current Facebook page was started in June 2024. Since then, according to statistics provided by Meta, the page has gained 186 followers, 29,630 views, 893 interactions (reactions, shares, and comments), and 713 clicks. Additionally, this page has had an organic reach of 20,503 accounts. The page can be viewed at https://www.facebook.com/profile.php?id=61559920145588

GROWING AND MARKETING CHRISTMAS TREES IN SOUTH CAROLINA: A DIGITAL COMPREHENSIVE GUIDE FOR GROWERS

Jaime Pohlman
Extension Agent
Clemson Cooperative Extension
McCormick

Pohlman, J[1], Steele, J[2], Burkett, K[3], Coyle, D[4], Tanner, C[5], Orego, W[6]

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[2] Area Forestry and Wildlife Agent, Clemson Extension, St. Mathews, South Carolina, 29135
[3] Extension Associate Assistant Director Ag Tax School, Clemson Extension, Columbia, South Carolina, 29229
[4] Extension Forest Health Specialist, Clemson Extension, Clemson, South Carolina, 29634
[5] Extension Horticulture Team Director, Clemson Extension, Clemson, South Carolina, 29634
[6] Clemson CAFLS Web Developer, Clemson Extension, Clemson, South Carolina, 29634

Clemson University Extension's Growing and Marketing Christmas Trees in South Carolina resource page (https://www.clemson.edu/extension/forestry/resources/christmas-trees.html) provides comprehensive information on the cultivation, management, and marketing of Christmas trees in the state and will be valuable to growers across the southeast. This online resource is designed to support all levels of Christmas tree growers by offering detailed guidance on species selection, site preparation, planting, management practices, pest and disease management, and harvesting techniques. The website includes valuable insights into the economic aspects of Christmas tree farming, such as marketing strategies, production costs, and time requirements. Initially released in the 1980s and due to the comprehensive nature of the publication, the South Carolina Christmas Tree Association requested a detailed and updated revision. The publication underwent extensive revisions to update the list of species that can be profitably grown in the state's climate. High-quality, full-color images of native species and various cultivars are accompanied by detailed descriptions of each tree's characteristics. The publication's pest and disease management portion was expanded to include issues that growers will encounter on non-native trees. For economics, a statewide grower survey was used to update the production costs and time requirement tables, making the publication one of the most up-to-date online resources for Christmas tree production. By integrating scientific research with practical advice, this resource aims to enhance the region's sustainability and profitability of Christmas tree production. The user-friendly layout and accessible language make it an essential tool for anyone involved in the Christmas tree industry. Site content was developed through a collaborative effort with agents and specialists working to revise the outdated publication, add other relevant information and include photographs. The Clemson media staff assisted with recommendations for the website design.

State Winners

North Central

Nebraska	Erin Laborie

Southern

Arkansas	Rachel Bearden
Georgia	Nathan Eason
Kentucky	Joanna Coles
Mississippi	Heather Jennings
North Carolina	Matthew Stevens
Oklahoma	Erin Hubbard
Texas	Carley Howell
Virginia	Daniel Frank

West

New Mexico	Talisha Valdez
Washington	Don McMoran

LEARNING MODULE/ NOTEBOOK

National Winner

Master Gardener – Urban Food Production Module

Haley Treadway
Agriculture & Natural Resource Agent
University of Tennessee, Knoxville
Chattanooga

Treadway, H[1], Duncan, A[2], Bumgarner, N[3], Dunlap, A[4], O'Ferrall, M[5]

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[2] Digital Certification & Training Program Coordinator, University of Tennessee Extension, Manchester, Tennessee
[3] Statewide Consumer Horticulture Specialist, University of Tennessee Extension, Knoxville, Tennessee
[4] Agriculture & Natural Resource Agent , University of Tennessee Extension, Nashville, Tennessee
[5] Agriculture & Natural Resource Agent , Tennessee State University Extension, Pulaski, Tennessee

The Urban Food Production Module is an innovative, research-based educational resource designed to equip Master Gardeners with the knowledge and skills necessary to implement sustainable food production practices in small space environments. Accessible through the statewide UT Extension Master Gardener training platform, this module is tailored to meet the needs of Master Gardener volunteers, providing in-depth content that is both relevant and engaging. The module can be viewed here and covers a range of topics, including vertical gardening, container gardening, soil health in urban settings, and integrating edible landscapes, with each section supporting practical examples, detailed visuals, and links to additional resources for further exploration. Designed for ease of use, the webpage employs a clear and intuitive navigation structure, ensuring that users can quickly locate and engage with the material. Interactive features, such as quizzes and discussion prompts, encourage active learning and provide opportunities for participants to share feedback and insights. The platform's consistent layout and visually appealing design, including appropriate use of color and graphics, enhance the overall learning experience. The module development team was responsible for generating original written content, curating supplementary materials, and ensuring that all information is up-to-date and aligned with current research. The module's interactive elements and multimedia integration, such as instructional videos and infographics, effectively demonstrate concepts that can be challenging to convey through text alone. First launched in April 2024, the Urban Food Production Module has been well-received by users, who report increased confidence in applying sustainable practices within their communities. By addressing the unique challenges of urban food production and offering actionable insights, this module supports the overarching goals of the Master Gardener program: empowering volunteers to disseminate research-based knowledge and promote sustainable horticultural practices.

National Finalists

4-H DAIRY QUIZ BOWL STUDY NOTEBOOK

Sierra Burke
Hartwell

Burke, S[1]

[1] Agriculture and Natural Resources Extension Agent , UGA Extension- Hart County, Hartwell, Georgia, 30643

In 2023, the Hart County Agricultural and Natural Resources (ANR) Program Development Team discussed the need for more youth animal science programming in Hart County. Hart County, Georgia is home to one of the only robotic dairies in the state with 100 head of milking cows. In response to the identified need and local dairy impact, the 4-H Dairy Quiz Bowl competition was identified as a unique opportunity for introducing youth to the basics of animal science while increasing their public speaking, leadership, teamwork, and problem-solving skills. One challenge faced as 4-H'ers were preparing for the contest was the lack of resources available, particularly for junior students (4-8th grade). In response, the agent designed a study notebook for the seven participating students that included information from existing resources regarding the topics covered during competition. Following the practice season, the inaugural Hart County Dairy Quiz Bowl Team placed second at the state-level competition. This season, the Dairy Quiz Bowl Study Book was amended and edited to highlight more pertinent topics to better prepare the students for what they would be asked to know at the competition event. The edits and additions to the study book made an immediate impact, as two teams competed in the 2025 State Dairy Quiz Bowl Competition with one team placing first, and the other placing second, demonstrating their increase in dairy knowledge as a result of utilizing the study book.

STATEWIDE HYBRID IDAHO ONLINE MASTER GARDENER PROGRAM

Ronald Patterson
Horticulture/Agriculture Educator
University of Idaho
Idaho Falls

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The availability of Master Gardener Extension programing in Idaho to all state residents has been limited by distance to delivery sites, access to technology and access to content specialists, particularly in remote regions of Idaho. In many cases there is not enough interest in a rural county to justify the expense of providing a particular program. In 2020, the COVID pandemic forced the Master Gardener Program to online delivery via the Zoom platform. From 2021– 2023 the eastern Idaho Master Gardener team continued to deliver the Master Gardener Program online, recording the presentations. In 2023, University of Idaho purchased CANVAS for off-campus program delivery. The 2024 Master Gardener Program was set up in CANVAS so any Idaho resident could participate. The three-hour Zoom recordings were broken into shorter topic videos. There were two groups of counties that held their classes at different times using the same educational materials. Students watched the topic videos asynchronously then participated in a one-hour online class each week. Several counties also held hands-on labs. The first class of this major overhaul of Master Gardener Program delivery completed classes in May 2024 and service hours in fall 2024. All counties in Idaho now have access to the Master Gardener materials and content specialists for their county residents. This allows them to run their own program or have their residents join with a group that has an educator with the skill set needed for Master Gardener education. Patterson recorded the presentations and edited them to 96 topic videos with more being added each month. Allen organized and managed the classes and materials. Doty worked with Allen to mesh the videos and other materials into a cohesive program offering. One hundred seventy-two people in fourteen different counties participated in the 2024 statewide hybrid online Master Gardener Program. Several students were the only participants in their rural county. This program delivery method is safe, convenient, accessible, and flexible. Judges will be able to access the program materials through a dummy student account. They will need to contact Lena Allen (lallen@uidaho.edu) for access credentials.

MUSTANG CAMP YOUTH ACTIVITY BOOK

Kalen Taylor
Extension assistant Professor - Agriculture
Utah State University Extension
Delta

Taylor, K[1], Bell, K[2], Hadfield, J[3], Price, S[4], Snell, L[5], Frey, N[6], Dorsey, K[7]

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[3] State 4-H Agriculture and Animal Science Specialist, Logan, Utah, 84321
[4] Extension Associate Professor, Price, Utah, 84501
[5] County Director and Livestock & Natural Resources Advisor, Alturas, California, 96101
[6] Extension Wildlife Specialist, Cedar City, Utah, 84720
[7] USU Mustang Camp Coordinator, Logan, Utah, 84321

The Mustang Camp Youth Activity book is the companion module to the in-person program Mustang Camp. It is meant to be a learning tool for youth who are attending the camp which educates them on wild horses and burros, rangeland management and native plants and wildlife. The Mustang Camp program is a Bureau of Land Management funded program which has been ran multiple times in Utah, once in California and is set to expand to a total of 12 states between 2024 and 2028. The activity book has been given out as a hard copy to a total of 40 youth at camps in Utah and California. It was also distributed as a hard copy and virtual copy to 20 participants at a train-the-trainer event during the Society for Range Management 2025 Annual Meeting in Spokane, WA. The objective of the publication is to keep the youth engaged in learning over the course of the camp and give them something to look back on once they are back home. Every member of the authorship team made significant content and editing contributions to the publication.

Regional Winners

Kids in the Garden
Learning Module/Notebook
Calla Edwards
El Dorado

Edwards, C[1]

[1] El Dorado, Kansas, 67042

A growing number of youth lack basic knowledge of plants, pollinators, and their importance to the environment. To help educate the youth on composting, gardening, how plants grow, and pollinators, the K-State Research and Extension Butler County Horticulture Agent developed a curriculum for kindergarten and first grades, covering those topics using age-appropriate books and hands-on activities. The curriculum consists of four 30-45-minute lessons that start with a mystery box containing an item related to the topic of the day, an age-appropriate book read by the agent or volunteers, and an activity or experiment to help reinforce the topic. The program is run by Calla Edwards, K-State Butler County Extension Agent, and Master Gardener volunteers, who reached five of the nine school districts in the county and approximately 500 youth in eight schools in 2024-25. The teachers and volunteers are surveyed at the end of the program series, and the curriculum adjustments are made based on the survey recommendations. One teacher described this program as the "Best program series from an outside group I've ever had in my classroom in all my years of teaching."

COVER CROP ACADEMY

Phyllis Bongard
Content Development and Communications Specialist
University of Minnesota Extension
Farmington

Bongard, P[1], Stahl, L[2], Cates, A[3]

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The Cover Crop Academy is a year-long, statewide hybrid course for crop advisors, consultants and ag advisors in Soil and Water Conservation Districts (SWCDs), Natural Resources Conservation Service (NRCS) offices, and Extension. The goal is to provide our target audience with a comprehensive background and tools to help farmers who want to incorporate cover crops into Minnesota's short growing season, avoid common cash crop issues with cover crops, and build soil health systems that are agronomically and economically sound. Over a full year, 77 participants took part in one of two in-person meetings, six online on-demand learning modules in Canvas, five two-hour online webinars, and group work designing a small-plot trial at their self-selected Research and Outreach Center (ROC). The authors, with the primary author taking lead, created the online Canvas course in its entirety which served as a "flipped" classroom in preparation for the online meetings. Participants were assigned the following modules: 1) Introduction and precourse assessment, 2) Setting up a small plot trial, 3) Herbicides and weed management (herbicide label, rotational restrictions, termination, planting green), 4) Managing soil fertility (nitrogen scavenging, cover crop mineralization), 5) Avoiding cash crop issues (crop planting dates, termination timing, planting depth), and 6) Where's the easy button? (green bridge pests, cover crop recipes). Each module includes an introductory page, content pages, quizzes, a 'takeaways' summary, and a.wrap-up with a look ahead. Modules 2a-2c contain the authors' photos from the small plot trials at each of the ROCs and modules 3a and 5a contain exercises used for group work during online meetings. A full evaluation will be available this summer, but comments from a mid-course survey were positive, with participants indicating they thought the course was very useful. The Cover Crop Academy is available at https://learning.umn.edu/search/publicCourseSearchDetails.do?method=load&courseId=46298746&showInternal=true To view, register and use code, CoverCropNoCost, then notify bonga028@umn.edu for upgraded access.

GROWING TEACHERS THROUGHOUT THE SEASONS ONLINE COURSE

Timothy McDermott
Ext. Educ., ANR
Columbus

McDermott, T[1], Smathers, C[2]

[1] Ext. Educ., ANR, Ohio State University Extension, Columbus, Ohio, 43210
[2] State Specialist Youth Wellness and Nutrition, Ohio State University Extension, Columbus, Ohio, 43210

U.S. graduates with expertise in food, agriculture, and the environment are anticipated to fill only 61% of the

expected 57,900 average annual agriculture-related employment openings. Growing Teachers Throughout the Seasons (GTS) is nationally, the first of its kind guide to getting started with agricultural engagement in schools that is academic calendar based, data-driven, teacher informed and includes future thinking agriculture including LED lighting and hydroponics. In essence, it is Step One for teachers. Funded by USDA NIFA, the GTS online modules were created as a living supplement to the GTS written curriculum. It consists of 20 modules of supportive content including kid-friendly videos, facts sheets, and informative content as a free, open to the public self-paced course. It is designed to provide engagement of students and teachers in agriculture for the purpose of introducing them to agriculture's opportunities through workforce development. We do not grow up students on farms like we used to, our next generation of skilled agriculture workers need to come from urban kids from urban schools. The online modules are hosted on OSU's Scarlet Canvas platform with access information distributed via website, social media, at conferences, and workshops for educators. A total of 451 users have accessed the course to date with users viewing the pages 19,376 times! This averages 43 pages viewed per learner and shows how valuable the content is to educators. Examples of module content include a 30-minute Train the Trainer video and subjects including seed starting, transplanting, fertilizing, food safety, and hydroponics. The online module web address is: https://cfaesosu.catalog.instructure.com/courses/growing-teachers-throughout-the-seasons or accessible at an easy to remember go link of go.osu.edu/GTS
I developed the initial concept and worked to create the team of members from OSU Farm to School, Columbus City Schools, and OSU Extension Learning and Organizational Development. I sourced initial funding for start-up from Scotts Miracle-Gro, co-wrote the grant to support developmental funding from USDA NIFA and provided content expertise on controlled environment agriculture, season extension, growing methods, and variety selection. I served one of the editors, videographers, and distributed flyers with QR code access at workshops and conferences.

CULTIVATING CONSERVATION PRACTICES ON YOUR FARM SELF-PACED ONLINE COURSE

Sarah Hirsh
Agent
University of Maryland
Princess Anne

Hirsh, S[1], Dill, S[2], Nichols, K[3], Little, N[4], Todd, M[5]

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[4] Senior Agent, University of Maryland Extension, Baltimore, Maryland, 21215
[5] Senior Legal Research Associate , University of Maryland Agriculture Law Education Initiative , Baltimore, Maryland, 21201

The online self-paced course "Cultivating Conservation Practices on Your Farm" is geared toward educating farmers and other land managers who do not yet have a relationship with conservation program sponsoring agencies about conservation resources that are available to them. The curriculum emphasizes the special provisions that are available for Historically Underserved farmers. Specifically, participants who complete the learning modules should gain an increased knowledge of conservation practices and how conservation fits within the whole farm plan, increased understanding of conservation programs and the sponsoring agencies of those programs, increased understanding of conservation contractual agreements and program expectations, and increased comfort level to engage and visit with conservation partners such as the Natural Resources Conservation Service. The course is free and accessible through the University of Maryland Extension Agriculture and Food Systems Teachable online website (https://umeagfs.teachable.com/courses/). The course includes a series of seven lesson modules, which were prepared and recorded by four University of Maryland Extension educators (Hirsh, Dill, Nichols, Little) and the Senior Legal Research Associate from the University of Maryland Agriculture Law Education Initiative (Todd). The modules contain a video recording of the educator presenting slides, a presentation slide file, weblinks, and/or worksheets and other supplemental materials. Learning module topics include introduction to cultivating conservation, examples of conservation practices, whole farm planning, fitting conservation in your whole farm plan, an overview of the Web Soil Survey, an introduction

to agencies and conservation programs, and program eligibility and contract requirements. The online course includes an additional learning module with resources including video interviews with various agency personnel, factsheets, and other resources concerning conservation programs. The online course also includes a link to a survey for participants to provide feedback on the value of the online course.

FUNDAMENTALS OF EQUINE PASTURE MANAGEMENT ONLINE COURSE

Laura Kenny
Equine Educator
Penn State
Collegeville
Team Members: Kenny, L[1]

[1] Equine Educator, , Collegeville, Pennsylvania, 19426

Equine operations are notorious for neglecting pasture care and overgrazing fields, generally due to lack of knowledge. In addition to not providing fresh forage to animals, this results in erosion and the transport of sediment and nutrients to ground and surface water, impairing water quality. The objective of this online course was to improve pasture management knowledge among horse farm owners. An in-person version had been offered for years, but attendance was waning while virtual events were becoming more successful. The course contains 8 modules: 1. Benefits and Drawbacks of Pastures; 2. Forage Biology; 3. Grazing Management; 4. Soil Fertility; 5. Forage Species; 6. Pasture Evaluation & Renovation; 7. Weed Control; and 8. Toxic Plants. The course URL is https://extension.psu.edu/fundamentals-of-equine-pasture-management-online and instructions for judges to access the course are uploaded.

Each module consists of a combination of reading, videos, interactive components (flip cards, accordions, etc.), and ungraded "check your learning" questions in the Rise platform. At the end of each module is a graded quiz. Participants who complete all modules receive a certificate of completion. Additionally, a 27-page course workbook was developed to include take-home messages, "bring it home" questions, on-farm activities, and/or record-keeping forms for each module. The purpose of the workbook is to encourage participants to apply the information to their own farms. Penn State's Digital Education team designed the course in Rise after Educator Laura Kenny (Montgomery County, PA) wrote the material, quizzes, activities, and recorded the videos.
Since the course was launched in May 2024, 40 people have registered.

FLORIDIAN FLORA FRIDAYS: LIKE, SHARE, GROW NATIVE

Heather Kalaman
Extension Agent II
University of Florida
Orlando

Kalaman, H[1]

[1] Extension Agent II, UF/IFAS Extension Orange County, Orlando, Florida, 32812

Floridian Flora Fridays is a successful monthly educational video series on the UF/IFAS Extension Orange County social media platform (https://www.facebook.com/OrangeCountyExt/). Designed to showcase Florida's incredible native plant diversity, the series combines informative content with entertainment value, making it accessible and engaging for diverse audiences. The videos highlight the ecological and aesthetic benefits of native species, emphasizing species that are low-maintenance, wildlife-friendly, and support sustainable landscapes. Filmed in the UF/IFAS Extension Exploration Gardens, the videos feature clips edited into reels with music and narration. They provide details on each plant's common and scientific names, growth habits, soil preferences, and flower or fruit characteristics. The videos also cover the plant's value to wildlife and any ethnobotanical significance or uses it may have. The series has achieved significant social media success, reaching over 100,000 unique users and generating thousands of interactions. Engagement metrics include "reach" (users who have seen a post), "post interactions" (reactions and comments), "shares" (enthusiasm in spreading content), and "saves" (bookmarking a post for future reference, signifying sustained interest in the topic). Notably, one video on Florida's native skyblue clustervine (Jacquemontia pentanthos) reached 83,991 people, garnered 1,496 likes and comments, and was saved 140 times. Other featured plants, such as yarrow (Achillea millefolium), Simpson's stopper (Myrcianthes fragrans), and beautyberry (Callicarpa americana) have consistently drawn strong engagement, with individual posts reaching hundreds to thousands of views, interactions, shares, and saves. By leveraging social media, Floridian Flora Fridays extends native plant education beyond local communities, inspiring Floridians statewide. The program encourages residents and industry professionals to incorporate native plants into landscapes, promoting biodiversity, water conservation, and reduced reliance on fertilizers and pesticides. It fosters appreciation for these species' ecological roles while providing practical landscaping guidance, ultimately supporting a more resilient and sustainable environment.

State Winners

Southern

Kentucky	Adam Huber
North Carolina	Cody Craddock
South Carolina	Steven O'Shields
Texas	Katie Pace

PUBLISHING PHOTO

National Winner

FIRST STEPS, BIG ADVENTURES

James Davis
County Extension Director
UF/IFAS Extension Sumter County
Bushnell

This photograph, taken on March 26, 2024, at Sharon Rose Wiechens Preserve in Sumter County, Florida, captures the playful energy and early development of sandhill crane colts as they explore their environment. The colts, with their soft downy feathers indicating their youth, are shown navigating their surroundings, their long legs and outstretched wings highlighting their natural drive to move and discover. One colt is mid-stride, while the other flaps its wings for balance, illustrating their curiosity and determination at this tender stage of life. The image was captured using a Nikon D500 with a NIKKOR 200-500 mm lens at 1/1000 sec, ISO 1100, and f/5.6 at 500mm, with dimensions of 4495 x 3695.The photograph has been widely shared and appreciated across multiple platforms. It was posted to the Florida Birds and Wildlife Facebook group on May 25, 2024, which boasts over 53,000 members, and garnered 190 likes. Additionally, the image was shared on the Wildlife & Invasive Species Education™ Facebook group on July 19, 2024, where it reached 196 people and received 9 post engagements, including 3 shares and 5 likes. The photo was also featured in the Wildlife & Invasive Species Education™ monthly e-newsletter, distributed on August 8, 2024, as part of an article titled "The Florida Sandhill Crane," reaching 712 subscribers. Furthermore, the image was highlighted in a blog post titled "Wildlife & Invasive Species Education™ (WISE) Species Profile: Florida Sandhill Crane," published on September 13, 2024, which received 417 visits. The picture was also featured on page 102 of the PowerPoint presentation titled "Florida's Birds," which was delivered to 79 residents.Through these platforms, this image has helped increase awareness and appreciation of Florida's native wildlife, particularly the sandhill crane, and has been used in print and presentations to further its educational impact.

National Finalists

CALF IN A CAST PHOTO

Kim Kester
Regional Livestock Educator
University of Wisconsin - Madison
Darlington

The Regional Livestock Educator developed a presentation about goal setting for the beef herd and selected the Calf in a Cast photo for the slide that discusses calfhood injury and illness. The presentation was shown during the UW Extension School for Beginning Beef Production (SBBP), Western Wisconsin Beef Producers annual meeting, and was posted on February 27, 2025, to the YouTube playlist of resources for SBBP participants (https://youtu.be/w27og49PNQg?si=ACNsL0Tj7zpID0Ow - photo at ~7:22-8:22), resulting in approximately 60 direct views from individual program participants. The photo was taken at a cow-calf operation by the Educator with a Canon Rebel T8i digital camera.

CATTLE IN FEED BARN DURING WINTER STORM BLAIR

Garrard Coffey
CEA for Agriculture/Natural Resources
University Of Kentucky
Mt. Vernon

The photograph featured in Cow Country News captures a scene from Laurel County, Kentucky, during the Winter Storm Blair. This image portrays the raw beauty and challenges of rural life in the face of severe winter weather. Snow blankets the landscape, transforming familiar fields into a picturesque yet harsh winter wonderland, where the resilience of both nature and livestock is on full display. In this composition, a herd of cows stands in a feed barn, embodying the spirit of endurance that characterizes rural communities during harsh weather conditions. Their calm demeanor amidst the storm serves as a poignant reminder of the bond between farmers and their livestock, highlighting the dedication required to care for animals in difficult circumstances. The photograph captures the story of perseverance and adaptability. It reflects the realities faced by farmers in Kentucky, who must navigate the challenges posed by winter storms while ensuring the well-being of their herds. The contrast between the serene beauty of the snow and the underlying struggle for survival creates a powerful narrative about life in rural Kentucky. Through this image, the photographer seeks to convey a sense of community and resilience, celebrating the unwavering spirit of those who call this region home. The photograph stands as a testament to the enduring

connection between people, animals, and the land, inviting viewers to appreciate the beauty and challenges of rural life during Winter Storm Blair. This photograph was featured on the cover of Cow Country News, February 2025. Approximately 8000 Kentucky Cattlemen members received this publication. An electronic copy can be found at https://issuu.com/cowcountrynews/docs/2502cowc_issuu.

SUMMER BUNCH ROT

Joy Hollingsworth
Assistant CE Advisor
University of California
Tulare

The photograph depicts a bunch of red table grapes that is infected with summer bunch rot, an important disease complex that affects grapes in California. The grapes are in a commercial vineyard which is the site of a research trial being conducted to evaluate control methods for this complex issue. The photo was taken by Joy Hollingsworth, Table Grape Advisor in Tulare County, CA. It was published on August 29, 2024 as part of an article written by Hollingsworth and her colleagues in the September 2024 issue of American Vineyard Magazine https://americanvineyardmagazine.com/read-september-2024-issue (see Page 10). This is a trade magazine aimed at grape growers and pest control advisors. The magazine is available online and in print and has over 9,100 subscribers. The article described the disease complex, and how it is differentiated from similar issues. It also described the research trial being done and shared preliminary results. The photo demonstrates some of the key signs of summer bunch rot infection including injured berries, spore masses, and cracked fruit leaking juices.

Regional Winners

NEBRASKA YOUTH CROP SCOUTING COMPETITION

Brandy VanDeWalle
Extension Educator R
NE Extension
Geneva

Engaging middle and high school students in Integrated Pest Management (IPM) fosters essential skills in knowledge, communication, and problem-solving, paving the way for successful careers in agriculture. Now in its 11th year, the Nebraska Youth Crop Scouting Competition offers a hands-on summer program for grades 5-12 students, focusing on team-based learning of IPM. Held at the Eastern Nebraska Research and Extension Center (ENREEC), the event connects 4-H and FFA youth with faculty and graduate students from the University of Nebraska-Lincoln (UNL), while highlighting agricultural disciplines, UNL programs, and careers in agriculture and Extension. The top two teams advance to a regional competition, competing with teams from seven land-grant universities.

This picture was taken at the 2024 Nebraska Youth Crop Scouting Competition. I shared the picture with our UNL CropWatch webpage editor where it was published. The targeted audience is for CropWatch readers, potential team members, coaches, and others in the agronomy field. As a contributor to UNL's CropWatch webpage, here are the overall webpage metrics:

In 2024, CropWatch had:
1,184,488 pageviews via 1,027,317 user sessions. The number of pageviews was down 34% from 1,783,671 last year.
2,973 email CropWatch News subscribers, down 2% from last year.

AN APHID APOCALYPSE ON ASCLEPIAS

Beth Scheckelhoff
Extension Educator
The Ohio State University
Ottawa

Oleander aphid populations on milkweed species exploded in Ohio during the 2024 summer drought. This image was taken by Beth Scheckelhoff in Putnam County, Ohio with a Sony A6400 digital camera. The photo depicts the biodiversity found on a single Asclepias leaf, including a parisatoid wasp, a natural enemy of the oleander aphid, and oleander aphids in various life stages as winged alates, adult females giving live birth, and aphid mummies. The photo was published on September 10, 2024, on The Buckeye Yard and Garden Online blog (link: https://bygl.osu.edu/index.php/node/2422). BYGL is a digital outreach publication of OSU Extension's Buckeye Environmental Horticulture Team. The blog entry and photo have received 718 views since publication.

Caption:
While the aphids do not appear to significantly hinder the growth and flowering of milkweed plants even in this summer's droughted conditions, they are excellent at exuding copious quantities of honeydew which leave a sticky sheen on leaves.

Thankfully, Mother Nature provides numerous natural enemies of the oleander aphid, including lady beetles and their larvae, parasitic wasps, and lacewings, among others.

MIX IT UP! A MIXED-SPECIES FLERD OF LIVESTOCK GRAZING A MIXTURE OF WARM-SEASON ANNUAL FORAGES

Amanda Grev
Forage Extension Specialist
University of Maryland Extension
Keedysville

This photograph illustrates the power of diversity, showcasing a mixed-species flock/herd (or 'flerd') of livestock grazing a mixture of warm-season annual forages at the Western Maryland Research and Education Center in Keedysville, MD. This is part of an ongoing research project comparing a traditional, perennial-based grazing system against a perennial/annual combination grazing system, which utilizes different annual forages in addition to perennial forages to extend the grazing season and provide high-quality forage for grazing across a greater portion of the year. In this study, these two systems are being evaluated based on forage production and quality, livestock performance, soil health, and economic feasibility. The photograph, captioned 'Mix it up! A mixed-species flerd of livestock grazing a mixture of warm-season annual forages', was used in the promotional materials for the Mid-Atlantic Grazing Conference that took place in December 2024. An update on study progress and preliminary results were shared at the conference, which was attended by researchers, agricultural service providers, and producers from across the region. Promotional materials that included this photo were shared in a variety of ways, including printed flyers, emails, newsletters, local newspapers, and social media posts. The social media posts were created on November 5, 2024 and December 13, 2024 and had over 4,500 views prior to the date of the event. The online versions can be found at the following links:
https://www.facebook.com/photo?fbid=1013012533962398&set=a.503112361619087 and
https://www.facebook.com/photo/?fbid=1038823998047918&set=pb.100057609812574.-2207520000.

VERMICULTURE INSECTS AND PESTS

Belinda Chester
Program Associate
Rutgers Cooperaitve Extension of Atlantic County
Mays Landing

The photograph is of the vermicompost bin located in the Rutgers Cooperative Extension office in Mays Landing, New Jersey, and was taken to show a variety of insects and pests that can be found in a managed bin. White mites and small snails can be seen along with the red wiggler worms (eisenia fetida) feasting on vegetables and berries. This bin often travels to fairs, festivals, educational talks, and other events throughout Atlantic and surrounding counties, where we showcase our Master Composter program and the benefits of vermiculture and home composting. The vermicomposting talks, which include workshops on basic techniques, building bins, harvesting castings, and troubleshooting, have become a popular request throughout Atlantic County, particularly in groups that involve children and families. This photo has been published on social media, in PowerPoint presentations, and on our promotional flyer for the Master Composter Certification program with the caption "Vermicompost bins can attract a variety of pests and insects. While some are harmless and even help the decomposition process, identification is important in determining whether they are friend or foe." The photo was taken on an iPhone 16 ProMax.

2024 GREEN INDUSTRY CURRENT ISSUES FOR MAY

Tom Butzler
Horticulture Educator
Penn State
Mill Hall

Throughout the growing season, Penn State Extension's Green Industry Extension educators meet monthly to share observations from site visits, phone calls, and emails. Notes from these discussions, along with visual aids, form the foundation of Green Industry Current Issues. These updates are circulated within days of each meeting, keeping green industry professionals informed on emerging trends. Each newsletter presents concise summaries of key topics, supplemented with fact sheets, photographs, and videos for deeper exploration. In addition to online publication, alerts are sent through a dedicated listserv to ensure broad and timely distribution. At the May 2024 meeting, the Extension educator highlighted April's above-average precipitation trends, which were included in the alert along with a precipitation map. This information was particularly relevant due to its potential impact on spongy moth (formerly gypsy moth) populations. Central Pennsylvania has been severely affected by this pest, whose larvae feed on many plants. In spring and early summer, defoliation is the primary stressor associated with spongy moth infestations. The risk of tree mortality depends on the extent of leaf loss and other environmental stressors in the years following defoliation. The outbreak has persisted for several years, prompting record levels of state-owned land spraying in 2023. Insecticides remain a crucial management tool, but

timing is critical for effectiveness, particularly with specific active ingredients.

A photograph accompanying the article, taken with an iPhone 11, captures spongy moth larvae at their most vulnerable stage, reinforcing the importance of well-timed treatments. The photo caption reads: "Spongy moth have hatched out in Pennsylvania and are still in the early stages of growth, an excellent time for insecticides to be effective." The article, which has received 484 views, is available online at https://extension.psu.edu/2024-green-industry-current-issues-for-may.

YES, THERE ARE ALLIGATORS.

Charlotte Maxwell
Extension Agent
Clemson Cooperative Extension
Conway

In the Horry County Frequently Asked Questions: Summer Edition – Clemson Cooperative Extension blog post, a photo with the caption "An American alligator on the edge of the Waccamaw River in South Carolina. Photo courtesy of Charlotte Maxwell." was published. The population in Horry County has increased by over 40% in the past 4.5 years, and many new residents have moved from an area where alligators do not live. Alligators have been pushed into residential areas across the county with the booming development. To educate the general public that alligators can be found in every body of fresh water and lead them to a resource on how to interact with them properly, this blog post was published and includes additional summer FAQs for the county. The photo was also used on Facebook to drive citizens to the blog post and reached 392 people.

THE JOY OF LIVESTOCK JUDGING

Kari Lewis
Cut Bank

This photo captures the concentration of a first year 4-H swine member at the local fair and the genuine joy of livestock judging from the swine showmanship judge. The experience of speaking to a judge during a livestock show develops a member's communication and critical thinking skills and builds their confidence in themselves as they articulate their thoughts to an adult. This photograph was published in the Golden Triangle Newspapers, a regional weekly newspaper that covers four counties and serves as the community news source. It was also published in the Trader's Dispatch, a monthly farm and ranch newspaper that reaches 18,700 registered subscribers in eight western states.

State Winners

North Central

Illinois	Bruce Black
Iowa	Carter Oliver
Kansas	Sandra Wick
South Dakota	Madison Kovarna

Southern

Alabama	Jacob Kelley
Arkansas	Nicole Nichols
Georgia	Brooklyne Wassel
Louisiana	Christopher Dunaway
Mississippi	Heather Jennings
North Carolina	April Bowman
Oklahoma	Crystal Ashalintubbi-Shipman
Tennessee	Jessica Young
Texas	Rebecca Coward
Virginia	Andrew Overbay

EVENT PROMOTIONAL PACKAGE

National Winner

SOIL MANAGEMENT SUMMIT

Gabrielle Bolwerk
Water Resources and Soil Health Educator
University of Minnesota
Cloquet

Bolwerk, G[1]

[1] Water Resources and Soil Health Educator, University of Minnesota Extension, Cloquet, Minnesota, 55720

The Soil Management Summit is a statewide event held with the objective of providing practical information about soil management to Minnesota farmers and agriculture professionals. This event is unique in that it emphasizes both academic research and proven farmer experience to increase participant understanding and adoption of conservation farming practices. Through this annual event, University of Minnesota Extension and the Minnesota Office for Soil Health bring farmers, researchers, and advisors together to share information and experience with cover crops, tillage, nutrient management, and other leading soil management topics. This exchange of information leads to an increase in adoption of soil health practices across the state, benefiting farmers, the public, and shared natural resources. The 2025 Soil Management

Summit drew in over 300 attendees, making it the second-most attended event in its 20-year history. In the post-event evaluation, 97% of the respondents agreed that they will use information from the 2025 Soil Management Summit in their work or on their farm. Gabi Bolwerk (Carlton County, Minnesota) created all of the promotional materials for the 2025 Soil Management Summit, including but not limited to postcards, flyers, and Facebook posts. 2,650 printed and digital postcards and flyers were distributed to Extension Educators, Soil and Water Conservation Districts, and other partners. As they were handed out at events or displayed in offices, these eye-catching materials were often people's first exposure to the Soil Management Summit. In addition, 23 posts on the UMN Extension Healthy Soils and Cover Crops Facebook page with a combined 16,640 views were used to promote the event and provide information to potential attendees. The highest performing post, with 1,998 views, highlighted the tillage breakout session speakers. The combined success of these promotional materials contributed to the aforementioned increased number of attendees at the 2025 Soil Management Summit.

National Finalists

HARRISON COUNTY 4-H AND FFA LIVESTOCK SHOW AND SALE

Jennifer Friend
Extension Instructor
West Virginia University Extension Service
Clarksburg

Friend, J[1]

[1] Extension Instructor, Clarksburg, West Virginia, 26301

One of the most impactful programs for 4-H and FFA youth across the country and West Virginia are youth livestock programs held during county and state fairs. Not only do they learn to care for animals, but through livestock skillathons, judging contests, and quiz bowls they can be tested on their knowledge about their animal and the industry. In Harrison County, there is little evidence that there ever was a livestock sale held in the county. In 2022, we were successful in holding the first annual Harrison County 4-H and FFA Livestock Show and Sale with six total exhibitors and five youth marketing 7 animal lots. Now in its third year, the show and sale has grown to 40 animal lots exhibited by 25 youth. With this type of growth, buyer recruitment and retention is key. To aid youth in buyer recruitment, a letter, brochure, and "Frequently Asked Questions" document was developed. Since Harrison County does not have a history of a youth livestock sale, providing ample information to potential buyers is critical. These documents were provided to youth exhibitors for in-person recruitment and distributed to over 60 past and potential buyers. The efforts made to promote the third annual sale have increased interest from businesses to support the youth and have also increased interest from youth to participate in the show and sale. As a result of these materials, there were 35 registered buyers at the 40-lot sale that garnered over $40,000 going to youth and the livestock barn fund.

2025 GARDEN FESTIVAL & PLANT SALE

Clarissa Chairez
Residential Horticulture Agent
United States
Orlando

Chairez, C[1], Yip, L[2], Gonzalez Guittar, S[3], Kanne, D[4]

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The 2025 Garden Festival & Plant Sale (GFPS) is UF/IFAS Extension Orange County's largest community outreach and educational event of the year. It also serves as the annual fundraiser for the Orange County Master Gardener Volunteers, providing hands-on horticultural education while supporting the volunteer program. GFPS welcomed nearly 2,000 visitors, educated 309 workshop participants through live demonstrations and auditorium presentations, and generated $11,500 to support volunteer-led initiatives. The event features workshops and demonstrations, covering topics such as Vegetable Gardening, Basics of Landscaping, Micro Irrigation, and Wildlife Habitat; providing attendees with practical, research-based learning experiences. A multi-channel event promotion campaign was implemented to expand reach and drive attendance, including a blog post (https://blogs.ifas.ufl.edu/orangeco/2024/09/03/2025-garden-festival/) that generated 1,024 views, a social media post that influenced 16,000 people and was the driving promotional channel for 20% (55 of 280) of surveyed attendees. Promotions also included a banner displayed in front of the Extension office that attracted 16% (44 of 280) of surveyed attendees, an advertisement in the Orlando Sentinel, and a feature in the Extension office newsletter, which was distributed to 6,231 recipients. A tri-fold event

brochure was also distributed on-site to provide attendees with event details. Overall this integrated marketing strategy increased event visibility and drove visitors to the Orange County Extension office, demonstrating the power of targeted outreach in fostering community participation and gardening education.

ANNIE'S PROJECT: PROFITABILITY IN AGRIGULTURE - KNOW YOUR NUMBERS, KNOW YOUR OPTIONS

Susann Mikkelson
Agricultural/4-H Extension Agent
NMSU
Santa Rosa

Mikkelson, S[1]

[1] Agricultural/4-H Extension Agent, NMSU Cooperative Extension Service, Santa Rosa, New Mexico, 88435

This course targeted women in ranching and farming in central and eastern New Mexico, was based on the national Annie's Project Know Your Numbers, Know Your Options curriculum, and tailored specifically to NM producers. The curriculum also integrates information on the FINBIN national farm financial database, and FINPACK, a farm business analysis and planning system, teaches the value of benchmarking and analysis, and encourages participation in the newly created New Mexico Farm and Ranch Management (NM-FARM) Program. For further information on NM-Farm, visit NM-FARM Program | New Mexico State University | BE BOLD. Shape the Future. The goal was 25 participants from 4 counties.
The Annie's Project KYNKYO is a 12-hour curriculum. The Agent developed a hybrid 15-hour program that included networking and hands-on workshop opportunities. The first six hours of the course were held virtually, in two-hour sessions. An optional two-hour session on accounting tools was also held. The program concluded with a two-day, two-night retreat, including a tour of a small, on-ranch meat processing plant, and tour and dinner at a large ranch for sale.

The program helps ranchers and farmers understand their current financial position, impacts of large purchases, new leases or changes in production on their bottom line. The program includes real case studies, benchmarking, hands-on workshops using your own numbers, and interactive discussion. Upon completion of this program participants will have a better understanding of their financials, how financial records can be used to make decisions, and how to confidently discuss their financial position with their family, business partners, and lenders.

The program had 16 participants from 7 counties and three states. Participants overall indicated that they increased their understanding of balance sheets, ratios, cash flow, income statements. They learned more about insurance options and how they can take advantage of programs of USDA's NRCS. Some participants increased their knowledge from low skill level to moderate; some from moderate to high skill. Each participant gained new knowledge that they will use in financial planning in their operation and with lenders. At least two participants plan to participate in the NM-FARM program.

Regional Winners

CROP SCOUT SCHOOL PROMOTIONAL PACKAGE

Rebecca Vittetoe
Extension Field Agronomist
Iowa State University Extension
Washington

Vittetoe, R[1], Schmitt, V[2]

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[2] Extension Field Agronomist, Muscatine, Iowa, 52761

Each summer crop scouts head out to fields to do scouting. A lot of these crop scouts are summer interns with minimal experience while others may be wanting more of a refresher before heading out to the field. To help provide basic knowledge on crop scouting, a Crop Scout School is offered in the spring to help prepare or refresh crop scouts on their crop scouting knowledge before they head out to the fields. The Crop Scout School features hands-on learning opportunities where participants rotate through breakout sessions and get some first-hand field experience at staging crops; weed, disease, and insect identification; stand evaluations; and practice using scouting equipment like sweep nets. To promote this program, a marketing packaged was developed by Rebecca Vittetoe, extension field agronomist with the assistance of Virgil Schmitt, extension field agronomist, and the ISU Ag and Natural Resource Extension Communications Team. The package included a flyer, created by Rebecca and reviewed by Virgil, that was distributed both directly in the mail and electronically via email to ag retailers, crop consultants, community colleges, and local county extension offices. The flyer was mailed to 140 contacts and distributed electronically to over 200 contacts. Additionally, a news release was created with the assistance of the ISU Ag and Natural Resources Extension Communications Team. This news release was distributed statewide to media outlets as well as to local media contacts including local newspapers, radio stations, and the Farm Bureau Spokesman. The

event package also included several social media graphics that were created by Rebecca to be used on social media platforms like X and Facebook. These were used on the ISU Crops Team X account and Rebecca's X account as well as distributed to other extension field agronomists and county extension offices. On social media, there were 7,861 impressions just looking at how the Crop Scout School was specifically promoted on the ISU Crops Team X account and Rebecca's X account. We had a total of 55 participants in 2024, which attendance was limited to 50-60 participants to keep this program hands-on.

WHAT AG LENDERS NEED TO KNOW IN 2025

Ben Brown
Extension Specialist
University of Missouri
Columbia

Brown, B[1], Washburn, T[2]

[1] Extension Specialist, University of Missouri, Columbia, Missouri, 65203
[2] Program Director, University of Missouri, Columbia, Missouri, 65211

The "What Agricultural Lenders Need to Know in 2025" Seminar Series, hosted by the University of Missouri Extension, is an essential event for agricultural lenders supporting Missouri's farmers and ranchers. This series, now in its 44th year, offers a comprehensive overview of the latest trends and issues in agricultural finance, providing valuable insights to help lenders better serve their clients. The seminar series includes six regional in-person events held across Missouri, each designed to address the unique needs of agricultural lenders. Participants will gain access to exclusive content, including five webinars covering macroeconomic trends, policy updates, market analysis, farm income projections, and 2024 production budgets. These webinars serve as a valuable resource for lenders to share with their agricultural clientele, enhancing their advisory capabilities. The promotional package for the in-person seminar series and educational webinars included press releases distributed through the College of Agriculture, Food and Natural Resources, MU Extension, and media partners, fliers in publications of trade associations such as Missouri Bankers Association and Missouri Independent Bankers Association, and eight social media graphics and corresponding text that were cross posted with county and state media platforms. The authors worked collaboratively to build a social media plan with dates and content descriptions that could be distributed to county Extension offices. The 2024 event reached 241 Missouri agricultural lenders, who represent 19,280 Missouri producers and a total loan portfolio of just under $5.4 billion. There were six virtual webinars offered in spring 2025 that reached 1,346 customers of participating lenders.

BACKYARD GARDENING

Haley Sater
Agriculture Extension Educator; Agriculture and Food Systems
University of Maryland Extension
Salisbury

Sater, H[1], Zobel, E[2]

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[2] Agriculture Educator Associate , University of Maryland Extension, Cambridge, Maryland, 21613

Since 2021, the University of Maryland Extension's (UME) Backyard Gardening virtual series has provided accessible, science-based education to gardeners of all levels. Now in its fifth year, the 2025 series continues to offer fresh topics and expert speakers, helping participants enhance their gardening skills from home. This free online program features live Zoom webinars every other Tuesday at noon from March through May. Topics range from preparing gardens in early spring to in-depth discussions on herbs, the science behind companion planting, and fruit and vegetable production suited for the Mid-Atlantic. Each session includes a live Q&A, allowing participants to engage with presenters. For those unable to attend live, all sessions are recorded and available on YouTube for on-demand access. The Backyard Gardening series marketing package was developed by Haley Sater, and Emily Zobel, and was promoted widely. Marketing channels included a flyer, a press release that was distributed to local newspapers, a university events page, social media posts, and a direct email marketing campaign that reached over 2,000 past participants. The flyer and social media graphics were created by Haley and were shared across multiple University of Maryland Extension Facebook and Instagram pages, including the Home and Garden Information Center. These posts generated 12,896 views, 409 interactions, 103 link clicks, 144 shares, 69 saves, and 249 story views. These efforts have resulted in strong engagement, with 1000 individuals currently (03/14/2025) registered for the 2025 series and 286 live participants attending the first session. Through Backyard Gardening, the University of Maryland Extension continues its mission of providing research-based education to support sustainable home gardening. Whether new to gardening or an experienced grower,

participants gain practical, science-backed strategies to improve their home harvests.
Register here: https://go.umd.edu/BYG2025.

3RD ANNUAL DAIRY DAY

Margaret Quaassdorff
Dairy Management Specialist
CCE NWNY Dairy, Livestock, and Field Crops Team
Batavia

Quaassdorff, M[1], Fazio, A[2]

[1] Dairy Management Specialist, Cornell Cooperative Extension Northwest New York Dairy, Livestock and Field Crops Team, Batavia, New York, 14020
[2] Administrative Assistant, Cornell Cooperative Extension Northwest New York Dairy, Livestock and Field Crops Team, Batavia, New York, 14020

The Cornell Cooperative Extension Northwest New York (NWNY) Dairy Day is held each year to gather farmers, farm managers, local extension educators and allied industry members who are interested in hot-button issues, implementable ideas and practical research that contributes to the resilience of the dairy farm business in the NWNY region. The one-day conference, held on February 6, 2025 offered a variety of relevant topics including current and future options for automated herd monitoring and management through technology; insight from a new dairy new processing partner in New York State on the company's goals, influence and opportunities for western New York dairies; an update on workshops and projects offered by the NWNY Dairy Team; and a farmer panel focusing on the successful transition to milking in a rotary parlor system. Farmers participated in discussions and networked with industry experts and were treated to a lunch catered with local food and milk. I developed the program marketing and promotional package with the assistance of the Cornell Cooperative Extension Northwest New York Team administrative assistant to post on the team's social media page. I created the flyer and drafted the press release to draw in registrants prior to the event. I worked with our admin to shoot and share the social media Facebook reel to encourage walk-in participants at the start of the event. The flyer was shared across 10 counties in western New York via the team's monthly newsletter reaching 546 people, and weekly to 1,282 farmers and ag industry subscribers by MailChimp email for the team's upcoming events. The press release was sent to approximately 9,000 readers in New York during the week leading up to the event. On social media, the flyer and reel reached a total of 503 people with 969 views. In its third year, the event attracted 41 participants from 14 counties and 3 states, and attendance grew 28% over last year, despite challenging winter weather the day of the event. Link to the reel: https://www.facebook.com/reel/938346621749369

HEMPSTEAD COUNTY EXTENSION WATERMELON GROWERS' MEETING

Kim Rowe
Hope

Rowe, K[1], Courage, T[2]

[1] County Extension Agent -Agriculture, University of Arkansas System Division of Agriculture Cooperative Extension Service, Hope, Arkansas, 71801
[2] Director of Extension Communications, University of Arkansas System Division of Agriculture Cooperative Extension Service, Little Rock, Arkansas, 72227

The 2024 watermelon growers' meeting in Hope was inspired by the many calls and site visits to assess production issues in my first couple of years as an agent, as well as a reemerging interest in watermelon production in the county, which is historically famous for world-record setting large watermelons. The previous summer, I surveyed peddlers on the streets of Hope to gather their contact information and gauge interest in education on watermelon production with hopes of implementing a program in the future. The idea of a formal meeting to address common issues and create a network of traditional, small-acreage, low-input growers was a gamble as research has advanced beyond their style of production, but with our specialists on board, I organized the program and began advertising. One method I used to promote this program was by mailing a one-page flyer and brief letter to potentially interested contacts I had made from the previous two years including the survey respondents. Additionally, I posted flyers around town and posted on my county Facebook page and agriculture group. Tracy Courage, director of Extension communications, wrote and sent a news article to her outlets. These all proved to be fruitful as registrations from nearby and distant places rolled in. The story was picked up on X by High Plains Journal as well and gained traction outside of Arkansas with calls coming in from neighboring states. Expecting low attendance, the meeting was initially scheduled to be held at the Hempstead County Extension Office, but registrations exceeded our capacity so we relocated to the Southwest Research and Extension Center which better accommodated the 40 people who attended. Evaluations indicated producers gained knowledge and planned to implement practices learned during the meeting. Presenters made their educational materials available after

the meeting to participants in shared cloud storage. Those resources were distributed numerous times throughout the 2024 growing season to contacts who found the promotional pieces online long after the meeting and called Hempstead County Extension seeking information. This program also served as my internal leadership project, which was presented to upper administration in August of 2024.

2025 WEST TN PLANTER CLINIC

Kari Beth Neville
Dresden

Team Members: Neville, K[1], Stephenson, L[2]
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The West TN Planter Clinic took place on February 21, 2025, from 8:00 AM to 1:30 PM at Silver Oaks Farm in Gibson County, which also served as the event host. Sponsored by the West TN Soybean & Grain Producers Conference and organized by the Grain Conference Committee, chaired by Lindsay Stephenson, this clinic was designed to provide research-based education to producers, helping them improve their agricultural practices and enhance their livelihoods through more efficient planting operations. Missy Bauer of B&M Crop Consulting served as the keynote speaker, presenting her 10 Point Planter Check, a method for ensuring planters are running at peak performance. Proper planter maintenance can significantly improve seed placement and field uniformity, ultimately increasing yield potential. Hands-on demonstrations allowed producers to apply these techniques in real-time using planters provided by Silver Oaks Farm and Tennessee Tractor. A promotional effort was led by Kari Beth Neville and Lindsay Stephenson, aiming to reach as many producers as possible. A flyer was developed, via Canva, and utilized in multiple formats, including an enlarged version displayed at the Grain Conference and a postcard mailing as part of the Western Region Crop Event Schedule. Additionally, an extensive social media campaign reached 6,306 individuals, contributing to a strong turnout. The clinic successfully drew 131 producers, demonstrating significant engagement and interest in improving planter efficiency. The West TN Planter Clinic provided a valuable opportunity for producers to gain expert insights, learn best practices, and ensure their planters operate at full potential for a successful growing season. By delivering research-based, practical education, this event supported producers in optimizing their equipment, increasing efficiency, and enhancing their overall agricultural success.

2025 ANNUAL 4-H OPEN HOUSE

Rebecca Sheriff
4-H Specialist
Colorado State University
Salida

Sheriff, R[1]

[1] 4-H Specialist, Colorado State University, Salida, Colorado, 81021

The 2025 Annual 4-H Open House is organized by the Chaffee County Extension Office and is designed to achieve the following goals: 1) allow 4-H'ers a platform to demonstrate their 4-H project learning to the public 2) interface with the public and explain the design of the 4-H positive youth development organization and 3) recruit and enroll prospective new 4-H families. The event was held on 22 February 2025 and was advertised to the general public through social media outreach on Facebook, a press release distributed to 4 local newspapers, flyers posted across Chaffee and Lake counties (5 towns), and on the local radio stations. This event resulted in over 100 particpants, with 17 families signing up to receive more information. Rebecca Sheriff, the 4-H specialist for Chaffee & Lake counties in Colorado, designed and published these promotional pieces: press release, flyer, and social media post.

INTRODUCTION TO HOME MUSHROOM CULTIVATION KANE COUNTY

Victoria Xiong
Extension Assistant Prof.
Utah State University
Kanab

Xiong, V[1]

[1] Extension Assistant Prof., , Kanab, Utah, 84741

The Introduction to Home Mushroom Cultivation Workshop was successfully promoted through a multi-channel campaign, including a flyer, a social media post, and an Eventbrite page. These materials were strategically designed to generate interest, provide essential event details, and encourage registration.

Beyond promotional efforts, the author conducted a needs assessment two months in advance to demonstrate demand, securing the presenter and funding sources for this workshop in a rural part of Utah. Additionally, they secured a $200 donation to provide dinner, drinks, snacks,

and appreciation gifts for the instructor, enhancing the event experience.

The author played a key role in all aspects of promotion. They designed an informative and visually engaging flyer distributed through digital and print channels. They also created and managed the social media posts, strategically crafting messaging and visuals to maximize engagement while tracking insights to refine outreach. Furthermore, they developed the Eventbrite page, ensuring a compelling event description and a smooth registration process. As a result of these efforts, the workshop attracted 56 attendees (42 paid, 14 free), which is the most well-attended workshop on horticulture topics in Kane County for 10 years. The post-event evaluations from 38 respondents showed a significant knowledge increase, with an average score of 4.6 out of 5. All paid attendees who received a free growing kit were committed to completing their cultivation, and 60% expressed interest in growing more mushrooms. Additionally, 80% of participants reported they would share what they learned with friends and family, expanding the workshop's impact beyond direct attendees.

This promotional strategy engaged the target audience effectively, leading to a well-attended event and measurable learning outcomes. Combining data-driven outreach with funding and logistical support, the campaign provided a meaningful educational experience and broader community engagement in home mushroom cultivation.

State Winners

North Central

Illinois	Katie Bell
Kansas	Blaire Todd
Michigan	Cora Okkema
North Dakota	Breana Kiser
Ohio	Beth Scheckelhoff
South Dakota	Sara Bauder

Northeast

Connecticut	Jacqueline Kowalski
New Jersey	Ruth Carll
Pennsylvania	Melanie Barkley

Southern

Alabama	M. Landon Marks
Georgia	Ashley Best
Kentucky	Katie Hughes
Louisiana	Cole Gregorie
Mississippi	Kelby King
North Carolina	Nicole Youngblood
Oklahoma	Liana Palmer
South Carolina	Eric Eliassen
Texas	Robert Ferguson

West

Montana	Kari Lewis

PRESENTATIONS

2025 NACAA

110th
Annual Meeting
and
Professional Improvement Conference

Billings, Montana

4-H AND YOUTH PROGRAMMING PRESENTATIONS

4-H SPECIAL AGRONOMY PROJECT: REACHING MORE YOUTH

Brandy VanDeWalle
Extension Educator
NE Extension
Geneva

VanDeWalle, B[1], Nygren, A[2]

[1] Extension Educator, UNL, Nebraska, 68361
[2] Extension Educator, UNL, Nebraska, 68033

The Special Agronomy Project (SAP), now in its fifth year, aims to engage youth who might otherwise lack access to agronomic crops or projects. At the Nebraska State Fair, this 4-H Agronomy project focused on sugar beets in 2024. A newsletter was distributed during the 2024 growing season to all 93 Nebraska County Extension Offices via email; offices print or email copies to the 4-H'ers participating in the program. In 2025, the program will be implemented in the same manner with 726 youth enrolled in this year's project. In 2024, 11 exhibits, including a video submission, were entered at the state fair, garnering positive feedback, with one participant's mother noting, "This is a neat program, and I'd love for our whole club to do this next year." I distributed nearly 700 seed packets to Nebraska 4-H and FFA youth. The project's impact was substantial, with 38% of participants (n=16) reporting it was their first time taking an agronomy project to the fair, and 81% noting they learned a valuable skill for the future. Additionally, 92% expressed intent to enroll in SAP again the following year. SAP gained statewide recognition, making headlines in IANR news and being prominently featured in a booth by Western Sugar. This initiative not only increased youth engagement in agronomy but also sparked greater interest in sugar beet cultivation across Nebraska, raising awareness of the field's relevance to the state's agricultural community.

COWBOYS AND CALVES: EDUCATING FLORIDA'S STUDENTS ON CATTLE'S IMPACT ON ENVIRONMENT, ECONOMY AND NUTRITION

Lindsey Crum
Extension Agent III, MS
Hendry County Extension Service
LaBelle

Crum,L[1], Larson,C[2], Butler,L[3], Kirby, C[4], Stice, B[5], Lawson, K[6]

[1] Extension Agent III, MS, UF/IFAS, Florida, 33935
[2] Regional Dairy Agent, UF/IFAS, Florida, 34974
[3] Extension Agent III, UF/IFAS, Florida, 34974
[4] Extension Agent IV, UF/IFAS, Florida, 34221
[5] Extension Agent IV, UF/IFAS, Florida, 33830
[6] Extension Agent II, UF/IFAS, Florida, 33875

Florida faces a critical challenge: dwindling agricultural lands amidst a growing urban population of nearly 23 million people disconnected from the source of their food, fiber and ecosystem services. Focusing on urban dominated counties and a few rural counties (Broward, Collier, Glades, Hendry, Highlands, Okeechobee, Palm Beach, and Polk) only 37% of the acreage is dedicated to agriculture – supporting ranching, dairies, citrus, sugarcane, and vegetables. The region's farmland has decreased by 20% over two decades, and apartment buildings, shopping centers, and homes for the new 881,000 people have taken its place. This disconnect threatens agriculture's economic and environmental contributions, including clean water, purified air, wildlife habitat, and wildfire protection. The Adopt-A-Calf and Adopt-A-Cowboy programs address this by educating urban students on cattle's role in the environment, economy, and our nutrition. UF/IFAS Extension Agents partnered with Discover Dairy, Florida Cattlemen's Foundation, and Florida Beef Council to provide in-person and virtual education about dairy and beef industries. Objectives: increase knowledge on broader impacts of beef and dairy operations to the environment and economy, foster appreciation for ranchers and dairymen, and engaging 3,000 students annually. Each participating class receives: an educational visit by their cowboy and his horse, virtual ranch tours/videos, and supplemental educational materials that meet the Florida DOE's Core Standards. During in-person visits students participated in hands-on learning by making butter, sampling beef sticks, petting calves and observing their horse-back cowboy crack his whip. In 2024, Adopt-A-Calf and Adopt-A-Cowboy reached 6,814 students, surpassing goals. A subset of students (n=2,405) took pre and post-tests. Nutrition knowledge increased by 76%, with students learning that milk has 13 essential nutrients and beef is rich in Zinc, Iron,

and protein. Students also had large knowledge increases in cattle's contribution to the environment and economy, 82% and 54% respectively. Even more impactful were conversations with teachers and chaperones who asked questions to clear misconceptions about animal care and the environmental impacts of livestock. By bridging the urban-rural divide, Adopt-A-Calf and Adopt-A-Cowboy countered the effects of shrinking farmlands and urban growth, ensuring Florida's future generations value agriculture's vital contributions.

UI/WSU YOUTH LIVESTOCK FIELD DAYS - ANIMAL SCIENCE THROUGH EXPERIENTIAL LEARNING

Audra Cochran
Extension Educator
University of Idaho
Orofino

Authors: Cochran,A[1], O'Brien, K[2], Heitstuman, M[3], Tifft, K[4], Van Buren, J[5], Myers, M.K[6], Stewart, K[7], Kaufman, J[8], Schmidt, J[9]

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[3] Extension Educator, Washington State University, Washington, 99164
[4] Extension Educator, University of Idaho Extension, Nez Perce County, Idaho, 83501
[5] Extension Educator, University of Idaho Extension, Latah County, Idaho, 83843
[6] 4-H Program Coordinator, University of Idaho Extension, Nez Perce County, Idaho, 83501
[7] 4-H Program Coordinator, Washington State University, Washington, 99111
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[9] Extension Educator, Washington State University , Washington, 99111

Since 2001, two to four Youth Livestock Field Days have been offered annually each spring in Northern Idaho and Eastern Washington by University of Idaho and Washington State University Extension. The committee responsible for these events has grown from three 4-H professionals in 3 counties, to eight 4-H professionals in 5 counties. This regional approach to youth livestock education has resulted in a collaborative effort that is making an impact across regional and state lines. On average, each field day is attended by 80-150 youth and adults. In 2024, three field days were offered – Beef, Sheep/Goat, and Swine. They were attended by 105, 130, and 143 youth and adults, respectively. At the conclusion of each field day, a simple evaluation is administered and collected at the end of the program. In 2024, the UI/WSU Youth Livestock Field Days increased the knowledge of participants 1 point on a 1-4 scale, and participants were over 90% likely/somewhat likely to use the knowledge in their projects. The primary objective is to provide 4-H professionals with hands-on activities they can use to educate youth and adults in their counties on animal science. The secondary objectives are to improve youth knowledge to become advocates for the animal agriculture industry and to generate youth interest in animal agriculture careers. At county fairs, visitors often ask youth exhibitors questions about the livestock industry, youth should be prepared to answer those questions with confidence and accuracy. Also, with the increasing average age of farmers and ranchers, it is imperative to generate interest in the next generation, through exposure to the animal agriculture industries. This presentation will be comprised of three segments: prioritizing learning content, interactive activities, and event planning. As a result of the regional field day model, participants from a large geographical area have been able to access high-quality training at an affordable price

ADOPT A COW: BEEF EDUCATION FOR 3-5 GRADE

Madison Kovarna
Watertown

Kovarna, M[1], Wood, C[2]

[1] Beef Nutrition Field Specialist , South Dakota State University Extension, South Dakota, 57201
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The general population is becoming further removed from agriculture, with fewer people having direct tie to this industry. Beef cattle inventory in South Dakota is at 1.4 million head as of Jan. 2025 (USDA NASS) while the human population is 924,669 (2024 US Census). Even given this, many residents are unfamiliar with how beef makes it to their plates. To address these concerns, the "Adopt-A-Cow" curriculum was developed. This 6 lesson curriculum engages elementary-age youth in learning about animal agriculture through hands-on activities and by connecting youth virtually with real South Dakota animals. Students follow their "adopted" cow and calf throughout the school year while they learn about the South Dakota beef and dairy industries. The Adopt-A-Cow program is an excellent opportunity for students to learn how food gets from farm to fork while having fun. Lessons and video content are designed to meet various South Dakota education standards and combine a variety of

learning strategies including video and hands-on activities. Most lessons also have extended learning opportunities that allow classrooms to dive deeper into the topic as time allows. The 6 lesson curriculum contains materials on beef production, history, nutrition, and the beef industry. The curriculum was piloted in seven school districts, reaching 230 youth in the Fall of 2024. This curriculum provides a comprehensive, engaging approach to beef education, offering bonus materials like virtual escape rooms, a board game, and children's book recommendations.

CLOSE ENCOUNTERS WITH AGRICULTURE

Kelly Nichols
Ag Agent
University of Maryland Extension
Derwood

Nichols,K[1], Habibi, M[2], Savage,C[3]

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[2] Family and Consumer Sciences Agent, University of Maryland Extension, Maryland, 20855
[3] 4-H Agent Associate, University of Maryland Extension, Maryland, 20855

Montgomery County is in central Maryland, just north of Washington, D.C. According to the U.S. Census Bureau, its population was approximately 1 million in 2020, with 97.3% located in urban areas and 2.7% located in rural areas. There is minimal interaction between the urban population and the farming community; this gap is only widening. The average consumer has limited knowledge about how their food is produced and farmers' role in protecting the environment. Close Encounters with Agriculture, an educational program for 4th grade students, was started to bridge this gap and increase agricultural awareness. Close Encounters with Agriculture is an annual field trip held at Montgomery County's Agricultural History Farm Park. For approximately 14 days in the fall, fourth grade students, along with their teachers and chaperones, visit the Farm Park. Students rotate through three tracks: agriculture, nutrition, and environment. In 2024, Close Encounters with Agriculture was held for 16 days in October. Students from 45 schools (34 public and 11 private) attended. A total of 3,360 students and 246 adults (teachers and chaperones) were reached, and 71 volunteers were trained. Ten stations were taught by University of Maryland Extension educators and volunteers. Each station includes teaching and a hands-on activity. IRB approval was obtained to do pre- and post-testing for a subset of students (n=367). Students were given a pre- and post-test onsite using response clickers before and after the field trip. The pre- and post-tests consisted of the same 14 multiple choice questions. Overall, students scored an average of 32% correct on the pre-test. After participating in the program, their test scores rose to an average of 83% correct on the post-test. Statistical analysis indicated a significant increase in correct responses from pre-test to post-test for all but one question. Differences from ranged from 6% to 81%. In conclusion, Close Encounters with Agriculture is a successful multi-disciplinary program providing students with the opportunity to learn more about agriculture, nutrition, and the environment.

EXPLORING FLORIDA'S ECOSYSTEMS: A YOUTH NATURALIST EXPERIENCE

Julio Perez
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University of Florida
East Palatka

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Putnam County's rural setting limits opportunities for youth to explore and learn about the diverse ecosystems around them. The Florida Youth Naturalist program helps bridge this gap by immersing participants in hands-on learning about Florida's three main ecosystems, fostering a deeper appreciation for local wildlife, habitats, and conservation. Designed for youth ages 10-13, the program was offered in June 2023 and 2024 using a curriculum developed by Florida 4-H Youth Development and the Florida Master Naturalist Program. The three-day camp combined interactive lessons, field trips, and hands-on activities. In 2023, participants explored all three ecosystems, while the 2024 session focused on Uplands. A highlight was the exploration of the Ordway-Swisher Biological Station, where youth observed native species and habitats. Mornings featured educational sessions, followed by guided explorations where participants identified plants and animals, discussed ecological relationships, and engaged in conservation activities. Guest speakers introduced career pathways in environmental science and conservation. Reflections at the end of each day provided insight into participants' learning experiences. Sixteen youth demonstrated increased knowledge of Florida's ecosystems, improving their ability to identify native species. Many expressed a stronger interest in conservation and careers in

natural sciences. Observations and reflections showed a growing appreciation for Florida's natural resources and ecosystem functions. The Florida Youth Naturalist program successfully engaged youth in meaningful environmental education, inspiring future stewards of natural resources. Expanding similar programs could further enhance youth involvement in conservation and natural sciences.

CONNECTING WITH THE PRESENT, PAVING THE WAY FOR THE FUTURE: AN ENTREPRENEURSHIP JOURNEY FOR FUTURE AGRICULTURALISTS

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The 4-H Youth Entrepreneur Camp, hosted by Bradford and Union County 4-H in 2023 and 2024, aimed to equip youth with workforce skills through entrepreneurial education. This three-day camp introduced participants to business planning, marketing, and financial management, preparing future agricultural entrepreneurs while strengthening relationships with present agriculturalists. By the end of the camp, 100% (n-23) of youth were expected to develop and present a business plan with marketing strategies and financial projections. The agents aimed to establish several local business partnerships through the camp to provide mentorship and resources for youth-led initiatives. The camp collaborated with local agricultural business owners who provided real-world insights. On day one, agents and industry experts shared presentations on business foundations and financial literacy. Day two included visits to various agricultural operations, where the youth engaged in hands-on business strategy activities. These businesses included a local feed mill, deer farm, dog grooming facility, lumber mill, and livestock operations. These partnerships extended beyond the camp, offering ongoing support for 4-H programs and emphasizing the importance of community involvement in youth development. On day three, youth applied their knowledge by developing and presenting their own business models to a panel of community leaders and industry professionals. Participants demonstrated significant knowledge gains, with many expressing interests in starting their own businesses. Judge evaluations showed that 100% of the youth successfully developed and presented business plans, including marketing tools. Feedback from the camp indicated a solid understanding of key business concepts. Moreover, 86% (n=23) of the youth gained insights into various career opportunities within the agricultural industry. Agriculturalists involved in the camp gained a greater appreciation for 4-H, boosting support for future initiatives. Youth participants reported increased confidence in their ability to pursue entrepreneurial ventures and apply business concepts in real-world settings. The camp effectively combined entrepreneurship education with agriculture industry exposure, providing a replicable model for other programs to gain workforce readiness. Continued collaboration with agriculturalists enhances 4-H's impact on rural economies by inspiring the next generation of agricultural entrepreneurs. Strengthening these connections supports sustainable growth and empowers youth to become innovative leaders in their communities.

TAKING TRACTOR SAFETY TRAINING TO THE VIRTUAL LIMITS

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Online education has rapidly increased in popularity. Tractor and machinery safety programs are the latest beneficiary of a digitized platform. Technology-enhanced learning engages today's youth with quality instruction in an affordable and accessible manner to support the anytime anywhere concept. For the Extension educator, it accommodates busy schedules, as well as provide workforce development certification in a novel manner. Designed around the current national curricula (National Safe Tractor and Machinery Operation Program), a computerized course is available for various stages of learning. Students (and instructors) can access an online training program (AgSafety4u 2.0) for a self-study platform to increase tractor safety knowledge. Interactive modules use embedded videos, matching games, and more to engage participants' learning. When students are ready to be tested, teachers can rely upon a recently validated WebXam to meet the testing requirements of the federal tractor certification program. Then, when students are ready for the skills and driving courses, a virtual reality

component is available for young operators to know what to expect – and practice in a virtual environment. While VR is not intended to replace the hands-on skills component of the training, it allows youth to become comfortable with the testing environment, practice their maneuverability, and be ready to replicate their skills when they get on the live course. VR helps save instructor time in large classrooms, and also helps remote learners know what to expect when they arrive on testing day. The outcomes expected from this program are twofold in that they provide 1) an enhanced training experience for young tractor operators, and 2) additional technology-based tools for instructors to intensify their agricultural workforce preparation programs. Effective training can have a positive impact on youth to improve tractor safety skills and reduce the burden of injury from high injury-causing agents like tractors and machinery. The presentation objectives are for participants to understand the components of the federal tractor and machinery safety program, learn how to access training and testing components with a newly developed website, and interact with the classroom resources and Oculus headsets to try the VR tractor course.

WORKFORCE READINESS THROUGH DRONE TECHNOLOGY: PREPARING YOUTH FOR CAREERS IN A GROWING INDUSTRY

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As industries such as agriculture, construction, emergency response, wildfire monitoring, and logistics increasingly integrate drone technology, there is a critical need for licensed drone pilots. Equipping young learners with foundational drone skills prepares them for future career opportunities and fosters innovation in agriculture and beyond. Two separate five-day summer camps were offered to 4-H youth (ages 16 to 18) in a multi-County effort to equip students to become licensed drone operators for commercial hire. Participants engaged in a structured curriculum combining classroom instruction taught by a conglomerate of UF/IFAS Extension Agents and hands-on drone flying exercises taught by local drone consultants. Educational objectives were to:
Provide hands-on experience with drone flight and maneuvering techniques
Educate participants on Federal Aviation Administration (FAA) guidelines and ethical considerations in drone piloting
Prepare youth to take and pass the Federal Aviation Administration (FAA) Part 107 test required to receive their drone license for commercial hire
Demonstrate real-world applications of drones across various industries
Inspire youth to explore STEM careers by engaging in interactive learning experiences
Teaching methods included group engagement activities, lectures, drone flying exercises, exam preparation activities, and on-line registration procedures. Interactive activities, including obstacle course challenges, structural evaluations, and integrated mapping programs, allowed participants to apply their knowledge in practical operations. Participants were required to register for the Part 107 FAA drone pilot exam and Extension Agents provided transportation to the certified testing facilities on the final day of the camp.
Participants demonstrated increased confidence in drone handling, with 100% (n=13) successfully completing basic flight maneuvers by the end of the program. For both camps combined, 92% of participants passed their exams and received their drone licenses, positioning them for future employment opportunities. In post-evaluation surveys, 31% of licensees had earned at least $100/hour for commercial drone hire within six months of obtaining their certification, and 77% of participants had purchased and registered their own drones with the FAA. These hands-on learning experiences ensure a well-prepared generation of drone operators and equip our youth for a relevant future in agribusiness.

YOUTH CATTLE SUMMER CAMP

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The Youth Cattle Camp was designed to allow participants to learn about the history of the Florida Cattle Industry and the segments involved in the industry today. My goal

for this camp was to educate youth participants about the industry that founded our state's agriculture, provide them with first-hand learning opportunities using practices that could change their home operations, and allow them the opportunity to connect with advanced livestock producers. Many youth livestock participants enrolled in our county's 4-H program are engaged in raising show animals but are not aware of traditional industry practices. There was a combination of educational methods used in this four-day camp with time spent in the classroom and supplemental day trips to experience first-hand a variety of industry segments. Camp participants experienced a walk-through of the Florida cattle industry with a visit to a local livestock market; had tours of the University of Florida Beef Teaching Unit, the Animal Science Department, a cow-calf operation, a feeder cattle backgrounding yard, a purebred bull selling operation, and a ranch whose focus is replacement heifers; and demonstrations of cattle semen collection and oocyte collection used to create embryos. Twelve youth participants attended the camp. At the end of camp, 95% of participants reported knowledge gain of segments impacting the cattle industry, 50% reported an understanding of reproductive practices, and 25% indicated an intention to implement a new practice demonstrated during camp. One participant's family made a production practice change based on knowledge gained during camp, choosing a different breed of bull to purchase to enhance their cattle operation. In addition to industry education, our visit to the University also gave students an opportunity to be on campus and make connections for future enrollments.

CRACKING THE SCIENCE: SUPPLEMENTAL LESSONS FOR OHIO 4-H CHICKQUEST

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Ohio 4-H's ChickQuest program is designed to deliver science, technology, engineering, and math (STEM) content with a focus on positive youth development in the classroom. The state signature program trains educators to independently deliver the ChickQuest program in grades 3-4 using guidebooks and resources from Extension professionals. In Trumbull County, it was identified that some teachers without a background in poultry or animal sciences felt intimidated to host and teach the program. This sparked a conversation of how this program could be altered to better serve local districts. In 2017, a decision was made to create and pilot interactive, supplementary lessons, to be taught by a 4-H professional. Four, 45-60 minute lessons were created that focus on the following: pre-Chick Quest trivia and program introduction, chicken lifecycle and embryonic development, chicken breeds, egg candling, and post-hatch care. The lesson format includes PowerPoint presentations, worksheets, videos, demonstrations, and hands on STEM activities. The lessons are tailorable to grades K-4. Being present in the classroom has allowed the opportunity to teach, support, build relationships, and ease staff doubts, helping teachers to confidently host the program. Currently, the Trumbull County ChickQuest program has a 100% retention rate of school districts involved. One educator wrote, "As an educator for over 27 years, this has been something I wanted to do my entire career but never came upon the opportunity. The students really enjoyed learning the vocabulary. They loved the hands-on experience." The goal of these lessons is to expand school participation, providing more youth with learning opportunities about chicken embryology, husbandry, and animal agriculture. The program has grown from a single classroom of 25 students in 2017 to a projected reach of 13 districts and 38 classrooms in Trumbull County, impacting over 800 youth.

FARM SAFETY FIELD DAY

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Farm safety education is a pressing need in the Pike County community, as multiple farm accidents involving youth—one fatal—have occurred in the past five years. Although safety training for adults covers topics like agricultural pipeline accidents, tractor rollovers, and baler entanglements, there has been a significant gap in youth-focused education. Pike County Extension, Farm Bureau, and FFA organized a Farm Safety Field Day in May 2024 for all seventh-grade students and their teachers—totaling over 275 participants. This hands-on event brought safety to the forefront by engaging students in interactive lessons on farm equipment, ATV safety, livestock handling and tractor implements. The event had four main

stations: Animals, Equipment, Power and Environment. The animal station taught livestock movement with live ducks, biosecurity with handwashing demonstrations, and snake safety with an animal ambassador. Equipment safety focused on tractors, PTO's and ATV's, with students learning how to spot unsafe practices and the importance of using safe practices every time they use equipment through firsthand testimonies of tragic accidents. The Power station focused on 811 awareness through a flag relay race, electrical safety lessons from a local lineman, and a trailer demonstration where with students pretended to be transported livestock. Environmental safety lessons included Enviroscape watershed lessons, invasive species scavenger hunts, and prescribed fires talks with Georgia foresters. Students rotated through the station activities throughout the day while being led by a high school FFA member. Incorporating senior FFA students not only expanded the program's reach but also provided them with valuable leadership opportunities. The event engaged over 250 students, 30 adults, and 30 volunteers in a full day of farm safety education. Both teachers and students praised the program for its organization and the increase in knowledge it provided to participants. All students left with valuable life lessons, memorable stories, and a goodie bag of educational materials. This program will continue in the future to promote safety awareness in the Pike County community—perhaps even saving a life.

UTAH HIGH SCHOOL RANGE CAMP

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Utah's high school Range Camp, established in 1973 by Utah State University (USU) Extension and the Utah Society for Range Management, has provided students with hands-on experiences in sustainable rangeland practices for over five decades. The program introduces youth to rangeland management principles through immersive fieldwork, expert instruction, and exposure to diverse ecosystems. Participants gain valuable skills applicable to careers in natural resources and competitive success in Future Farmers of America (FFA) events.

A recent survey of past attendees revealed overwhelmingly positive impacts. All respondents (100%) rated the instruction as "very good" or "excellent," and 100% stated that Range Camp influenced their career decisions. More than half (54%) pursued a college degree in rangeland or natural resources, and 56% reported that Range Camp influenced their choice of university. Additionally, 39% of participants applied for internships in range-related fields, with 83% of those securing full-time employment in agencies such as the USDA, Bureau of Land Management, and the Forest Service.

Range Camp also plays a significant role in FFA competition success. Since 2011, attendees have consistently ranked among the top five in the Utah FFA Career Development Event (CDE). At the 2024 Western National FFA Competition, seven of the top ten individual winners and five of the top ten teams had participated in Range Camp. Despite these successes, past data collection efforts were limited. Moving forward, improved tracking methods, including the use of personal email addresses, will strengthen long-term impact assessments. Enhanced recruitment strategies aim to expand participation, ensuring more students benefit from the program.

Range Camp remains a critical tool for educating the next generation of land managers, fostering responsible rangeland stewardship, and preparing youth for careers in natural resources. Its success underscores the importance of experiential education in shaping the future of rangeland management.

AGVENTURES DAYS: AN ANR AND 4H YOUTH EDUCATION COLLABORATION IN HENRICO COUNTY

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GENYOUth published findings that said youth care about both food and the environment. However, they don't understand how these two global issues connect or the importance of agriculture to their everyday lives. Agricultural education in the classroom is one step to increase agricultural literacy of today's youth while also helping youth struggling to understand traditional STEM concepts as it allows youth to connect knowledge and apply it to real-world situations. Henrico County, located outside Richmond, Virginia, is the sixth largest

county in the state. With 74 public schools and numerous private institutions, it represents a predominantly suburban district where agricultural education is minimal. AGventure Days, a collaborative effort between Henrico 4-H and Henrico Extension Master Gardeners, aims to increase agricultural literacy through classroom lessons and hands-on projects on agricultural-related topics, including animal science and horticulture. This partnership served as a way to impact more students without overwhelming the Henrico 4-H agents with additional programming. The program's goal is to enhance agricultural literacy through varied lessons tailored to grade level, interest, and time of year. Educators who completed a survey said their students' perceptions of agriculture became more positive, they learned new concepts, and they enjoyed the learning activities presented in the lesson. The educators also felt that: the lessons/activities were hands-on and interactive, incorporated core curriculum and STEM concepts, and were appropriate for the age group. The program has been supported and expanded through grants and awards, enabling the purchase of teaching materials, consumables, and the development of educator kits. One of the most impactful revelations was how limited youths' knowledge of agriculture was. The majority of youth didn't know what the term meant or how it affects their daily lives. Even though most of the lessons weren't long-term learning experiences, educators felt like the knowledge gained was significant. Youth were able to make connections to their lives and what they were learning in the classroom.

SWEET SUCCESS IN THE SCHOOL GARDEN

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School gardens face a significant challenge during the 7-8 week summer break, as traditional vegetable crops require ongoing maintenance, including watering, pest control, and harvesting. If left fallow, garden beds become overrun with weeds, necessitating extensive cleanup before use in the new school year. To address this issue, the Cherokee ANR agent has long promoted sweet potatoes (Ipomoea batatas) as a low-maintenance summer crop for school gardens. However, adoption has been limited by cost, availability of transplants, and teachers' busy schedules in May.

To overcome these barriers, the Cherokee ANR agent collaborated with Cherokee High School's FFA program in March to lead a hands-on propagation activity. High school students cultivated and nurtured 15 flats of 'Bonita' and 'Mahan' sweet potatoes, ensuring the availability of healthy, rooted transplants by early May. These plants were distributed to ten schools across the county through a partnership between Extension and the Cherokee County Farm Bureau. To encourage participation, the Farm Bureau sponsored cash prizes for the highest overall yield and the largest single sweet potato. Additionally, to assist teachers unfamiliar with sweet potato cultivation, the Cherokee ANR agent developed an instructional YouTube video, which garnered 649 views in its first month.

Six schools successfully grew and harvested their sweet potatoes, producing a collective yield of over 260 pounds, which was utilized in school cafeterias. Educators recognized the value of incorporating a crop that required minimal maintenance over the summer, reducing the need for extensive garden preparation in the fall. Ms. Amber McFarland, a Science Enrichment/Agriculture Teacher, highlighted the educational benefits of the project, noting that it engaged students in the life cycle of sweet potatoes, plant care responsibilities, and sustainability practices. Additionally, sweet potato blossoms contributed to the 2024 Great Pollinator Census.

Culinary staff integrated the harvest into school meals in creative ways. At R.M. Moore Elementary, the 117-pound yield was used for a Thanksgiving luncheon, while Avery Elementary students sampled roasted sweet potatoes with cinnamon. The initiative successfully demonstrated the potential of sweet potatoes as a sustainable, low-maintenance summer crop, fostering hands-on agricultural learning while enhancing school meal programs.

IMPLEMENTING THE FOURTH-H: MAKING SMALL CHANGES IN 4-H PROGRAMMING

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Our rural county recognized a need to decrease visits to the 4-H camp nurse due to dehydration, lack of sleep, and decreased physical activity. Extension Educators across program areas secured a mini-grant to provide more

opportunities for water, healthy food choices in the dining room, and more physical activities throughout the camp day. The program "Healthy and Hydrated: It's in Your Hands" is a staple at our county camp.

The program began because visits for stomach aches, headaches, tiredness, muscle aches, lightheadedness, and lack of urination to the camp nurse were documented and were excessive. This was attributed to dehydration since the camp only had 2 water fountains. Education is provided to camp counselors (grades 10-12) and counselors-in-training (grades 8-9) to encourage their campers (grades 3-7) to try water first for thirst, eat fruits and vegetables, and encouraging physical activity. Each camper is given a water bottle and water jugs are strategically placed throughout camp to encourage proper hydration.

The goal for each person was 80 ounces of water each day, 1 fruit or vegetable each meal, and to try a physical activity each day. 4-H-ers self-reported their water intake, how many fruits and vegetables they ate, and how many physical activities they participated in. If they met the goals at the end of the week, they were given special awards. Each year new physical activity sessions are introduced, like disc golf, AquaZUMBA, and yoga.

The 4-H Common Measures Survey was used to evaluate this program. 92% of participants agreed or strongly agreed that as a result of this program they would try healthier foods. 94% said they would drink more water. 87% said they would try more physical activity. Visits to the camp nurse have decreased by 97% since this program began.

Healthy program initiatives have also increased at the county fair and within local schools as a result of the excitement this generates in the youth.
In this session, participants will learn: (1) How to implement small changes for health in programs; (2) Ways to secure funding for expenses; and (3) Ways to grow the program.

IDAHO LIVESTOCK SKILLATHON: ENGAGING YOUTH IN HIGHER LIVESTOCK LEARNING

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Youth livestock education is an important pillar of the 4-H Youth Development program. Many youth join 4-H to broaden their knowledge of livestock production, however, they tend to focus only on the project they are preparing to exhibit at local county fairs. Though seen as commendable dedication to their project, this narrowed focus limits their opportunity to learn about other livestock species. Hosting a livestock management skillathon competition provides youth with a platform to learn about all species of livestock production as well as other facets of the livestock industry such as meat judging, wool judging and hay judging. For over 10 years now Idaho has hosted a statewide livestock management skillathon competition, giving 4-H youth an opportunity to test their knowledge and skills in the livestock industry. This statewide competition is hosted annually with participants coming from all around the state. The competition includes both a senior and junior age division with the highest placing senior team qualifying to compete at the National 4-H Livestock Skillathon Contest held in conjunction with the North American International Livestock Exposition in Louisville, KY. The competition consists of rotations through stations that test the youth on identification of feeds, livestock breeds, and equipment, as well as judging of wool, meats, and hay. There are also team stations where the youth demonstrate their knowledge of breeding management practices, quality assurance protocols, ration calculations and more. In this presentation attendees will learn how to host a livestock management skillathon competition in their state, with insight on creating a planning committee, identification of subject areas to cover, securing sponsorship for awards, and execution of the contest. Over the past 10 years this contest has hosted more than 600 youth, sending a qualifying team to the

national competition each year. Youth that participate in the state livestock management skillathon have expressed that they enjoy the opportunity to compete at a state level on topics that are fun and interesting to them and that broaden their knowledge about the livestock industry.

COUNTY BRED STEER FEED OUT

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The steer feed-out program in my counties is a collaborative initiative involving the County Cattlemen's Association, 4-H, FFA, and the County Extension Office. Calves born to Cattlemen's Association members are raised and fed by 4-H and FFA participants, with the program structured around four competitive categories: Average Daily Gain (ADG), Show Ring performance, Carcass quality, and Record Book documentation. An overall winner is determined based on combined scores across these categories.

The program spans approximately 160 days, beginning with weigh-ins at the county fair in the fall and concluding with weigh-outs at the spring livestock show. After the show and premium sale, steers are sent to a processor where they are indexed and scored for quality and yield grade. Participants have the opportunity to tour the processing facility, observe their steers post-harvest, and gain valuable insights into beef quality standards.
Once scores are tabulated, an awards banquet and beef auction are held. Prospective buyers are invited to purchase sides of beef, which can be custom-cut and packaged to their specifications.

Program Highlights:
Seminole County: Running for 9 years, the program has finished 91 out of 119 head of cattle, with 63 sold for approximately $161,000 in proceeds to youth participants.
Hughes County: Operating for 17 years, the program has finished 249 out of 307 head of cattle, with 214 sold for approximately $528,000 in proceeds to youth participants.
This program not only supports youth development in agriculture but also provides educational opportunities for the general public. Prior to the auction, prospective buyers are invited to tour the processing facility, view the beef, and learn about differences in quality and yield grades. Additionally, the program has had a broader impact on local producers. Some cattlemen have made genetic decisions for their herds based on the quality of animals evaluated on the rail. What began as a youth program has evolved into an educational resource for cattlemen and consumers as well, fostering a deeper understanding of beef production and quality within our communities.

AGRICULTURAL ECONOMICS & COMMUNITY DEVELOPMENT PRESENTATIONS

APPLIED EDUCATION/ECONOMIC DEVELOPMENT PROGRAM BUILDS AGRICULTURAL ECONOMIC VIABILITY

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This applied educational/economic development program achieved dual objectives of farmer education on navigating the grant application process and funding projects to enhance the agricultural economic viability within the county utilizing $1.2 million of American Rescue Plan monies to help farms adapt to the positive and negative economic impacts on their businesses resulting from the COVID pandemic. Cornell Cooperative Extension-Delaware submitted a program proposal to the County Board of Supervisors (CBOS) to secure the initial $500,000 in funding. The program took the shape of a farm infrastructure grant process to solicit, score, rank, and award proposals up to $25,000/project. The educational component of the program was achieved via provision of farmer education on grant application requirements, writing, and management strategies. Staff communicated the program via direct farm mailings,10 print, radio and digital media outlets, and developed a program webpage. Farmers were offered project development guidance and grant writing strategy support through one-on-one communication, promulgation of a Frequently Asked Questions resource shared on the webpage, and

an informational session delivered in person and via remote technology with recordings made accessible on the program webpage. The program drew 87 unique applications across 13 different agricultural commodity areas. Applications were scored by a panel of local agency leaders utilizing a comprehensive matrix; funding 26 projects to exhaust the initial monetary allocation. The CBOS awarded an additional $500,000 and a second round of applications were solicited utilizing the same model, yielding 69 participant applicants and funding 23 more projects. The success of the program in the county prompted the CBOS to award a final $200,0000; funding 10 additional projects.

This program yielded participation in the form of a project application submission by 32% of the total farms in the county, the majority of whom were first time grant applicants. Of the 59 successful awardees in this project, 34% went on to apply for additional grant funding. This program has been the catalyst for additional successful grant education programming by CCE, as well as business programming as farmers have now seen greater value in business planning and enterprise budgeting.

MINNESOTA BEGINNING FARMER INSTITUTE

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The University of Minnesota Extension Agricultural Business Management team hosted six separate Beginner Farmer Education Workshop sites, each site had either three or four separate workshops for a total of 22 workshops across Minnesota, with a total attendance of 221 unique participants. The six separate sites were Lamberton in Southwest Minnesota, Owatonna in Southeast Minnesota, Clearwater in Central Minnesota, Carlton in Northeast Minnesota, Hutchinson in Central Minnesota, and an Online webinar with people from all over Minnesota. There was an average of 15 people for each in-person workshop and 42 for each webinar session, the same participants attended all three or four sessions per site.

Each site had three or four separate workshops that were tied together; the same participants attended all three or four workshops per site. The topics were Business Planning and goals, Financial Statements and record Keeping, Agricultural Taxes and business Entities, and Land Rent and Grain Marketing.

The main takeaway points were businesses need to know their goals and write them down with a business plan; understanding financial statements and what a lender requires when requesting a loan; what are business deductions and tax brackets; and the importance of knowing your cost of production and having a marketing plan. Our goal was to promote better internal decision-making skills and foster stronger relationships with internal and external partners.
This presentation will go over the evaluation data and results of this workshop series. I will discuss the planning that went into creating and hosting this workshop series. I will discuss my next steps and what I want to do with this workshop moving forward.

HELPING FARM FAMILIES MITIGATE TRANSITION AND ESTATE RISK THROUGH OFRS AND FARMS

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Ohio is home to over 76,000 farms and 13 million acres of farmland, with farm transition to the next generation being one of the most significant challenges to the long-term viability of these operations. To help mitigate this risk, two major initiatives were launched in 2023. The first is the Ohio Farm Resolution Services (OFRS), established to address the conflicts impacting Ohio's farms and farm families. Funded by the USDA Farm Service Agency's Certified Mediation Program, OFRS develops educational materials and offers conflict resolution services through Ohio State University Extension's legal and farm management specialists, alongside formal mediation options. Since its inception in October 2023, OFRS has conducted 56 consultations, with 77% addressing farm transition issues. The second initiative, the Farm

and Resource Management Spreadsheet (FARMS), was developed to assist farmers in planning for farm transitions and estate management. Launched in December 2024 after its creation in 2023-2024, FARMS enables farmers to collect crucial information for transition and estate planning. A key feature of FARMS is its ability to help producers develop accurate net worth statements, which are vital for asset distribution planning. To date, 578 individuals have participated in introductory sessions on FARMS, and 57 farmers and professionals have completed intensive training on its use. This presentation will provide an overview of the OFRS and FARMS initiatives, demonstrating how these tools help farmers navigate the complex transition process. It will also explore how these risk management strategies could be adapted and implemented in other states to support farm families in their succession planning efforts.

THE WEST VIRGINIA WINTER BLUES FARMERS MARKET: SPARKING SMALL FARM ECONOMIC GROWTH THROUGH CONCENTRATED MARKET ACCESS

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The West Virginia Winter Blues Farmers Market (WVWBFM) is an indoor, producer-only event designed to showcase the bounty that West Virginia farmers and food businesses can produce during winter months. This annual event has been held for sixteen years, and in the last nine years it has been held in partnership with the West Virginia Department of Agriculture. This Public-Public Partnership (PuP) model has proven to be a successful example of how to pool resources and leverage technical expertise and human capital to deliver low-cost services to farmers. WVWBFM is free to the public and encourages customers to shop a diverse array of products, including fresh vegetables, maple syrup, meats, cheeses, soaps, preserves, and more.
This study examines the West Virginia Winter Blues Farmers Market (WVWBFM) as a dynamic driver of economic development for small-scale agricultural producers in the region. Utilizing quantitative data from 2020-2025, alongside qualitative insights from farmer interviews, this research investigates the event's capacity to generate significant returns on investment within a condensed, five-hour timeframe. The WVWBFM's growth, evidenced by a surge in vendor participation (61 in 2020 to 126 in 2025) and total sales ($50,681.33 to $210,685), underscores its increasing economic significance. Notably, the average sales per vendor have consistently risen, indicating a substantial positive impact on individual producer income.

This study moves beyond immediate sales figures to analyze the extended economic implications of the WVWBFM. Farmer interviews reveal that the event fosters crucial direct-to-consumer relationships, leading to repeat business and brand loyalty beyond the market's duration. The event's 6,000 attendees in 2025, with an average of $35 per person spent, highlight the market's role in stimulating local spending. The WVWBFM serves as an incubator for new agricultural entrepreneurs, with many first-time vendors returning the following year. Surveys conducted post-event assess the market's influence on farmers' long-term business strategies, including increased market access, enhanced product visibility, and expanded customer networks. Demonstrating the WVWBFM's ability to generate substantial economic impact within a limited timeframe, this research illuminates the potential of targeted, short-duration events as effective tools for fostering small farm economic development in rural communities.

THE SWEET SIDE OF AGRICULTURE: CULTIVATING AWARENESS FROM FARM TO COMMUNITY

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Sumter County is experiencing rapid urban development, with residential communities expanding into historically agricultural lands. As populations grow, ensuring public awareness and support for local agriculture becomes increasingly vital. To address this need, stakeholders in Sumter County collaborate annually to host the Farm City Week Tour, an engaging educational event designed to connect non-agricultural residents with the farming operations around them.

This year's tour featured a visit to a local stevia farm, where participants attended interactive presentations on stevia production and integrated pest management, Florida's natural history, cattle production and ecosystem services, and the use of drones in agriculture. Each session, lasting 15–20 minutes, incorporated visual aids such as brochures, plant specimens, live demonstrations, and displays to enhance learning. Following the presentations, attendees toured the farm's extraction facility and propagation nursery, gaining insight into breeding trials aimed at developing stevia varieties suited to Florida's climate.

The event attracted 55 participants, with 42 completing post-event surveys. Results indicated that 100% of respondents gained a better understanding of Sumter County's agriculture and natural resources, while 34% reported overall knowledge improvement. Of the 57% who were first-time attendees, 43% experienced a knowledge gain. Many participants expressed surprise at the diversity of local agriculture, with some longtime residents discovering new aspects of their community's farming industry.

By fostering agricultural awareness through hands-on education, the Farm City Week Tour strengthens connections between urban and rural communities, promoting continued support for local agricultural operations. This model can be adapted to other regions seeking to enhance public understanding of agriculture's role in their local economies and ecosystems.

ENHANCING DISASTER PREPAREDNESS ACROSS THE OKLAHOMA STATE UNIVERSITY EXTENSION SYSTEM

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In Extension, preparedness efforts are often outward-facing, focusing on the preparedness, mitigation, response, and recovery of our clientele. How frequently do we take stock of our internal preparedness within our Extension systems? This presentation will overview what OSU Extension's Disaster Assistance Response Team (DART) has been doing to prepare our staff and offices better. High-level information and a specific program will be provided on how OSU Extension (1) assessed and improved current internal readiness efforts (2) better-prepared Educators for their role in response and (3) improved support of Educators after a disaster occurs.

First, the results of an online assessment evaluation filled out by 60% of county offices in late 2024 - early 2025 will be shared. The survey found that every county had experienced at least one damaging weather disaster in the preceding 12 months. Common damaging weather disasters (aside from drought) were damaging winds (61% of offices) and tornadoes (50% of offices). Only 33% of Extension offices had a dedicated tornado shelter highlighting an opportunity to improve preparedness and protect the well being of staff. The most common way county offices engaged in response and recovery was by distributing factsheets (43%), answering technical questions (41%), newsletters (37%), and accepting donations or managing donation centers (24%). Responses to this survey are still being collected and lessons learned from Educators on how to better be prepared and support clientele will be shared with the audience.

As a result of the survey, an in-service on managing donations and setting up donation centers after a tornado or wildfire has been developed. Donation center management requires 1) developing a relationship with the county and city emergency manager, 2) having a plan for drop off, pick up, and tracking that can be mobilized

and demobilized effectively, and 3) knowing what to take and what not to take. The content and handouts of this training will be shared with the audience. The goal of the presentation is to share OSU Extension's experiences so that other Extension systems can improve their personal and office readiness.

VIRTUAL FENCING AS A COST-EFFECTIVE ALTERNATIVE FOR NEW MEXICO RANCHERS

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Aztec

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New Mexico (NM) ranching occurs on large land holdings, with fewer but larger farms. Extensive operations, rising fencing costs, and labor shortages have dramatically increased production costs and limited ranchers' pasture management options, increasing risks of overgrazing and cattle loss. Traditional physical fencing (PF) remains expensive, particularly for interior fencing, which restricts rotational grazing flexibility. Virtual fencing (VF) offers a potentially cost-effective alternative, but its financial viability remains a key concern for producers.

This study evaluates VF's economic feasibility using enterprise partial budgeting, which compares added costs and reduced revenue of VF against cost savings and additional revenue from replacing PF. The analysis focuses on a 6,000-acre ranch in Southeast NM, where 74% of the state's beef cattle production occurs on properties over 2,000 acres. A cost estimation model, incorporating partial-budgeting principles, was developed to compare VF and PF based on construction, labor, maintenance, and depreciation costs. PF requires substantial upfront capital investment along with recurring maintenance costs, while VF relies on LoRaWAN towers, e-collars, and batteries, with towers depreciating over 10 years. VF also requires periodic e-collar replacement and software maintenance. Our findings show VF's annual cost is only 24% of PF's, with greater cost savings as fencing distances increase. However, VF adoption decisions extend beyond cost, as producers consider reliability, connectivity, and herd adaptation. Alternatively, VF benefits include enhanced pasture management by enabling rotational grazing without fixed fencing, potentially improving rangeland health and livestock distribution.

To help ranchers assess VF adoption, we developed an interactive online tool that allows producers to compare VF and PF costs and benefits for their specific operations. Using natural language processing (NLP), the tool enables ranchers to ask cost-related questions in plain language (e.g., "How much would VF cost for my ranch?"). The app delivers instant, data-driven responses, integrating partial-budgeting principles to help producers evaluate the financial impact of adopting VF.

This tool provides a decision-support system for ranchers, ensuring they can make informed choices based on economic feasibility and operational needs. While designed for NM, the tool is applicable to other regions facing labor shortages, high fencing costs, and rangeland management challenges.

MONITORING FERTILIZER INPUT PRICES IN OHIO

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The Quarterly Fertilizer Survey and Report is a new initiative OSU Extension began in December 2023. Researchers from Ohio State's Farm Financial Management and Policy Institute (FFMPI) began surveying fertilizer retailers and crop consultants in Ohio to better understand local fertilizer prices. While many enterprise budgeting tools exist, the goal of this research was to give a finer resolution to the third highest input cost in production agriculture, fertilizer. Current information exists but is often monitored at the national level from the largest delivery ports. Therefore, there was a need for more localized data. The report provides producers with a summary of local fertilizer prices for a given quarter of the year. It is designed to be very simple so that farmers could apply it quickly and in a way that is useful to their operation. Having another input pricing tool available to accurately estimate fertilizer costs can be mutually beneficial to producers, farm managers, and retailers alike.
From the report, producers can focus on three pieces of information: 1) understand how Ohio fertilizer prices

relate to the national averages; 2) gauge their own input costs and how it might relate to other parts of the state or nation; and 3) get an idea of other inputs they might use as a substitute for something more familiar, especially if the price points differ enough to warrant the change.
A total of 32 retailers, representing 19 counites in Ohio, responded to the survey throughout each quarter of the year. They were asked to report the spot prices for the 10 common fertilizer products as of the first day of the quarter. The responses were then analyzed and reported on a $/ton basis reporting minimum, maximum and average prices.
As more research is captured, trend analysis will be conducted for the future benefit of producers, retailers, and economist.

BUILDING A FARM BUSINESS: BEGINNING FARMER RESOURCES

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According to the Census of Agriculture, there were over 1 million beginning farmers in the United States in 2022 (those with 10 or fewer years of experience), marking an 11% increase from 2017 (USDA). Beginning farmers face many challenges when establishing a farm operation and often struggle to navigate the various agencies, programs, regulations, and resources available. Many are seeking a single, comprehensive resource to guide them through the many considerations when beginning a farm. Additionally, new farmers may be unsure if they are starting a farm business or pursuing a hobby or homestead, a distinction which affects tax status, financial planning, and decision-making. To address these challenges and improve farm viability, the University of Tennessee (UT) MANAGE team developed a suite of educational materials to guide beginning farmers in June 2024. The MANAGE team developed the “Building a Farm Business” website and pamphlet to provide practical resources to help new farmers build farm businesses by improving their knowledge of business planning, financial management, and risk management strategies, while also helping them navigate considerations such as greenbelt designation, farm insurance, ownership structure, and common tax forms. These resources outline three simple steps to get started, followed by key considerations such as developing a farm advisory team, recordkeeping, and business plan development, which includes a new publication series and video to assist beginning farmers. The pamphlet includes a QR code to the website, which links to additional resources from the Internal Revenue Service, Farm Service Agency, Natural Resource Conservation Service, and others. To ensure Extension agents can effectively support beginning farmers, these resources were presented at an in-service training, equipping agents with the materials and answers to common questions. Results from implementing these resources include 1,083 webpage visits and positive feedback. Farmers who engaged with the materials reported a better understanding of whether their farm meets the criteria of a farm business under IRS guidelines. Extension agents reported increased confidence in assisting beginning farmers a significant decrease in time spent locating resources and addressing common questions. This approach can easily be adapted for other states to support beginning farmers.

ROOTED IN COMMUNITY: HIGHLIGHTING LOCAL PRODUCERS THROUGH EXTENSION EVENTS

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West Virginia is one of the most rural states in the eastern United States. The agriculture community is made up of mostly small farming operations with cow/calf operations being the largest livestock commodity. However, many small farms have diversified adding high tunnels and producing fresh produce 8-10 month out of the year,

with many of them selling their product through direct marketing at farmers markets, roadside stands, and on-farm markets.

The deep history of Appalachia and West Virginia thrive off supporting small businesses. Research shows that local businesses generate 70% more economic activity per square foot than big box stores. WVU Extension - Agriculture and Natural Resource Extension Agents diligently work towards promoting and utilizing as many West Virginia products during extension sponsored events as budgets allowed. WVU Small Farms Conference and WVU Extension Women in Agriculture Conference held annually every year source more that 95% of the meal ingredients from local producers. Extension Agents work with conference center staff and chefs to develop a menu built around available products that are offered seasonally. Additionally, in April 2024 WVU Extension was able to host the National Farm Viability Conference in Charleston, WV and sourced more than 95% of the meal ingredients and specialty items from West Virginia growers and small businesses. Over the past 5 years the above mentioned WVU Extension events, sponsors and conference attendees has generated more than $50,000 back into the WV economy by purchasing local. More than 50 farms from across West Virginia have been supported through these efforts. Farm fresh products purchased were greens, tomatoes, cucumbers, various squash, root vegetables, onions, garlic, fresh herbs, edible flowers, beef, pork, lamb, and chicken.

This presentation will focus on the process of working with local producers, chefs, and conference center staff to incorporate locally grown produce and meats as well as other locally sourced items such as baked goods, desserts, and value-added products. Agents from WV will share their story of building relationships and growing a culture of supporting local agriculture and small businesses.

TOOLS AND STRATEGIES FOR DIRECT-TO-CONSUMER MEAT MARKETING EDUCATION

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Statement of Issue:
The University of Missouri Extension's Value-Added Meats (VAM) program addresses the various challenges livestock producers face in direct-to-consumer meat marketing, which can significantly affect the success of value-added meat operations. Providing comprehensive support is essential to helping producers build sustainable and profitable businesses.

Methodology:
The VAM program utilizes a multidisciplinary team of five experts, combining academic knowledge and hands-on experience in direct-to-consumer meat sales, financial analysis, livestock production, meat processing, and restaurant management. This team collaborates to create educational programs that equip producers with the tools and resources to manage the risks associated with direct-to-consumer meat marketing. Interactive educational tools, such as a 3D beef carcass model, USDA grading cards, and ribeye area grids, are used to demonstrate key concepts in meat processing and marketing. Resources like the On-Farm Beef Finishing Planning Budget, Evaluating Direct-to-Consumer Marketing Opportunities for Local Beef in Missouri, 5 Steps to Buying Meat Direct From the Farm, and Missouri Slaughter and Inspection Requirements for Livestock and Poultry Producers help producers make informed decisions. The team also offers carcass processing demonstrations for poultry and small ruminants.
Impact:

The VAM program empowers producers by providing hands-on, practical education. Participants gain a deeper understanding of meat processing, market entry strategies, pricing, and regulations, enabling them to mitigate financial and operational risks. The interactive learning approach provides producers with applied knowledge on value-added meat marketing. By providing tools and resources that bridge theoretical knowledge with practical application, the program enables producers to make informed decisions and access new market opportunities, ultimately enhancing the sustainability and profitability of their businesses.

TACKLING FARM RISK MANAGEMENT, ONE BITE AT A TIME

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The Horry County Farmer2Farmer Meet & Eat began in January 2024 to bring a diverse group of farmers together to tackle risk management topics over a meal. The meetings are held once a month either at the local Extension office or on a host farm. Participants submit topic ideas at each meeting and a couple of months are set aside as networking and tabling meetings for the participants. All the topics chosen must fall under one of the five areas of risk- human, financial, marketing, legal or production. Topics covered between January 2024 and February 2025 include agritourism, local zoning, taxes, business structures, transition planning, liability insurance, NRCS, fencing, and local farmers markets. Guest speakers are discouraged from bringing a PowerPoint presentation, unless it is mostly visual, to promote a discussion-based learning environment. The group started with four farmers at the first meeting to an average of 15 farmers a meeting, the majority of whom attend each month. The participants have created business plans, developed local markets, strengthened their legal risk tolerance, developed transition plans, and built a community as a result of this program. Risk management topics are not easy to cover in traditional Extension programming. This program has created an environment that is conducive to tougher conversations and learning risk management strategies over a meal instead of a traditional lecture.

ECONOMIC ANALYSIS OF CONVERTING MARGINAL CROPLAND TO A PLAYA WETLAND

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Many farms have areas of land that vary in their ability to grow a crop or do not accommodate modern farm equipment. Farmers may attempt to adjust their inputs or production practices in these areas to increase yields but these efforts may not increase the return on investment (ROI). Thus, these marginal areas could benefit from conversion to a conservation purpose but it can be difficult to make this change if there is potential for a decrease in revenue. It is important for farmers to understand how they can adopt conservation practices and still realize reasonable profitability. Playa wetlands, found in the Rainwater Basin of southcentral Nebraska, are upland depressions with high clay content soils which hold water during wet years but may be dry through others. Farmers have filled these areas with soil, excavated concentration pits and/or dug surface drains to move excess water from portions of their fields. However, the use of these techniques may not sufficiently reduce excess soil moisture resulting in lower yields or a complete crop drown out. Yield inconsistency in these areas has led farmers to seek a more permanent solution.

Two southcentral Nebraska farmers with adjacent fields containing a playa wetland area worked with the Natural Resources Conservation Service and Rainwater Basin Joint Venture to establish a long-term conservation easement. The agreement included an easement payment, wetland restoration, irrigation equipment improvements, and installation of livestock grazing infrastructure.

The farmers participated in a ROI study of pre and post easement crop production by recording their expenses and yields over a seven-year period. An economic analysis demonstrated that one of the farmers increased ROI in their field from 48% to 51%. The second farmer saw a decrease in ROI in their field from 72% to 46%. The ROI

for both fields combined decreased by 15%. The analysis only captured ROI of annual expense, adding the value of the easement payments, irrigation equipment, livestock grazing infrastructure, and increased crop production efficiency resulted in greater profitability.

Additional research is needed to estimate the value of the conversion on wildlife populations and effect on the local groundwater.

AGRICULTURAL ISSUES PRESENTATIONS

AG CONNECT: CONNECTING FIELDS TO FRONT DOORS

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Ag Connect: Connecting Fields to Front Doors is a comprehensive agricultural awareness program designed to educate urban citizens in Hendry, Glades, Charlotte, Lee, and Collier counties about the critical ecosystem services provided by agricultural land, incorporating beef into a healthy diet, and beef by-products. The program integrates multiple events to maximize impact, targeting diverse audiences from schoolchildren to policymakers. Its primary objectives are to increase knowledge of how ranches contribute to wildlife habitat, clean water through filtration, air purification via diverse plant populations, and wildfire prevention through grazing. Key activities include: Farm City Tours: Biannual tours engaging 456 urban residents on a working beef cattle ranch with a cattle handling demonstration and thoughtful stops showcasing 2 Bald Eagle nests and wetlands providing valuable space for migratory birds while filtering water before it reaches public waterways. FGCU Nurse Tours: Quarterly tours for 60 nursing students, linking ag related injuries they may see in their future profession to a demonstration of hard working agriculturalists producing their food, fiber, construction materials, and fermented alcoholic beverages. Legislator Tours: Biannual ranch visits for 50 U.S. legislators and aides, influencing policy through firsthand exposure to ranch contributions. AgVenture: An annual event educating 3,250 4th-grade students across four counties with hands-on learning about cattle ranching. Adopt A Cowboy: Reaching 6,814 elementary students to teach ranching culture and its ecological impacts. Sweetheart Committee: Training beef ambassadors, 5 annually, to promote the beef industry through engaging presentations. With an annual reach of approximately 10,635 participants, Ag Connect achieves significant impact. Evaluation through surveys and pre-post tests reveals a 71% average knowledge increase among elementary students, a 90% satisfaction rate among nurses, and 75% of legislators finding the insights valuable for policy decisions. The program fosters a deeper appreciation for agriculture's role in sustainable ecosystems, shifting attitudes and enhancing community support. Through innovative strategies such as experiential learning, policy engagement, and diverse audience targeting, Ag Connect bridges the urban-rural divide, elevating public understanding of agriculture's environmental contributions.

WOMEN AND THE LAND: USING ANNIE'S PROJECT INSPIRED EVENTS TO CONNECT WOMEN LANDOWNERS TO CONSERVATION AGENCIES

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The goal of the program is to increase interactions between women who own or operate agricultural land and conservation agencies. Women landowners play a prominent role in agriculture and make pivotal conservation decisions. The program is designed to be Annie's Inspired, meaning they use the values and atmosphere outlined by Annie's Project but are delivered outside of the originally designed 18-hour course. Based on the 2017 Census of Agriculture, 18,578 women indicated they were full-time, part-time, or tenant land holders. Illinois has 50 watersheds classified as HUC 8 (Hydrologic Unit Code eight-digit number to identify watersheds). 27 of Illinois' HUC 8 watersheds lose more than 10lbs per acre of nitrate-nitrogen each year, and an average of 1.4lbs per acre of phosphorus lost across Illinois HUC 8 watersheds according to the Illinois Nutrient Loss Reduction Team. Landowners struggle to navigate the various programs, practices, and assistance opportunities available to reduce nutrient loss and provide cost recovery to landowners and operators. Deliberate efforts should be made to build relationships between the service providers and landowners.

Annie's Project provided the framework for Women and the Land: Spotlight on Conservation. Women and the Land uses agricultural risk areas to help local women make savvy financial decisions surrounding conservation. The program utilizes a team of an Annie's Project facilitator, SWCD (Soil and Water Conservation District), and the NRCS (Natural Resource Conservation Service Agency). Local SWCD and NRCS representatives ensure that women landowners have a familiar face to work as they pursue cost-share or technical service programs.

The first pilot program was delivered on March 4, 2025, in Mercer County, Illinois. Representatives from the Mercer SWCD, NRCS, Illinois Extension, and an Annie's Project facilitator delivered research-based information regarding nutrient loss and the financial considerations of various conservation practices. 15 women from the local area received actionable information and networking time with 8 professional guests from conservation and financial management agencies. Evaluations were sent following the program, and responses are currently being submitted. Verbal reception of the event was overwhelmingly positive, with several participants stating that they would attend again and recommend it to other women landowners.

AG FOR ALL: CREATING A CONFERENCE FOR LGBTQIA+ AGRICULTURALISTS

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In March 2025, University of Minnesota Extension hosted its first-ever conference for LGBTQIA+ agriculturalists and allies, Ag for All. The event provided a space for these agriculturalists to connect, network, learn and share their experiences with working across various agricultural and food production enterprises. Gathering people with shared life experiences and similar challenges can be an important educational strategy for enhancing learning about any given topic.

With the changing demographics on many Minnesota farms and across rural Minnesota, all industries have an opportunity to thrive by welcoming a multifaceted workforce. Extension partnered with the Minnesota Department of Agriculture to develop this conference in response to this growing need. One goal of this conference was to strengthen the agriculture community, including this unique group of farmers who fall outside traditional gender and social norms in Minnesota.

About 11% of Minnesota's population identifies as LGBTQIA+ (MN Compass). According to the 2017 USDA Ag Census, approximately 12,000 farms across the country are run by same-sex couples (WPR). In the U.S., there has been an increase from previous generations of farms run and owned by women and non-heterosexual couples (National Young Farmer Survey and Edge). Research shows that stigma, discrimination, bullying, and victimization put LGBTQIA+ people at a higher risk of developing serious physical and mental health challenges. Research also shows that feeling welcomed and affirmed within programs and communities is a powerful protective factor providing support to LGBTQIA+ people.

This conference represents just one offering from UMN Extension that fits within our overall mission of sharing practical knowledge through education. While this program looked like a traditional Extension offering in many ways–including speakers and panels of industry professionals, community members, and producers offering science-based, timely information–it was also tailored to the unique needs of this audience.

Great care and intentionality was put into planning this new educational opportunity for Minnesota farmers. This session will focus on the considerations made when planning this event as well as sharing initial responses to the program and promoting opportunities for future LGBTQIA+ agricultural programming.

LADIES RAISING LIVESTOCK

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Ladies Raising Livestock is a specially designed Extension Education Program focusing on and empowering women in the predominantly male agricultural industry. The rising number of women in agriculture manifests the

need for educational and networking opportunities for women who work in this industry. The 2025 Ladies Raising Livestock Conference successfully met this need as we engaged a diverse group of female livestock producers from across the state of Tennessee. Through educational sessions lead by University Extension personnel and industry professionals, networking, and a hands-on Storytelling in Agriculture workshop lead by Courtenay DeHoff, conference attendees were provided education and training on a variety of agricultural topics. Measurable increases in knowledge across all topic areas were reported as follows: 48% in Storytelling in Agriculture, 41% in Farm Financials, 38% in Direct Marketing, 34% in Working Smarter Not Harder, 29% in Getting Ready Before You Start, and 26% in What's in Your Veterinary Toolbox. Conference attendees reported financial impact associated with attendance at the conference, gained through knowledge to help them increase profits and reduce costs. Total financial impact was reported as $246,000, averaging $3,785 in impact per attendee. These results indicate the conference effectively met its goal of equipping attendees with valuable knowledge and skills to enhance their own operations. Future Ladies Raising Livestock programs will continue to address the needs of women in agriculture, enlightening and empowering them through education and unique inspiration.

BEEFING UP FOOD SECURITY: BRIDGING THE PROTEIN GAP FOR IDAHO FAMILIES

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Food insecurity affects one in five residents in North Central Idaho, but protein makes up only 16% of the local foodbank's supply and beef less than 3%. To address this gap, University of Idaho (UI) Extension partnered with Beef Counts, the Idaho Foodbank, and local cattle producers to increase beef availability for food-insecure families.
UI Extension educators from Clearwater, Latah, and Idaho counties coordinated a beef labeling event at the Idaho Foodbank in Lewiston in conjunction with Beef Counts. Agri Beef Co. donated a pallet of two-pound ground beef chubs, which UI Extension, Student Idaho Cattle Association members, local producers, and foodbank personnel labeled for distribution. Additionally, UI Extension collaborated with the UI Beef 101 Beginning Rancher program to donate beef from two carcass fabrication classes. Local ranchers learned hands-on fabrication skills while contributing directly to food security. A fundraising initiative with a local restaurant and the foodbank raised $560 to further support beef procurement.

Through these efforts, the North Central Idaho Foodbank received 2,987 pounds of beef, providing meals for 1,494 families. The fundraising initiative contributed to an estimated 1,680 additional beef-based meals. The initiative also raised awareness about the importance of beef protein in food security through media coverage. Looking ahead, UI Extension and its partners aim to expand the program by increasing community engagement, strengthening collaborations with local cattle associations, and securing additional funding to sustain and grow beef donations. Beef Counts continues to serve as a catalyst for addressing food insecurity and ensuring more Idaho families have access to nutritious protein.

BUILDING RELATIONSHIPS WITH THE HMOOB COMMUNITY THROUGH AGRICULTURAL EDUCATIONAL PROGRAMMING AND RESEARCH

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A relationship was cultivated between University of Wisconsin-Madison Department of Extension faculty and HMoob populations in Wisconsin. Initial efforts were directed toward establishing local HMoob community needs through assessments and connections with partnerships to assist in data collection. Educational objectives were identified through culturally relevant manners such as focus and advisory groups. Data was gathered to guide delivery of the content once subject matter was identified. HMoob famers were interested in pest management, specifically weed management, small business skills, soil nutrient management, and

on-farm research. The relationship was built over time culminating in a extension educational programs, new media deliverables, and an on-farm research project. Relationships with the Eau Claire Area Hmong Mutal Assistance Association and the Wisconsin Department of Agriculture, Trade and Consumer Protection who focuses on Organic, Grazing, Specialty Crops, and Underserved Farmer Outreach were critical to connecting to the HMoob farmers. Educational programs developing small business skills focused on record and bookkeeping skills to help verify farmer status as an agricultural producer and to provide information about the farm business. These skills resulted in an increase in HMoob farmers accessibility to Farm Service Agency and Natural Resources Conservation Services programs. Soil fertility management education was provided in a two-step program. HMoob farmers learned basic soil sampling techniques in the fall and were reviewed the next spring before the growing season to help determine soil nutrient needs. Video content was solicited by the HMoob farmer advisory committee and developed in HMoob (white color language) utilizing HMoob farmers in the videos. Videos were transcribed in HMoob and a voice over and transcription in English was also developed for the same video. The on-farm research component of the project focused on dryland rice which is a culturally important crop. Varieties for the study were selected by the HMoob farmer and evaluated for yield performance. Planting methods were also evaluated to compare hand and machine planting methods. The presentation will share how relationships evolved, and impact grew over the course of the project.

SWIFT RESPONSE: OSU EXTENSION'S QUICK ACTION TO INFORM IN THE FACE OF DROUGHT

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Ohio experienced historic drought conditions in 2024, but Ohio State University (OSU) Extension was prepared to respond quickly to the changing conditions and provide critical resources to producers across the drought-stricken areas. Established connections between OSU Extension Ag Weather and Climate Field Specialist/State Climatologist and NOAA's National Integrated Drought Information Systems – Midwest Drought Early Warning System (DEWS) provided ample lead time and increased awareness of drought potential. Early drought warning information was communicated to county educators and stakeholders through our weekly Agronomic Crops Team calls and newsletter. By early June, it was clear that drought conditions were imminent in Ohio. OSU Agriculture and Natural Resources Extension assembled our Early Drought Response Team including specialists in weather, agronomy, forages, livestock, specialty crops, forests, soils, farm management, and marketing and communications. We convened weekly meetings and gathered online resources and information on our website to help producers respond to these impacts (https://kx.osu.edu/page/early-drought-response). Our website garnered over 4,100 views with 2,663 active viewers for the period June – December 2024. We made 12 social media posts with 57,756 impressions at 6.5% engagement. Extension specialists worked closely with county Soil and Water Conservation Districts across southeastern Ohio to survey 170 cattle producers in 14 counties to analyze the impact of drought on production economics. Survey results shows that 86% of respondents experienced 50% or greater reduction in hay yield. The team provided updated drought information throughout the summer and fall, published newsletters and articles, engaged commodity and community partner meetings, all describing conditions and pointing producers to

appropriate resources. The team worked closely with the Ohio Department of Agriculture to exchange information and jointly inform the public of the changing conditions and resources and coordinated with the Ohio Emergency Management Agency Drought Working Group between August and October. This presentation demonstrates the following: the power of collaborations between Extension and federal climate service providers like DEWS to provide opportunities that mitigate risk to hazardous conditions, how Extension works closely with state agencies to effectively communicate the risk, and how Extension quickly rises to meet the changing needs of its producers during extreme conditions.

FIRST AID AND SAFETY TRAINING FOR OREGON AGRICULTURAL PRODUCERS

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Agriculture remains one of the top ten most dangerous occupations in the United States. The agriculture industry in Oregon over the last ten years has had the greatest number of fatalities compared to other occupations in the state. In 2021 agriculture accounted for 18% of the total fatalities in occupation injuries in Oregon. OSU Extension Service in North Central Oregon has developed and implemented educational programing over the past four years to reduce fatalities and injuries to farmers working in fruit orchards and field crops through improved understanding of how to prevent common farm accidents, along with providing in depth first aid skills and updates on OSHA regulations to reduce risks to human health and legal liability. In depth first aid and farm safety training was provided at reduced cost to both English and Spanish speaking farmers across Oregon through eight in person classes in 2025 thanks to grant funding from the Western Extension Risk Management Education Center. Over 100 farmers have participated so far through in person programming in 2025. An online class is also being developed to make training available on demand. This presentation will focus on how extension can help meet local interest for first aid and safety training focused for farmers in rural areas. Impacts from this training will also be shared with a focus on how to evaluate extension programming focused on improving farming safety. Equipment to consider for first aid training, safety training, and bilingual teaching will be shared as well.

LESSONS LEARNED FROM HURRICANE HELENE

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On September 27th, Hurricane Helene left a path of devastation throughout the Southeast, including Southwest Virginia. Many counties in Southwest Virginia experienced record flooding, high wind damage to structures and trees, damage to crops, and loss of livestock. The damage assessments across 21 Southwest and Central Virginia counties estimated direct agriculture and forestry losses of 174.2 million. Dr. John Bovay, Agriculture Economist at Virginia Tech, estimated the ripple effect of the direct farm and forestry losses between an additional $191 to $405 million. Hurricane Helene affected areas such as Southwest Virginia that normally do not see hurricane damage and the region was unprepared for the level of destruction seen. Extension Agents in Southwest Virginia worked with affected landowners to assess damage and assist with recovery efforts. Many Extension Agents worked with or as emergency responders to assist their community clearing roads, cutting trees, and checking on residents. Southwest Virginia also received limited media attention compared to other regions leading to limited assistance. The Southwest Virginia Agriculture Relief Program was created by Extension Agents in response to bring awareness of the situation and assist with matching donors with farmers in need. Flyers, donation forms, and media releases were created to assist with the effort. Extension Agents across Virginia coordinated donations and transportation from their counties. The loss of hay in counties affected by flooding was significant with an estimated 12,000 bales lost. Specific focus was given to hay donations and transportation due to limited hay supply in the region from drouhgt. Hay transportation became a bottleneck with no specific funding or assistance being available immediately. Extension Agents worked to provide farmers with resources and listen to those affected. Recovery will take many years, and many farms may never recover. Many lessons were learned by Extension Agents on how to handle disaster response that they hope to share and help others.

LANDOWNER RIGHTS AND RESPONSIBILITIES EDUCATION IN WEST VIRGINIA

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In 1979, West Virginia University published a booklet entitled Property: Landowner's Rights and Responsibilities in West Virginia. The publication offered an overview on a range of property issues important to producers in the state and is still used by producers, government officials, and land use planners. However, much of the contents are now out of date. In addition, new property issues have emerged in the intervening 44 years. Carbon contracts, right to farm laws, wind and solar leases, and agritourism, for example, are not addressed in the original publication. At the same time, conflicts between producers and neighbors have increased in the past several years. An updated publication and educational workshops are necessary to encourage the peaceful coexistence of agricultural operations and residential neighborhoods. This project seeks, in part, to educate operators on the bottom-line benefits of building good relationships with neighbors and local governments. Recognizing the responsibilities that go with property rights helps build these good relationships. This project produces a "Landowner Rights and Responsibilities in West Virginia" booklet, which will provide plain language explanations for a variety of property topics, and include not only property rights, but the responsibilities to the government and to the public encompassed in those rights. This booklet will serve as a reference for landowners, government officials, and land use planners.

The booklet was also be used to develop a curriculum for regional workshops addressing specific 'property rights and responsibilities' topics related in West Virginia - trespass, hunting, nuisance, animals, refuse, water rights, fences, adverse possession, eminent domain, carbon contracts, wind and solar leases, right to farm laws, agritourism, and the balance between landowner rights and the responsibility of landowners to the public.
The presentation will outline the overall project's approach, achievements, and highlight producers' learning outcomes, including understanding the parameters of the property rights that landowners hold, recognizing the legal risk arising from failing to recognize the responsibility to neighboring landowners, implementing marketing strategies that enhance recognition of landowner responsibilities, and developing a regulatory risk management program. This information can be use by other educators and service providers in designing similar programs.

NAVIGATING AGRICULTURAL DATA RIGHTS: BRIDGING LEGAL GAPS AND STAKEHOLDER ASYMMETRIES

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Agricultural data rights, encompassing ownership, control, access, and use of data generated through farming activities, present critical legal and ethical challenges. Ambiguous intellectual property frameworks and inadequate privacy laws for environmental monitoring data create systemic ambiguities that undermine transparent, enforceable agreements between farmers and Agricultural Technology Providers (ATPs). These gaps disproportionately disadvantage farmers, especially those who lack awareness of data's legal status as property. This study aimed to investigate Florida farmers' and ATPs' understanding and perception of data rights in digital agriculture. A survey was distributed via email to 211 farmers in the UF/IFAS Extension network, receiving 110 responses (52%), with 54 (26%) completing the survey. Among the respondents, 61% had undergraduate or lower education, while 39% had graduate-level education. The survey included 20 questions covering demographic information, farm characteristics, and data collection practices. The survey revealed that farmers' understanding of data-related technologies varied with their education levels, categorized as Undergraduate Degrees and lower (UD) and Graduate Degrees (GD).

Farmers with UD were uncertain about the operational benefits of data, while those with GD recognized the benefits and understood the risks associated with data and contractual agreements but had concerns over privacy protection and ethical issues. Meanwhile, ATPs exhibited divergent priorities, with smaller, AI-driven startups more open to negotiating data rights with farmers to gain market traction, while larger firms often prioritized control over proprietary systems. This asymmetry in knowledge and bargaining power underscores the urgent need for targeted education to empower stakeholders in navigating data rights complexities. To address these issues, initial training materials, including modular educational slides and scenario-based guides, were developed to improve literacy among farmers and ATPs. By aligning stakeholder understanding with evolving legal and ethical standards, this work highlights the necessity of bridging education gaps to mitigate conflicts and advance responsible data stewardship in agriculture.

SAVING OUR ACRES: ESTATE PLANNING IN WEST VIRGINIA'S FASTEST GROWING REGION

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An education program on Estate Planning was hosted for the farm communities in Berkeley and Jefferson County, WV to address the growing need for farmland preservation and farm transitioning to the next generation. These two counties out of only seven counties in West Virginia have had an increase in population in the past 10 years. Located just a short drive from Washington D.C., the area's increased population has brought additional pressure for development of farmland. In the USDA Agriculture Censuses of 2017 and 2022, Berkeley County lost 11,091 acres of farmland (17.8%), and neighboring Jefferson County lost 5,679 acres (9.4%) of farmland. This program was funded by a Northeast Extension Risk Management Center and provided four face-to-face education sessions, with local professionals in finance, taxes, and legal, delivering the educational content. Among our local producers surveyed, 96% indicated they would be more likely to complete a transition or estate plan if participating in the educational workshop assisted in off setting the costs. Farm Operators that attended all sessions became eligible to seek a paid appointment with legal and financial professionals to start the estate or transition planning process. 35 individuals representing 26 farms and over 3,500 acres attended all four sessions. At the conclusion of the program, participants reported having a better understanding of the estate planning options available, making more informed decisions around estate planning, and accredited completing estate planning documents due to the funds provided as part of the grant. This session will discuss the program's structure, delivery, impacts, and suggestions for implementation and adoption of programing in other locations.

AGRONOMY & PEST MANAGEMENT PRESENTATIONS

EXAMINING PHOSPHORUS USE EFFICIENCY IN FLORIDA RICE

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Approximately 25,000 acres of flooded rice are grown on histosols in Florida's Everglades Agricultural Area (EAA). Relatively low available phosphorus (P) in histosols, in combination with rising fertilizer costs, highlights the need to identify rice cultivars compatible for these unique soil conditions. To address this issue, a study was conducted to identify rice cultivars suitable for production in low P agroecosystems. A small-plot trial was planted within commercial rice field, containing 45 rice cultivars. At harvest, composite soil samples were collected in addition to 10-15 mature rice plants per plot. Soil samples were analyzed for Mehlich-3 P, while plant tissue samples were analyzed for total P (TP). Tissue concentrations of P were compared among rice cultivars. Additionally, P use and uptake efficiency were assessed among the rice cultivars to identify those with the highest efficiency in utilizing and absorbing P from the soil. The P use efficiency index

(PUEI) values across various rice cultivars showed that Titan and RU1902207 exhibited the highest PUEI values, at approximately 0.0295 and 0.0296 respectively, indicating superior efficiency in P use relative to other cultivars. On the lower end, 19T-238-13 has one of the lowest PUEI values at about 0.0165. Notably, cultivars such as Diamond and RU2102158 also demonstrate high PUEI, both exceeding 0.0285, suggesting these cultivars might be better suited for conditions where P availability is a limiting factor. This result provides valuable insights into the genetic variability of P use efficiency among rice cultivars, which could be critical for enhancing crop performance in P-limited soils.

EMERGENCY RESPONSE TO INFESTATIONS OF AN INVASIVE THRIPS PEST OF FRESH MARKET PEPPERS IN FLORIDA

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Florida is a top producer of fresh bell peppers along with California in the United States. In southern Florida, Palm Beach County alone produces bell peppers on approximately 7,000 acres, representing half of the planted acres in the state. In 2020, Thrips parvispinus, an invasive thrips species, was first detected in the continental U.S. on ornamental plants in Orange County, Florida. In November 2022, it was reported for the first time in commercial pepper fields in Palm Beach County, causing severe injury to pepper plants. Due to the sudden and extensive damage to the crop, T. parvispinus caused millions of dollars of loss to local growers, impacting fresh pepper markets locally and nationwide. Consequently, University of Florida research and extension faculty initiated a program with the following objectives: identify crop hosts, improve scouting methods on pepper, and determine insecticide efficacy to provide control option. Since its first detection, T. parvispinus was recorded causing severe injury on pepper varieties such a bell, Hungarian wax, jalapeño, and mini sweet pepper. T. parvispinus was observed on cucumber, squash, snap bean, and eggplant but caused minimal injury. A scouting guide was developed to help detect early infestations, which is crucial for management. In addition, several on-farm insecticide trials have been conducted. The first trial on jalapeño showed that (1) three consecutive applications of spinetoram, (2) spinetoram followed by sulfoxaflor followed by oxamyl, and (3) three consecutive applications of cyantraniliprole tank mixed with acetamiprid+novaluron or abamectin significantly ($P<0.05$) reduced the number of T. parvispinus adults (70-100% decrease) and larvae (80-90% decrease) relative to the untreated check. Findings supporting management recommendations were shared with vegetable stakeholders via in-person and online meetings, and newsletters. Constant communication, field visits, and on-farm trials with growers and crop consultants have been crucial to the success of our program showing early adoption of T. parvispinus management recommendations on approximately 3,000 acres. This crisis allowed us to build a strong relationship and establish future collaborations with our clientele. As T. parvispinus will likely continue expanding its range, sharing science-based information nationally will assist in improving integrated pest management across the United States.

FUNGICIDE APPLICATION AT HERBICIDE TIMING IN DRYLAND WINTER WHEAT

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The application of fungicides with herbicide timing is a common practice for winter wheat (Triticum aestivum) farmers across eastern Washington for stripe rust and Strawbreaker foot rot (commonly called eyespot) control. They commonly cite ‘free ride’, ‘cheap insurance’, and ‘plant health’ as justification for this approach. However, this approach increases costs, potentially antagonizes grassy weed control, and research is needed on the impact fungicide application on soil health. Washington State University and USDA/ARS scientists devote resources into assessing and rating wheat cultivars for susceptibility to both these diseases, so growers can make more informed decisions about fungicide application. This data is widely available via print, web, and verbal communication. In 2020, an on-farm trial was established at the WSU Wilke Research and Extension Farm to examine the feasibility of fungicide application, and this study has been repeated each year through the 2024 crop (5 years and 7 site years). Plots are 200 ft long and 30 ft wide with 4 replications and a randomized complete block design. Three treatments

were established: 1) 10 gal/ac water (check), 2) 14 oz/ac Quilt Xcel fungicide, and 3) 18 g/ac PiKSi dust (potassium silicate). Quilt Xcel has both stripe rust and Strawbreaker foot rot on its label at the 14 oz/ac application rate. Variety selection is very important and has varied from year to year. In 2020 and 2021 Resilience CL+ was grown, in 2022 and 2023 Piranha CL+ was grown, and in 2024 both Sockeye CL+ and Kraken AX were grown. There were no agronomic differences within all three treatments over the 5 years the study was completed despite multiple growing seasons and varieties planted. Winter wheat yielded 88.4 bu/acre over the duration of the study.

PHOSPHORUS AND POTASSIUM APPLICATIONS INFLUENCE ON ALFALFA HAY QUALITY AND VALUE

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In two field and laboratory experiments, research was conducted 2019-2020 to determine impacts of nutrient applications on alfalfa hay yield, quality and nutrient value at Irrigated Research and Extension Center near Prosser, WA. The phosphorus (P) study P soil tests levels were 6.7 and 5.7 ppm at the beginning of 2019 and 2020 (Olsen P test). The potassium (K) study was conducted on a soil test level of 85 K in 2018. Applying phosphorus increased protein, NDFD 48, and Net Energy for Lactation (NEL) concentration and decreased ash and lignin concentration. Over five seasonal alfalfa cuttings, phosphorous increased protein higher in the first and second cuttings. Applying 240 lb. P2O5 increased total nutrient value of hay by $25 and $42 ton-1 averaged over cuttings and first cutting, respectively. The total nutrient value increases over control was 382, 519, 930 and 1,004 dollars acre-1 year-1 when 30, 60, 120, 240 lbs. P2O5 acre-1 was applied, respectively. Applying 320 lb K2O acre-1 increased protein concentration 1% when averaged over cuttings. Although not statistically significant applying 320 lb K2O acre-1 increased nutrient value of hay by $12 ton-1. Total nutrient value in $ acre-1 year-1 increase over the control was 121, 372, 407, 534, 722 when 40, 80, 160, 240, 320 lbs. K2O acre-1 was applied, respectively. Nutrient values responded more to phosphorus at 8 ppm than potassium at 82 ppm in second- and third-year alfalfa. Relative Feed Value (RFV) is a poor indicator of alfalfa nutrient value because RFV failed to detect value increases of protein and NDFD 48. Both protein and NDFD 48 directly impacts dairy animal digestibility and fiber fill and are not included in RFV calculations. The impact of negative forage quality parameters, ash and lignin, in alfalfa hay economic value can be partially mitigated through nutrient applications of P and K and viewed on a land area basis.

UNL TESTING AG PERFORMANCE SOLUTIONS (UNL-TAPS)

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The TAPS program was established in 2017 at the WCREEC in North Platte, Nebraska. The two primary agricultural production challenges in the area were and continue to be limited water resources and increasing levels of nitrate in the groundwater. In addition, crop prices at the time were at economically challenging levels. To address these issues, our TAPS team focused on profitability and input use efficiency when developing the TAPS program. Primary goals of the program were to: Increase adoption of practices to reduce cost of production; Increase use of marketing tools to improve profitability; and Increase adoption of best management practices to improve water and nitrogen efficiency. The program was designed to incorporate and engage agricultural researchers, technology providers, industry personnel, state and federal agency partners along with farmers. TAPS participants make a series of farm management decisions. The agronomic decisions are imposed on replicated plots in a single field. Yield and water nitrogen efficiency are calculated to determine a Highest Input Use Efficiency Award ($1,500). Economic decisions are kept track of to calculate the Most Profitable Award ($1,500). 2024 TAPS competitions included Sprinkler Corn, Continuous Corn, Soybeans and Grain Sorghum. At the end of the year we have an awards banquet attended by 150+ individuals and produce a TAPS Project Report that is released as an Extension Circular. In 2024 we had 171 participants, of

which about half were new to the program. We have 968 Twitter followers, 86 Facebook followers and 468 Digital Newsletter subscribers. An interview of participants after the 2022 growing season showed that 75% of 2022 survey participants have adopted new ag technology and 86% have adopted new management practices on their farm, at least on a trial basis, as a result of competing in TAPS.

EQUIPPING FLORIDA PESTICIDE APPLICATORS FOR SUCCESS THROUGH INDUSTRY PARTNERSHIP

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Citrus Industry Magazine is a free trade publication that provides citrus growers with news, research updates, management strategies, and best practices. To add value to their readership, the magazine partnered with UF/IFAS to offer pesticide continuing education units (CEUs) through the publication of online educational articles. Florida pesticide applicators are required to obtain a combination of 'Category' (license-specific) and 'CORE' (general pesticide knowledge) CEUs to renew their pesticide applicator licenses. The CEU articles focus on general pesticide use and safety and serve as an opportunity for licensed pesticide applicators making restricted-use pesticide applications to earn up to four free CEU credits in the 'CORE' CEU category each year. This programming aims to save growers time and money by providing free self-paced CEUs to maintain their pesticide licenses. Annually, each Agent authors one peer-reviewed 2,000-word article containing a 20-question quiz. Licensed applicators read the article and complete the accompanying quiz on the Citrus Industry Magazine website, whereupon the answers are transmitted to the author for grading. If the applicator passes the quiz with a 70% score, the author uploads a Record of Attendance for Continuing Education Units form to the Florida Department of Agriculture and Consumer Services (FDACS) database on the applicator's behalf and emails them a copy for their records. Each year, four CEU articles are published and available online to applicators at no cost. From 2024 to present, licensed applicators have earned 434 CORE CEU credits valued at $10,850. This partnership between Citrus Industry Magazine and UF/IFAS Extension created an effective programming opportunity that continues to enable Florida pesticide applicators to conveniently maintain their licenses for renewal while enhancing pesticide safety education. While this platform was originally targeted toward citrus growers with restricted-use pesticide licenses, it has expanded to help all licensed pesticide applicators in Florida and can serve as a model for other states.

EVALUATION OF SOYBEAN YIELD AND STAND COUNTS IN RESPONSE TO ROLLING

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The adoption of large land rollers in agronomic crop production has increased in the Midwest over the last decade, especially in soybean fields. Rollers are used to push field debris into the soil, improve seed to soil contact, and to promote residue decomposition. It has been speculated that rolling soybeans after emergence may promote axillary bud development, which may lead to changes in plant stature and yield. To evaluate the yield response and stand counts in Ohio fields, we conducted on-farm research over three trial years. Research plots used a randomized strip design with three treatments replicated three times each year. Treatments included non-rolled controls, rolling after planting but before plant emergence, and rolling strips at V1 growth stage. Stand counts were assessed approximately four weeks after rolling. Yield data was collected using weights on a certified scale and moisture corrected to 13%. Yield and stand counts were compared using ANOVA. Results in each of the three years of trials indicated no significant yield response or in stand counts following rolling. In the 2024 trial, we also evaluated harvest efficiency. No field stoppages occurred in the rolled treatments, but stoppage occurred every 1.125 acres on average in the non-rolled controlled strips to clear debris from the combine header. Rolling soybeans is estimated to cost approximately $8.40/acre based on the 2024 Iowa Custom Rate Survey. To recover land rolling costs, a yield benefit of 0.80bu/acre or greater would have to be realized assuming a soybean price of $10.50/bu. This study did not support

an economic return with the practice of rolling soybeans, but in rocky field conditions harvest efficiency may play a considerable role in economic value. This presentation will discuss the agronomic and soil health tradeoffs of rolling soybeans that clientele should consider before adopting this emerging practice.

WHAT WE'VE LEARNED ABOUT TAR SPOT OF CORN EPIDEMIOLOGY IN MARYLAND'S CLIMATE

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Tar spot is a disease of corn caused by the fugus Phyllachora maydis and was first detected in the United States in 2015. The disease has spread rapidly throughout the US corn belt and significant yield reductions have been associated with tar spot epidemics. Tar spot was first confirmed in the Mid-Atlantic region of the US in Lancaster County, PA in 2020, followed by Maryland in 2022, and Delaware and New Jersey in 2023. Since the confirmation of tar spot in Harford County, MD in 2022, we have studied the distribution and management of this new disease in Maryland. In all three production years (2022-2024), tar spot was first confirmed in late August through September at relatively low levels, with most field infections ranging between 2-5% severity. To date, tar spot has been confirmed in 10 Maryland counties; however, no significant yield reductions have been associated with tar spot infections in Maryland, which is contrasting to data from the Midwest. Recently published research on tar spot epidemiology suggests that temperature is a major driver of infections; local weather data suggest that these parameters are not met in much of Maryland's climate until mid-to-late August, which is several weeks past the critically susceptible growth stages and consistent with our observations of first reports of tar spot infections from 2022-2024. In 2023 we also conducted an on-farm fungicide trail to evaluate two fungicide timings for managing tar spot. A one-pass program at tasseling and a two-pass program (tassel and R2) suppressed tar spot infections early, but did not contribute to significantly greater yields compared to the non-treated control. This initial research on tar spot suggests that the impact and management of this disease may differ in Maryland and other warmer climates compared to the corn belt.

EXTENSION INSECT PEST MONITORING: SUPPORTING INTEGRATED PEST MANAGEMENT IN VEGETABLES AND AGRONOMIC CROPS

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Northampton County ranks 7th in Virginia for overall market value of agricultural products sold for crops and leads the state in vegetable market value. The region produces a wide array of high-value crops, including commercial potatoes, sweet corn, snap beans, tomatoes, as well as soybeans—a top commodity for the area—all of which are highly vulnerable to various insect pests. To support producers, the Northampton County Agriculture and Natural Resources Extension Agent conducts extensive pest monitoring efforts. These include pheromone trapping and scouting for lepidopteran moths, slug trapping, and click beetle trapping. These efforts provide critical, timely data on pest presence, pressure, and threshold levels, equipping producers with actionable insights to enhance their integrated pest management (IPM) strategies. This presentation will offer an overview of these monitoring initiatives, highlighting methodologies, timing, collaboration efforts, information dissemination, and educational opportunities for IPM adoption.

EFFECT OF SEEDING RATE & PLANTING DATE ON COVER CROP GROWTH AND SOYBEAN YIELD

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Weather conditions often delay fall cover crop establishment following corn or soybean harvest. This limits producers' ability to reap the benefits of cover crops, such as weed suppression, reduced soil erosion, or increased soil organic matter. The objectives of this study were to determine the effect of seeding rate and planting

date on cover crop growth and the yield of the subsequent soybean crop. Three cereal rye (Secale cereale) seeding rates (25, 50, and 75 lb ac -1) and three planting dates (mid-October, early November, and mid-November) were evaluated in South Charleston and Custar, OH from 2023 to 2024. Prior to cereal rye termination in the spring, ground cover and aboveground biomass were measured in a 0.25 m2 area. Soybean was planted following cereal rye and final soybean stand and calibrated yield data were collected. Planting date and seeding rate had a significant effect on ground cover, aboveground biomass, and nitrogen content, but planting date had a greater impact on overall cover crop performance than seeding rate at both locations. In South Charleston, a significant interaction between planting date and seeding rate was observed whereas similar ground cover and biomass levels were achieved regardless of seeding rate at the earliest planting date. At later planting dates, there was still no statistical difference in biomass or ground cover between seeding rates of 50 or 70 lb ac -1. Cereal rye planting date had a significant effect on soybean yield. At the Custar location, the latest planting date treatment had significantly lower soybean yield, but in South Charleston the earliest cereal rye planting date had a significantly lower soybean yield. This trial is currently being conducted for a second year at both locations. Evaluating the effects of varying seeding rates and planting dates will inform future management decisions to maximize cover benefits and cash crop yield. Findings from this trial will also improve cover crop management-focused Extension outreach and overall is an example of how Extension professionals can address producers' needs through applied research.

ATTRACTING NEW TALENT TO REPLACE OLD AGRONOMISTS LIKE ME

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Agronomy graduates from Mississippi State University have a 100% employment rate within six months of graduation indicating a supply and demand shortfall. The main objective for this program, Developing Future Ag Leaders, is to recruit talented young people for agronomic related careers. The project has three activities: 1. Agronomy Camps, 2. Science Experiment Contest, and 3. Agronomy Bowl. Target audience is youth 10 to 18 years old and camps are held at various locations across Mississippi. Topics include production principles of major row crops, soil health, and unmanned aerial vehicles. Attendees receive classroom and in-field training. The Science Experiment contest lets youth be the 'Scientist', devise their own experiment, and conduct trials at home. Kits provided include pots, data collection book, soybean seed, and weather station. Youth develop hypothesis, design the experiment, conduct the trial, develop conclusions, and submit a final report for judging. The top six placings receive prizes and participation rate is approximately 100 youth per year. The Agronomy Bowl improves knowledge in crop production and related disciplines. All three activities help increase youth interest in plant sciences and science in general. Day Camp evaluations used a pre/post survey (n=22). Assessments show students agree/strongly agree (91%) with: learned a lot about plants, agronomy is interesting, UAV's are interesting, and science is interesting. Assessment also shows students agree/strongly agree with desiring to learn more about agronomy (82%), insects (86%), other sciences (68%), and UAV's (95%). The science experiments are having the greatest impact in drawing talented young people to careers in the agricultural sciences. Projects are state plan-of-work programs and have garnered attention from several land-grant universities for duplication.

REGIONALIZE PESTICIDE TRAINING MODEL: 10 YEARS OF GLORY AND ROAD BUMPS

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Background: Providing opportunities for pesticide applicator training across multiple license categories requires extensive preparation and time for agents. In 2016, the Northwest District (NWD) Agricultural Program Implementation Team (PIT) developed and implemented a regional training model to address stakeholder needs. Objectives: The objectives were to meet the needs of pesticide license holders in the NWD to obtain new licensees and/or gain continuing education units (CEUs) while creating an educational model that would maximize the impact of agents' time and efforts in a team-teaching environment. Method: Two annual multi-county collaborative training series (TS) are hosted. The Central Panhandle Pesticide TS comprises five agents across four counties (Calhoun, Holmes, Jackson, Washington). In comparison, the Big Bend Pesticide TS comprises five agents across three counties (Gadsden, Leon, Jefferson) in the Northwest District. The multi-day TS rotates annually between host counties to meet the needs of a wide range of clientele. They covered five RUP license categories (core, private, row crop, right-of-way, and aquatic). Results: Over a nine-year period, the training series has been hosted in a rotation of three or four counties within the two clusters (Central Panhandle, Big Bend). The two series have resulted in 1,442 participants, with 733 obtaining CEUs and 689 taking licensure exams. While additional training is held individually by counties, this series has offered practical and efficient programming for our agent group. Overall exam pass rates from this model have been 523/689 (76%). Conclusion: Demonstrated by the high attendance rate, this model has effectively met the needs for multiple-category area pesticide training while providing a structure that allows agents to serve a diverse client base efficiently. This model enables the agents to meet the considerable influx of testing when changes such as the paraquat and the crop dicamba products no longer allow for the supervision of non-licensed applicants.

ANIMAL SCIENCE PRESENTATIONS

GRAZING STICKS AS AN EDUCATIONAL TOOL FOR WOMEN MANAGING LIVESTOCK AND PASTURES

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An understanding of forage physiology and growth is critical to managing pastures for productivity and persistence in a grazing livestock operation. Since 2013, the Pearls of Production: Women in Agriculture program has provided an opportunity for women in livestock production in Missouri to participate in interactive and hands-on training on livestock and forage production—from women, for women. One of the areas of emphasis at Pearls of Production has been forage production and management. I have led the forage-focused breakout sessions since the program began, and an interactive tool I have used to demonstrate critical pasture management topics is a grazing stick. A grazing stick is a four-sided yard stick, with units of measurement (inches) on one side, and a variety of pasture-management related information and calculations on the other three sides. The ruler side allows a producer to measure the height of forages in a pasture, which is important because turn-in decisions are sometimes made based on forage height, and forages have a minimum grazing height which should be managed for in order for the plant to regrow and persist. A cooperating agency generously provides a grazing stick for each participant. In the session, I instruct students on how to read and use the grazing stick, then ask them to practice taking measurements in a pasture where our session is located and use those measurements to calculate the number of days of grazing available on the pasture. In 2024, via the program evaluation, participants indicated a 73% increase in their understanding of the concepts presented in the session, and 100% would recommend the session to others. Participants planned to use the information to calculate the number of head or number of days of grazing on a pasture, measure forages to prevent overgrazing, monitor grazing heights, and better utilize pastures.

ECONOMICS OF GROWING WARM-SEASON ANNUALS FOR SHEEP IN D4 DROUGHT

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Warm-season annual forages are frequently recommended to extend the grazing season through the warmest months of the year in Ohio. While many options are available to plant, there is little quantifiable data available to demonstrate successful grazing with sheep, nor information on the economics of implementation. Drought prompting a natural disaster designation occurred in 2024 which created an opportunity for experimentation with sheep grazing warm-season annuals amidst drought at the OSU Eastern Agricultural Research Station in Caldwell, Ohio. Four treatments were implemented- sorghum-sudangrass, pearl millet, a warm-season summer grazing mix, and established tall fescue, which was the control. The warm-season annual paddocks were seeded on July 25, 2024 and ready to graze on September 4, 2024. Based on the dry matter available, the experimental area was projected to provide enough forage to strip graze each treatment over the course of 4 weeks. Stocking density was matched to the dry matter available. Mature ewes were turned in to graze on September 10, 2024 and by September 30, 2024 grazing was complete. Animal weight, body condition score, and forage dry matter was recorded before grazing and after grazing. Forage quality was also documented. Sorghum-sudangrass growth allowed for the greatest amount of forage available to graze and was responsible for the greatest collective weight gain of the treatments. Economic analysis determined that investing dollars and time into site preparation, seed, fence, and labor to grow warm-season annuals resulted in a profitable venture when weight gain was valued at the market value in fall 2024, with sorghum-sudangrass providing the greatest return on investment. Shepherds at county, state, and national events have been appreciative of this data. Sharing results will assist with preparing for future drought events and prompt practices to cushion the summer-slump period which impacts 15 states in the Fescue Belt. The success of this on-farm research have led to larger scale expansion with increased repetition in the 2025 growing season.

REDUCING SCCS ON DAIRY FARMS TO IMPROVE PROFITABILITY

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Mastitis is one of the costliest diseases in the dairy industry, as it results in a drop in milk production, and increased labor and treatment costs. Somatic cell count (SCC) represents the number of white blood cells in the mammary gland and is correlated with mastitis. Most dairy farmers in Pennsylvania market their milk through cooperatives. Not all cooperatives, but many, offer incentives to keep SCC under a certain level, as elevated SCC can negatively impact the quality of processed dairy products. Many cooperatives also have a threshold that results in a deduction in milk price when SCC is elevated. If a farmer has consistently elevated SCC over a certain level, they may be in jeopardy of losing their milk market. Keeping SCC down is a priority for many dairy producers as it impacts milk quality and animal health. To assist farmers in keeping their SCC down, Pennsylvania dairy educators complete milking evaluation farm visits. During these visits, milking procedures are observed, and Vadia units are used to assess milking equipment. An individualized follow-up report is delivered with recommendations on how milk quality can be improved. The popularity and positive impact of milking evaluations led team members to apply for and receive a Farmer Partnership grant from Northeast SARE. This grant will allow educators to collect data from milking evaluations and host 3 workshops throughout the state. Findings from these evaluations will be presented at the American Dairy Science Association Annual Meeting in 2026. Through this grant, dairy educators will be able to reach more producers throughout the state. Between March 16, 2024, and March 15, 2025, team members completed 32 milking evaluations in 18 counties throughout Pennsylvania and Maryland, impacting 4,507 cows. On average, these farm visits reduced SCC by

167,200, resulting in an average of $11,269 in profitability for farms. Not only has this made money for many farms, but it has also enabled many farms to remain in business.

USING THERMAL CAMERA DRONES IN BEEF CATTLE ROUNDUP IN THE INTERMOUNTAIN WEST

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Small Unmanned Aircraft Systems (sUAS), also known as drones, are being implemented in multiple areas of agriculture. In the Intermountain West, livestock are typically summered in mountain ranges nearby and are collected in the autumn to gain access to lower pastures during the harsh winter months and ease of closer monitoring during calving. Grazing during the summer in the high range reduces grasses and fire hazards and allows the low land to produce feed for cattle during the winter. The use of mountain ranges and pastures comes with its own set of challenges. Cows like to explore their environment, and they can get lost in the process, coupled with the harsh landscape), it becomes more difficult to find and gather. Integrating drones to aid in cattle recovery is an effective way to overcome some of these cattle-specific challenges. Cattle can be quickly located by employing a drone that easily moves across the mountainside or within ravines with the use of a thermal camera. This allows the livestock producer to conveniently, identify areas to focus the use of horseback riders to gather cattle. Using drones not only saves time and money but also reduces the risk of injury to the horse and rider in the rough terrain of western mountain ranges. Two drone teams joined Utah producers for autumn cattle collection in Bloomington Lake Idaho and Huntington Canyon Price Utah in October and December of 2024. The combined efforts of drones and horses to collect cattle were successful and technology limitations were identified. A 2-acre area was searched by drone in 10 minutes and 60 minutes by horse. Fly time due to battery life was the most limited factor for the drone. The time of day and ambient temperature also affected the ability to identify livestock. Temperatures above 90° Fahrenheit made it difficult identify cattle from rocks. The use of Civil Air Patrol search and rescue methods to increase search success. Using drones reduces the workload of the rider and horse, saving time and energy and reducing the risk of injury.

HOW ONE EDUCATIONAL PROGRAM SPARKED THE CREATION OF TWO MORE BY PARTICIPANT DEMAND, BOOSTING EFFICIENCY AND EXPANDING REACH

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Background: A program of the South Florida Beef Forage Program is Cattle Management for Women. Women, who are taking a greater role in management of beef cattle operations, tend to not ask questions in large seminar situations. After participants attended one of these educational events, they realized its value. The exact program was then requested for a Florida Cattlewomen's Quarterly meeting and was used for a Ranching Foundations program. Objectives: This program included timely information on beef cattle management. Creating an environment where participants felt they could ask about their own specific experiences was a priority in development of the program. Participants were instructed on foundational best management practices. Knowledge gain, behavior change, and economic impacts were measured. Methods: Livestock Agents created a day-long event with stations that participants rotated through. The participants were divided into smaller groups for these rotations which created an environment where they felt more comfortable asking questions. Topics included newborn calf care, heifer development, cow nutrition, bull breeding soundness exams, and legalities of selling beef. The rotations included demonstrations or hands-on activities giving a broad overview of management. Results: A spouse of one of the participants requested the program for both men and women. Additionally, a Florida Cattlewomen's board member requested a repeat of the program at a quarterly meeting. As a result, over 110 people attended the 3 events. Participants manage more than 18,000 head of cattle and 40,000 acres of land. Ninety percent (99 of 110) of participants indicated they would

adopt at least one best management practice learned at the program. Fifty percent (55 of 110) indicated an average expected increase in profitability of 8%. Conclusion: Collaboration among Extension faculty and allied industry partners creates partnerships that can extend stakeholder reach beyond one program event without development of more instructional components.

ASSISTING THE PORK INDUSTRY PREPARE FOR AN EMERGENCY DISEASE RESPONSE

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In the event of a Foreign Animal Disease (FAD) or other widespread domestic disease threat a quick and coordinated response will be vital in keeping the disease from spreading. A quick response will help State Animal Health Officials know where infected animals are and how to contain the disease to reduce negative impact. Certified Swine Sample Collector (CSSC) training took place in Minnesota to train non-veterinarians to properly take diagnostic samples from pigs during an emergency disease response, on behalf of veterinarians or State Animal Health Officials. The CSSC training consisted of both classroom and hands-on portions. Attendees learned to identify FADs including African Swine Fever, Classical Swine Fever and Foot and Mouth Disease, and how to take the necessary diagnostic samples from live and postmortem pigs. Seven CSSC training events were held in Minnesota from August 2024 through January 2025. Participants trained at the CSSC events add to Minnesota's list of CSSC people who can take diagnostic samples on behalf of veterinarians during an FAD or other widespread disease event. When the grant proposal was submitted to the National Pork Board, Minnesota only had 34 people certified as CSSC. A total of 64 new samplers were certified through these CSSC training events. A majority of attendees were from Minnesota, with a handful of attendees from other states such as Iowa, Kansas, Nebraska, and South Dakota, yet all had a connection to Minnesota farms. Participants had a combined influence on over 59 million pigs. Lessons learned through hosting CSSC training events included learning to find Secure Pork Supply and CSSC resources for pork industry specific disease response preparation; developing a beneficial collaboration between state agencies, practicing veterinarians, and pig farms; and organizing a plan to offer successful CSSC training. This session will demonstrate how others can coordinate similar training for all pig audiences, no matter the type of pig farm or number of pigs raised.

EMERGENCY RESPONSE TO ACCIDENTS INVOLVING LIVESTOCK(ERAIL)

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In the United States, total red meat production is around 52.1 billion pounds with large numbers of animals transported over the nation's highways daily. According to the 2020 Ag Census, there are 3.26M head of livestock in Michigan. The MSU Extension animal agriculture team identified the need to prepare first responders for livestock transportation accidents as our state began to experience an influx of livestock haulers. This need is addressed through the Emergency Response to Accidents Involving Livestock (ERAIL) program which is a comprehensive training and response program. This program serves Michigan's animal agriculture industry by providing resources to help respond to accidents involving livestock. The ERAIL program is made up of four different components: In-person training for response and transportation professionals, virtual training modules dedicated to expanding the reach of the ERAIL training program, individual consultations for organizations, locations, and units that are looking to be prepared for these types of situations, and developing a fleet of emergency response trailers in Michigan dedicated to providing the equipment and tools needed by responders to address emergency situations involving livestock. These efforts make up a robust, effective and proven program supported by evaluation data, funding support, stakeholder comments and effective response events. To

date, over 800 people have been trained through the ERAIL program with 96% of participants indicating an increase in their skill set. Consistently, over 90% of the training participants indicated that they felt more comfortable around livestock after this experience and are more confident in their skills to address needs for accidents involving livestock. 100% of participants are aware of response resources that are available to them to help prepare for and respond to accidents involving livestock. The ERAIL team remains steadfast in their goal to increase the preparedness for accidents involving livestock by continuing to focus on training for first responders and providing accessibility to specialized equipment needed for these events. These efforts will continue to protect the safety of first responders at accident scenes, the public traveling on the roadways, promoting welfare of animals involved, and protecting the image of the animal agriculture industry.

'COW CLINICS' IMPROVE PRODUCER CONFIDENCE AND INCREASE PROFITS

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Body Condition Scoring (BCS) and forage testing are critical components in managing the reproductive success and productivity of beef cows. Each serves a distinct purpose, but they are closely related in ensuring that cows receive the proper nutrition and care. Regular assessments of both BCS and feed can help prevent nutritional imbalances, optimize production, and reduce the likelihood of health issues related to under or overfeeding. By combining these two tools, producers can improve herd management, ensure better animal welfare, and boost overall productivity. A series of five "Cow Clinics" were held in Nebraska in 2024. Each clinic focused on the "why, how, and when to body condition score beef cows" as well as "forage sampling and understanding a feed analysis". These management practices were examined in detail in the classroom with discussions that were supplemented with appropriate educational material and sample feed analysis. Locations were chosen for their ability to provide live animal demonstrations. Following the classroom discussions participants viewed cows in different body condition scores and discussed the differences with the instructors. Bales were also provided to demonstrate correct forage sampling techniques. Without a formal presentation, participants were more engaged and frequently asked questions throughout the clinics. Seventy-four producers, NRCS representatives, and consultants attended one of the five "Cow Clinics", representing 91,037 acres and 15,048 cattle. At the conclusion of the "Cow Clinic" series, 87% of participants reported an increase in knowledge with 20% reporting a significant increase in knowledge, and 66% reported likely or very likely to make management changes. Participants reported a $20.27 per cow value because of attending the clinic and approximately 68% of the attendees participated in a free forage analysis with the offer to help decipher the results and provide ration formulation advice.

SLOWING DEWORMER RESISTANCE THROUGH PRODUCER EDUCATION

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The management of internal parasites, particularly Haemonchus contortus (barber pole worm), is a leading threat to small ruminant production. Florida climate makes this challenge particularly problematic for producers, as consistently warm and humid weather favor parasite

growth practically year-round. County extension agents collaborated with university specialists and veterinarians to offer training opportunities for producers to gain the skills and knowledge needed to use dewormers as recommended by current research. Selectively treating animals for internal parasites is highly recommended to reduce dewormer use and slow the development of drug resistance and should be implemented on all sheep and goat operations. To accomplish this, the FAMACHA system was taught through a producer certification program. FAMACHA scoring is a standardized, widely accepted practice involving recognizing anemia associated with barber pole worm infection by categorizing the color of mucous membranes in the eye, allowing the producer to identify the most heavily infected animals to be treated. The certification program consists of an online module, exam, and in-person lecture, demonstration, and hands-on training. Incorporating an in-person component with hands-on activities was crucial to ensuring participants were improving their skills and developing confidence in their ability to conduct the practice. Since 2022, 148 individuals participated in six FAMACHA certification programs. Program surveys indicated 91% of participants increased their knowledge, and 30 surveyed individuals indicated a total economic benefit of $21,499 as a result of the course. Additionally, 85% of respondents indicated an intention to change their behavior to include at least one of the following practices: monitoring the flock or herd for internal parasites, deworming according to research-based recommendations, and utilizing the FAMACHA method. The FAMACHA certification program gives producers the confidence to conduct FAMACHA scoring on their operations, selectively treat animals, reduce veterinary costs, and reduce overall dewormer use for the flock or herd. Overall, these practices can reduce operational expenses, maintain livestock health, and slow the development of dewormer resistance.

LIVESTOCK EDUCATION & CERTIFICATION FOR AGRICULTURE LAW ENFORCEMENT

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An increasing trend of instances of livestock neglect and disputes was recognized between law enforcement agencies along with lack of knowledge by the responding officers to make determinations of animal well-being. This week-long program was developed in partnership between Florida Farm Bureau, The University of Florida, and local sheriff offices to address a need of in-field training on livestock health and management topics for law enforcement personnel. The objective for this program is to educate law enforcement personnel on generally accepted livestock production practices and teach skills to discern acceptable animal well-being. An emphasis is placed on providing ample opportunities for participants to apply acquired knowledge and skills in field settings and during mock litigation proceedings throughout this event. Throughout the course of the week participants are given homework and daily quizzes to assess short term knowledge gain. On the final day, participants must complete a two-part exam to receive certification, a hands-on evaluation of skills and a written exam. Since 2022, four classes have been administered to a total of 86 participants. There has been a 100% certification rate with overall knowledge gain of 40%, measured as the difference in initial and final written test scores. This training equips law enforcement officers with additional credibility in the court of law when they are forced to make decisions in livestock neglect cases. This program has become widely recognized among law enforcement agencies and the demand for the class is consistent. Having this Florida-based training program has saved over $17,000 in personnel training costs as opposed to sending these participants out of state. Some self-reported impacts of this program include improved state agency networking, enhanced abilities of personnel to care for and improve the condition of seized livestock in neglect cases, and continual use and referral to course materials while on the job.

INNOVATING CATTLE REPRODUCTION: EMPOWERING PRODUCERS WITH AI AND PREGNANCY DIAGNOSIS

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Efficient reproductive management is essential for the sustainability and profitability of cattle operations. Artificial insemination (AI) and pregnancy diagnosis are critical tools for improving herd genetics, optimizing breeding programs, and making informed herd management decisions. However, limited access to large-animal veterinarians and the high cost of professional services pose significant challenges to producers. To address this gap, the Southwest Cattle Artificial Insemination and Pregnancy Diagnosis Program was developed to provide hands-on training for cattle producers, ranch personnel, and students seeking expertise in reproductive technologies.

The program featured two specialized workshops: a two-day AI training and a 2.5-day pregnancy diagnosis course. These sessions combined foundational knowledge with extensive hands-on experience, allowing participants to develop practical skills in AI techniques, reproductive health assessment, and pregnancy classification. Participants worked with live cattle under the guidance of industry experts and Extension specialist, gaining confidence in implementing these practices within their own operations. Additionally, ultrasound demonstrations provided insight into advanced diagnostic methods.
The program has demonstrated significant impact, with a majority of participants indicating a strong likelihood of adopting AI (91%) and pregnancy diagnosis (94%) in their operations. Over 89% of attendees reported acquiring skills that would directly enhance efficiency, profitability, and overall herd management. The initiative not only empowers producers to take greater control of their breeding programs but also contributes to the long-term sustainability of the cattle industry.
This collaborative effort, led by county Extension agents and specialists from New Mexico State University, was further supported by industry partners who provided educational resources and sponsorships. Moving forward, this program aims to expand its reach, ensuring more producers have access to the knowledge and tools needed to enhance herd productivity and economic viability.

LIFETIME IMPACT OF EARLY LIFE NUTRITION ON BEEFXDAIRY CROSSBRED STEERS

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The objective of this study was to examine how early life nutrition, specifically starch or fiber, impacted performance later in life. One-hundred-twenty day-old beefxdairy steers were fed either a high-starch (HS) or low-starch (LS) starter ration for 60 days in the nursery, then weaned and moved to a receiving trial for another 60 days where they were fed either a pelleted (PEL) ration or a forage-based TMR ration. Following the receiving trial, all were fed a common growing ration for 140 days, then moved to a finishing yard and fed a common finishing diet for 200 days. In the calf nursery stage, the HS calves ate significantly more grain (0.99 vs 0.95 lb/day) and had a numerical advantage in weaning weight (179.8 vs 177.7 lb) compared to the LS calves. In the receiving trial the pellet-fed calves consumed almost double what the TMR calves ate and ended with a heavier weight at the end of the 60-day trial. However, a month later the weight difference had narrowed and there were no performance differences between groups in intake, gain or weight in the growing or finishing phases. All calves were marketed at 465 days of age. Steers graded 15% Prime, 66% CAB, 15% low Choice and 4% Select with no difference in the quality or yield grade between groups. The low-starch TMR group had numerically heavier carcass weight and 20 percent fewer liver abscesses and rumen condemnations. Beefxdairy steers in this project only averaged 19 percent liver abscesses, which is well below other reports of beefxdairy steers. The biggest impact from a carcass merit and gain perspective was from multiple treatments for respiratory issues. Calves that were treated two or more times had a significantly lower daily gain in the finishing phase, resulting in a 29-lb lighter carcass weight, and returned $91 less compared to non-treated

animals. When combining the slight differences in feed intake, feed efficiency and increased weights, the LS-TMR group had numerically higher carcass value.

PENN STATE EXTENSION DAIRY FEEDING ASSESSMENT DATA

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Feed costs are the number one expense on dairy farms, accounting for 50 to 60% of total production costs. Feed costs can fluctuate with the price of grain, the quality of the homegrown forages produced on the farm and whether the producer has to buy in forages. With volatile feed costs, feed management should be a top priority for dairy producers and farm managers. The Penn State Extension Dairy Team has been providing a feeding assessment evaluation to look at farm feed efficiency and to identify opportunities for improved feeding management and production on dairy farms. The feed assessment evaluates farm feeding practices in relation to mixing time, mixing order, particle size, time of delivery, feed push-up frequency, and refusal amounts. Feed samples are collected and sent for nutrient analysis to compare how closely the ration delivered to the bunk matches the formulated ration provided by the nutritionist. Feed storage and management, as well as cow comfort, are also assessed in this evaluation. Proper forage storage aids in forage quality. By assessing this, we can determine how storage is impacting the quality of the feed being delivered to the cows. Cow comfort is one of the main driving factors of dry matter intake, water intake, and milk let-down. By assessing cow comfort, we are able to determine if there are areas outside of the ration that could be affecting milk production and, ultimately, the producer's bottom line. With the information collected, data is analyzed with milk production and performance records to help identify bottlenecks in production efficiency that further impact feed efficiency and farm profitability. After assessment evaluations, there is a follow-up consultation with the producer to discuss opportunities for improved feeding management practices and a strategy for how to implement them. This data is also used to present at workshops through Penn State Extension and industry professional events as examples of how feed management can affect production costs on dairies not just in Pennsylvania, but across the nation. This presentation will cover the feeding assessment results gathered from tie-stall and free-stall barns on Pennsylvania dairies.

RESPONDING TO BEEF PRODUCERS NEEDS DURING DROUGHT

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The 2024 growing season in Eastern and Southern Ohio was marked by historic drought conditions. For the first time in the history of the U.S. Drought Monitor a significant portion of the region experienced D4 - Exceptional Drought, leading the U.S. Department of Agriculture to designate 22 counties and 18 neighboring counties as natural disaster areas. Local impacts were felt in agricultural production resulting in limited hay supplies and lack of water access, placing stress on livestock production systems. A survey tool was developed to gauge the impact of the drought on production economics. The survey shared during this series of programs was designed to capture pasture conditions during the months of June-October and quantify volume and cost of supplemental feed and water hauling due to the drought. Five regional programs were organized to address forage shortages and economic stress of purchasing supplemental feed for beef cattle producers in the drought-stricken regions. These programs were held in the evenings between October 17 and November 4, 2024 and reached 95 cattle producers across the region. The educational programs discussed the nutrient requirements for beef cattle, the importance of forage quality, alternative diet options, economics, and herd reduction management. The combined programming and survey work identified future programming needs including pasture rehabilitation and repair, annual stored forages, return on investment for livestock water development, optimal mature cow size, and infrastructure to handle non-forage feedstuffs.

LOCAL MEAT PROGRAMMING: PRODUCTION, PROCESSING, AND MARKETING

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Local meats remain one of the fastest growing segments of the local food movement. In fact, since 2002, the number of NC livestock producers selling local meat has gone from one to 1900+ (NCDA Meat Handlers, 2024). While a lot of Extension programming focuses on local fruits and vegetables, less so for local meats since meat requires more processes, oversight often-adding complication, and added cost. However, this does not have to be the case. The Niche Meat Working Group, which is composed of state Extension specialists, agents, and business professionals, developed comprehensive trainings bringing together farmers, processors, regulators, and buyers with the outcome of increasing consumers' ability to buy local meats, while increasing the capacity and profitability for farmers who raise local meat.
We did this by holding the following production through sale workshop series in response to a requests from clientele identifying their needs:

- (Production): An Intro to Niche Meats via Meat Rabbits: This farmer and farmer-trainer (Extension) series featured an introduction to meat rabbits. Extension agents do not regularly deal with meat rabbits, but are growing in popularity. Topics included designing a business plan, housing, breed selection, nutrition, health, predator control, and processing, along with a question and answer session with a producer panel.
- (Marketing) Three-Part Marketing Series: This farmer-focused workshop series provided an introduction on how to identify customers to expand your market for profitability. The series included: (1) Farm Branding; Understanding your Market; (2) Selling Beef by the ¼, ½, or whole; (3) Where & How to Sell Your Livestock.
- (Processing) Whole Animal Butchery: This consumer-focused workshop demonstrated how shoppers can save money by utilizing more of the animal, reducing waste, and trying lesser-known cuts. Featuring local meat, a chef from Johnson & Wales led the butchery demonstration covering various cooking methods and food safety recommendations. The farmers participated in the workshops alongside consumers, showcasing their production practices and products while also building farmer-buyer relationships.
- (Sales) Demystifying Label Claims: This two-part webinar series addressed what label claims really mean for consumers, and how to understand the certifications and requirements behind the claims for farmers.

EARLY CAREER DEVELOPMENT PRESENTATIONS

THE GOOD, THE BAD AND THE UGLY OF 'SERVICE'

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Service is a critical component to being an Extension professional, even required for those in the tenure stream. Tim Waller currently serves as the County Extension Department Head of Rutgers Cooperative Extension – Cumberland County (CEDH)(2025 -), Vice-Chair of the NACAA Early Career Development Committee (2023-2025), New Jersey Director for the North Eastern Association of County Agricultural Agents (NEACAA) (2021 -), President of the Agricultural Agent Association of New Jersey (AAANJ) (2024-2025), Chair of the Nominating Committee of Rutgers Agriculture and Natural Resources Department (2023-2025), and Chair of the Rutgers Nursery and Green Industry Working Group (2020 -) in addition to his ex officio service roles with the local Board of Agriculture (BOA), 4-H Advisory Board, County Ag-Development Board (CADB), and is on educational committees for two regional high school / Future Farmers of America (FFA) programs and three professional associations as well as a faculty-lead on Rutgers Office of Continuing Professional Education courses. He is also a pre-tenure professor with all the associated requirements. Through

this litany of early career service responsibilities, instances of great collaborations and witnessing their true value materialize to those incredibly time-consuming ultra-low impact endeavors, have been endured. This seminar aims to provide a lessons-learned approach to the initially unseen time commitments of 'Service', perceptions surrounding early career service, balancing valuable time and reportable impact, and most importantly the 'good', that comes from service opportunities. Service is implicit to Extension, however, how an early career person approaches this can and will have dramatic impacts on the success or failure of their position.

A PEER-TO-PEER MENTORING PROGRAM FOR EXTENSION AGENT SUCCESS

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New extension agents face several challenges as they navigate the path to promotion and tenure. Many are stationed off-campus and may not be aware of or able to access university resources and support. Being geographically distributed, new agents may feel isolated as they may have few opportunities to interact with peers across the state. There may also be fewer mentors available as long-standing colleagues leave in a wave of retirements. Agents may feel overburdened as they have more responsibilities than ever due to budget cuts and reduced county investment. New agents need as much support as possible to be successfully promoted while facing these increasing demands.
Rutgers Cooperative Extension (RCE) recently launched a mentoring program designed to support pre-promotion agents by fostering peer-learning, providing professional development, giving guidance on administrative systems, and managing promotion and tenure paperwork. RCE currently has 25 pre-tenure faculty across extension that are part of the first program cohort, and at various stages -- with some about to go up for tenure, several that have been through reappointment, and others that were just hired. The staggered nature of the search and hiring processes allows for the most recent hires to learn from those that have been in extension for several years. It is expected that this peer-to-peer support network will lead to partnerships, shared experiences and camaraderie in addition to the formal mentoring committee provided by each extension department.
Some examples of the types of workshops provided include networking sessions, evaluating the impact of programming, publishing in extension, self-care, and the Institutional Review Board submission process, among others. The planning team for this program is made up of representatives from each extension department, as well as from administration. This allows the leveraging of resources and to ensure that the needs of agents across extension are being met. Participation is voluntary, but more than 85% of pre-promotion extension faculty have attended at least 1 of the 6 events held, thus far. The program's impact will be assessed upon reaching a more advanced stage of implementation.

PLANTING SEEDS OF SUCCESS: PRACTICAL TRAINING IN ALL THINGS AGRICULTURE FOR NEW AGRICULTURE EXTENSION AGENTS

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The New & Reassigned Agriculture Agent Training (NRAAT) offered by UT Extension is a component of the onboarding process and designed to equip newly hired Extension professionals with the foundational knowledge and practical skills needed for success in their roles. This intensive training covers a broad spectrum of agricultural topics over the course of 3 years, rotating across the state in each of the three grand divisions, ensuring that agents are well-prepared to serve their communities

effectively. NRAAT provides hands-on, experiential learning opportunities that allow participants to engage directly with essential agricultural practices. Training sessions focus on key areas for each of the three grand divisions of Tennessee such as crop production, livestock management, pest control, and sustainable farming practices.

Additionally, agents gain insights into farm business management, risk assessment, and the latest research-based recommendations to support Tennessee's diverse agricultural industry. Through interactive demonstrations with specialists, farm visits, and field exercises at one of our numerous AgResearch and Education Centers, new agents develop the confidence to address real-world challenges faced by producers and stakeholders.
Though focused on technical knowledge, NRAAT incorporates soft skills training such as communication, outreach strategies, and program development to enhance an agent's ability to engage with local farmers, agribusinesses, and community partners.

Collaboration and connection are a cornerstone of NRAAT, fostering networking opportunities, such as a Trivia Night, between new agents, experienced mentors, and specialists from UT Institute of Agriculture. These relationships provide ongoing support and professional growth opportunities beyond the initial training. Additionally, the program incorporates problem-solving exercises to simulate real-life scenarios that agents may encounter in the field.

By the end of NRAAT, participants are equipped with the knowledge, skills, and confidence to make an immediate impact in their respective counties. The training lays a strong foundation for their careers in Extension, ensuring they can effectively bridge the gap between agricultural research and on-the-ground application. As Tennessee's agricultural landscape evolves, NRAAT continues to adapt, integrating emerging topics and innovative technologies to best serve farmers and rural communities across the state.

PROFESSIONAL POSTERS WITH PURPOSE: HOW TO SHOWCASE YOUR AMAZING WORK

Amy Derby
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Oreton State University Extension
Fossil

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Extension professionals, no matter their rank, have an obligation to share knowledge with others in the field. Using a poster to share scholarship and outstanding programs is an excellent way to disseminate best practices in Extension work. Posters are an excellent way to showcase your work at conferences and meetings. Posters are an excellent alternative to a traditional oral presentation - they are concise, visual, and lead to one-on-one conversations. Come learn what programs and components are expected in a professional poster and how you can be successful with them.
This session will give an overview of what a Professional Poster is, how to put it together, how to document a poster in your CV and how your poster can lead you to connect with other professionals. Poster presentations are a time-honored form of scholarship that allow professionals to share their research or programs in a concise way. Posters are durable and after presenting them they can easily be shared with a larger audience digitally or in an office space. We will share best practices for preparing a stand-out poster. This starts with selecting an appropriate topic, knowing your audience, and developing your poster concept. Then we will share ways to make your poster visually interesting, help it to flow logically, and share data graphically. We will talk about the logistics of presenting a poster, including travel, display, and staffing the poster. Finally, we will talk about the impact of presenting a poster, following up with interested colleagues, and documenting your poster presentation in your annual reports and CV.

BIG BOOTS TO FILL: MOVING INTO A PROGRAM AFTER A LONG-TERM CAREER AGENT

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Cooperative Extension has been a long term career choice for many people over the years; when a long term agent retires, it can leave a void in the office, the program and the community they served. Being hired into the position that was recently vacated by a long term agent can be intimidating, especially when the agent was there for ten or more years. Being a new agent has challenges on its own, but if you add in the pressure of being asked to act and program exactly like your predecessor, that can make the learning curve even steeper. You may be expected to navigate the new job responsibilities as well as the social expectations from clientele and volunteer groups. Over time, community needs change and programs need to remain relevant to the clientele, despite past programming, and a new role in an established program is an excellent opportunity to implement those changes. Understanding how to further develop and improve an Extension program after it has been consistent for years comes with obstacles, but paves a path for program growth. This presentation will dive into the advantages of taking on this new role in an already established program and ways to combat the difficulties that come with the role of following a long career agent. We will do this by using real world examples from our careers as Horticulture Extension agents to teach agents how to pick up where their predecessor left off and make the subject matter programs their own. We will discuss tools such as formal and informal advisory councils and groups, making the most of mentors, and needs assessments. Participants will take away practical tips and tools to implement in their own program development, regardless of subject matter area. Emphasis will be placed on the creation of a sustainable Extension program, leading to long-term careers for a new generation of agents. We hope that the knowledge and skills gained in this presentation will empower early career agents to fall into stride with their program, implement changes and improvements as needed and increase early-career retention and success.

THE POWER OF PARTNERSHIPS: HOW COLLABORATION FUELS PROFESSIONAL GROWTH IN AGRICULTURE

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Early career Extension educators often struggle to navigate university systems while simultaneously building credibility with local clientele. Developing relationships is one of the most important tasks for a new hire, but the approach varies based on prior connections and knowledge of county-specific issues. This presentation will provide key strategies for building local relationships including partnering with county organizations, connecting with farm families, and leveraging strategic collaborations for long-term career success. One educator's experience in launching a Quarterly Farm Meal series will serve as an example of how to integrate these approaches. This series, hosted by farm families in different areas of the county, engaged unique clientele based on location and topic selection. Beyond event execution, this effort strengthened relationships with local growers, industry partners, and the broader agricultural community – reinforcing the educator's role as a trusted source. Relationship-building also happens in the small, everyday moments—visiting farms, attending community meetings, and responding to producer concerns in real time. For those just getting started, establishing a strong foundation of producer and industry relationships is pivotal to long-term growth. By walking through lessons learned in the first 24 months as an Extension educator, this presentation will highlight actionable strategies for networking, collaboration, and positioning oneself as a trusted resource—providing a roadmap for success in any local community.

FROM DATA TO IMPACT: PROGRAM EVALUATION FOR NEW AGENTS

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Lincolnton

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New agriculture Extension agents often face challenges when developing and implementing effective program evaluations. Evaluations are crucial for assessing program efficacy, gathering feedback to enhance program quality over time, and demonstrating program value to stakeholders and Extension leadership. High-quality evaluation data can be used for reporting, impact statements, presentations, and publications, ultimately contributing to the body of knowledge in our field. Many Extension programs use the Logic Model of Program Planning, where agents evaluate both outputs and impacts at different stages—short, medium, and long-term. This approach helps measure program efficacy and illustrates its value.

Program evaluation can be broken down into three key components: (1) developing an effective evaluation tool, (2) implementing the evaluation strategy, and (3) analyzing and reporting the results. In this session, agents will be guided through each step of the process. We will discuss how to design evaluation tools that align with programmatic goals, strategies for obtaining strong participant responses, and how to transform evaluation data into meaningful impact statements, reports, and publications. By the end of the session, new agents will be equipped with the skills to demonstrate the impact of their programs through well-crafted evaluation data.

TIPS FOR WRITING AND REVIEWING EXTENSION WORK WITH THE JOURNAL OF EXTENSION

Jason de Koff
Specialist
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Old Hickory

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This presentation will be led by members of the Journal of Extension Editorial Board and provide participants with assistance focused on writing and reviewing Extension work. Discussion will focus on the article categories that can be written for the Journal of Extension which can range in length from something as short as 1,250 words to longer articles of 5,000 words. Also, tips on what reviewers are looking for and examples of different Extension activities that can be written about and published. There will also be discussion around how to be a reviewer for the Journal of Extension which can also help with writing.

HORTICULTURE & TURFGRASS PRESENTATIONS

MAPLE TAPPING IN UTAH—INITIAL RESULTS FROM SMALL-SCALE DEMONSTRATIONS AND WORKSHOP TURNOUT

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Regional maple tapping can contribute to a more stable and sustainable maple syrup industry, as well as supply for local maple syrup needs. In Wasatch County (Utah), two native maples—Bigtooth and Boxelder maples (Acer grandidentatum and Acer negundo, respectively) grow readily in both rural and suburban landscapes and are prime tapping candidates for residents. As part of a broader research initiative by USU investigating the viability of maple tapping in Utah, four workshops were held in Wasatch County educating community members about the tapping and syrup making processes. In addition, 20 Boxelder trees were tapped in Wasatch Mountain State Park using a bucket (n = 10) or a 3/16” tubing system (n=10) in 2024. A total of 137 participants attended at least one of the four workshops. The Boxelders using a bucket and spile for collection produced an average of 4.87 gallons per tap of sap, while the tubing system only produced 1.24 gallons per tap (12.38 gallons total) of sap. The low volume of sap collected from the tubing system was likely due to improper spile sealing and lack of vacuum. Comparatively, USU research in Woodland Hills, Utah, during the 2023 season conducted on Bigtooth

maples resulted in an average of 3.81 gal/tap using buckets and 3.43 gal/tap using tubing systems. The tubing system resulted in 4.22 gal/tap in 2024. Results from the 2025 season demonstrations, further instruction on tubing system design, and additional beginner tapping education are planned for 2025.

WHAT MOTIVATES PEOPLE TO BECOME AN EXTENSION MASTER GARDENER, AND WHAT INSPIRES THEM TO REMAIN?

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Why do people pay a significant amount of money to take 50 hours of coursework and give 50 hours of volunteer service to become a certified Extension Master Gardener (EMG)? What is the incentive to remain an EMG? Why do they volunteer for Extension instead of a local hospital or other community organizations? This study answered these questions to enhance Extension educator training on volunteer management and engagement, recruitment, and retention of EMGs.
The EMG program director and program manager partnered with a family and consumer science specialist and staff to co-develop the study and collect data. Six focus group interviews with EMGs (n=26) and eight focus group interviews with Extension EMG county coordinators (n=15) were conducted and recorded via Zoom in November 2024. The comments obtained in the focus group sessions were transcribed and coded into themes in each of the combined groups interviewed. Focus group comments revealed information that needed to be and could be addressed immediately. This led to four technical reports containing recommendations for program improvement in recruitment and retention of EMGs directed to Extension administration, the EMG program director and manager, Extension EMG coordinators, and EMGs. In addition, data will be used to formulate questions for a survey to be administered to EMGs in the fall of 2025.
In this session, you will learn about the research study, the focus group data collection process, results and recommendations for program improvement, and the necessary steps to continue developing this knowledge.

HELPING PRODUCE FARMERS ADDRESS FOOD SAFETY ISSUES AFTER HURRICANE HELENE IN WESTERN NC

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Hurricane Helene hit western North Carolina (NC) as a tropical storm in late September 2024, bringing catastrophic flooding and landslides. The storm left in its wake an estimated 4.9-billion-dollar in damage to the agriculture industry. It caused major disruption to produce farms due to flooding that occurred in and around production fields, destruction of waste and water systems, communication infrastructure, damage to roads, loss of power for extended periods of time, and loss of human lives. From a food safety standpoint, fresh fruits and vegetables that come in contact with flood waters are considered adulterated by the FDA and cannot be sold for human consumption. It was critical to help farmers identify issues and address them to protect public health. One of the most urgent needs was to create awareness of water quality issues in the region before safely resuming harvest. The storm hit at a time when apples and certain vegetables

are harvested. Second, farms with crops that the edible portion did not come in contact with flood waters (but flooding did occur nearby) needed help to determine how to safely proceed with harvest. Third, farms that lost crops that had been recently transplanted such as strawberries, cabbage and greens needed to make decisions about early replanting. Finally, the farms that had catastrophic damage, needed guidance to rebuild fields and packing areas. Growers were anxious and in need of expert advice. Flooding resources (short videos and infographics) were shared with growers, extension agents and others via text messages. These provided concise information before farms could be reached. An estimated 50 visits and flood assessments have been completed by area and county agents since the storm and are still ongoing. Flood assessments focus on the impact from flood waters to crops, water systems, soils and equipment. Guidance from the FDA and resources from industry partners and recent research helped inform the producers. As a result of this effort, farms have been able to identify food safety issues and address them. Natural disasters can happen anytime, this work can help other Agents be better prepared to to help their growers.

AGENTS GUIDE – NEW AND OLD THREATS TO BOXWOOD PRODUCTION AND MAINTENANCE

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Extension personnel working in commercial nursery, or with landscape professionals, or with home horticulturalist will eventually interact with Boxwoods (multiple Buxus species). Therefore, it is important to have a baseline understanding of the common and emerging pests and diseases associated with this horticulturally important crop (11M boxwoods are sold annually with an estimated value of $126M (USDA NASS 2019)). Here, identifying characteristics of common abiotic factors, fungal and oomycete diseases, and insect pests will be discussed in the context of differentiating visually similar symptoms. Some of the examples to be covered include Volutella Blight versus Boxwood Blight symptomology, Phytophthora root rot versus Boxwood Dieback fungi, winter injury versus phytotoxicity versus disease, and differentiating damage caused by multiple insect pests. Emerging threats to boxwood production and transport, such as the rapidly spreading Box Tree Moth will be discussed within the context of existing and new regulatory compliance agreements. Throughout the session chemical treatments, cultural practices, important overwintering locations, and other pertinent information will be discussed in efforts to provide Extension professionals with the tools they need to navigate future boxwood problems.

THE DIRT ON NATIVE PLANTS: A PROPAGATION AND EDUCATION PROGRAM

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Native plants have been gaining popularity in recent years not only because they are beautiful, but also because people want to incorporate plants in their landscapes that have ecological significance. There are many misconceptions about native plants among Extension volunteers and the landscaping community who are often unsure what to plant, how to select species, and manage these landscapes once installed. Rutgers Cooperative Extension of Middlesex County developed a native plant teaching nursery and education program focused on growing herbaceous perennials and using native plants in the landscape to support biodiversity and habitat. Since 2019, we have trained close to 800 Extension volunteers, landscapers, and the public on native plant ecology, designing native gardens, seed collection, propagation techniques, transplanting, monitoring, and public speaking. Educational activities included hands-on field sessions, workshops, and train-the-trainer sessions, developed fact sheets, trade show classes, and online webinars. To date we have provided guidance on close to 50 projects at local schools, parks, and preserves donating over 3700 native plants from our teaching nursery. In 2024 alone, over 50 volunteers completed 800 hours on these projects. Extension volunteers indicated our programming increased their ability to effectively provide native plant outreach (2.9 to 4.5 likert scale, out of 5, n= 41). Also rewarding is the actions taken by volunteers starting native plant efforts in their own communities, Rutgers students

planting in local preserves, and propagating seeds on their own, and mentoring other Extension programs across the state to start their native plant initiatives.

EVALUATING DRONE SPRAY COVERAGE IN WATERMELON PRODUCTION

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The use of drones for pesticide and fertilizer applications is expanding in specialty crop production, yet little research exists on optimizing spray parameters for crops like watermelon. This study, funded by the Maryland Delaware Watermelon Growers Association, evaluated the impact of drone flight height on spray coverage uniformity in a commercial watermelon field. In collaboration with a local farmer, a University of Maryland Precision Agriculture Specialist, and a commercial applicator, we conducted field trials using a DJI Agras 40 drone. The experiment compared applications at two flight heights, 8 feet and 10 feet above the crop canopy using water-sensitive paper to measure droplet distribution. Results showed that spray coverage at 8 feet averaged 11%, more than doubling the 5% coverage observed at 10 feet. Droplet sizes were predominantly medium and fine at both heights, which aligns with optimal pesticide application standards for insecticides and fungicides. Drift was low and did not significantly vary between treatments. These findings provide valuable data on best practices for drone-based pesticide applications in specialty crops and highlight the potential for improved efficiency and coverage with optimized drone settings.

ENHANCING POLLINATOR CONSERVATION THROUGH EXTENSION AGENT COLLABORATION

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A collaboration among UF/IFAS Extension agents facilitated successful delivery of The Great Southeast Pollinator Census (GSEPC) in Florida. Multi-county cooperation enabled a coordinated, statewide approach to educating communities, expanding pollinator-friendly habitats, and collecting vital citizen science data. Working together, agents maximized their collective expertise, resources, and outreach, significantly amplifying the program's impact. The cooperation among agents extended to its promotional strategies and program delivery. By leveraging statewide networks and social media platforms, agents reached a combined audience of over 1.2 million individuals. This broad exposure increased program participation, with 53 counties engaging in the 2024 census and 2,800 individuals recording 86,984 pollinators. Additionally, the initiative directly connected close to 4,000 people through in-person events, reinforcing the value of hands-on learning and community involvement. The unified effort allowed for streamlined resource allocation, reducing duplication, and optimizing time and resources. Beyond outreach, collaboration strengthened program credibility and stakeholder engagement. Joint efforts enhanced visibility among local communities, and conservation organizations, creating opportunities for future partnerships and resource support. The collective

expertise of agents enriched program content, integrating diverse perspectives and scientific knowledge to foster greater public understanding of pollinator conservation. The impact of this partnership extended beyond data collection. Through shared efforts, agents empowered residents to take tangible action in their communities, leading to the creation of 107 new pollinator gardens and the documentation of over 100 plant species supporting pollinators. These outcomes highlight the long-term benefits of a cooperative approach to conservation education. Looking ahead, UF/IFAS Extension agents will continue strengthening their collaboration to expand the program's reach and effectiveness. By building on the success of the 2024 census, they aim to enhance pollinator conservation efforts across Florida, showing the power of teamwork in achieving large-scale environmental goals.

PERCEIVED IMPACTS OF EXTENSION GARDENS ON VISITOR HEATH

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Approximately 21% of Florida adults are limited in their daily activities due to physical, mental, or emotional limitations (BRFSS, 2016). 25.4% are sedentary (BRFSS, 2023) and 19.7% reported overall health to be fair or poor (BRFSS, 2019).

Interacting with nature has been shown to promote many health benefits such as improved cognitive function, social connectedness, physical and mental health. From community gardens to social connectedness, Cooperative Extension is uniquely positioned to address these health concerns by providing access to community and demonstration gardens.

The purpose of this project was to collect information on the perceived health benefits of participants after participating in a garden tour.

The priority population was residential visitors to the Discovery Gardens in Taveres, Florida.

In 2023, Extension garden tours were held one-two days a week for eight months. Tours were delivered in three formats: 1) docent led 2) audio, 3) self-guided signage tours. Participants toured a 3.5-acre garden with over 20 themed gardens. At the end of the tour, each participant was asked to complete a post-tour survey. Data collection occurred between January-April and August-December. Form January -April data was collected from 9am-1pm January-April and in August-December from 1pm-4pm. Surveys were non-randomized and available both digitally and in paper form.

Thirty-eight tours were offered with 145posttour survey participants. Of these 83 participated in the docent tour, 37 in the audio tour and 25 in the signage tour. 65% of respondents reported improved mental health; 67% increased physical activity; 65%. improved social connectedness; 42% reported increased energy; 75% increased their sense of well-being; 54% reported an improved outlook on life.

Extension gardens and tours can provide nature-based interventions to promote health benefits, well-being, and quality of life.

GROWING KNOWLEDGE, CULTIVATING COMMUNITIES: THE VICTORY GARDEN HYBRID PROGRAMMING IN NORTH CENTRAL IDAHO

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With growing interest in garden and self-sufficiency, north central Idaho residents have long relied on University of Idaho Extension's garden and horticulture programming to enhance their knowledge and skillset. However, geographic isolation and limited resources have made it difficult to provide high-quality, comprehensive programming in these

rural counties. Five UI Extension offices have collaborated to offer hybrid Victory Garden Series, bridging the gap in access to experts and horticulture education. The 2025 Victory Garden Series was a low cost, six-week course that included topics of site planning, soil health, fertilization, seed starting, garden management, harvesting, and storage. UI Extension personnel and other topic experts have been able to present at one location while using video conferencing to reach the other locations, ensuring that all participants have access to the programming. Attendees can access valuable information, while avoiding the financial or geographic challenges of bringing experts to the area. By combining in-person and virtual formats, this programming has reached 95 participants across Latah, Nez Perce, Clearwater, Lewis, and Idaho counties. For one county, it marks the first gardening programming in over 20 years. For another, programming returns after a four-year hiatus, and in other counties it provided an opportunity for community engagement and networking. This programming shows the dedication of UI Extension personnel to collaborate across county lines to promote accessibility and resource sharing in rural communities. The unique format of this program ensures that residents in rural, underserved communities can have access to the tools, expertise, and resources needed to enhance their garden and horticulture knowledge and connect them to research backed information from University of Idaho. Once this programming concludes, we will conduct exit evaluations to assess the impact and identify future needs. The Victory Garden Series will be offered every other year, with content specifically tailored to current needs and interest to best serve rural Idaho communities.

ROOTED IN COLLABORATION: ADVANCING HORTICULTURE ACROSS TENNESSEE

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The UTHORT team, composed of Agents and Specialists in residential and consumer horticulture, collaborates statewide to assess needs, develop educational content, and equip agents with the resources to effectively engage local horticulture audiences. In 2024, the team launched three key programs to support agents and expand outreach: Edible Crop Lunch and Learn, Office Hours, and Welcome Home. Office Hours is a live, interactive question-and-answer session conducted via Zoom during the active growing season. Held monthly, this program encourages participants to submit questions and photos in advance for the opportunity to have their inquiries addressed live. A panel of UTHORT experts provides insights across four specialized areas, with all responses documented in an interactive ArcGIS map for easy public access. In post-production, the one-hour program is divided into four 15-minute mini sessions, posted on the UTHORT YouTube channel, and shared with UTHORT social media accounts for additional outreach. In 2024, the program engaged 400 participants in the live ZOOM and addressed over 260 submitted questions. Edible Crop Lunch and Learn was a four-week Zoom series held in May, featuring hour-long sessions that paired a management strategy with a highlighted crop. Two expert speakers led each session, drawing 628 participants who highly praised the content and requested additional education in this area through post-survey responses. While agents promoted the series locally, participation was independent and entirely online. Welcome Home followed a similar format but utilized a hybrid delivery approach with extended class instruction. Agents hosted in-person meetings while the UTHORT team delivered lecture content synchronously via Zoom to all participating counties. Agents then instructed hands-on learning activities, outlined in a facilitation guide, to reinforce the material. This program specifically targeted new gardeners, particularly those relocating from other states. It was fee-based, with proceeds benefiting the county programs, and included a printed magazine-style publication titled Welcome Home. In 2024, 175 participants from 17 counties took part, with 90% reporting that they had already implemented or planned to implement learned practices. The success of these programs exemplifies the effectiveness of a collaborative approach in identifying, developing, and delivering impactful horticulture education across diverse audiences.

GARDEN TO TABLE: EFFECTIVE HOME GARDENING TO PROMOTE HEALTHY LIVING

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In Jackson County, there is a high interest among the residential community in producing sustainable herb and vegetable gardens and connecting the harvest directly to healthier home cooked meals. There is also an economically motivated desire to grow food at home to achieve cost savings and to counter the periodic food shortages at local grocery stores. The workshop titled "Garden to Table" was created for the residents of Jackson County, Florida who were interested in growing fruit, vegetables, and/or herbs and using the produce to create safe, healthy, economical meals at home. The purpose of the workshop is to focus on best seasonal gardening practices, understanding the Florida-Friendly Landscaping™ Principle #1 Right Plant, Right Place, cooking with herbs and vegetables grown at home, and following safe food-handling and preservation methods. From 2021 through February 2025, the Horticulture and FCS Agents partnered to offer a 3-part workshop series each fall and spring. Each class was designed and delivered with informational PowerPoint presentations, food tastings, and hands-on demonstrations. Participants receive seeds, planting trays, and/or small transplant vegetables, as well as educational materials and resources related to the produce they would be growing, harvesting, and preserving or eating. 351 participants were recorded over 15 workshops and of the 352 participants, 328 responded to a post-program survey for a 93% response rate. 321 of 326 (98%) reported they gained knowledge through their attendance. 320 of 326 (98%) participants reported intent on utilizing their knowledge gain.195 of 287 (68%) planned to grow one or more fruits, herbs, and/or vegetables they had not grown before. 139 of 287 (48%) planned to use more vegetables when cooking to make healthier meals. 110 of 169 (65%) planned to garden at home for the physical and/or mental health benefits.

MEETING STAKEHOLDER NEEDS OF TRI-STATE AREA GROWERS THROUGH PRODUCTION AGRICULTURE PROGRAMS

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The Florida Panhandle is an area largely known for commercial vegetable production, specifically cucurbit vegetable crops such as squash, watermelon, zucchini, and cucumbers. Many growers in Northwest Florida cross state-lines into Georgia and Alabama to obtain fertilizer and other materials. To provide Northwest Florida growers, as well as South Georgia and South Alabama, the best information for a successful growing season, I created a one-day production meeting titled the "Tri-State Fruit & Vegetable Conference" was created. The objective of this annual meeting is to educate fruit and vegetable growers of Northwest Florida, Southern Georgia, and Southern Alabama on new plant varieties, insect and disease management, and vegetable nutrient management. Additionally, growers will gain knowledge of Florida Department of Agriculture and Consumer Services Best Management Practices and pesticide regulation changes. A needs assessment of vegetable growers was conducted in 2023 and 2024 in Jackson County, Florida to gain insight on what research would be most impactful to help benefit them during the growing season. The most common answers were knowledge of new vegetable varieties, different methods for disease and insect management, and nutrient management. The needs assessment resulted in a collaborative program agenda where specialists from UF/IFAS Extension, UGA Cooperative Extension, and Alabama Cooperative Extension were asked to present on the requested topics and an organized tradeshow with industry representatives to connect with growers. Results in 2024 and 2025 indicated that150 growers attended the Tri-State Fruit & Vegetable Conference where 97 gained knowledge on the presented topics, and 33 growers that attended in 2024 made practice changes in their farming operations. In conclusion, tailoring programmatic education for growers increased attendance and allowed for knowledge gains pertaining to farming practices and allowed for interaction with industry clientele. Utilizing other Extension Services from different states helps growers get the best information possible to further outreach in the production agriculture community.

LEADERSHIP AND ADMINISTRATIVE SKILLS PRESENTATIONS

BREAKING THE BURNOUT CYCLE: STRATEGIES FOR PERSONAL AND PROFESSIONAL RESILIENCE

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Burnout is a state of emotional, physical, and mental exhaustion caused by prolonged stress and overwork. It often manifests as helplessness, detachment, and a lack of accomplishment. Burnout is a multifaceted issue that impacts personal and professional lives. Recognizing early signs is crucial to prevent long-term damage. Leaders play an important role in preventing and mitigating burnout within their teams by fostering a supportive work environment, encouraging open communication, and providing resources for mental health. Leaders are urged to lead by example, promoting a culture of balance to ensure their team's sustained productivity and satisfaction. We will cover practical strategies to combat burnout, focusing on self-care, time management, and seeking support for extension educators. We will also discuss the benefits of mindfulness and physical activity in reducing stress and promoting overall well-being.

RESEARCHING AND EVALUATING A NEW MANAGEMENT STRUCTURE IN OHIO STATE UNIVERSITY EXTENSION

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Based on the need for a new management model in Ohio State University Extension, a cross-section of Extension professionals, college representatives, and statewide stakeholders was appointed to a task force charged with developing a proposed management structure that best supports county level operations. Three sub-committees were established. The OSU Extension Structure Review Sub-Committee took a deep dive into a historic timeline of Extension administrative models. They investigated the strengths and weaknesses of past models to inform future decision making. The Other Extension Models Sub-Committee compared management models from approximately 24 benchmark Extension systems. Through this, committee members took stock of management structures across other systems that were similar in size and demographics to Ohio. They contacted employees at different universities with a set of questions that covered funding models, mentoring, promotion, and what the system does extremely well. The Communication Sub-Committee strategically managed communication to the rest of the organization to keep employees abreast of progress. Additionally, Extension professionals were afforded opportunities to provide feedback through surveys and focus groups. Key areas identified for improvement were moving to full time supervisors and dedicated programmatic support. Based on their research, the task force suggested a two-part plan that included full-time regional managers and additional full-time personnel to provide program development support in each Extension program area. Extension has not been immune to turnover rates impacting all industries across the U.S. We believe this structure will provide support in this new era of employee management.

OVERCOMING OUR WEAKNESSES AS LEADERS AND TRANSFORMING THEM INTO STRENGTHS

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Every individual and every leader face personal and professional challenges. Every individual and every leader also possesses inherent strengths and weaknesses. Most of us are familiar with our personal strengths and how to utilize them to best the challenges we face. However, what do we do with our weaknesses? These limitations do not have to define one's potential. This presentation uses lessons learned through the NACAA Leadership Academy and completion of the CliftonStrengths assessment to help participants to identify, analyze, and transform weaknesses, fostering personal growth and professional success. We will emphasize self-awareness as the foundation of weakness improvement. Attendees will learn how to conduct a personal SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) to objectively assess their capabilities. Through real-world examples from each presenter, we will illustrate how individuals and organizations can turn perceived weaknesses into competitive advantages. Next, we will dive into mindset shifts necessary for growth, including adopting resilience, pursuing continuous learning, and embracing feedback. Through presenter personal case studies, we will demonstrate skill development, mentorship, and leveraging complementary team dynamics to offset weaknesses while enhancing strengths. The presentation will also cover the critical role emotional intelligence plays in transforming weaknesses, emphasizing self-regulation, motivation, and adaptability. Attendees will gain actionable insights on how to turn self-doubt into confidence, inefficiency into productivity, and limitations into areas of innovation. By the end of the session, participants will have a structured framework to convert weaknesses into stepping stones for success. This empowering approach will not only enhance individual capabilities but also contribute to a more resilient and dynamic professional environment.

BUILDING PUBLIC RELATIONSHIPS: THE SKILLS, ATTITUDES, AND MANAGEMENT NEEDED TO MAKE THEM SUCCESSFUL

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Collaboration is a vital part of being an Extension Agent or Specialist. One of the key factors to being successful in collaborative efforts is the ability to build relationships with stakeholders such as peers, cooperators, community leaders, and financial supporters. In this presentation, participants will learn the skills needed to create these relations, the attitudes required to strengthen them, and the management needed to keep the team moving forward in a positive manner. Practical examples of clear communication, attentive listening, and being fully present will demonstrate effective strategies for new and experienced agricultural service providers to establish meaningful and productive relationships with key stakeholder groups. Once relationships have been established, they can be maintained through a variety of ways including through updates about progress, outreach and involvement of the stakeholders in Extension programming, and checking in about ongoing projects. Maintenance of these collaborations and relationships is important to ensure that they will be lasting and beneficial.

LEVERAGING ADAPTION AND INNOVATION PREFERENCES IN EXTENSION WORK

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For a long time now, we have searched for ideal leaders who can be guaranteed to solve specific arrays of problems. However, leaders cannot hope to solve increasingly complicated and difficult problems by themselves. As the world becomes more complex, leaders need teams to work together to create and implement solutions to pressing challenges.

When teams come together a level cognitive diversity arises as a result of the differences that each individual brings to the cooperative process. Research has demonstrated that in cooperative processes the cognitive diversity that exists within a team is a relevant variable (Jablokow, Teerlink, Yimalz, Daly, Silk, 2015). Research further demonstrates that one source of cognitive diversity emerges as a result of variations in how people prefer to solve problems and deal with change. Adaption-Innovation (AI) theory asserts that the problem solving preferences of individuals range along a continuous spectrum ranging between highly adaptive to highly innovative, with mild and moderate degrees of those preferences in between (Jablokow, Teerlink, Yimalz, Daly, Silk, 2015).

AI theory indicates that individuals who have more adaptive problem solving and change preferences, in general, prefer more structure and focus on incremental improvements by generating solutions that fit within prevailing paradigms (Silk, Daly, Jablokow, Yimaz, Berg, 2014). Conversely, individuals who have more innovative problem solving and change preferences, prefer less structure and are more likely to generate ideas that don't fit within established boundaries or structures. In practice, neither a more adaptive nor a more innovative style preference is inherently better. In fact, AI theory predicts that effective teams need a sufficient level of diversity to function well across a range of tasks and challenges. Improving abilities of practitioners, researchers, and leaders to differentiate, appreciate, and negotiate individual and team based cognitive gaps is a step towards creating a stronger more engaged learning system. The purposes of this professional development session are to: 1) help participants development an awareness of adaption-innovation theory as it relates to personal problem-solving style and building sustainable high functioning teams and 2) illustrate basic guidelines for identifying and interpreting cognitive gaps within interdisciplinary teams.

UNLOCKING YOUR LEADERSHIP POTENTIAL: THE 5 LEVELS OF LEADERSHIP

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What separates average leaders from exceptional ones? How do the most influential leaders inspire, motivate, and drive results? In The 5 Levels of Leadership, renowned leadership expert John C. Maxwell provides a powerful roadmap for personal and organizational growth. This session will take you on a transformative journey through the five levels—Position, Permission, Production, People Development, and Pinnacle—revealing how leaders can elevate their impact at every stage. Whether you're a seasoned educator, an emerging leader, or someone seeking to enhance your leadership influence, this presentation will provide actionable insights to help you move beyond positional authority and cultivate authentic influence. You will learn how to build trust and earn the right to lead beyond your title, increase productivity and drive tangible results, and develop and empower others to create a culture of leadership. At the highest level, you will understand how to reach the pinnacle of leadership, where influence extends beyond organizations and into legacy-building.Packed with real-world examples, practical strategies, and interactive discussions, this session will challenge you to assess your current leadership level and provide a clear path to climbing higher. As part of the NACAA Leadership Academy this workshop will help you want to unlock your leadership potential and inspire those around you.

BURNOUT AND THE EXTENSION PROFESSIONAL: STRATEGIES TO MAKE IT THROUGH THE DAY

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Professional burnout is on-going. The Journal of Extension archive has over 100 articles written from 1983-2025 that address employee burnout. How can we hone our super-abilities and skills to attack our nemesis? This session will explore the connection between organizational culture, employee burnout, and mental wellness. Facilitated discussion and activities will help participants leverage an individual's unique assets to improve mental health in the organization.

A superhero is a person with extraordinary abilities and exceptional skills. While most Extension employees cannot fly, lift a car, or run faster than the speed of light, under this definition, we certainly fit the bill. Extension professionals have skills that are diverse and impactful, and like any other superhero, we have our weaknesses as well. Superman faces kryptonite that negatively impacts his strength, and the extension superhero faces burnout and stress that can impact job performance.
Information on mental well-being has been gathered informally through conversations with Extension professionals during Mental Health First Aid® and Trauma Informed Approaches trainings. The feedback has been consistent. Extension professionals serve from their hearts as well as their heads. It is difficult to say "no" when you can help another person. The emerging question is "How can we meet the professional requirements of our job and maintain a work-life balance?" Formal and informal evaluations from these trainings show that individuals are struggling.

By identifying one's own super-powers and reflecting on weaknesses, participants will gain a deeper understanding of how to set boundaries. Facilitated self-help strategies will help participants build skills to combat everyday stress and prolonged burnout. Practical resources will be provided to springboard the employee's ability to assist others through periods of high stress and mental health challenges, adding another exceptional skill that makes Extension Professionals real, live Superheroes.

Participants will leave with a deeper understanding of the role burnout and stress play in mental wellness, and how to combat burnout by having open, impactful conversations and engaging in simple, self-care strategies. The session will help participants identify warning signs and give practice time for engaging conversation techniques to advocate for themselves and others.

TRANSFORMING CULTURE: BRINGING ORGANIZATIONAL VALUES AND MISSION TO LIFE

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Many organizations prominently display their mission and values statements, but integrating these values into daily work can be challenging. To address this, a group of educators and administrators sought innovative employee engagement and quality service education opportunities. In 2019, a six-person multidisciplinary team attended a leadership institute at Disney, learning about Disney's approach to hiring, empowering employees, and creating a supportive environment. This inspired the creation of the Keys Team.

The Keys Team focused on developing actionable keys to empower employees to make decisions based on the organization's values. These keys—trust, inclusion, care, adaptability, and efficiency—were designed to be memorable and associated with specific behaviors. The keys were further refined through area sessions where faculty and staff assessed their agreement with them. The first step in implementing the Extension Keys was to develop a culture where supervisors and peers recognize staff and faculty for demonstrating these values. In fall 2023, five regional meetings were held with approximately 650 attendees. During these meetings, over 1200 pins representing the keys were distributed. Participants were asked to recognize peers who exemplified one of the keys by giving them a pin and sharing why they were recognized.

Additionally, monthly "I am Extension" videos highlight staff and faculty nominated by their peers for demonstrating the keys. At the annual conference, winners receive a key and a cash award.

This session will explore one process Extension organizations can employ to bring practical meaning and action to their core beliefs and values.

NATURAL RESOURCES/ AQUACULTURE PRESENTATIONS

THE NEW PARADIGM OF DRAINAGE AND WATER MANAGEMENT EDUCATION THROUGH THE VIRGIL OVERHOLT DRAINAGE SCHOOLS

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Agricultural drainage\ technology has evolved significantly in the last two decades. Drainage education is key to building a workforce that is well-versed in modern drainage design, technology, and conservation drainage principles. Pre- and post-event surveys distributed during The Ohio State University's Virgil Overholt Drainage School gathered participant feedback to assess the impact of the five-day training program during 2022 to 2025. The program utilizes a combination of printed manuals, hands-on activities, online tools, and networking opportunities to deliver 40-hours of technical drainage education. The content delivery is made by a diverse team of experts, practitioners, and working professionals. During the four-year period, the school served a diverse demographic of 210 attendees from the US-Midwest as well as other countries. Perceived knowledge of subsurface drainage concepts increased by 20-40% post-attendance, and 100% of the respondents reported that they will be able to put their new knowledge to use. Open-ended feedback provided guidance for drainage education programming decisions in subsequent years. Further, modernization of content delivery allowed for the inclusion of more advanced topics and remote speakers. We present the feedback-driven approach for revising and organizing curriculum, and how they enhance learning in Extension settings.

EMPOWERING FLORIDA WELL OWNERS THROUGH EDUCATION AND WATER TESTING SERVICES

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An estimated 2.5 million Floridians rely on private wells for home drinking water. Unlike public water systems, private wells are not regulated. Well users are responsible for the management and protection of their wells. Limited public data exists on how many well users regularly test their water or drink from contaminated wells, posing a challenge to water sanitation and public health. To address this, UF/IFAS Extension developed the Florida Well Owner Network (FWON) to provide education and water testing to well owners. The primary goal of FWON is to educate well owners on best practices for private well and septic system maintenance, water testing, and groundwater protection. The program also seeks to improve water safety by helping well owners identify and address potential water quality issues and foster community engagement by connecting well owners with resources, workshops, and local experts. The program was conducted through a series of workshops, webinars, and online resources. These educational sessions covered topics such as private well and septic system maintenance, water testing procedures, interpreting water test results, and addressing common water quality issues. The program also provided fact sheets, blogs, and recorded webinars accessible through the FWON website. Since its launch in 2018, FWON has educated over 2,000 well owners through various workshops and webinars. Participants indicated that the program was helpful (79% very helpful and 21% somewhat helpful) and improved their understanding of private well and septic system management, and the importance of protecting Florida's water. The program also encouraged more well owners to test their water regularly. Over 600 households had their water tested

for bacterial contamination through FWON. Bacterial contamination was detected in 19% of samples during routine water sampling events and in 38% of samples after storms and hurricanes. Although annual bacteria testing is recommended, about 53% of participants indicated they had not tested their well water until FWON. In conclusion, FWON increased well owners' knowledge of private well management and provided easy access for them to test well water quality and ensure drinking water safety. Future directions include expanding outreach efforts through collaborations with local communities and organizations.

GROWING KNOWLEDGE: TEACHING RESIDENTS PLANT SELECTION THROUGH EDUCATIONAL DEMONSTRATION GARDENS

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Native plant demonstration gardens serve as valuable educational tools, helping residents explore unfamiliar plant species while providing essential information for informed plant selection. These gardens offer hands-on learning experiences that enhance understanding of native plants and their role in landscaping. Between January 2023 and December 2024, UF/IFAS Extension Hillsborough County collaborated to establish or improve four educationally focused native plant demonstration gardens. Each garden features informative signage with QR codes linking to UF/IFAS publications and Florida Native Plant Society resources, supporting self-directed learning for visitors. The demonstration gardens are located at the Bay Friendly Landscaping site at the UF/IFAS Extension Hillsborough County office, as well as at Lettuce Lake Conservation Park, Bell Creek Nature Preserve, and Carrollwood Village Park. To assess the gardens' educational impact, surveys were distributed both by email and in person during garden workdays. Among 22 respondents, 91% reported an increased appreciation for native plants after visiting the gardens. Additionally, 100% indicated they plan to plant native species in their home landscapes, and 81% confirmed they had already done so as a direct result of their visit. Visitors praised the visual learning experience, with one participant commenting, "It was helpful to see the plants in a natural setting in different states of flowering/growth." These results highlight the success of the UF/IFAS Extension Hillsborough County native plant demonstration gardens in promoting native plant awareness and adoption. The findings underscore the value of these gardens as impactful educational resources that inspire residents to embrace sustainable landscaping practices.

PEOPLE AND PONDS: ADOPTING SHORESIDE BUFFER ZONES

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Stormwater ponds play a crucial role in managing runoff, improving water quality, and reducing flooding. However, many ponds experience issues such as nutrient buildup, algal blooms, and shoreline erosion, often due to traditional landscaping practices like mowing to the water's edge and excessive fertilizer use. Vegetated shoreside buffer zones can mitigate these problems by filtering pollutants, stabilizing banks, and enhancing biodiversity, yet their adoption remains limited due to aesthetic concerns and lack of awareness among property owners and managers. To address this, an Extension program developed educational outreach materials, including fact sheets, workshops, demonstration sites, and online resources, to promote buffer zone benefits. Field days and guided tours showcased successful installations, while partnerships with local governments and environmental organizations helped broaden outreach and offer incentives. As a result, 72% of participants (n=314) reported increased understanding of buffer zone benefits, and 45% of surveyed property managers and HOA representatives (n=47) had implemented or planned to implement buffer zones within a year. Pilot sites showed improved pond conditions, including reduced erosion and pollution, as well as increased native plant diversity supporting pollinators and wildlife. This initiative has contributed to improved stormwater pond health and water quality by encouraging sustainable practices. Continued outreach and policy incentives will be key to expanding adoption and ensuring long-term environmental benefits.

MISSOURI'S PARKS, SOILS, & WATER SALES TAX: ONE COUNTY'S ROCKY ROAD TO SUCCESSFUL IMPLEMENTATION OF COST-SHARED BEST MANAGEMENT PRACTICES

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Missouri's Parks, Soils, and Water Sales Tax, established in 1984, fuels critical conservation efforts across 114 Soil and Water Conservation Districts (SWCDs). This presentation delves into Schuyler County's transformative journey from stagnant adoption of Best Management Practices (BMPs) to a 530% increase in implemented practices (10 in FY2023 to 63 in FY2025) and a 305% increase in contract payments ($108,786 to $440,095). Principle outcomes include 4,750 tons of topsoil saved, a strengthened local economy, and improved grazing management. The board identified the challenges, and through trial and error, discovered viable solutions. Employee turnover has been an issue for several years. This was addressed by clarifying expectations and organizational culture, collaborating with the Department of Natural Resources (DNR) to raise salaries, enhancing the leave policy, and developing a structured training program with the Natural Resources Conservation Service (NRCS). Contractor delays were handled with policy reform requiring contractors to justify deadline extensions directly to the board, ensuring accountability and timely project completion. Partnership synergy was enhanced with NRCS and the Missouri Department of Conservation which enabled workload sharing and cross-training, maximizing limited staff capacity. MU Extension focused on research-driven policy, compiling insights from top-performing districts to inform local policy change, prioritizing high-impact BMPs, accountability, and short waiting periods for implementation. MU Extension's role also included landowner education through newsletters and programs. Schuyler's success underscores the power of blending local governance with scientific rigor. Elected landowner board members ensure community buy-in. Transparent application of the process; concise communication with landowners and partners; and access to resource area funds after 90% spenddown, built trust and accelerated practice adoption. Key replicable lessons learned are (1) Invest in people with competitive salaries or other compensation, clearly define expectations, and cross-train to reduce employee turnover; (2) Expect and enforce accountability as accomplished with the contractor's request for time extensions. This policy change has elevated structural practices receiving cost-share funds to a higher priority level for contractors thus getting funds spent in the community; and (3) Leverage partnerships to amplify impact.

EXPANDING EXTENSION SUPPORT FOR LANDOWNERS FOLLOWING NATURAL DISASTERS

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Lafayette County, Florida, faced devastating destruction when Hurricanes Idalia, Debby, and Helene impacted the region, severely damaging the agricultural sector. Producers and landowners experienced extensive losses, including damaged fences, livestock housing, crops, and timber. In response to numerous requests for assistance, this Extension agent joined the Lafayette County Emergency Response team, collaborating with agencies like the Florida State Emergency Response Team, the Florida Department of Agriculture and Consumer Services, the Farm Service Agency, and the Natural Resources Conservation Service. Leveraging the crisis as an opportunity, Extension expanded its role by organizing a timber production meeting for landowners. The session focused on reforestation, sustainable management practices, and cost-share programs. The meeting quickly grew into a broader educational platform, addressing additional needs such as herbicide options, spray programs, variety selection, market outlook for timber and pine straw, and the use of drone technology in timber production. Feedback from attendees was overwhelmingly positive, with 100% of respondents (n=32) reporting the meeting as highly informative and useful. The strong engagement demonstrated the program's success in meeting immediate recovery needs and fostering long-term connections with the community. As a result, participants gained a better understanding of Extension's role in disaster recovery and sustainable resource management, paving the way for ongoing educational support. An additional production meeting was held to address specific needs such as variety selection, herbicide timing, and planting recommendations. Of the 26 participants, 96% reported an increase in knowledge

about herbicide options and timing, and 85% indicated they planned to modify their spray programs based on the knowledge gained. The program was disseminated through collaborative efforts, reaching a wide audience of timberland owners, producers, and stakeholders. These educational meetings played a vital role in providing actionable knowledge for post-disaster recovery and future sustainability. Given the universal challenges posed by natural disasters, this model is scalable and can be replicated in other regions facing similar agricultural impacts, making it a valuable resource for Extension services nationwide. The project addressed critical issues of immediate concern to the affected public, making it highly relevant and valuable to the community.

ECOLOGICAL LANDSCAPING IN FLORIDA: ENHANCING BIODIVERSITY AND RESOURCE MANAGEMENT THROUGH COLLABORATIVE EDUCATION

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Residential landscapes can lead to habitat loss and reduce both water supply and quality. While many Floridians recognize these issues, landscape aesthetics often take priority. In 2022 and 2023, UF/IFAS Extension Lake County partnered with the University of Central Florida, the UF/IFAS Program for Resource Efficient Communities, the Nature Conservancy, and various green industry partners and developers. Together, we created a living laboratory to research biodiverse and water-efficient landscaping methods. We also created an educational team to disseminate our research-based findings. Our educational objectives were to increase the knowledge of green industry and built-environment professionals on the residential development process. We also aimed to increase the knowledge and adoption of sustainable landscaping practices. The statewide annual Outside Collaborative Conference offered an opportunity to educate at two large industry events. We delivered 90-minute presentations and guided participants through the living laboratory research site. We surveyed live and online attendees using a Likert scale through Qualtrics. In 2024, we taught abbreviated presentations to the Florida Association of Counties (FAC) and the Florida Local Environmental Regulatory Agencies (FLERA). However, attendees at the FAC and FLERA events were not surveyed due to time limits. Of the 380 attendees, 119 participants completed the survey, which was delivered two- and six-weeks post-event. Ninety-eight percent of respondents self-reported that they gained knowledge about sustainable landscaping practices and land development processes. Ninety-nine percent reported that they were encouraged to support sustainable landscape initiatives. Additionally, over 30% of the 85 respondents planned to adopt practices like using compost amendments, selecting and installing native plants, and/or reducing irrigation use. After the conferences, one developer of a 33,000-home master-planned community decided to use the methods we taught for their next phase of development. A developer in Nassau County is also considering similar practices. Furthermore, municipalities in Lake County are working to incorporate the recommended practices into landscape codes. These alternative landscapes could significantly reduce irrigation and fertilizer use, enhance biodiversity, and lower CO2 emissions.

WILDLIFE & INVASIVE SPECIES EDUCATION™: CREATING A WISE PROGRAM IN YOUR STATE

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The Wildlife & Invasive Species Education™ (WISE) In-person Conference addresses the pressing need to educate stakeholders about managing native wildlife and controlling invasive species. This biennial, multi-day event provides an immersive learning experience designed to improve knowledge and inspire action. Developed in collaboration with UF/IFAS Extension Specialists, the Florida Fish and Wildlife Conservation Commission (FWC), and other state agencies, the program combines two days of intensive instruction. The collaborative approach ensures evidence-based, regionally relevant content that is adaptable for other states. Pre- and post-assessments (n=166) conducted for each session demonstrate substantial knowledge gains: Wildlife Diseases (57%), Invasive Plants (18%), Florida's Turtles (43%), Soil is More Than Dirt (51%), Fishy Explorations (64%), Bulimulus sporadicus (42%), Basic Bird Photography (50%), Florida's Imperiled Bird Species (10%), Feral Hogs (77%), Apple Snails – Native and Invasive (54%), and Fish on the Loose (45%). These results reflect the effectiveness of integrating state agency experts with Extension faculty to deliver impactful educational content. Continuing Education Units (CEUs) are offered to increase the professional development value for participants. The WISE Conference is marketed through workbooks, flyers, newsletters, and social media, effectively reaching homeowners, Master Gardeners, Master Naturalists, and government agencies such as APHIS and CISMA. The interactive format, expert-led sessions, and hands-on field trips enhance participant engagement and promote long-term knowledge retention. The WISE Conference model is highly adaptable and can be replicated in other states seeking to address invasive species management and wildlife education. By partnering with local Extension offices, specialists, and relevant state agencies, this program can be tailored to meet regional needs, fostering improved environmental stewardship. The WISE Conference effectively demonstrates the power of collaboration and immersive education in increasing knowledge and inspiring proactive management of wildlife and invasive species. This model serves as a valuable template for Extension professionals looking to enhance public awareness and environmental impact in their respective regions.

MASTER FORAGERS CONNECT WITH NATURE AND BUILD COMMUNITY

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Through sprawling urbanization and decreased green spaces, many feel disconnected from nature and their source of food. This feeling of disconnect culminated during the COVID-19 pandemic when social media became the primary means through which people connected. Social media movements including wild harvesting and homesteading have taken hold across the state of Georgia, but Georgians did not have a dependable resource to receive this type of information. Pike and Spalding County Extension offices partnered with the Warnell School of Forestry and Natural Resources to offer the novel University of Georgia (UGA) Master Forager series in an effort to provide reliable, research-based education on wild harvesting which customarily stems from non-traditional instructors or difficult to access information. The twelve-month series, consisting of fifty-two hours of instruction, covered topics including wild crafting, acorn harvesting, plant identification, natural dye and more while focusing on hands-on learning rooted in research-

based information. Graduates, those who completed all twelve classes, have the opportunity to partake in quarterly foraging continuing education opportunities hosted throughout Georgia. The series promotes foraging best practices, environmental stewardship and community engagement. Since its inception, twenty Master Foragers from across the state have completed the program and remain active in the UGA Master Forager community. Prior to the program, most participants did not know how to recognize, process and prepare wild food. Graduates showcase their newly acquired skills and abilities by foraging, processing, and preparing foraged dishes for a graduation potluck in order to receive their certification. Past dishes have included kudzu quiche, perilla mint pesto, and chanterelle enchiladas. Remarkably, 90% of graduates continue to incorporate foraging into their daily lives, creating medicinal salves and seasonal wild dishes. To reinforce learning and foster community, graduates share recipes and photos in a private Facebook group dedicated to UGA Master Foragers. Through this program, participants have reconnected with nature and their food sources. With a demand for foraging education exponentially growing, the annual series will continue and seeks to expand to other parts of the state and country to meet the audience where they are.

BUILDING A HARDWOOD MANAGEMENT PROGRAM FOR MISSISSIPPI LANDOWNERS

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Forest management efforts in Mississippi have centered on pine silviculture since the 1950s. As pine market conditions worsened over the last 15 years, interest in active management of hardwood forests has increased drastically. Mississippi State University has led a robust and internationally recognized hardwood research program for over 60 years. However, in the past, dissemination of research information was relatively limited and primarily focused on training events for professional foresters. Starting in 2012, a statewide hardwood management outreach program was implemented at Mississippi State with the intention of offering research findings and the most current silvicultural methodology in landowner programming. PowerPoint presentations and over 20 publications have been created to form curricula to support this program's system of short courses, workshops, filed tours, inservice events, and short landowner presentations. Between 2012 and 2024, 375 presentations have been given at 243 unique events, reaching over 7,400 attendees either owning or managing almost 9 million acres cumulatively across Mississippi, Alabama, Tennessee, Arkansas, Louisiana, and Texas. Program participants were surveyed both upon event completion and one-year post-completion to assess immediate perception of information gain and value as well as adoption over time. Program evaluations indicated that participant knowledge of subject matter increased between 15 and 52 percent and adoption of presented management strategies were reported by 21.7 percent of attendees on 2,451,961 acres. These activities included silvicultural practices such as invasive species management, tree planting, natural regeneration cuts, herbicide use, and implementation of sound thinning methodology. Discussion of program development and participant adoption metrics, as well as our experiences and takeaway lessons, will be shared.

SUSTAINABLE AGRICULTURE PRESENTATIONS

SOIL HEPROMOTING SOIL HEALTH: KEY TAKEAWAYS FROM THE SUWANNEE VALLEY SOIL HEALTH AND COVER CROP FIELD DAYALTH PROGRAM

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The 2025 Suwannee Valley Soil Health and Cover Crop Field Day, held in February at the UF/IFAS North Florida Research and Education Center – Suwannee Valley, brought together 109 attendees, including farmers, researchers, Extension specialists, and government agency representatives, to learn about soil health and cover crop practices. Organized by UF/IFAS Extension in collaboration with the USDA Natural Resources Conservation Service (NRCS) and industry partners, the event emphasized key soil health principles such as reduced tillage, continuous living roots, biodiversity, and soil cover. The program featured a trolley tour with field demonstrations, including a soil pit presentation, discussions on cover crop benefits by UF/IFAS researchers, results from on-farm cover crop trials, and early findings from a USDA-funded regenerative agriculture study. Attendees engaged in hands-on learning about soil health indicators such as organic matter and pH, as well as weed management strategies for both organic and conventional systems. The NRCS rainfall simulator demonstrated the effects of tillage and cover crops on water retention and soil erosion. Evaluation responses (n=28) indicated that 64% of participants were relatively new to soil health practices, representing a diverse range of commodities, including vegetables, row crops, livestock, and timber. Additionally, 33% had attended a previous UF/IFAS soil health or cover crop educational program. About 74% of respondents reported knowledge gains from the presentations and hands-on demonstrations. The workshop provided an excellent opportunity for UF/IFAS specialists, Extension agents, NRCS personnel, industry representatives, and farmers to come together and learn from one another on how to better manage soils and cover crops to support sustainable agricultural production.

WHAT WE'VE LEARNED FROM FIVE YEARS OF BROADCAST INTERSEEDING COVER CROPS INTO STANDING SOYBEANS

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Pennsylvania farmers struggle to establish cover crops other than cereal rye after soybean harvest. Broadcast interseeding (BI) cover crops into standing soybeans could increase cereal rye growth or allow farmers to diversify cover crop species. The objectives for this trial were approached in a stepwise manner in three distinct phases: (1) determine cover crop species viable for BI into standing soybeans, (2) compare BI to post soybean harvest seeding, and (3) establish an optimum window for BI selected species. Twenty-three site years in 11 counties were included over the trial. For phase one, nine species were BI into standing soybeans using a variety of equipment targeting leaf yellowing. Plots were arranged in a randomized complete block with three to

four replications. Phase two followed a similar design but added a post soybean harvest seeding comparison. In phase three, cereal rye or hairy vetch were interseeded with a drone on three dates per site, then compared with post-harvest seeding; sites served as replicates, with no within-site replication. Cover crop density and groundcover were measured in the fall, and again within three days of spring cover crop termination, plus cover crop biomass. All phases included commercial and research farms. Phase one revealed that cereal rye and clovers were the most and least successful species to use for this method, respectively. In phase two, BI increased, decreased, or had no impact on cover crop density and biomass over post-harvest seeding. The benefits of BI into standing soybeans increased as post-harvest seeding and spring termination dates got later. In phase three, the greatest benefit to drone BI over post-harvest seeding was quicker fall groundcover, with minimal impact on biomass production or spring groundcover. Data for the current growing season will be finalized by May 2025, and further trial-long analyses will also be completed. Thus far, we conclude that BI can be a useful tool for Pennsylvania farmers to employ in a targeted manner, specifically when timely rainfall is predicted after seeding, and when spring cover crop termination is delayed, but performance is highly dependent on timely rainfall and minimal weed pressure.

DEVLOPING COMMERCIAL USES FOR FRUIT INDUSTRY WASTE PRODUCTS

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A lesser-known aspect of the fruit industry is the waste produced from seeds and pits during fruit processing. For instance, in some situations, these seeds and pits can be processed into grit used in soap scrubs. In Michigan, cherry pits are utilized in modified pellet stoves to heat homes and are burned to smoke meat in commercial barbecue pits. Unfortunately, in many cases, pits and seeds go unused and often end up in landfills or accumulate in large piles that can reach thousands of cubic yards. While these materials have potential uses, the developing uses and the cost of transporting them to processing facilities can be prohibitively high. This issue is particularly significant in Utah, the second-largest producer of tart cherries in the United States. Due to these issues, the Utah Fruit Growers' Association has asked Extension to explore profitable uses for these pits. Since 2017, various research projects performed by Extension have yielded promising results. One of the most successful approaches involves breaking the pits down to a ¼-inch size and utilizing them as a soil amendment to improve properties like drainage and cation exchange capacity (CEC). When incorporated into clay soil, adding pits has increased the yields of several crops by 10 to 25 percent compared to untreated controls. The ground pits have also been applied 1 to 2 inches deep as mulch to suppress weed growth in between rows. In areas cleared of weeds, this method proved nearly 100% effective in halting the emergence or regrowth of all weeds, except for field bindweed. Even in this scenario, it sufficiently limited bindweed growth so that it did not significantly affect garden crops. Additionally, cherry pits can be processed cheaply into charcoal briquettes that perform comparably to commercially produced briquettes on a weight-for-weight basis. Extension continues collaborating with growers to develop additional uses and create products that enhance the fruit industry's profitability. The next step includes developing relationships with local wood processors and the green industry to make these products available to the public. Upcoming research includes processing pits into pellets for pellet stoves and biomass logs.

HARNESSING COVER CROPS TO ADDRESS UNIQUE FARM NEEDS AND ACHIEVE MAXIMUM BENEFITS

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Cover crops can provide various benefits, such as building soil organic matter, scavenging nutrients, or controlling pests such as weeds. Since cover crops are not a primary source of farm income, farmers tend to spend less time planning and managing them when compared to cash

crops. We hypothesized that designing cover crops with a particular purpose in mind, extending the cover crop growth window, and considering environmental constraints and the capacity of the farm and farmer would result in more productive and functional cover crops. In years one and two, respectively, Extension educators collaborated with 11 and 20 farmers to plan cover crops for 27 and 56 fields. Farmers managed cover crops and Extension educators measured cover crop fall and spring biomass, and spring nitrogen and carbon content. Fall cover crop biomass from 69 fields ranged from 28-2887 lb/acre, with an average of 521 lb/acre. Spring cover crop biomass from 83 fields ranged from 156-8659 lb/acre, with an average of 2213 lb/acre. Cover crop biomass positively correlated with spring growth days. Nitrogen in spring biomass from 56 fields ranged from 2-124 lb/acre, with an average of 37 lb/acre. Based on 56 fields, cover crop carbon to nitrogen ratio differed according to species composition, with grass and/or brassica cover crops > mixes that included a legume > pure legume cover crops. In conclusion, despite all farmers engaging in cover crop planning, cover crop biomass, nitrogen content, and carbon to nitrogen ratio greatly varied across operations. Extending the cover crop season was important for increasing biomass and functionality. In order to achieve the targeted purpose of the cover crop, farmers often had to modify plans and actively manage cover crops, for example through re-seeding, extending the season later than anticipated, or applying selective herbicides. We regularly communicated with collaborating farmers one-on-one and through having collaborating farmer networking meetings. Cover cropping strategies and results were shared at 10 field days to 278 attendees, 11 grower/agriculture service provider meetings to 876 attendees, four webinars to 86 live attendees and 232 subsequent "views," and through being featured in two news articles.

TURNING WASTE TO WORTH: HANDS-ON WORKSHOPS FOR COMPOSTING MEAT PROCESSING WASTE

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Nearly 20,000 small and direct-marketing farms, ranches, and families raising livestock and poultry rely on Washington state's small scale meat processors and slaughter facilities. There is desire and a pressing need from small meat processors for cost-effective, convenient, and environmentally-sound ways to dispose of the waste from animal processing. Increased limitations for available disposal options such as rendering have contributed to nearly 70% of this waste being sent to landfills, thereby wasting valuable nutrients and increasing methane emissions. The recent Washington State Organics Management Laws – which aim to divert organic materials from landfills – may further impact access and cost for businesses landfilling meat processing waste. Composting is one alternative strategy that allows this waste stream to be safely repurposed into a valuable soil amendment. This project addresses the knowledge gaps and barriers that exist for producers and processors to compost their animal harvest waste. Multiple approaches have been used to raise interest, conduct ongoing needs assessment, and disseminate information, and reduce barriers – including presentations at producer and processor-focused events and conferences, webinars, publication of an Extension factsheet, and engagement with multi-agency organizations and work groups. The highlight of the project is a hands-on workshop that has been hosted in three locations (to date). These workshops offer information that producers/processors need to begin or refine their animal byproduct compost practices, including presentations and activities on: the mechanics of composting, evaluation of feedstocks, navigating regulatory concerns, resources from state and local agencies (e.g., cost-share opportunities), an interactive demonstration with a working compost pile that contains offal, and a facilitated discussion around industry needs and existing barriers. Impacts from these workshops will be presented; preliminary analysis indicates 96% of participants report increased knowledge and 88% are "very likely" or "likely" to consider or recommend composting offal. Ongoing demand for these workshops and presentations is demonstrated by conservation districts adopting the curriculum to offer more workshops for their local producers/processors, invitations to partner with state agencies and regional workgroups to reach a broader audience, and participants flying in from other states to attend the workshop.

BUILDING AGRITOURISM FROM THE GROUND UP: INVITING YOU TO THE TABLE

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Montana has seen a surge in tourism in recent years, influenced by the COVID-19 pandemic and the popularity of Yellowstone, according to the Montana Institute for Tourism and Recreation Research (ITRR). This increase presents an opportunity to not only showcase Montana's stunning landscapes but also educate visitors on sustainable agriculture. Agritourism, which transforms farms and ranches into destinations for education and recreation, sits at the intersection of these trends. It offers producers a way to diversify their income and support additional family members on the farm or ranch. Recognizing this potential, the Montana Agritourism Fellows Program was established in 2022 through a partnership between the Montana State University Department of Agricultural and Technology Education and funding from a Western SARE grant. The program engaged 14 fellows from nine Montana communities, providing hands-on experiences at four sustainable agritourism operations across the state. Participants received training in management, business development, media relations, and other critical areas.

In 2023, the fellows organized Montana's first agritourism conference, Building Agritourism from the Ground Up: Inviting You to the Table. This event covered key topics such as launching an agritourism business, marketing strategies, funding opportunities, and public engagement. Featured speakers included Cole Mannix, founder of the Old Salt Co-op; Nick DeCastro, founder of LandTrust; and representatives from the University of Montana's ITRR. The conference brought together professionals from tourism, agriculture, education, and community development, earning an average participant rating of 4.64 out of 5. This workshop will explore how the Montana Agritourism Fellows Program led to the inaugural conference and the formation of the Montana Agritourism Association, a statewide network of agritourism operators. Survey data from the program and conference will be shared, which may provide insights for those interested in developing similar initiatives.

By fostering connections between agriculture and tourism, Montana's agritourism efforts create new opportunities for producers while educating visitors about the state's agricultural heritage. As interest in agritourism continues to grow, programs like these will play a crucial role in shaping its future.

AT-HOME MEAT PROCESSING IN RURAL APPALACHIA

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The end point for most livestock production systems ends on the plates of the consumer. The understanding of this conversion from muscle to meat has become a broken link within the system. As the generational gap from the farm continues to increase so does the lack of understanding of just what it takes to "put the meat on the table". During the worldwide pandemic of 2019 it was made all too clear just how fragile the animal protein food chain is. Extension has provided programing in meat processing over the years, a long-standing example that is well established throughout the state is the Ham, Bacon, and Egg program. In the Greenbrier Valley 4-H has played a large role in making the program successful. Not only have 4-H and FFA participants learned how to properly handle, cut, cure, process, and label meat products but they have also benefited from the sale of these products at our annual 4-H and FFA Ham, Bacon & Egg Sale. The first of our at home processing classes was held in 2022, it was well received, and the program was further expanded in 2023 and further still in 2024. Pork and beef processing seem to be viewed as new and exciting something that people are willing to come and learn. This has led to a great response in the number of individuals showing interest in the class. Participants of the class are taken through proper steps in harvest and exsanguination. Standards for product holding temperatures are covered as well as issues that can take place during postmortem metabolism that can affect the final product. Participants learn the proper breaking points of a carcass to yield the primal cuts. The primals are then broken down into the various retail cuts. Finally, participants are allowed to demonstrate their gain in knowledge as they then break down a carcass under the supervision of the instructors. Since 2022, 151 participants have taken part in our adult classes with participants saving up to $3,000 annually.

HEROES TO HIVES IN MISSOURI

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Heroes to Hives (H2H) is a beekeeping training program for military veterans founded in Michigan in 2017. The State of Missouri has two military installations and many of the veterans stationed at these facilities end up retiring in Missouri and are interested in agriculture. University of Missouri Extension became aware of Heroes to Hives in 2019 and felt like it would be a good fit for Missouri veterans. In 2021 Missouri became the first state outside of Michigan to offer the Heroes to Hives program. That first year (2021), Missouri had more than 300 veterans register for the program. The program consists of online training modules from the national H2H office, monthly live Zoom meetings on topics specific to Missouri beekeepers, and hands-on training at one of the 4 Extension training apiaries in Missouri. It quickly became evident that more than 60% of all veteran participants were dealing with a service-connected disability. MU Extension incorporated accessible hive designs (such as the Layens and AZ hives) for those dealing with physical disabilities and activities such as Tai Chi for those dealing with post-traumatic stress disorder. The primary goals of the program are to teach beekeeping to veterans and get them involved in agriculture. More than 70% of participants are new to both beekeeping and Extension. A secondary goal is to help those that are interested start a business. More than 40% of participants would like to turn their beekeeping hobby into a small agriculture business. Through the H2H program, University of Missouri Extension has introduced veteran participants to a number of related topics such as urban farming, accessible gardening, soil health, farm resiliency, pollinator habitat and agritourism. In the first 5 years of the program (2021-2025) University of Missouri Extension has trained more than 1500 veterans through the H2H program, offering each individual participant more than 30 hours of training annually.

COOP TO SOUP: PASTURE RAISED POULTRY PROCESSING FOR HOMESTEADERS IN VIRGINIA

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Homesteading and small flocks of chickens are becoming increasingly popular in the United States. Homesteaders of America did a survey on their members in 2022 which indicated that broiler chickens were within the top considerations for their membership. Additionally, there is an increasing interest in selling poultry at farmers markets and off the farm, but state regulations and exemptions are confusing to understand. Coop to Soup was developed to equip small farmers and homesteaders with information on humane poultry handling and raising, safe food handling practices, and a deeper understanding of the legalities of selling chicken on the farm in Virginia. The program was run as an 8-week long hybrid program that took participants through every step of raising and processing meat chickens on a pasture system for personal consumption or sale including raising chicks, nutrition, poultry health, pasture systems and chicken tractor design, and marketing your product. It was geared towards smaller producers or homestead style production, with notes on scale for larger markets. At the end of the 8 weeks, there was an in-person processing session where participants could process and take-home chickens that had been raised over the 8-weeks. The program emphasis was on humane animal husbandry and food safety throughout the growing and finishing process. During the hands-on processing day, participants learned every part of the slaughtering process, including set up for food safety, dispatching, cleaning, and packaging birds. Participants commented that the set up during this day gave them ideas for things to change in their home set-up to ensure better food safety and efficiency. Post-program evaluations showed that participants increased knowledge and comfort levels in all areas but had the greatest increase in knowledge of food safety practices, laws surrounding selling and distributing poultry, poultry nutrition, and

record keeping. Participants felt that the most valuable part of the program was the hands-on aspect, which allowed them to build confidence in the whole process.

ADVANCING IPM THROUGH COVER CROPS AND STRIP TILLAGE

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Season-long pest management can be challenging in cantaloupe (Cucumis melo) production. However, integrating living mulches with other management tools may help suppress weeds while also influencing insect populations throughout the cantaloupe life cycle. Field studies were conducted over two seasons to investigate the effects of an interplanted living mulch of red clover (Trifolium pratense) on weed suppression, insect pest pressure, and beneficial arthropods compared to polyethylene mulch systems. Whole plot treatments included a living mulch or polyethylene mulch system, with a split-plot factor of standard or reduced pesticide inputs. The results indicate that the living mulch system provided weed suppression comparable to or better than the polyethylene mulch system in both study years, while standard herbicide inputs within the living mulch system did not consistently enhance control. Additionally, insect pest populations, particularly striped and spotted cucumber beetles, were reduced in living mulch treatments compared to polyethylene mulch systems. Beneficial arthropods were more abundant in the living mulch system, suggesting a potential biological control benefit. Despite these benefits, cantaloupe yield was lower in the living mulch system compared to the polyethylene mulch system. These results suggest that living mulches can play a role in integrated pest management by suppressing weeds and impacting insect populations. However, careful management, including wider planting strips, is needed to minimize competition between the cash crop and cover crop.

INTEGRATED CROP-LIVESTOCK SYSTEM IN IDAHO AGRICULTURE - AN OVERVIEW

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Integrated crop-livestock systems (ICLS) provide an opportunity to enhance soil health, optimize resource efficiency, and improve farm resilience. However, in Idaho, knowledge gaps, management challenges, and low adoption rates hinder livestock integration into cropping systems. This project aimed to educate agricultural professionals on ICLS management strategies, increase awareness of sustainable practices, and facilitate grower engagement through field-based learning and outreach. To achieve these objectives, we conducted an ICLS workshop for agricultural professionals (May 2024, hybrid mode, 29 participants) and an ICLS field day and farm tour (September 2024, McIntyre Farms, Caldwell, Idaho, 20 participants). The workshop featured expert presentations on cover cropping for forage, grazing crop residues, intercropping, crop rotations, and livestock integration strategies. The field tour provided hands-on demonstrations, showcasing best practices for successful ICLS adoption. Additionally, pre-and post-event surveys were used to assess knowledge gains, while focus group discussions identified barriers and opportunities for future adoption.

Findings revealed a 14% increase in participant knowledge of ICLS practices. Ten agricultural professionals reported plans to incorporate ICLS principles into their extension programming, expanding the project's impact. Participants identified key barriers, including soil compaction concerns, rotational logistics, and producer hesitancy toward livestock integration. However, the perceived benefits—enhanced soil fertility, reduced input costs, and improved farm resilience—demonstrate the need for continued education and outreach. As a direct outcome, two new collaborations were established, and two follow-up grants were secured to further ICLS research and outreach in Idaho. The project extended SARE resources to 9 farmers and 20 agricultural professionals, broadening awareness and accessibility. Feedback emphasized the importance

of peer-to-peer learning and region-specific management strategies, with one attendee noting, "Good to hear from a fellow farmer putting this into practice."

This initiative has strengthened the foundation for ICLS adoption in Idaho by bridging research, extension, and producer engagement. Future efforts will focus on getting the perspectives of farmers and agricultural professionals, expanding on-farm demonstrations, addressing logistical barriers, and enhancing management resources to support sustainable ICLS adoption.

TEACHING & EDUCATIONAL TECHNOLOGIES PRESENTATIONS

RESPECTING OUR ORIGINS IN TECHNOLOGY THROUGH EDUCATION IN AGRICULTURE: VIRTUAL REALITY TOURS

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A groundbreaking virtual reality (VR) program, led by Nebraska, Alaska, and Hawai'i Extension, is engaging youth across the United States in agriculture education. The initiative enables participants to explore agricultural landscapes through immersive VR tours and create their virtual reality content to share with peers. Using VG goggles, 360 cameras, and video production tools, youth learn about the origins of agriculture, its evolution over time, and the impact of current and emerging agricultural technologies. This innovative approach not only enhances students' understanding of agricultural practices but also equips them with skills in video production and technology.

During this presentation, members will learn about this USDA NIFA grant-funded ROOTED in Ag program, a collaboration between Nebraska, Hawai'i, and Alaska. This program focuses on creating agricultural and STEM-based lessons, including VR content highlighting agricultural production technologies. This presentation will demonstrate to participants how the VR sets work, present the storyline website, and showcase the project's goals and impact.

This team took agricultural tours at each state, creating stock 360 images for students to use and hands-on lessons, linking the VR experiences to real-world agricultural practices. This initiative not only promotes STEM education but also fosters collaboration and technological innovation in agriculture, highlighting the role of modern technology in shaping the future of agricultural education and workforce development.

PROVIDING SKILLS AND KNOWLEDGE TO NEW FARMERS WITH THE MARYLAND BEGINNING FARMER SUCCESS COURSE

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Starting a farm is challenging, with significant obstacles including acquiring land, securing capital, marketing challenges, climate and pest issues, and navigating regulations. New farmers often lack the skills and knowledge to manage their farms effectively. The Maryland Beginning Farmer Success Project provides new farmers with resources and contacts to be able to explore enterprise options, refine ideas, develop plans and strategies, and implement their farming practices. An annual course is offered each winter by the University of Maryland Extension (UME) to aid people in Maryland and the surrounding states who are either considering getting into farming or are in the beginning stages of starting a farm as a business. The Beginning Farmer Success Course (BFEC) is a 10-week course that combines work-at-your-own-pace homework and weekly virtually live classes using Zoom software. The course covers business planning, marketing, crop production, livestock husbandry, soil health, integrated pest management, food safety, and regulations. The course partners with regional nonprofits, agricultural organizations, and experienced farmers to provide beginning farmers with easily accessible tools and practical experience-based training on farm

production, marketing, land management, business planning, and financial resources. Each virtual class started with a short talk from a regional partner focusing on what resources they offer to the agricultural community. This was followed by a more in-depth lecture from a faculty member from the University of Maryland or the University of Maryland Eastern Shore. Some classes also had a guest farmer speaker who would speak about their farming operations, the challenges they face, and how they overcame them. BFSC participants responded in the end-of-course surveys that they learned a lot regarding farm regulations and policies, resources, and agencies available to start your farm business and create a farm production plan. Over 75% of BFSC participants responded that due to the course, they were likely to develop farm financial statements and enterprise budgets and use best management practices for conservation.

ONLINE EDUCATION STRATEGIES TO MEET FOOD ENTREPRENEUR NEEDS

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Value-added endeavors have long been a diversification strategy for agricultural producers to increase resilience. In some cases, small or beginning farmers seek food processing opportunities for their crops or livestock. Entrepreneurs may utilize local agricultural products to make and sell value-added foods. These food businesses have educational needs that differ from traditional agricultural businesses. Ohio ranks second in the United States for number of farms (7,752) that sell food directly to consumers. Ohio State University Extension faculty set out to identify resources and educational strategies to meet the unique needs of food entrepreneurs. The team implemented a three-phase educational approach that included law bulletins, webinars, and an asynchronous online course. The team published law bulletins on licensing, labeling, and selling food products in Ohio on the OSU Extension Farm Office website. Website traffic shows the popularity of these topics, as the food law library page is the most visited Farm Office page with over 250,000 visits since 2014. The second approach was to design a "Starting a Food Business" webinar series for home-based and farm-raised food entrepreneurs. The team taught over 350 participants in the four-part series on establishing a business, food regulations, and food safety and marketing aspects unique to food businesses. By the final webinar, 89% said they were more knowledgeable about starting a food business and 81% were likely to take action on something they learned. Lastly, the team developed an asynchronous, online course called "Food Business Central." This course serves as a centralized on-demand hub connecting participants to information and resources for all types of food products they might want to make and sell. It consists of ten modules on legal start-up, insurance, food law, food safety, and marketing and economics. Throughout the course, participants build a "My Food Business Action Plan" with considerations to explore and actions to take. Over 100 participants have enrolled and 10% have completed all modules to build their action plan. Offering educational resources in multiple forms helps food entrepreneurs to find information in ways and at times that best suit their needs.

TAILORING TRAINING FOR PESTICIDE AND FERTILIZER APPLICATORS

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Background: As access to learning technology for pesticide and fertilizer application advances, training must adapt to ensure compliance, environmental protection, and public safety. Traditional in-person training can be challenging due to limited availability and scheduling conflicts. To accommodate different learning styles, our Extension programs now provide online education for self-paced learners and hands-on workshops for those who learn best through practical experience.

Objectives: This program provides flexible, self-directed online learning options; offer s hands-on training for experiential learners; ensures applicators understand regulations and safe practices; expands access while maintaining high-quality education.

Methods: Two training options were developed,
1. Online Education – Self-paced modules included readings, videos, and quizzes covering regulations, safety protocols, and application best practices. This format accommodated those with time constraints or geographic barriers.
2. Hands-On Training – In-person workshops provided real-world practice in equipment calibration, chemical handling, and application techniques. Immediate feedback and peer interaction reinforced learning.
Results and Impacts: By providing both online and hands-on training, Extension programs reached a broader audience and improved educational outcomes:
• 96% of online learners reported the flexibility to complete training at their convenience, reducing scheduling conflicts (n=253).
• 83% of hands-on participants expressed increased confidence in applying techniques correctly due to real-time practice (n=74).
• Compliance and knowledge retention improved, and improper application practices decreased.

Conclusions: Recognizing different learning preferences, and offering multiple training formats ensures that pesticide and fertilizer applicators receive education in the way that best suits them. Online education provides accessibility for self-motivated learners, while hands-on training is vital for those needing practical experience. This dual approach enhances training effectiveness, improves compliance, and promotes safer application practices. By embracing varied educational methods, Extension programs can better serve applicators across industries and locations.

THE POWER OF FUNDAMENTALS: HOW BASIC BILINGUAL LANDSCAPING EDUCATION DRIVES RESULTS

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Situation: Florida's massive environmental horticulture industry generates over $10 billion annually and employs over 100,000 individuals, with 33% identifying as Hispanic/Latino. The landscaping sector plays a crucial role in this industry, yet many positions lack formal certification, leaving training dependent on in-house instruction that varies in quality. Compounding this challenge, most educational materials are exclusively in English, creating a barrier for multilingual teams thus limiting the adoption of Best Management Practices (BMPs) and Integrated Pest Management (IPM) strategies with an emphasis on basic, preventative strategies as opposed to reactive chemical corrections focused on aesthetics.

Methods: Recognizing this gap, a multi-county team of UF/IFAS Extension Agents secured a USDA-NIFA IPM Extension grant in 2021 to develop bilingual training materials that enhance sustainable landscaping practices. The result was the publication of Basics of Landscaping in Florida / Conceptos Básicos de Paisajismo en Florida booklet—a waterproof, pocket-sized resource featuring science-based BMPs and IPM principles presented in both English and Spanish, with photos and illustrations to enrich comprehension.

Results: Since its April 2024 publication, the booklet has reached a wide audience, with 366 copies distributed through Extension outreach of which 216 were distributed after a 1 – 2-hour class in English or Spanish on the topic. Its impact became evident as 164 individuals completed Qualtrics post-class surveys, with 99% (162) planning to use the information in their home landscapes and 63% (103) intending to apply practices on the job—44% (72) of whom believed the booklet would directly support BMP adoption among multilingual teams. Post-class surveys reported 80% (131) increased BMP knowledge. A 3–6-month follow-up survey confirmed sustained impact, as 85% of respondents (41 of 48) reported applying the information, and at least 83% (40) implemented one or more BMPs.

Conclusion: Beyond its educational success, the booklet has gained traction within the industry. The UF/IFAS Bookstore sold 100 copies, generating $1,600 in revenue, while Extension Agents and industry trainers have formally adopted it as a standardized training tool. By starting with the basics and addressing language barriers, this initiative is empowering Florida's landscaping workforce, fostering sustainability, and synergizing resilience.

THE TOP RANCHER CHALLENGE: A THREEFOLD EXTENSION TOOL TO ENGAGE FLORIDA CATTLE PRODUCERS

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Livestock Extension faculty use needs assessments and evaluations to understand Florida cattle producers' needs and measure teaching effectiveness. With traditional extension methods (e.g., classroom-style presentations and field days) facing challenges in attendance, our group developed the Top Rancher Challenge - a "threefold" tool to engage, spark interest, and identify knowledge gaps in cattle production systems. The quiz-style tool capitalizes on competitive human nature, enticing participants to learn more about practical topics in livestock and forage production. The objectives are to 1) capture existing knowledge (program efficacy), 2) increase knowledge (teaching tool), and 3) assess educational needs (needs assessment). Presented annually at the Florida Cattlemen's Convention & Tradeshow, the Challenge targets both adults and youth separately. Participants answer 15-20 multiple choice questions based on Extension materials and programming on an iPad at the Extension booth. Winners receive the title of Top Rancher/Top Youth Rancher of the year and a prize. Afterward, correct answers and references are shared with participants to encourage further learning. Since launching in 2022, participation has increased by 84%, from 179 to 329 participants in 2024. Knowledge change is assessed by analyzing responses on repeated topics. Additionally, a follow-up survey gauges what participants learned specifically and if they implemented changes in their operations. Results show 20% knowledge increase on cattle reproduction, 11% on pasture fertility, and 56% on herd health among adults. Youth participants showed a 31% knowledge gain in equipment safety and 46% in forage management. However, there was no knowledge gain in weed control and nutrition, highlighting opportunities for further education. Of 443 survey responses, 10% (n=45) shared how they benefited from the Challenge, reporting a perceived knowledge gain of 52%. After receiving the correct answers and references, 80% expressed interest in learning more about each topic. As a result of increased knowledge and inquisitiveness, 20% indicated they implemented changes in their operations, such as rotational grazing and improving their nutrition program. The Top Rancher Challenge is an example of how to gather feedback from clientele at a professional conference interactively. This threefold tool effectively educates producers while revealing the efficacy and opportunities for Extension programs.

STATEWIDE HYBRID IDAHO ONLINE PROGRAM DELIVERY

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The availability of agriculture and horticulture related Extension programing in Idaho to all state residents has been limited by distance to delivery sites, access to technology and access to content specialists, particularly in remote regions of Idaho. In many cases there is not enough interest in a rural county to justify the expense of providing a particular program. In 2020 the COVID pandemic forced the Master Gardener program to online delivery via the Zoom platform. From 2021-2023 the eastern Idaho Master Gardener team continued to deliver

the Master Gardener program online. The three-hour Zoom classes were recorded and saved. In 2023 University of Idaho purchased CANVAS for off-campus program delivery. The 2024 Master Gardener program was set up in CANVAS so any county in the state could have interested residents participate. The three-hour Zoom recordings were broken into shorter topic videos. There were two different groups of counties that held their classes at different times. Students were allowed to watch the topic videos asynchronously, then participate in a one-hour online class each week. Several counties also held hands-on labs at another time. All Idaho residents now have access to the Master Gardener programing. This allows rural counties to run their own program with standardized material or have their residents join with a group that has an educator with the skill set needed for Master Gardener education. Several counties still run their Master Gardener programs face-to-face. In 2021 a group of educators on the Farm Business Management team developed a four-week farm financial records program to be delivered predominantly through videos that could be viewed asynchronously by the students with a short weekly online meeting to answer questions and assist students. In 2022 a farm financial analysis class was designed with the same format. Over 300 people and 50 farm units have participated in these online programs. Several students were the only participants in their rural county. This program delivery method is safe, convenient, accessible and flexible.

THE MISSOURI PRODUCE GROWERS VIDEO NEWSLETTER: DIGESTIBLE, ACCESSIBLE, IMPACTFUL, AND REPLICABLE EXTENSION EDUCATION AND OUTREACH

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Maintaining impactful, ongoing digital engagement with specialty crop farmers is challenging. Extension educators must compete with high-reward and low time investment media, such as video hosting and social media platforms. Farming information found on social media platforms often lacks supporting research and may rely solely on the opinion and site-specific experiences of the content creator. The bi-monthly Missouri Produce Growers Video Newsletter (MPGVN) was developed in 2020 by a team of six horticulture educators to support the adoption of research-backed farming practices by Missouri's specialty crop farmers, and to serve as a resource hub for the specialty crop industry. Newsletter issues are created using the Dotdigital engagement platform and consist of five to seven educational videos three to five minutes in length. The concise interdisciplinary content includes live shot videos but consists primarily of narrated PowerPoint presentations. The videos are also hosted on the MU IPM YouTube Channel, where they have accumulated over 118,000 views. In 2023, a survey to assess impacts of the newsletter was sent to 948 subscribers using the Qualtrics survey tool, with a 14% response rate (N=132). Of respondents, 55% identified as "currently growing and selling produce or growing produce and planning to sell in the future" (growers). The survey showed that of the growers; 85% indicated knowledge gains; 78% reported adoption or change of farming practices; 63% attended an extension class; 56% connected with a partner agency; 23% applied to grants; and 5% received grant awards, thanks to information delivered in the newsletter. Additionally, an analysis was performed to assess MPGVN subscriber engagement. Email newsletter engagement metric data, tracked by issue in Dotdigital, was collected for issues released from 2020-2023. The MPGVN engagement metrics relative to industry benchmarks for educational email newsletters are higher by (66%) for unique opens, (190%) for unique clickers, and (77%) for click-to-open rate. The MPGVN is an effective educational tool and resource hub supporting knowledge gain and adoption of research-backed farming practices. The content and format of the MPGVN can be easily replicated by other Extension educators to provide research-backed information to their state's specialty crop farmers.

ELEVATING GARDENING EXPERTISE: A HYBRID MASTER GARDENER PROGRAM FOR HIGH-ALTITUDE REGIONS

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Extension community education programs have traditionally focused on in-person classes, which remain

the preferred method of learning for many Idaho residents. However, a 2023 statewide listening session revealed that 40% of learners are interested in hybrid learning environments. In response, the Idaho Extension system has been implementing a hybrid (online/in-person) course model since 2014, effectively reaching rural audiences with fewer resources. This model gained traction post-Covid, as widespread familiarity with web conferencing technology enabled the first-ever statewide hybrid Master Gardener learning experience, focused on high-altitude, short-growing season regions in Idaho.

In 2024, the Idaho Master Gardener Program launched a statewide initiative to standardize foundational content through an online Canvas course. This online course provided consistent, flexible learning opportunities for rural participants, which could be adapted by any Idaho Extension educator. Educators in three high-altitude mountainous counties customized the course to address the unique challenges of high-altitude gardening, such as short and unpredictable growing seasons. Students accessed the online content asynchronously, complemented by 13 weekly Zoom-based "Lunch & Learn" sessions. Local in-person classes and volunteer opportunities were integrated, with Master Gardeners contributing volunteer hours within their communities during the summer and fall.

Program outcomes were assessed through pre- and post-course surveys. 92% of participants indicated intentions to manage invasive weeds and use raised beds, while 85% planned to implement mulching, landscape planning, and season extension strategies. Knowledge gained showed significant increases in key areas such as pesticides (76%), diagnosing plant problems (77%), turf management (85%), season extension (85%), pathology (89%), and growing in microclimates (99%).

Future efforts aim to formalize the survey tool for a statewide audience and explore further research opportunities, including a paired t-test analysis, in collaboration with other Master Gardener programs in the state. This project demonstrates the potential for hybrid learning to expand the reach and impact of Extension programs statewide.

ENHANCING INTEGRATED PEST MANAGEMENT (IPM) EDUCATION FOR HORTICULTURE AND SMALL FARM EDUCATORS IN IDAHO

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Statement of issue: Horticulture and small farm programming in Idaho face challenges in pest management, including limited resources and varying expertise in Integrated Pest Management (IPM). Effective pest management is essential for sustainability, plant protection, and environmental health. Extension educators need practical skills in pest identification, scouting, and monitoring to better serve their communities. Methodology: To address these challenges, the University of Idaho Extension organized a focus group of horticulture and small farm educators. A four-hour hands-on IPM workshop was conducted to equip the participants in scouting, pest identification, and management recommendations and introduced to the Pacific Northwest (PNW) Pest Alert Network and other innovative technologies for pest monitoring. Scouting kits, including essential tools, were provided to support field monitoring. Impact: The workshop engaged 26 participants, with 91% reporting increased confidence in implementing IPM practices and 100% expressing interest in future training. A post-workshop survey showed that 40% of respondents were aware of the PNW Pest Alert Network, while 60% expressed strong interest in contributing content. The initiative fostered collaboration among educators and promoted a proactive approach to pest management. The adoption of scouting kits empowered participants to conduct effective field monitoring. Extension as an effective education tool: Extension strengthens pest management education through science-based training, collaboration, and hands-on learning, enhancing sustainable pest control with technology and networking. Future training sessions will focus on increasing participation in the PNW Pest Alert Network and refining pest alert protocols during critical growing seasons. Applicability to other regions: This model of IPM education can be adopted in other regions facing similar pest management challenges. The integration of hands-on training, digital pest alert systems, and scouting kits

provides an effective framework for empowering educators and agricultural professionals nationwide. Conclusion: Equipping educators to assist growers, landowners, and communities in managing and mitigating pest threats is essential for enhancing pest management. This approach reduces chemical inputs and waste while ensuring stakeholders remain informed through a strong technical foundation. By strengthening knowledge networks and communication channels, Extension plays a crucial role in fostering sustainable and effective pest management strategies, benefiting agricultural sustainability and environmental health.

AGCONNECT: CONNECTING AGRICULTURE WITH SCIENCE IN THE CLASSROOM

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The What: AgConnect is a free, teacher-controlled platform with an agricultural focus that guides students through lab and field-based experimental design and the scientific method. It brings agriculture into the classroom with student-driven experimental design and implementation. AgConnect helps connect science to everyday life. AgConnect, along with its free accompanying curriculum, 360° farm photo tours, and virtual farm water quality and soil health games prepares 21st-century students for climate-smart solutions for agriculture. AgConnect engages students through inquiry-based learning using new technology that makes science relevant to their lives by connecting the food they eat to the landscape they live in. Learn more at the Resources for Educators webpage of the University of Vermont Extension's Northwest Crops and Soils Program: https://www.uvm.edu/extension/nwcrops/resources-educators.
The Who: For educators interested in incorporating an engaging and interactive curriculum that teaches middle and high school students how to use scientifically informed approaches to improve agricultural productivity and protect the environment.
The How: In this workshop, learn how to integrate AgConnect into your classroom activities and where to access the suite of learning materials. It is strongly encouraged that attendees bring a laptop to fully engage.
The Why: Agricultural literacy is low in the United States. A meta study of two decades of agricultural literacy research found that teachers and students were "found to be agriculturally illiterate." This outcome reflects an American public that is losing its connection to agriculture. Less than a century ago, in 1935, when employment in agriculture was highest, one out of every 25 people was employed in agriculture. Now that number is less than one in 100. The meta study also found a growing demand for agricultural workers in the private and public sectors, yet graduation rates in these fields indicate that only 61% of these positions will be filled. For high school-aged children, science scores have remained stagnant, and 40% of high school seniors had a 'below basic' understanding of science. Increasing scientific understanding through agricultural literacy can fulfill school learning standards and help meet public and private sector goals.

MAXIMIZING IMPACT: ENHANCING CLIENT OUTREACH AND AGENT SUPPORT IN THE EXTENSION SYSTEM

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Ongoing staffing issues within the Extension system often result in high turnover, burnout, and gaps in coverage, affecting our ability to serve clients effectively. In light of these challenges, how can we continue to fulfill our mission of providing unbiased information that improves our clientele's lives? One potential solution is to reassess how we view our return on time investment, focusing on more efficient ways to serve our clients while better supporting our agents.
Visiting growers is a vital part of Extension work, but not every inquiry requires an in-person visit. SCGrower, a weekly crop report available at SCGrower.com, is sent to 546 subscribers to keep growers informed. This resource helps reduce the number of farm visits agents need to make, providing essential updates without the time investment of in-person visits. Agents spend fewer than 15 minutes each week preparing the crop report, and in return, it reaches over 700 clients every week.

In-person meetings are crucial to Extension's success, but they require significant time, energy, and financial resources. To broaden our reach, our team began offering webinars as an alternative. We quickly discovered that on-demand webinars—where participants can choose the time, place, and date of participation—led to a 300%

increase in attendance. These on-demand sessions allow agents to spend less time on scheduling and preparation while reaching a larger audience compared to in-person or scheduled webinars.

Teaching new farmers essential skills is critical but time-consuming, often involving repetitive content. To address this, we developed Farming Foundations, a free, on-demand class designed to teach the basics of farming. Created from recycled presentations combined into a cohesive course, Farming Foundations has served 842 clients since its launch in 2022. This class frees up hundreds, if not thousands, of agent work hours annually, requiring fewer than 20 hours of management each year.

Since 2019, our team has been implementing systems to improve each agent's return on time investment. These systems have enabled us to significantly increase our reach, serving more clients in a timely manner while reducing agents' workloads.

2025 AM/PIC SPEAKER PROFILES

Dr. Cody Stone
Montana State University Extension Director

For 20 years, Cody Stone has engaged clientele and faculty through his work with Extension in Texas and Montana. In Texas, he served as an Extension Agent, 4-H Specialist, and Regional Program Director. Cody and his wife Mary moved to Montana in 2005 to begin work at the Montana 4-H Center for Youth Development where he served as the Volunteer and Leadership Development Specialist before becoming the Director of the 4-H Center and State 4-H Program Leader. Cody has served three years as the Associate Director of MSU Extension. After a nationwide search Cody was selected in August 2018 as the Extension Director. He holds a Bachelor's and Master's degree from Texas A&M University and a Doctorate in Adult and Higher Education from Montana State University.

Dwayne Fisher (ID)
Farmer & VP of Marketing and partner at Champion Produce Sales

Dwayne Fisher had the privilege of growing up in small town America, Parma, Idaho. Active in 4-H and FFA his entire life. He served as the Idaho State FFA President from 1993-94. That same year his long-time best friend, who he met at the county fair as teens, served as the Idaho State FFA Secretary. Two years after their officer service, they were married. Dwayne and Tracy are the parents of 8 kids and now enjoy grandparent life with their 8 grand kids. Dwayne graduated with his bachelor's degree from Boise State University in Marketing Management. Upon graduation they moved to his aunt and uncle's farm in Homedale, Idaho to help run the family business and raise their family. He, along with his cousin and 3 of their children or children's spouses are currently running their row crop farm and onion packing facility. Dwayne is also the VP of Marketing and partner at Champion Produce Sales. The team at Champion markets for five onion packing facilities year-round and distribute around 100 semi loads of onions each week across the nation. When not growing and selling onions, Dwayne & Tracy, along with their family run a club lamb & goat operation with 300 head of mature ewes and 40 head of does. They do extensive Embryo transfer work and market their livestock across the nation. Dwayne and Tracy are active members of their church and serve in many capacities. Dwayne is also the Vice-Chairman of the Homedale School District.

Taylor Brown
President Northern Ag Network

Taylor, the president of the Northern Ag Network, is widely known as one of the nation's leaders in the field of agricultural broadcasting and has played a huge role in western agriculture since he joined the Northern Ag Network as a regional farm broadcaster

in 1979. Today he and his wife Shannon own the Northern Broadcasting System, and its flagship radio station KGHL (AM790 and 94.7FM) in Billings. A past National President of the National Association of Farm Broadcasting, Taylor also served 12 years as the President of the NAFB Foundation. His many achievements in the broadcasting industry include being named America's "Farm Broadcaster of the Year" and receiving the "Oscar in Agriculture" award for radio and being inducted into the NAFB Hall of Fame in 2010. Taylor was awarded an honorary doctorate from Montana State University at the fall commencement of 2021. Taylor's signature voice is widely known across the state and region.

Randy Rieman

Randy Rieman is a lifelong cowboy who began his career on cow-calf operations and grazing associations in the Gallatin Valley in Montana, some 45 years ago. His passion for the working cow horse took him to a large stocker operation on the San Benito Cattle Company, a Spanish land grant ranch in California's Salinas Valley. He later spent a decade as the colt starter for the Parker Ranch in Hawaii, one of the largest privately-owned cattle ranches in the United States. Throughout his career, Randy has also been known as a musician and sought-after reciter of classic cowboy poetry, who has performed at the National Cowboy Poetry Gathering since its beginnings. Today, he continues his work with horses and people from his home base in Choteau, Montana, which he shares with his partner, Jenn Swanson.

Dr. Jaye L. Hamby
Director, USDA National Institute of Food and Agriculture

Dr. Jaye L. Hamby is the director of the USDA's National Institute of Food and Agriculture, the extramural funding agency in the USDA Research, Education and Economics Mission Area.

Prior to joining NIFA, Dr. Hamby led and directed hundreds of proprietary research efforts, specializing in concept testing, product marketing, value driver analysis, and farm demographic trends. His consultative expertise includes the agronomy, livestock, and farm machinery markets. He has assisted with the launch of numerous crop protection products and authored field sales and competitive positioning manuals.

Dr. Hamby, a Tennessee native, graduated from the University of Tennessee's College of Agriculture with a Bachelor of Science degree in agricultural education. Following his selection as a Harry S. Truman Scholar, he attended Oklahoma State University and earned master's and doctoral degrees in agricultural education with a specialization in agricultural economics. He was an active 4-H'er and a national FFA officer.

Dr. Jaye L. Hamby was appointed as the USDA NIFA Director on March 20, 2025.

ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT FUTURE CONFERENCE DATES

2026

Denver, Colorado.....July 11-15

2027

St. Paul, Minnesota.....September 12 - 17

2028

Atlanta, Georgia.....August 6-10

2029

Hershey, Pennsylvania.....September 17-20