National Association of County Agricultural Agents

Proceedings

108th Annual Meeting and
Professional Improvement Conference

August 13-17, 2023 **Des Moines, Iowa**

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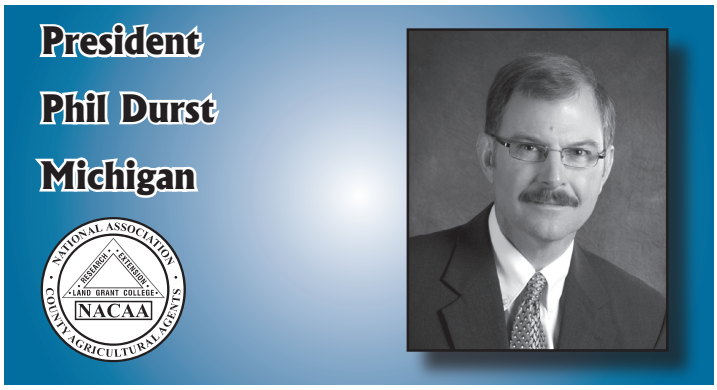
2022-2023 NACAA Report to the Membership



It has been a good year as I have served as your President. I love the opportunities to talk with members in person at ELC and PILD, in your state, or via phone or Zoom. The more I talk to you, the more I learn about what you do, the prouder I am to be an Extension Agent/Educator/Advisor. You make me proud because you have such an impact all across this great land of ours. It my humble privilege to be your President, to represent you, to serve you. Thank you for this opportunity.

This year, the board certified our association membership as 3187, a number that has been growing in recent years. Strong state associations are the foundation blocks of NACAA. Your members are our members. We don't have members apart from you recruiting them and serving them.

We encourage stronger state associations through communication including the Presidents Town Hall Zoom meetings in November and May. I want to thank Melody Rose, Southern Region Director for working with me to set-up and conduct them. During these meetings we featured individuals from states which are doing things that are worth consideration by others.

- Josh Sherman and Betsy Green (AZ) - The Western Region PIC
- Ben Phillips (MI) - Having administrators as association members
- Amanda Bennett (OH) - How they encourage both leadership and program submissions
- Landon Marks (AL) - The County Agents Kitchen
- JD Sexton (CO) - How Colorado welcomes new association members
- Laura McDermott (NY) - Experience hosting a tour with Explorations by Thor
- Donna Hoffman (WY) - Launching the NACAA Leadership Academy
- Maria Gorgo-Gourovitch (PA) - Reaching Latinx Communities in Pennsylvania

We encourage the welcoming of any and every ag Extension worker into membership and we want to improve our linkages with the 1862 land-grant institutions on the five US island Territories as well as with the 1890 and 1994 land-grants. With the latter, we encourage states to reach out and invite those Extension colleagues to their state meetings. As an association and as Extension professionals, we are better when we share experiences and knowledge, when we appreciate differences and learn from each other. I want to thank our DEI Advisory Group for their work.

It has been great to work with the Iowa Agents as they have prepared to host the 108th NACAA Annual Meeting/ Professional Improvement Conference. They have been creative, diligent and passionate about hosting a quality conference. Together, NACAA committees, Iowa planning team and I have put together a conference that is rich in professional improvement opportunities. Through our committees, members have numerous opportunities to share their programs through presentation or poster. And yet, the Iowa stamp is certainly on this conference with Iowa natives and Iowa experts featured in many sessions. Thank you, Iowa, for your great work!

Professional improvement is not just available during our AM/ PIC. Several years back we began the NACAA 365 monthly webinar series to bring relevant topics to our members on a regular basis. Every webinar is available on the nacaa.com website. Our website, redeveloped in the past several years, is a robust resource for members. Under the Professional Development tab, you can access presentation abstracts from each year and full posters. In addition, the Journal of NACAA is a great opportunity to publish your work in a peer-refereed professional journal. It is a great way to keep up on

the cutting-edge work being done by colleagues in your field.

This year at our AM/PIC, the Leadership Academy kicks off. I am glad to see this come to fruition and pleased we have a good group in the first-year class. I look forward to watching these members get involved in leadership roles in our association. NACAA provides you with plenty of opportunities for leadership and we hope that you will submit your application online for a committee role.

Thanks to all those who serve our members in this association, beginning with the Board Officers and Regional Directors and Vice Directors. They are a dedicated group with the best interests of our association at heart. I also thank the Council Chairs and every national committee chair and vice chair. In addition, special thanks to our special assignment leaders and to Scott Hawbaker, our Executive Director.

I appreciate the support provided by Michigan State University Extension and the Michigan Association of Extension Agents as I took on this leadership role. Special thanks to my wife, Carolyn, for her support, encouragement and love.

To all of you, this is your association. As a member, the more involved you are, the more you will benefit. Not only will you benefit greatly, but you will expand your network of colleagues and friends. Recently, I heard Casey Russell, President of the Oklahoma Association of Extension Agents, say that "NACAA spells friends and family", emphasizing the ties that bind us together. So, I join in that sentiment and say to all of you, let's keep tying those ties!

As President-Elect, it has been an honor to work with our Executive Director, Scott Hawbaker, in securing the many donors and sponsors of our association. NACAA relies very heavily on our donors and sponsors, who, without it, would not be able to supply the many awards, meals, tours, and other pieces of the AM-PIC at the cost level we currently employ. The President-Elect is responsible for collaborating with our current donors and soliciting new donors and other funding opportunities.

Our sponsors and donors are an instrumental part of the success of our association each year. Without their support, NACAA would not be able to highlight and recognize the excellent educational efforts of our members and provide the numerous hours of professional development that members receive during our professional improvement conference.

A long-term relationship exists between some of our donors and NACAA. We have also had some new donors in the last few years and lost a few as well. In today's business world, businesses are continuing to consolidate and/or merge. Thus, there are fewer companies as potential donors. Unfortunately, some of these mergers have resulted in the current sponsorship amount being reduced or eliminated.

You, as a NACAA member, have a role to play with donor development; there could be a potential corporate donor found in the county in which you work or live! I challenge you to find individuals in your community with whom you might develop a donor relationship on behalf of NACAA. Think creatively when it comes to donors/sponsors. Last year in Florida, Microsoft was a donor/sponsor to our host state Florida. Do not forget about the financial incentives for NACAA members who are successful in securing a new donor/sponsor. Outstanding donor support from our corporate partners is yet another dimension that sets NACAA apart from other professional organizations.

To encourage members who recruit prospective donors, NACAA has developed an incentive program to reward those who nurture fruitful partnerships between new sponsors and NACAA. Members who recruit new sponsors contributing $2,000 to $4,999 have their AM/PIC registration fee reimbursed. Members who secure sponsors contributing $5,000 and $9,999 are rewarded with registration reimbursement and $500 to attend the AM/PIC. If a member helps NACAA partner with a donor contributing $10,000 or more, they receive the registration reimbursement and $1,000 for travel to the AM/PIC. These benefits make the effort to help recruit new sponsors truly rewarding for members.

During the AM/PIC in Iowa, please, please, please take a few minutes to visit with our donors found on the tradeshow floor. Invite them to go with you to State Night Out on Monday night and make them feel welcomed and appreciated. When you get back home, take a few minutes to write a note to the donor who sponsored your award or conduct a Trade Talk or Super Seminar. A simple note is a wonderful way to show our appreciation.

We wish to extend appreciation and gratitude to our 2023 sponsors: Farm Credit, Ag Pipeline, Barenbrug USA, American Income Life, Bayer Crop Science, National Pork Board, SARE, Midwest Cover Crops, and Explorations by Thor.

I want to extend a special thank you to Scott Hawbaker, our Executive Director, for the past 20-plus years. NACAA is extremely fortunate to have someone like Scott. He does an amazing job of keeping existing partnerships, identifying opportunities for potential donors, and has a unique ability to sell NACAA to prospective new donors. Thank you Scott, for everything you do for NACAA and for making me look good as president-elect.

The president-elect works with the Early Career Development Committee in hosting the First-Timers Orientation held on Sunday and the First-Timers Luncheon held on Monday. For the

first time, the First-Timers orientation will be held off-site at a local establishment/restaurant. This came about as a request from the Early Career Development Committee following the conclusion of our meeting in Florida. The committee felt like this would be a welcome change, and so did I.

During the winter board meeting In Iowa last December, the board had the opportunity to have lunch at a cool restaurant just across the street from the convention center. The restaurant promotes serving the best Cajun-Creole food in central Iowa, and the official GameDay Headquarters for the Iowa Wild offering enough TVs to watch every game at once! After a short conversation with the manager, I knew Buzzard Billy's was our go-to place for the First-Timers orientation to be held on Sunday, July 13, from 3:00 to 4:30 pm. Heather Schlesser (chair of the Early Career Development Committee) and the vice-chairs have a fun-filled program for all the First Timers in attendance. You do not want to miss it.

A past president said a few years ago, "I am a strong advocate for tradition but also willing to change it for the best." We all know change is often a bitter pill to swallow, which reminds me of remarks made by a former university provost years ago. It went something like this. Extension must change, or someone or something will change it for you. Depending upon your take, that could be a bitter pill to swallow.

We can view change as either good, bad, or indifferent. Over the next few years some of the changes you will see are the month our conference is held (June), days of the week for the conference (start on Wednesday, end on Sunday,) activities offered during the conference, etc. I can assure you that your NACAA officers and Directors are doing our absolute best to serve the membership while preserving tradition and embracing change. I recently placed a note on the entrance into the Extension office that read, "The office is being staffed with Volunteers this week. Please be nice."

Recently I stumbled back upon remarks given by James Ryan (Dean of Harvard Graduate School of Education) during the 2016 Harvard Graduate School of Education presentation of diplomas. The remarks are titled "Five Essential Questions in Life." https://youtube/bW0NguMGIbE

The first question, "Wait, what?" is a very effective way of asking for clarification.

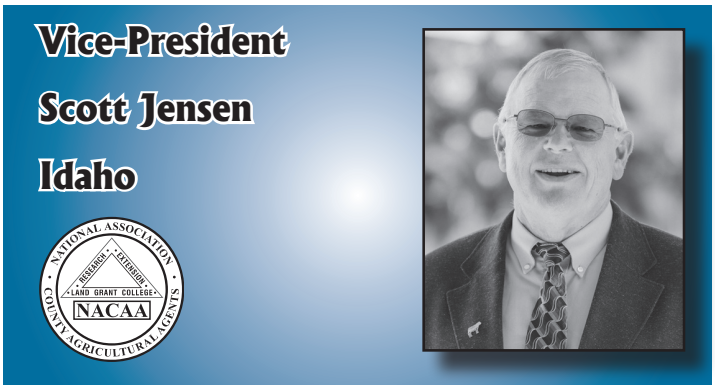
The second question, "I wonder," which can be followed by "why' or "if." I wonder why is a way to remain curious. I wonder if is a way to start thinking about how we might improve.

The third question, "Couldn't we at least….?" enables you to get past disagreement to some consensus.

The fourth question, "How can I help?" because you are interested in helping others.

The fifth question, "What truly matters?" forces you to get to the heart of the issues and to the heart of your own beliefs.

In closing, I appreciate the opportunity to serve as your President-Elect this past year and the trust you placed in me. I look forward with humbleness, excitement, and a touch of anxiety to serving as your president. I am truly honored by the opportunity to follow in the footsteps of the leaders before me. My door is always open, and I look forward to seeing you all in Des Moines, Iowa.



Serving as our association vice-president has been an honor and privilege. Your national board, council chairs, and committee members take their responsibilities seriously and spend many hours working to improve our association to better meet the needs of our membership. It is a pleasure to work with so many outstanding individuals.

The vice-president's main responsibility is to work with the council chairs as part of the Executive Program Committee (EPC) to oversee committee work within our organization. This year, the EPC team is comprised of David Marrison, Extension Development Council Chair, Sherry Beaty-Sullivan, Professional Improvement Council Chair, Joni Harper, Program Recognition Council Chair, and myself as NACAA Vice-president. The EPC has met monthly to discuss NACAA committee business and make any needed recommendations to the board. One of the recommended and adopted changes was to standardize committee structure across all councils. Now, all committees under the Extension Development Council will be comprised of five members with the national chair position being separate from the regional vice-chair positions. This change came in response to a request from committee chairs that were serving dual roles.

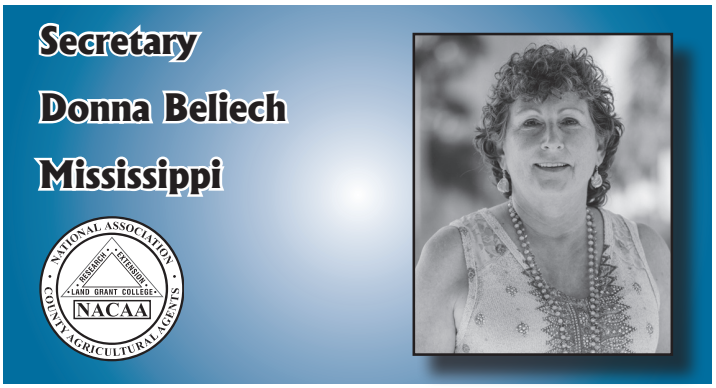
The EPC also has the responsibility to review leadership applications and make recommendations to the board regarding who should fill available leadership positions. The board approved the slate of candidates and the list will be presented to the voting delegates for final acceptance. We are very appreciative of those who have stepped up to help serve our members!

We continue to work to improve and increase professional development opportunities for our members. Since the AM/PIC in West Palm Beach, ten NACAA 365 webinars have been offered. The Leadership and Administrative Skills Committee has developed a leadership academy that will be kicked off at the 2023 AM/PIC and provide training throughout the year. There are also 119 accepted professional presentations for the AM/PIC in Des Moines as well as six super seminars. Outside of these professional development opportunities provided by our members, there will be many other professional development opportunities provided by some of our sponsors

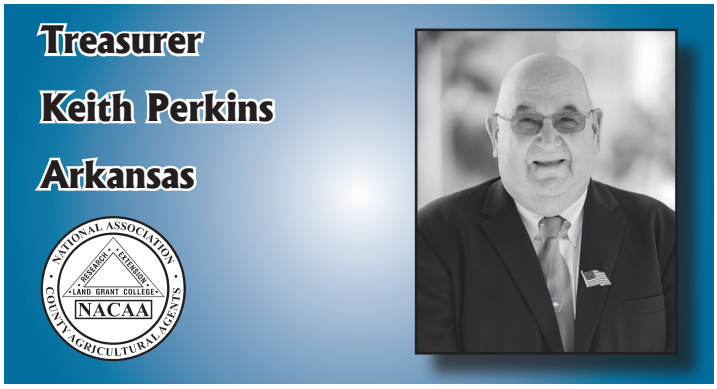
during lunches and other times at the AM/PIC. I encourage each member to take advantage of these opportunities and make the most of our national meeting!

Please consider becoming more active in our association. Find a committee that interests you and apply to serve in the coming years. You will truly get more out of your membership the more you get involved. We need you! When I joined NACAA 23 years ago, I never envisioned serving on the national board. I am very thankful for the opportunities that I have been given and the new friendships that I have gained. It truly is an honor and privilege to serve our association members.

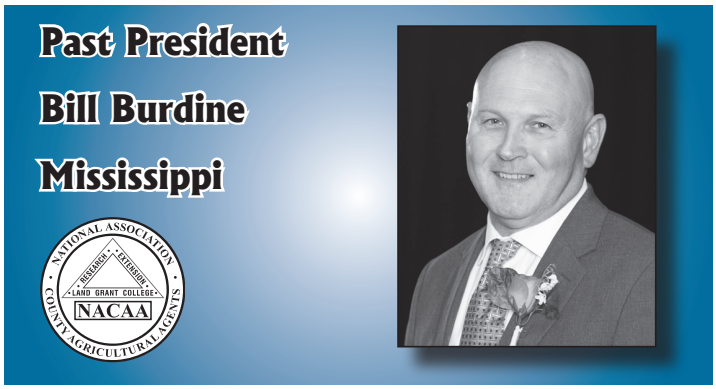
I look forward to seeing you in Des Moines, Iowa!



I'm the new kid on the block. I was elected as your national secretary last year in Florida. This year's NACAA board meetings (ZOOM) were set for the first Wednesday of each month. The exceptions were the in-person Winter (Dec.) and Spring (Apr.) board meetings which were held in Des Moines, IA and Asheville, NC respectively. This first year I've gotten to know the other officers … their likes, dislikes, hobbies, and overall personalities. My biggest challenge is getting the meeting minutes transcribed and edited before the next monthly meeting. It's easy to quickly get overwhelmed. Approved meeting minutes are available on the NACAA Website.



Hello from Arkansas! This is Keith Perkins, your national treasurer. It has truly been an honor and pleasure to serve you as treasurer for the past three years. I would like to extend a sincere thank you to the ACAAA, University of Arkansas administrators, my county staff, and my family for all of their support in this role. As your treasurer, I am happy to report that the NACAA remains in a sound financial position. Throughout the past year, the board of directors has worked to continually evaluate our investments, budgets, and sponsorships. One of my favorite duties as treasurer is signing the checks to formally recognize our award winners. I look forward to congratulating this year's award winners. I can't wait to see you all in August in Iowa! It feels like we are all planning for a long-awaited family reunion with our extended NACAA family. My family has always been involved in fairs, so I am super exited to enjoy Iowa's state fair. All the smiles, handshakes, hugs and networking make this meeting special for me. I am looking forward to becoming your past national treasurer and welcoming our new board members.



It has been my honor to serve on our National Board since 2016 but it is time for me to exit and newer ideas to be brought forth. My tenure has seen high and low attendance at AM-PIC's as well as two virtual meetings due to that 'virus'. Overall, it's been a fascinating ride. As Past President, I was responsible for coordinating the 2023 AM-PIC budget and developing the 2024 NACAA budget. Planning gets more difficult each year as prices continue to increase and hotels and convention centers do not offer prices very far in advance. Maybe it's time for NACAA to update how we plan our national meetings. I wonder what cost savings we might find if we are willing to change how we conduct our business.

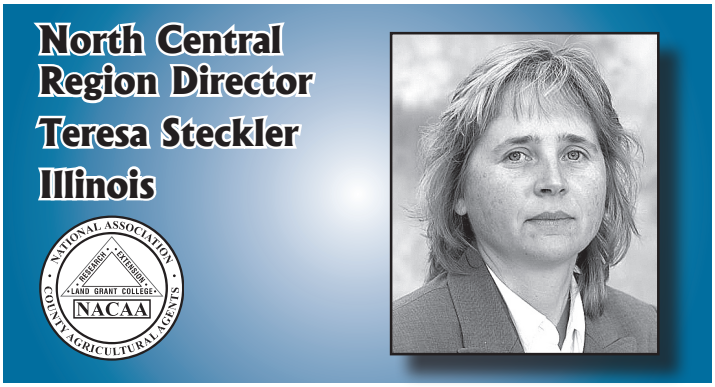
The Past President is a judge for the National Outstanding Young Farmer contest, and I attended their conference in Appleton, WI. A Southern boy, in Wisconsin, in February, in snow, wasn't on my bucket-list of destination spots but it was a wonderful event. I was a keynote speaker, learned much about their organization, and made many new friends. One finalist said I "scared the _____ out of her" during the interview because I looked so serious. I was serious because this was a difficult task but we laugh about it now. One more great NACAA memory.

I am the Board liaison to the Educational Foundation Trustees which oversees funding for our scholarship activities. That role was difficult this year as we are transitioning to two funding periods per year but it was rewarding. Additionally, I am a Board member for Joint Council of Extension Professionals (JCEP) and serve as chair of the Scholarly Activity committee. Our committee announced a new national Excellence in

Extension award that several NACAA members applied for.

During this past year, the NACAA Board had several contentious debates that ended with split votes and ideas on multiple issues. Whether it be DEI topics, membership requirements, or funding members from U.S. Territories to attend AM-PIC, they are the reason your Board was designed as it is – equal representation. Our Board structure allows input from across the U.S., across ages, genders, races, work disciplines, years of experience, etc. Differing thoughts and ideas are good for NACAA in the long-term. I did not win every argument, but I always voted my conviction about what was I felt was best for NACAA and our members.

As I depart from the Board, thank you for the kind words, the encouragement, and your faith in my leadership. I encourage NACAA to continue adapting to the needs of our membership. A few years ago, I said I was a strong advocate for tradition but willing to change if for the best. This is still a true statement. Extension was created to teach new ideas, to change, to teach a better way and NACAA is our way to help each other fulfill our mission. Mules gave way to tractors because it was a better option and I'm an old mule ready to be put out to pasture.



Time keeps flying by… I can hardly believe that my second year as North Central Region Director is almost over! I can gladly say that Extension has emerged mostly unscathed from the pandemic and we are back to a "new" normal.

I had the opportunity and privilege to visit with many North Central Region members. I was able to attend in person the membership meetings and professional development opportunities in Iowa, Kansas, Minnesota, Missouri, Ohio, South Dakota, and Wisconsin as well as virtual meeting for North Dakota. I want to thank North Central Regional Vice-Director Scott Gabbard (Indiana) for filling in for me at the Illinois and Ohio meetings because of scheduling conflicts. I must thank all states for their gracious hospitality and the numerous learning opportunities! Each state association officers should be commended for their commitments to pulling together their meetings.

During each visit, I discussed issues, ideas, and concerns the NACAA Board of Directors was addressing. I encouraged ideas and suggestions from the state memberships to continue to improve our national association and get involved at the regional and national level. Any association is only as strong as its individual members and we need NACAA members to continue to suggest changes and encourage NACAA to explore new ways. It is how we stay relevant and attract new members to get and stay involved. NACAA provides many avenues for you to get involved at the state, regional, and national level. The professional development and leadership opportunities are numerous. Please consider submitting an article to the Journal of NACAA or presenting at a national AM/PIC or serving on a committee at the regional or national level. We need you to get involved to continue to strengthen NACAA.

I attended the Joint Council of Extension Professionals Leadership Conference (JCEP) in February and Public Issues Leadership Development Conference (PILD) in April. The interaction of many state association leaders and familiar faces was good to see. I am confident communication and networking within and among state associations will stay strong on the backs of good state association leadership.

As I mentioned above, Scott Gabbard, from Indiana, will become the new North Central Region Director at the Iowa AM/PIC in August. And since I roll out of the position, it is Iowa's turn to nominate a Vice-Director. All current and incoming state presidents please update your email list to include Scott so that he will also have opportunities to come to your state meetings. He has been very active as a Vice Director and will serve the North Central Region well.

In closing, I need to thank my husband Dan for supporting me as I continue to serve in this role. He has been a rock while I have been away. Thank you to the Illinois association (IEAA) membership for this wonderful opportunity and the Illinois Extension administration for supporting me in this role. I am looking forward to my next chapter in the association.

Thanks to all of my Northeast colleagues for your support during my 4 years stint on the Board of NACAA, 2 years as your Regional Vice Director and 2 years as your Regional Director. Thank you to my NY colleagues for the original nomination to this role! It was an interesting 4 years, with 2 years attending

activities via zoom! Thanks to Nick Polanin for his work as Vice Director and filling in when needed. Best wishes to Nick as he begins his term as Northeast Region Director after this year's AMPIC.

Please help me in welcoming our wonderful colleagues from the state of Connecticut who are the newest NACAA state chapter! I was able to join their annual meeting via zoom to get them acclimated to our organization and set them on a successful track for the future. Be sure to welcome their members when you see them at AMPIC. I also participated in virtual meetings of Maine, New Hampshire, New York, and New Jersey. Nick participated in the PA meeting this year and I was able to attend a great urban farm tour and meeting hosted by our Maryland chapter.

At each of these meetings, I shared the newest updates from the Scholarship Committee, requested interest in the NE openings on the national committees, congratulated national award winners, talked to several about being our next NE Region Vice Director and encouraged folks to participate at the national level. Ideas for changes coming to AMPIC were solicited from members and shared from/to the National Board.

Congratulations to all of the awardees this year and thank you so much to all of our Northeast members who stepped up and are, or will be serving, as our regional representatives to the many national committees. Please don't forget about this great opportunity to give back to your organization and learn information that will also help you at the state level and think about these opportunities for next year! At the AMPIC in DesMoines, we will be nominating a new Northeast Vice Director to represent us on the NACAA Board.

Please reach out to me before and during AMPIC with any suggestions for how to make NACAA valuable to all members. Reach out to Nick after AMPIC. We discuss all your ideas at our Board meetings to make our organization the best it can be. See you all in Des Moines!

Well, y'all…what a year it has been! I have thoroughly enjoyed my last year as Director serving YOU in the Southern Region. What a joy it has been to travel around the southeast interacting with all of you personally, as well as your associations by learning about agriculture in the places each of you call home. I am honored and humbled to learn and grow with each of you, especially in the midst of such great change we have all experienced as a result of a global pandemic in recent years.

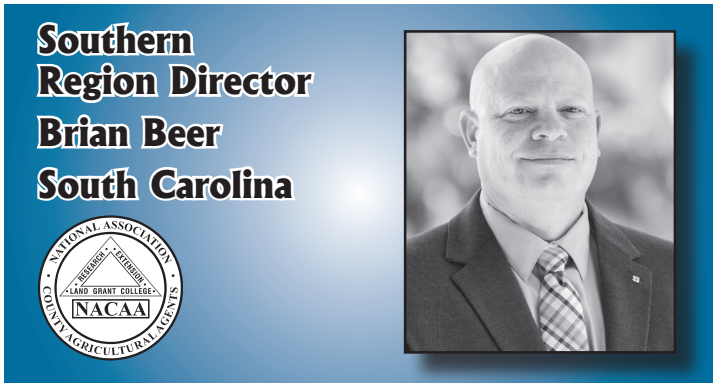
As I have often said when I visit your state association meetings, I truly believe the people are what make our organization so special! We gain so much professionally, but ten-fold personally via the phenomenal relationships we make as we visit and learn from and with one another at various professional development and learning opportunities across this great nation. Extension is a "calling" of sorts, and the older I get, the more I appreciate this great occupation bestowed on so many of us as we educate constituents across a deep breadth of experience and expertise by instilling in others (and amongst colleagues) the value of cooperative Extension work. We are in a time of change, but what a positive difference we all make, and what a relevant difference Extension makes in so many lives on a daily basis!

As I reflect on the past three years, I challenge each of you to engage with young professionals as they begin their careers within Extension. Reach out and get to know them and empower them to be involved at all levels of our organization. My encouragement is extended to all the young professionals throughout our NACAA family; learn and grow with your peers, create a culture of inclusiveness, yield honest results, communicate transparently, and remain steadfast in your vocation as an educator. Get involved with this organization and be a part of the future growth of NACAA. All it takes is passion to see our organization succeed! As our job responsibilities change and constraints on time continue to dominate the ever-present landscape, remember the benefits of being a NACAA member far outweigh the negatives. We truly get out of NACAA what we put into NACAA!

As I reflect on my journey in NACAA, many thanks are extended to the Tennessee Association of County Agriculture Agents and Specialists, as well as the University of Tennessee Extension administration. They had enough confidence in me to nominate me, and I will forever be grateful for the opportunity. What a privilege it is to be able to represent the NACAA members of my home state and the Southern Region by serving all NACAA members on this Board. I truly appreciate the privilege and only hope I have lived up to the expectations.

In addition, special thanks are extended to our Junior Southern Director, Brian Beer for the collaborative teamwork and passion to serve the Southern Region (as well as several laughs along the way). Thanks to our Southern Region Vice-Directors, Paula Burke and Sherri Sanders. Y'all are rock stars, and I trust the NACAA Southern Region is in good hands with all three of you at the helm! I would also be remiss to not extend thanks to some very special mentors over the years; Larry Moorehead, Cynthia Gregg, Lenny Rogers, Alan Galloway,

David Yates, Justin Rhinehart, Gene McAvoy, Stephen Brown, Keith Mickler, and the entire 2023 NACAA BOD (that includes you, Hawbaker). They inspired, encouraged, motivated, and/or nudged…and for this, I will forever be grateful! Thank you for your diligence in serving, your steadfast leadership, and faithful friendship over the years.



Over the past year, I had the privilege to visit with many members from the Southern Region. One of my favorite duties as a regional director is representing NACAA at state meetings. I attended state meetings in Texas, Florida, Virginia, Louisiana, North Carolina, and my home state of South Carolina. I appreciated the hospitality and the chance to discuss the challenges and opportunities facing your state and national organization. It was great to renew old acquaintances and create new friendships in these states.

The state association meetings I attended this year were excellent professional development opportunities. In my presentation at each state visit, I said the Board strives to ensure that NACAA remains the premier professional development organization for agriculture extension agents and educators. The quality professional development offered by your state organizations shows a commitment to that goal. Each state uses a different format, but the end goal is the same: to have a professional development opportunity that benefits all members and recognizes the achievements of our peers. It was inspiring to see how each state highlighted and showcased innovative farmers and how each puts research-based information received from Extension and the universities to work.

Speaking of showcasing your state, in 2024, someone in the Southern Region will have the opportunity to showcase its state by submitting a bid to host the 2028 AM/PIC. Hosting a national meeting is a big task but a rewarding one. I saw the South Carolina Association of County Agricultural Agents grow closer and stronger when we hosted the 2012 AM/PIC in Charleston. If your state is interested, please get in touch with one of the Southern Region Directors or another Board member. We will be happy to answer questions and get the discussion started.

It is an honor to represent the Southern Region on the National Board. The Southern Region nominates one Vice Director each year. After two years, they become Regional Directors and a voting member of the NACAA Board. At the upcoming Annual Meeting in Iowa, Florida will nominate a Southern Region Vice Director. The rotation has Texas selecting in 2024 and North Carolina in 2025. It is not too early for Texas and North Carolina to begin the search.

Reflecting on my first year as Southern Region Director, I have an even greater appreciation and respect for my fellow extension professionals. Award winners from the states I visited showed the quality of educational programs offered to citizens in your state. Congratulations to all state, regional, and national finalists and award winners.

Thank you to Melody Rose, Senior Southern Region Director, for mentoring me and helping acclimate me to my new role. Thank you to Southern Region Vice Directors Paula Burke and Sherri Sanders. Both of you showed dedication by regularly attending monthly Board meetings via Zoom (Vice Directors are not voting members of the Board and are not required to participate in monthly meetings). Your regular attendance has each of you well-prepared to assume the role of Regional Director. Lastly, I thank my fellow Clemson Cooperative Extension Agents and Administration for your support and allowing me to serve NACAA as Southern Region Director.

I look forward to seeing everyone in Iowa.

Hello from Tooele, Utah, "… a dry and thirsty land where no water is" Psalms 63:1, unless it is salt water. I have really enjoyed my first year as Western Region Director. I have enjoyed getting to know everyone and traveling to exotic places like Bozeman, Casper, Tucson, and Des Moines. I am looking forward to our meeting in Iowa. I am not looking forward to wearing a tie all week, but most jobs have some unpleasant tasks. I have enjoyed getting to know the 2023 Organizing Committee. I know Iowa will be a great meeting and want to say thanks in advance for hosting the AM/PIC and for all their hard work.

All the talk about "new normal" should really be "new abnormal;" we had sixty feet of snow in our mountains this

past winter. It is almost gone now and getting dry again in the west. We had quarter sized hail last week, so gardens were shredded if they were not already by grasshoppers. Crickets have plagued northern Nevada. Just another typical abnormal year out here.

Montana is picking up momentum in their efforts to host the 2025 AM/PIC and Colorado is excited to host in 2026. Utah is hosting the Chad Reid Western AM/PIC in St. George this September. You do not have to be from the western region to attend so if you would like to come join us, please do. You can spend some extra time and visit nearby national parks, Zion, Bryce, Grand Canyon, and many other amazing state parks and national monuments.

We had a great time in Tucson last fall. Thanks to the Arizonans for such a great meeting! That was pretty exciting at the border wall expecting pandemonium when the gate opened to let the cattle through. I must admit, I was a little disappointed when nothing happened. I guess 30 county agents was a bit intimidating for all those expecting to come across. Anyway, it was a good time for sure!

I want to tell all national board members I have enjoyed working with and getting to know you and am looking forward to the coming year. To close I want to extend a warm welcome to all new agents in the West and in every other region. I hope we can get acquainted in Des Moines; please come up and introduce yourself, I will be the one choking in the tie.

The Extension Development Council (EDC) strives to enhance the professionalism of our members by providing opportunities for strengthening their leadership and educational delivery skills. One common thread among NACAA members is the fact that we are all Extension agents/educators. Therefore, it is imperative that our organization strengthen and continue to offer training in the process of how to become better extension professionals. This is the one area that effectively separates NACAA from other subject specific professional organizations. The sub-areas of the EDC are not to be subject matter specific, but rather cover broad, general extension related topics that focus on the following: Agricultural Issues, Early Career Development, Leadership and Administrative Skills, and Teaching and Educational Technologies.

I would like to thank the NACAA members who served in national leadership for the EDC committees. Thank you to:

Agricultural Issues

Elena Rogers- National Chair and Southern Region Vice-Chair (North Carolina)

Connie Strunk- North Central Region Vice-Chair (South Dakota)

Dwane Miller- Northeast Region Vice-Chair (Pennsylvania)

Michael Fisher- West Region Vice-Chair (Idaho)

Early Career Development

Heather Schlesser- National Chair and North Central Region Vice Chair (Wisconsin)

Rachel Bearden- Southern Region Vice-Chair (Arkansas)

Timothy Waller- Northeast Region Vice-Chair (New Jersey)

Ashley Wright- West Region Vice-Chair (Arizona)

Leadership and Administrative Skills

Amanda Douridas- National Chair and North Central Region Vice Chair (Ohio)

Dalton Dockery- Southern Region Vice-Chair (North Carolina)

Laura Kenny- Northeast Region Vice-Chair (Pennsylvania)

Donna Hoffman- West Region Vice-Chair (Wyoming)

Teaching and Educational Technologies

Colt Knight-National Chair and Northeast Region Vice-Chair from (Maine)

David Yates- Southern Region Vice-Chair (Tennessee)

Kelly McGowan- North Central Region Vice-Chair (Missouri)

Scott Duggan- West Region Vice-Chair (Oregon)

A Super Year for the Extension Development Council: I have been proud of the many accomplishments of the EDC committees. Some of these major accomplishments of the past year include:

- **Dedicated National Chair-** NACAA approved having a dedicated National Chair for each of the EDC committees going forward. Previously, the national chair was chosen from one of the four national vice-chairs. In 2023, the Leadership and Administrative Skills and Teaching and Educational Technologies committees will start their two-year rotation for the national chair followed by the Agricultural Issues and Early Career Development committees in 2024.

- Leadership Academy- Congratulations to the Leadership and Administrative Skills committee for seeking approval and undertaking a national Leadership Academy for NACAA members. The goal of this program is to prepare NACAA members for national leadership in the organization, in addition to helping with their own county and state leadership goals. It aims to develop compassionate leaders who can manage diverse groups of people and create a pool of well-rounded candidates for future NACAA leadership. Members of this year's class have been selected and the 2023-2024 academy will kick off at this year's AM/PIC. Monthly on-line leadership seminars will be held with the course graduation at the 2024 AM/PIC in Dallas, Texas. I encourage you to learn more about the leadership academy at: https://www.nacaa.com/leadership-academy

- NACAA 365 Webinars- This past year, our committees presented sessions for the NACAA 365 webinars. These included "The Inside the Scoop on Applying for Awards" (January 11), "Getting Started with Educational Videos" (May 11) and "Networking at AM/PICs" (June 14).

- DEI- A special program committee under the Leadership and Administrative Skills committee has been examining diversity, equity, and inclusion as it relates to our NACAA membership. The committee is in active discussion on how NACAA can better serve its entire membership. An examination of the creation of a new standing committee is being explored in addition to additional DEI professional development, awards, and research enhancements.

- 2023 AM/PIC Professional Improvement Sessions- We are excited that our committees have accepted 29 presentations to be presented at this year's AM/PIC. We encourage you to check out the AM/PIC program and attend a handful of these sessions on Tuesday, August 15 and Wednesday, August 16.

- Super Seminars- Our committees will also be offering Super Seminars during the AM/PIC. The Early Career Development committee will be a session titled "Strategies for Promotion Packet" on Tuesday, August 15 from 8:30 – 11:30 a.m. On Wednesday, August 16, the Teaching & Educational Technologies committee will be hosting a session titled "How to Document Impacts of Video and Social Media Content Beyond View Counts – Super Seminar" and the DEI Program Advisory committee will be holding a session titled "Emotional Intelligence as a Lever for Authentic DEI Work." Both will be held from 1:30 -4:30 p.m.

Getting Involved- We highly encourage new educators and first-time attendees to this year's AM/PIC to join President-Elect Keith Mickler and the Early Career Development Committee at the NACAA First Timers Reception on Sunday, August 13 from 3:00 to 4:30 p.m. at Buzzard Billy's. Join us to learn more about the conference and how you can get involved in NACAA. It will be a great networking and informational sharing event (with the added bonus of some crazy good Buzzard Billy appetizers).

Thank You- This is my first and final year as EDC Council Chair. I was honored to complete the three-year term of Mr. Scott Jensen who stepped into the role of our NACAA Vice-President. My personal thank you is extended to our committee chairs, regional vice chairs, and state chairs for their individual and collective leadership and guidance during the past year. Congratulations to Colt Knight from Maine who will be stepping into a three-year term as the National EDC Council Chair. I look forward to fellowshipping with you in beautiful Iowa!

The wide array of Agricultural issues that our industry faces are addressed in this committee. Special thanks to the Ag Issues Committee for peer reviewing the submitted abstracts:

· Elena Rogers, North Carolina, Chair and Southern Vice-Chair

· Connie Shrunk, South Dakota, North Central Vice-Chair

· MJ Fisher, Colorado, West Vice-Chair

This year's oral presentations at the NACAA AM/PIC will cover some of the hot topics that our farmers are experiencing across the country. This year's presentations will provide you an insight into issues in urban and rural settings. We will hear from our presenters about projects that are collecting valuable data to determine the needs of urban agricultural workers to initiatives where Extension has been able to provide valuable data that has impacted the development of federal land management policies in Utah. Join our sessions to learn more about the impact of the Coshocton County Fall Foliage and Farm Tour that has been happening for over 50 years. There is much to be learned from these and the other presenters during the Ag Issues sessions.

If you did not submit an abstract this year, please consider submitting one for next year's AM/PIC and sharing your exceptional work with colleagues. The Ag Issues Committee will meet during this year's AM/PIC. If you are not able to attend, please feel free to share your ideas, recommendations

and comments on future topics and super seminar ideas. It has been a privilege to serve this past year as the Ag Issues Committee National Chair. Our committee looks forward to seeing you during a presentation at the upcoming AM/PIC!

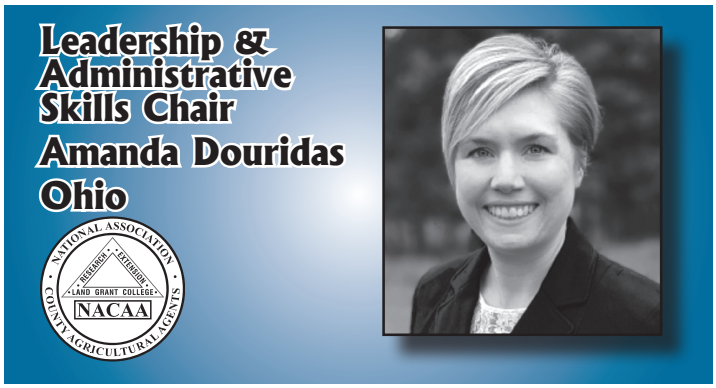
Our committee has been working hard to develop programs to help Agents succeed during their early years in order to have long successful careers in Extension. The current committee consists of:

- Heather Schlesser, North Central, Wisconsin
- Timothy Waller, Northeast, New Jersey
- Rachel Bearden, Southern, Arkansas
- Ashley Wright, West, Arizona

On January 11th, Gigi Neal (Ohio), Trevor Corboy (Ohio), Andrew Holden (Ohio), and Christine Gelley (Ohio) held a NACAA 365 Webinar entitled, "The Inside Scoop on Applying for Awards," which provided insight into why new agents should apply for the various communication awards. The recording of this video can be found on the NACAA YouTube Channel at: https://www.youtube.com/watch?v=pEGR-ATNMo8&list=PLZt--Kudk_vVjyc69g7UHTNW3FZyQjMp9&index=11. On June 14th, Lindsay Chichester (Nevada) and Gigi Neal (Ohio) held a NACAA 365 Webinar entitled, "Networking at AM/PICs," which provided examples of various ways you could and should network at the national meeting.

We reviewed applications for the Dan Kluchinski Memorial Scholarship Award, which is dedicated to the memory of its namesake to encourage Early Career Development. Two $500 reimbursement scholarships are available each year to applicants with 10 years or less in Extension to use for an educational event that provides early career development benefits. Preference is given to NACAA events such as the AM/PIC and PILD. Full details are available on the NACAA website under the General Awards section of Awards and Applications. The committee is hosting a Super Seminar on Tuesday, August 15th, 8:30 – 11:30 am, entitled, "Strategies for Promotion Packet." The committee will discuss tips and tricks to help educators prepare a promotional package in this presentation. Finally, we have approved five presentations for our professional development session on Tuesday, August 15th, from 8:30 am - 10 am and Wednesday, August 16th, from 10:30 – 11:30 am presentations will cover marketing strategies, on-farm research, farmer-to-farmer, managing grants, and publishing your work.

The Early Career Development Committee looks forward to seeing first-timers, early career agents, experienced agents, and everyone attending the NACAA AMPIC. We encourage anyone interested in this area to join our committee meeting at this year's AM/PICs.



Committee Members:

Chair/NC Region: Amanda Douridas, Douridas.9@osu.edu

NE Region: Laura Beth Kenny, lbk8@psu.edu

Southern Region: Dalton Dockery, dalton_dockery@ncsu.edu

West Region: Donna Hoffman, dhoffman@natronacounty-wy.gov

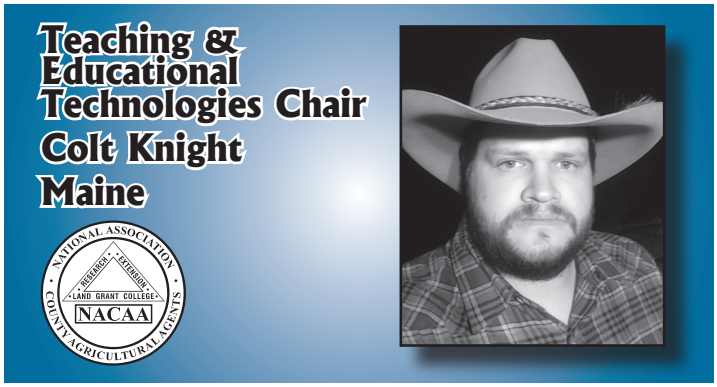
The Leadership and Administrative Skills committee excitedly launched the first Leadership Academy which kicks off at the 2023 NACAA AM/PIC. Participants will meet monthly throughout the year online to explore the many facets of leadership. This class of 18 will hear from experts around the country on 8 different topics then develop their own leadership presentations for next year's AMPIC. Be sure to check them out!

The committee is also host to the DEI Advisory Board, a 12-member group representing equally each region of NACAA. The group has taken on a super seminar this year on Emotional Intelligence (EQ) as a Lever for Authentic DEI Work. Participants will learn about EQ and how it impacts the work environment. The program will also dive into how it can be a non-threatening approach to system-wide DEI implementation.

Lastly, we have a great line-up of speakers for the committee breakouts on Tuesday and Wednesday at AMPIC. This year's presentations highlight new ways of thinking, organizational changes and diversity, equity and inclusion. We look forward to all our presenters have to offer. Do you have a unique

leadership or administrative topic in mind? Please consider submitting at next year's AM/PIC and sharing your unique efforts through NACAA.

The LAS Committee and DEI Advisory Board will meet during this year's AM/PIC. We will discuss a proposal to the NACAA board about the DEI Advisory board becoming a standalone committee. We encourage you to ask us about the work we have been doing. It takes many more to do good work in developing leadership and belonging in our organization. We welcome all to join our efforts, even a small time-commitment is useful to our very busy group.



Members – Colt W. Knight, University of Maine; Kelly McGowan, University of Missouri; David Yates, University of Tennessee; and Scott Duggan, Oregon State University.

The TET Committee has continually worked to develop webinars, super seminars, professional development, and solicit high-quality abstracts for AM/PIC sessions relating to new technologies and educational approaches. In the recent past, the TET Committee focused on equipment needs and use like video recording equipment, editing software, and virtual meeting platforms. This year, the committee looks to tackle the issues of motivation to get started creating virtual content and how to receive credit in promotional materials for virtual content.

In 2022, the TET committee hosted 12 high quality presentations for the in-person AM/PIC in Florida highlighting the uses of social media, podcasting, video technology, and more. Our committee also developed a successful Super Seminar entitled Teaching and Educational Technology – Equipment Needs for Professional Extension Videos highlighting varying costs associated with video cameras, microphones, drones, 3-D cameras, and more. In 2023, our Committee held a NACAA 365 Webinar – Getting Started with Educational Videos that covered getting started producing, filming, editing, and publishing extension videos. In addition, we have developed a Super Seminar- How to Document Impacts of Video and Social Media Content Beyond View Counts for the 2023 AM/PIC and approved 12 abstracts for presentations.

The Teaching and Educational Technology Committee would like to invite you to view our Oral Presentations on Tuesday, August 15, 2023 from 8:30 AM to 4:30 PM and join us for the How to Document Impacts of Video and Social Media Content Beyond View Counts – Super Seminar on Wednesday, August 16th at 1:30-4:30 PM.

The Professional Improvement Council (PIC) is one of three Councils under our NACAA committee structure. Our mission is to provide subject-matter professional development opportunities for our members. The Professional Improvement Council consists of seven committees:

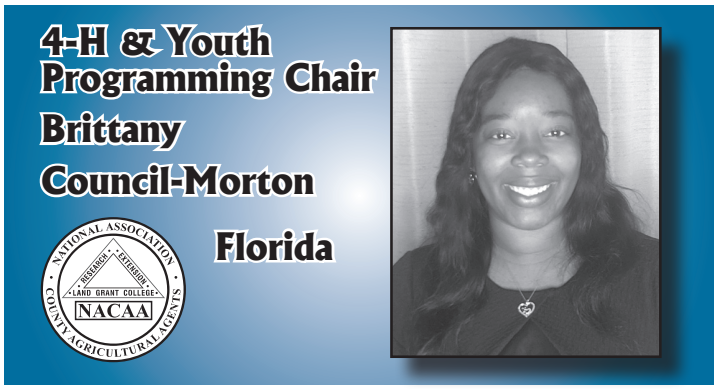
- 4-H & Youth, chaired by Brittany Council-Morton from Florida
- Agriculture Economic & Community Development, chaired by Madeline Schultz from Iowa
- Agronomy & Pest Management, chaired by Ted Wiseman from Ohio
- Animal Science, chaired by Mark Nelson from Utah
- Horticulture & Turfgrass, chaired by Cyndi Lauderdale from North Carolina
- Sustainable Agriculture, chaired by Lindy Berg from North Dakota
- Natural Resources & Aquaculture, chaired by Jody Gale from Utah

These committees have been busy this year planning Super Seminars, pre-conference tours and professional development opportunities for our members who plan to attend AM/PIC. The Professional Improvement Council received a total of 105 presentations for consideration, with 84 of them being accepted.

Our council has been hard at work planning pre-conference tours as well in the subject areas of Animal Science, Horticulture & Turfgrass and this year, Natural Resources & Aquaculture and Sustainable Agriculture are offering pre-conference tours. Be on the lookout for Super Seminars, there are 6 available to our membership, and PIC is hosting half of them. I am super proud of the hard work these committees have dedicated to providing a multitude of opportunities for

our membership to garner professional development and networking opportunities for our membership.

I just want to say a huge thank you to my committee chairs and regional vice chairs for all of their hard work. I look forward to seeing old friends and meeting new ones in Iowa!!



The 4-H and Youth Committee is charged with the responsibility of providing professional improvement opportunities for members in this area. This includes the development of professional improvement sessions, securing resources to fund these activities, and promoting these activities to members. For our 2023 AMPIC we received 13 presentations all of which will be presented during the 4-H and Youth Presentation Workshop. We received submissions from all four NACAA regions. We also hosted a Zoom365 providing tips to enhance presentation and award submission across NACAA. We are encouraging all who either applied and were not selected or did not apply to consider submitting a proposal for next year. These opportunities enhance your extension body of work and can even go on to be submitted in the Journal of Extension. The committee knows that our membership is doing some outstanding youth work that needs to be shared with others, remember it can be any youth-related programming, not just 4-H activities. I encourage each state to share your thoughts with your state chairs and regional representatives as we continue to ensure we are meeting the needs of our members. The committee would like to thank the NACAA board for their support of 4-H and Youth programming and providing these opportunities for the membership.

Agriculture Economics and Community Development Committee

Madeline Schultz (IA) National Committee Chair

Blake Carter (GA), Southern Regional Vice-Chair

Lindsay Chichester (NV), Western Regional Vice-Chair

William Shockey (WV), Northeast Regional Vice-Chair

Chris Zoller (OH), North Central Regional Vice-Chair

The committee is helping to sponsor the 2023 AM-PIC Tour 14: Cotton, Cars and Corn. Tour participants will visit companies near Des Moines, Iowa. They will learn about the worldwide cotton harvester manufacturing industry and benefits to the central Iowa economy with a tour of John Deere. Dennis Albaugh, founder of Albaugh Crop Protection, will share his classic car collection, and discuss worldwide industry trends and the importance of crop protection on Iowa's economy. The final tour stop is Syngenta Seeds, where participants will learn about hybrid and variety testing, parent seed production and the use of genetically modified crop protection traits.

We are excited to offer ten excellent presentations during the professional Improvement Council Seminars. The presentations represent all four regions and include topics from beginning farmers to farmer's market success, to tax management.

- Identifying Farm Management Needs of Wisconsin's Beginning Commodity and Specialty Crop Farmers, by Katie Wantoch (WI)

- Farm Accounting with Quicken: Going Beyond the Basics, by Wm. Bruce Clevenger (OH)

- Building Relationships with the Ho Chunk Nation through Agricultural Research and Programming, by Jerry Clark (WI)

- Equipping and Empowering Extension Staff and Industry Professionals to Assist Virginia Agribusinesses to Successfully Transfer Farm Wealth to the Next Generation, by Rachel Henley (VA)

- A Team Approach to Addressing Farmer Mental Health and Farm and Rural Stress, by Chris Zoller (OH)

- Tax Planning for Producers Receiving Loan Servicing Assistance Payments, by C Robert Holcomb (MN)

- Evaluation of Farm Tours as an Effective Teaching Opportunity, by Lauren Butler (FL)

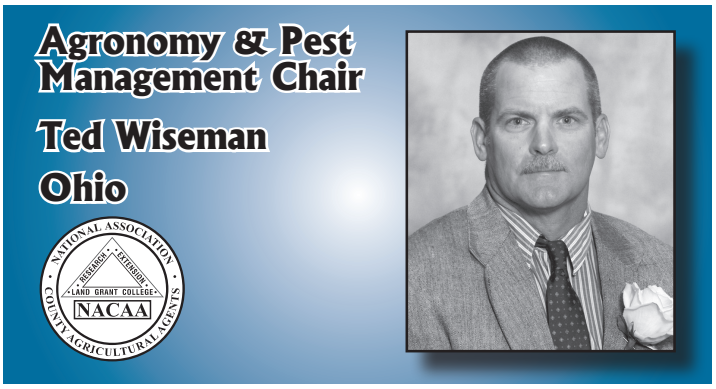
- Customer Service Plans are Vital for Direct Farm Markers & Agritourism Farms, by Eric Barrett (OH)

- Farmers Markets: More than Corn and Tomatoes - Using the Seven Capitals Framework for Market Growth & Success, by Lindie Huffman (KY)

- Tuesday Market: An Integrated Management Approach Leverages a Small Farmers Market for Synergistic Community Benefits, by Iris Mayes (ID)

At the Committee Workshop during the AM-PIC, we are discussing involvement of state leaders in the Agriculture Economics and Community Development Area. We will also begin planning for a pre-conference tour and a super seminar at the next AM-PICs.

A heartfelt thank you to Bill Shockey for his many years of masterful extension education. The committee wishes him all the best in his retirement. We look forward to confirming Samantha Gehrett (PA), and Jacob Hadfield (UT), as the incoming 2023-2025 Northeast and Western Vice Chairs.



Committee Members:

Ted Wiseman, Committee Chair

Travis Harper, (Missouri) North Central Committee Vice Chair

Stephen Komar, (New Jersy) Northeast Committee Vice-Chair

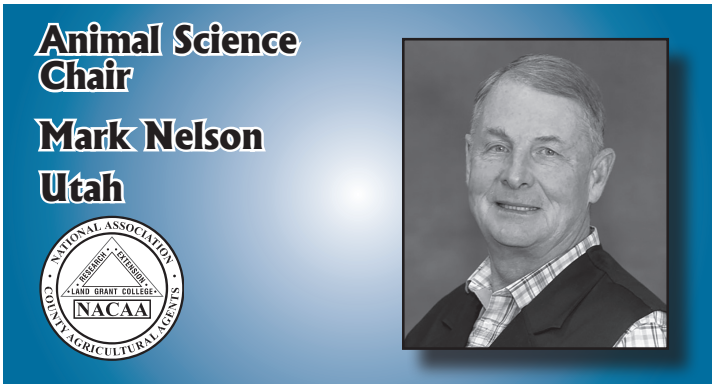
Raghuwinder Singh, (Lousiana) Southern Committee Vice-Chair

Steve Van Vleet, (Washington) Western Committee Vice-Chair

The Agronomy & Pest Management Committee received several presentations for this years AM/PIC. It was difficult to choose the final 10 presentations for 2023. This year was once again very competitive with a nice variety of topics from across the country. The seminars will be given on Tuesday, August 15 starting at 1:30 am and August 16 at 10:30 am. Topics for each of these presentations can be found in the conference program which cover numerous agronomic topics.

Please join us Tuesday morning at 8:30 am for the Agronomy & Pest Management Committees super seminar. Topics include soil health, the science and economics of carbon credits and cover crop resources.

I would like to thank the Vice-Chairs Travis, Stephen, Raj and Steve for all that they accomplished this past year. It is a true pleasure to work with professionals who are committed to this organization. A big thank you goes to all the state Chairs for all their efforts in getting submissions in from the membership. I would like to also recognize our council chair Sherry Beaty-Sullivan and the NACAA Leadership for their assistance. The committee also would like to thank Virgil Schmitt and Scott Hawbaker for their leadership in putting together a fantastic super seminar. We very much appreciate the Midwest Cover Crops Council for sponsoring this event.



National Chair: Mark Nelson, Utah

North Central Region Vice-Chair: Martin Mangual, Michigan

North East Region Vice-Chair: Cassie Yost, Pennsylvania

Southern Region Vice-Chair: Steve Morgan, Georgia

Western Region Vice-Chair, Arizona

I would like to begin by thanking the Animal Science Committee Vice Chairs for all their hard work and support during this past year. They have done an excellent job planning the animal science pre tour and finding sponsors to help pay for the tour. The Animal Science committee is very much looking forward to working with the Iowa Agricultural Agents on the annual Animal Science Pre-tour and AM/PIC August 13-17, 2023. I would like to thank Karl Hoppe, North Dakota Livestock Specialist for all his help on the committee.

The 2023 Animal Science Pre-AM/PIC Tour will take an in-depth look at livestock production in Iowa. Tour participants will meet together Thursday night in Des Moines on August 10th. Tour stops planned for Friday morning begin with a stop at Tama Livestock Auction, which is now in its fourth generation of family ownership to hear about the family history of the barn and how it has changed. Next we head east to Schanbacher Acres, a 400 cow dairy that recently updated to a new swing parlor. The next stop is Amana Farms, the largest cow-calf herd in the state, with a large feed yard with a methane digester, a large timber operation and corn and beans and hay. While in Amana we will have an authentic family style German lunch. We'll spend the afternoon at Premier 1 Supplies, a family-owned business that provides sheep and goat supplies and expert advice. They test everything on their three farms before they sell it to others. Friday evening will be topped off with a dinner cruise on the mighty Mississippi River. Saturday will start at the Kent Nutrition Research Farm near Muscatine which includes research facilities for swine, beef, and poultry. From high tech we'll travel on to see the world of the Amish where they milk 180 does. Then we'll travel nearby for an Amish Family Meal. A short drive will take us to Brenneman Pork, A family run swine and grain operation that features observation rooms for visitors like up. We'll wrap up the tour at the Prairie Meadows Racetrack and Casino. We will be able to dine, gamble or watch the races. . I would like to extend a special thanks to Denise Schwab, Iowa State University Extension, Beef Specialist, for all her help putting together the tour.

The professional Development presentations are always one of the highlights of each AM/PIC. This year the Animal Science Committee will be hosting 14 outstanding presentations submitted by NACAA members. Looking forward to seeing everyone in Iowa in August!

Committee Members:

Cyndi Lauderdale, Committee Chair;

Linda Chalker-Scott (Washington), Western Region Committee Vice Chair;

Kate Kammler (Missouri), North Central Region Committee Vice-Chair;

Julie Kikkert (New York), Northeastern Region Committee Vice-Chair; and

Danny Lauderdale (North Carolina), Southern Region Committee Vice Chair;

The Horticulture and Turfgrass professional improvement committee is pleased to present this report to the membership, as we reflect back on 2022-2023 and the upcoming 2023 NACAA AM/PIC.

We hosted a national professional development webinar, focusing on food and farmers markets and their impacts on horticulture. The committee hopes to continue professional development webinars.

We are looking forward to an excellent program of professional development and fellowship at the 2023 AM/PIC. Much of the committee activity in 2022-2023 was focused on planning for the 2023 AM/PIC pre-conference tour. The tour begins on Friday, August 11 in Des Moines, Iowa. Our tour will be highlighting central Iowa and therefore minimizing travel time between tour spots. We will see Principal Park, home of the Iowa Cubs minor league baseball team, and travel to Better Homes and Gardens test garden. Then it is off to Jasper Winery to learn about the grape and wine industry. We will visit Iowa Native Trees and Shrubs and end the day at the Brenton Arboretum. Saturday will start with a walk to the Farmer's Market and get some good java to tour Plant Life Designs, the Greater Des Moines Botanical Gardens, Ted Lare Design and Build/Garden Center, and end at Grade A Gardens, an organic fruit and vegetable grower.

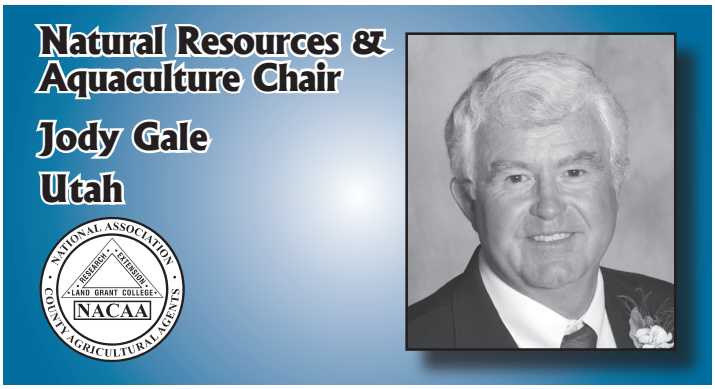
We appreciate the continued support from Bartlett Tree Research Laboratory to sponsor our Super Seminar titled "Landscape Mulch Myth Busting" which is on Tuesday, August 15.

The Horticulture and Turfgrass PIC committee worked to develop the horticulture and turfgrass oral presentation program for the upcoming 2023 AM/PIC. We are pleased with the number and quality of the submitted abstracts. 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 20 presentations on 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 Monday, August 14, in conjunction with the AM/PIC. Incoming and outgoing regional vice chairs will be in attendance, and the meeting is open to the NACAA membership. We will discuss the 2024 AM/PIC, scheduled for July 14-18, 2024 in Dallas, TX. Among agenda items are a pre-

conference tour, a super seminar, and ongoing professional development opportunities during the upcoming year.

I want to thank the regional committee vice chairs and the state committee chairs for your support during my second 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 the committee regional vice chair that represents your state. The committee meets virtually quarterly or as needed, and members are welcome to join our meetings. If any member is interested in a leadership opportunity with the committee, information on the application process is available on the NACAA website, or by reaching out to the committee.



Committee Members

Jody A. Gale, Committee Chair, Utah

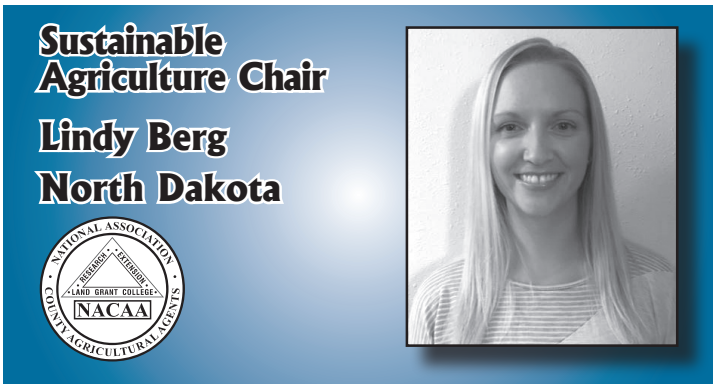
Katie Pekarek, North Central Region Vice-Chair, Nebraska

Justin Mansberger, Northeast Region Vice-Chair, Pennsylvania

Shannon Williams, Western Region Vice-Chair, Idaho

Ross Overstreet, Southern Region Vice-Chair, Mississippi

The NACAA Natural Resources Aquaculture Committee is excited for this year's AM/PIC. We are very much looking forward to meeting together and seeing everyone in Des Moines, Iowa. Our committee is happy to report that we are hosting the Natural Resources Preconference Tour Saturday afternoon and evening August 12, which only costs $55. It is graciously being provided by Katie Pekarek, North Central Region Vice-Chair, Nebraska and William (Billy) Beck, local Iowa State University Forestry Specialist. The tour will be educational and fun as we explore some of Iowa's natural, historical and agricultural resources by kayak and canoe along the Raccoon River. Educational stops along the river and visitors center will be provided by Extension specialists and local natural resource experts. Expert skills are not necessary for this easy float, and it will be a great way to cool off. Transportation to and from the conference center, equipment, and dinner at the Bur Oak Visitor Center will be provided. So come a little early and enjoy Iowa's natural resources with us. We are also providing Natural Resource and Aquaculture related subject matter breakout sessions at the conference Tuesday, August 15th, 8:30-11:30 am and 1:30-5:00 pm. Members previously submitted abstracts describing their outstanding Extension programs have been peer reviewed and seven authors have been selected for publication and presentation. Please join us to learn about their successful programs including, Buffalo Gnat management, adoption of soil moisture sensors, tile drainage and water quality, controlling invasive plants, forestry videos and webinars, vegetation response to wildfire, and mosquito larvae control in rain barrels. In April we also provided an national NACAA 365 Webinar on Aspen Restoration Collaboration in Utah and will be providing another one in the fall. Please join us to learn more about how successful extension agents are responding to local natural resource aquaculture needs and implementing successful, impactful programs. We appreciate regional and state chairs for their hard work to provide our committees programs. We invite suggestions and feedback and encourage anyone interested in learning more about natural resources, aquaculture and our committees programs, or to serve NACAA at the state or national level to please contact Jody A. Gale jody.gale@usu.edu or (435) 893-0470.



The Sustainable Agriculture Committee members are Lindy Berg (North Dakota), Committee Chair; Katie Wagner (Utah), Western Region Committee Vice-Chair; Matthew Lollar (Florida), Southern Region Committee Vice Chair; Patrick Byers (Missouri), North Central Region Committee Vice-Chair and Anna Hodgson (Pennsylvania), Northeastern Region Committee Vice-Chair.

Reading the Farm Super Seminar and Tour

The Reading the Farm Super Seminar and Tour at the 2023 AM/PIC comes to you with the leadership of Kristy Borelli, SARE Associate Director, Christa Hartsook, Iowa SARE Coordinator, our farm cooperators at Dogpatch Urban Gardens and the team of 2018 Fellows, Nicole Thompson (Pennsylvania), Claire Strader (Wisconsin), and Jessica Kelton (Soil Health Institute) who will lead us in the Reading the Farm process. Reading the Farm is a holistic approach to the traditional farm site visit.

It encourages farmers and agricultural professionals to think about farm issues and ultimate sustainability in new ways.

Professional Development Sessions

During the 2023 AM/PIC we are thrilled to offer high quality presentations on topics ranging from cover crops and bee keeping to milled cherry pit soil amendment and more. Sustainable agriculture topics can come from any Extension program area. All NACAA members are welcome to propose presentations of the results of their impactful projects and programs at the next AM/PIC.

SARE Fellows

NACAA members who want to improve their teaching and technology transfer skills to develop sustainable agriculture programs are encouraged to consider applying for the SARE Fellows program. https://www.sare.org/what-we-do/professional-development/fellows-program/ Like so many things, the Fellows program, which does involve travel, was put on pandemic hiatus and will begin accepting applications in March of 2024.

AMPIC Pre-Tour

With the leadership of Lindy Berg, Patrick Byers and Christa Hartsook, we are excited to offer a Sustainable Agriculture Pre-Tour of Central Iowa. On the first of the two-day tour we will head to a Certified Organic vegetable and herb farm and a winery/brewery in Ames, Iowa. The second day we will travel to Panora, to a small-family aquaponic vegetable farm. After enjoying a farm to table lunch, we will head to a lavender farm in Missouri Valley. Before heading back to Des Moines, we will finish our tour with a visit to a local food hub and enjoy an evening meal from a farmer owned restaurant. It is a wonderful opportunity to see sustainable practices at work in a wide variety of agricultural enterprises.

The Program Recognition Council (PRC) contains six committees that administer award-based programs that have been a traditional part of NACAA. These committees serve as the way for the association to recognize the efforts of our members for their professionalism, performance, creative works, and outreach. Due to our gracious sponsors and the hard work of our committee members, PRC will award over $36,000 to members this year.

The six committees which make up this council are:

- Communications Committee chaired by Ron Patterson from Idaho
- Professional Excellence Committee chaired by Nicholas Simmons from Florida.
- Public Relations & Ag Awareness Committee chaired by Tyrone Fisher from North Carolina.
- Recognition & Awards Committee chaired by Ed Lentz from Ohio.
- Scholarship Committee chaired by Stephen Hadcock from New York
- Search for Excellence Committee chaired by Linda McClanahan from Kentucky.

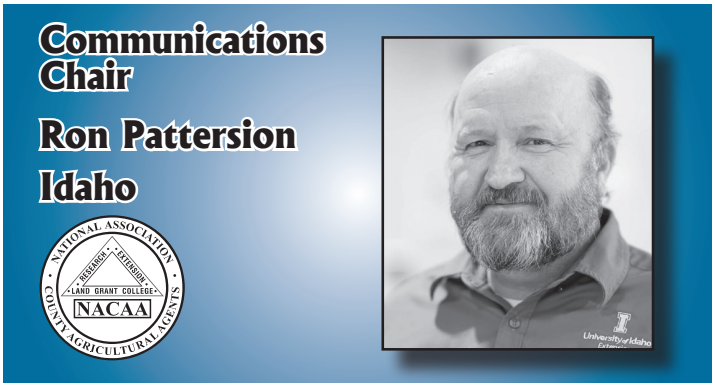
Each year the committees review hundreds of entries to determine state, regional and national winners. Committees worked hard to recognize NACAA members for their outstanding efforts.

Our council had a good number of entries submitted by NACAA members this year. These included:

- 653 Communications Award entries.
- 110 (38 Applied Research and 72 Extension Education) Poster entries.
- 154 Search for Excellence (SFE) applications in the 8 SFE categories.
- 13 applications for the Ag Awareness & Appreciation Award.
- 136 applications for AA, DSA and Hall of Fame awards.

The NACAA Scholarship Committee has made improvements to the NACAA Scholarship program. Learn more about the NACAA scholarship program at: https://www.nacaa.com/scholarship-criteria. Don't forget on Monday evening, come bid on hundreds of silent and live auction items at the NACAA Scholarship Auction. All the proceeds go to the Scholarship Fund.

This was my first year as council chair and the learning curve was steep. I would like to thank the National Chairs, Vice-Chairs and State Chairs of all the PRC committees for your dedication to the awards program; it wouldn't have happened without you. I also wish to extend my appreciation to the entire National Board, my fellow council chairs David Marrison and Sherry Beaty-Sullivan and Scott Hawbaker for their incredible support of me and our organization.



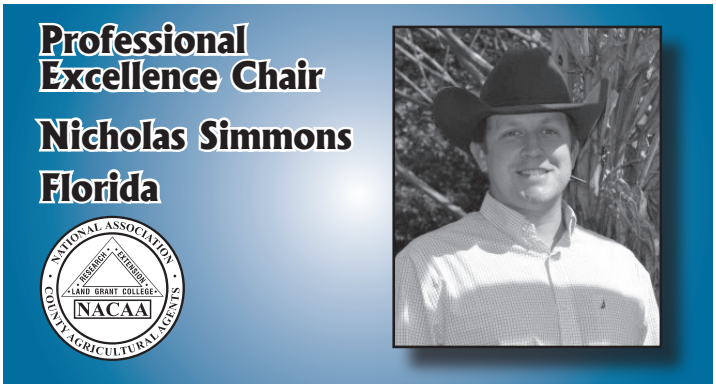
The Communications Awards competition provides a way for NACAA members to be recognized for their efforts to reach the general public. Congratulations to all our members for excellent Extension programming around the nation. The caliber of award entries was outstanding. In order to help members be more successful in their awards applications, our committee held a virtual training in February 2023.

A total of 656 applications were completed for 2023 from across the nation. The Southern Region led the way with 357 entries submitted, followed by the North Central Region with 186 entries, the Northeast Region with 76, and the Western Region with 37. Congratulations to the Florida Association for the most entries as a state with 83 total applications. Florida was followed by Ohio with 48, South Carolina with 36, then a 3-way tie for fourth place for Pennsylvania, Tennessee and Texas with 32 each. The following is a summary of the entries made in each category.

- Audio Recordings had 55 entries (down from last year)
- Published Photo had 56 entries (down from last year)
- Computer Generated Presentation with Script had 41 entries (down from last year)
- Event Promotional Package had 72 entries (up from last year)
- Personal Column had 56 entries (up from last year)
- Feature Story had 51 entries (up from last year)
- Newsletter had 70 entries (down from last year)
- Educational Video Recordings had 60 entries (down from last year)
- Fact Sheet had 61 entries (down from last year)
- Publication had 46 entries (down from last year)
- Web Site/Online Content had 46 entries (down from last year)
- Learning Module/Notebook had 21 entries (down from last year)
- Bound Book/eBook had 21 entries (up from last year)

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 2023 are: North Central Region Vice-Chair – Jeremy Jubenville (Michigan), Northeast Region Vice-Chair – Laura McDermott (New York), Southern Region Vice-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 or come to the committee meeting, which is on Monday, August 14 at 10:30 AM.



The Professional Excellence 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, Megan Muehlbauer (NJ); Southern Region, Brian Haller (AR); and Western Region, Bonnie Hopkins Byers (NM). 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 an excellent number of accepted posters

displayed at the AM/PIC, with a total of 110 (38 Applied Research and 72 Extension Education). In 2023, we will have the national poster contest in Des Moines, Iowa, 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 20 National Finalist posters. Judges from the four regions will evaluate the finalists on Monday, August 14th, 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 6:00 p.m. on Sunday, August 13th, and stay through 3 p.m. Tuesday, August 15th. There will be a "Meet the Author's Poster Session" from 10:00 a.m. – 10:30 a.m. during the break on Monday. National winners and finalists will be formally recognized during the Communications/Professional Excellence awards luncheon on Tuesday, August 15th. Congratulations to all of our winners.

The Public Relations and Agricultural Awareness Committee is in charge of organizing the Agriculture Awareness and Appreciation Awards (A4) program. The A4 program is a great way for NACAA members to spotlight educational programs that demonstrate the public relations component of Extension work. It is also an opportunity to showcase how Extension agents and educators enrich and inform the public's understanding of agriculture in their communities. This year the A4 program had eight programs of outstanding public relations work representing every region of NACAA. There is a tremendous amount of great Extension work that many educators and agents are doing and this outreach makes an excellent way to share their success in the A4 program.

Congratulations to Leslie Rose from North Carolina. She is the Agricultural Awareness and Appreciation Award National Winner for 2023. Her topic will be "Increasing Awareness of the Spotted Lanternfly". Congratulations also go to our National Finalists Tim McDermott from Ohio, presenting on "Extension Today", and Victoria Xiong from Utah, presenting on "Farm to Table".

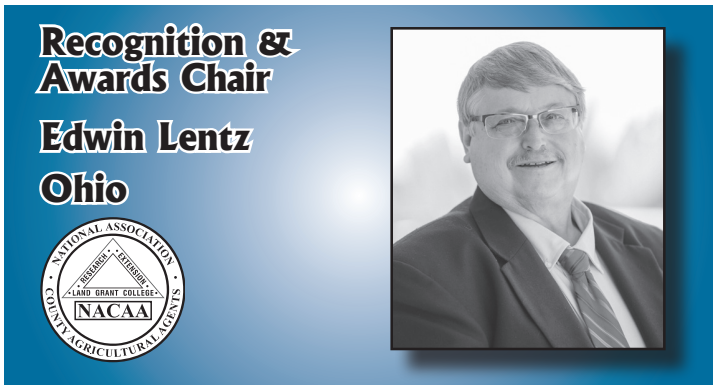
State winners include: Linda Huffman from Kentucky, Rachel Bearden from Arkansas, Guilherme Morata from Alabama, and Kalan Royal from Florida.

I want to send a heartfelt thank you to all of the hard-working judges, Public Relations and Agricultural Awareness Committee Regional Vice-Chairs and the State Chairs for their commitment to the difficult work of judging the excellent entries this year.

The Public Relations and Agricultural Awareness Committee appreciated having entries from three of the four regions in 2023, which is am increase from 2022. We challenge every state in NACAA to submit an entry in one of the NACAA awards programs, especially in the A4 program in 2023. Let Extension shine in all the communities we serve!

As always, we would like to send an earnest and special thank you Jim Hruskoci of Bayer Crop Science for sponsoring the Agriculture Awareness and Appreciation Award this year. It has been my pleasure to serve as the National Chair. I have enjoyed working with our Regional Vice Chairs and reviewing all of the great programming our Extension agents and educators are doing across the country on behalf of the agricultural industry.

We look forward in 2024 to hearing all of the unique ways of reaching and educating audiences!



Recognition and Awards Committee

Edwin Lentz (Ohio)

Edwin Lentz, Chair of Recognition and Awards Committee

Recognition and Awards Committee Members:

North Central Vice-Chair – Cade Rensick (Kansas)

Northeast Vice-Chair – Samantha Gehrett (Pennsylvania)

Southern Vice-Chair – Jennifer Caraway (Arkansas)

West Vice-Chair – Zheng Wang (California)

The Recognition and Awards committee would like to congratulate all the 2023 Hall of Fame, Distinguished Service

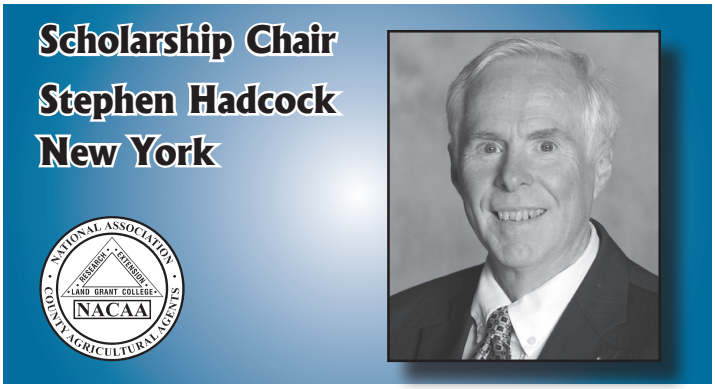
Award, and Achievement Award recipients. The committee was diligent in their efforts to recognize outstanding agriculture agents and educators. The chair would like to thank the regional vice-chairs and state chairs for their time and commitment required to successfully complete the duties of this committee.

Larry Howard (Nebraska), Lee Stivers (Pennsylvania) Paul Wigley (Georgia), and Janet Schmidt (Washington) are our 2023 outstanding Hall of Fame winners. They will receive their awards at the annual banquet. Recipients of this award are recognized for a career of outstanding work as an Extension Educator and continued engagement in service to their community. They have provided leadership to their profession, religious communities, and humanitarian organizations. This is the 18th year of this prestigious award.

On Tuesday morning, fifty-seven recipients will be honored at the breakfast Achievement Award ceremony. This is the 49th year that NACAA has presented this award and this year's recipients will be joining 2,499 fellow Achievement Award winners. The 2023 Achievement Award winners have demonstrated their ability to conduct high-quality educational programs and gain the respect of co-workers in less than ten years of service.

This is the 85th year our national professional organization has recognized fellow educators with the Distinguished Service Award. These members were chosen by their respective states to receive one of the most prestigious awards given by NACAA. The Distinguished Service Award will be presented to fifty-seven NACAA members from across the country and join 7,647 past recipients. 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 committee expresses our appreciation for the continued support of the Achievement Award breakfast by American Income Life Insurance Company- Special Risk Division. They have sponsored the ceremony for 49 years and various other NACAA programs for 68 years. The committee also wants to thank the Ag Pipeline Alliance for their continued financial support for the Hall of Fame award.



I thank North Central Region Vice Jennifer Lutes, Western Region Vice Chair Thomas Dominguez, Southern Vice Chair Carole Henry, and Northeast Vice Chair Bill Sciarappa for this year's support and hard work.

Your Scholarship Committee has been busy this year. The Committee continued to suggest changes to committee operation, refine language that members could read, and decide when and how to submit a scholarship application. The Committee wishes to thank the NACAA Board for approving the recommendations the Committee offered. The National Board approved a second scholarship application period. NACAA members who meet the necessary criteria may submit a scholarship application by December 1.

The NACAA Scholarship Application is an online process. To view the application criteria (for either June 1 or December 1 applications), go to https://www.nacaa.com/scholarship-criteria. The same application form will be used for each scholarship application period. The application can be found at https://www.nacaa.com/scholarship-application.

Thanks to President Phil Durst, a donation was secured to assist NACAA members from US territories to attend the NACAA AM/PIC. Your Scholarship committee developed a grant application and scoring sheet for this. Five NACAA members from Puerto Rico were selected to receive grant dollars to support their participation at the 2023 AM/PIC.

Scholarships awarded:

In 2022, ten scholarship applications were received. National committee members reviewed the applications. The Scholarship Committee recommended that the Scholarship Foundation fully fund all ten applications.

Six applications were individual, and four group applications were received. The total scholarship amount awarded was $38,150.

For the June 1 cycle, 16 scholarship applications were received and will be judged by the National Scholarship Committee during the AM/PIC. The total amount requested is $37,160. More information about the Scholarship recipients will be available later this year.

The live and silent auction will occur Monday night at the AM/PIC in Des Moines, Iowa. NACAA members are encouraged to donate to the auction. Whether you are attending in person or not, consider using this link https://cornell.ca1.qualtrics.com/jfe/form/SV_e2QH6m9odLxP25w to submit a donation. You are responsible for getting the donated item to Des Moines, whether you bring it yourself or have a colleague bring it.

The current Search for Excellence (SFE) committee is comprised of four regional vice chairs and myself. The regional vice chairs include Katie Wantoch from Wisconsin, Jesse Fulbright from Montana, Amber Yutzy from Pennsylvania and Tatiana Sanchez from Florida.

The committee held an organizational meeting by Zoom/conference call in January 2023. 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 2023 NACAA AM/PIC. They were as follows:

Consumer or Commercial Horticulture- Tatiana Sanchez

Crop Production- Tatiana Sanchez

Environmental Quality, Forestry, and Natural Resources- Amber Yutzy

4H and Youth Programming- Jesse Fulbright

Farm & Ranch Business Management- Katie Wantoch

Livestock Production – Amber Yutzy

Sustainable Agriculture- Linda McClanahan

Young, Beginning, or Small Rancher/Farmer – Linda McClanahan

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 by May 8th.

There were a total of 146 entries, 95 being judged at the national level. The entries per category was as follows:

Consumer or Commercial Horticulture- 22 entries, 14 states

Crop Production- 12 entries, 10 states

Environmental Quality, Forestry and Natural Resources- 16 entries, 10 states

Farm and Ranch Business Management- 9 entries, 7 states

4H and Youth Programming- 40 entries, 17 states

Livestock Production- 27 entries, 19 states

Sustainable Agriculture – 8 entries, 8 states

Young, Beginning or Small Farmers/Ranchers- 12 entries, 10 states

The total number of entries judged at national level was down 6 from last year. There are a lot of opportunities for members to participate by submitting entries in SFE. The entries are easy to prepare and submit, and the program provides an excellent opportunity for individual and team recognition.

Our 2023 winners and finalists will be recognized during their respective SFE luncheon sessions at the upcoming NACAA AM/PIC. 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 will meet on August 14 during 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. It's been a great honor to serve as National Chair of this committee over the past year. 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.

Life Member Chair
John Campbell
Tennessee

The purpose of the Life Member Committee is to serve as a liaison between Life Members and members of NACAA and the Board of Directors; actively seek resources for the Scholarship Fund and encourage state program committees to develop programs that will enhance the Cooperative Extension Service. General responsibilities include:

- Promote Life Membership
- Encourage Life Members to support the Scholarship Fund
- Identify and solicit agribusinesses to become contributors to the Scholarship Fund
- Develop Life Member program for AM/PIC
- Motivate State Life Member Committee Chairs to develop significant programs that will improve the image of County Agents

A major function of the Life Member Committee is to hold a memorial service for those members who have passed during the during the year since the last AM/PIC (earlier if a name has not yet been submitted). The memorial service is held as a part of the Life Member business meeting. Region Vice-chairs are responsible for obtaining the list of deceased members from their respective region. Their main contact is the state Life Member chairs in their respective states. Thank you all for attention to this matter.

This year the Life Member business meeting will on Monday, August 14 at 10:30 am. This is a change from previous years. All Life Members at the AM/PIC are encouraged to attend. Following the business meeting is a joint Life Member and Spouses luncheon at noon. I encourage Life Members to attend as well. A new function for this year is the Life Member and Spouse Welcome and Orientation on Sunday at 2:00 pm. The Iowa Association has planned a variety of tours and workshops for Life Members and spouses.

Many states pay the one-time $50.00 Life Member fee for their retiring members. All states are encouraged to pay this fee for Life Members in recognition of their commitment to Extension. If a Life Member wishes to receive a hard copy of the County Agent Magazine, one must subscribe at $10.00 for a one-year subscription, 5 years for $45.00 or $100.00 for a life time subscription. Follow this link on the NACAA website https://www.nacaa.com/uploads/userfiles/files/lifepostcard2020.pdf or contact Scott Hawbaker.

I appreciate the efforts of the Region Vice Chairs: Larry Howard North Central Region, Glenn Rogers Northeastern Region, Janet Schmidt Western Region, and Dirk Webb Southern Region. I have one more year as Chair. The next Chair, taking over after the Dallas AM/PIC, will come from the North Central Region. Region Vice Chairs are elected at the Life Member Business Meeting.

In closing, the Life Member Committee and all the Life Members want to thank the National Board for their support of Life Members. A big thank you goes to the Iowa Association for this year's activities. I am looking forward to renewing old friendships and making new ones.

Journal of NACAA Chair
Linda Chalker-Scott
Washington

I am finishing up my first year as Editor for the Journal of NACAA. It's been a wonderful experience working with authors, peer-reviewers, and Executive Director Scott Hawbaker to publish a journal that our organization can be proud of.

Our authors continue to provide timely articles of interest to both NACAA members and a national audience. Many NACAA members have stepped up to offer their services as peer-reviewers; I currently have a list of 139 volunteers. One of my goals as editor is to help authors successfully publish their work in our journal, and our peer reviewers have been pivotal in providing constructive feedback to them. This sometimes means that articles need more work before they are ready to publish and don't make it into the initial issue of the journal. With continued help from the peer-reviewers, we help authors revise their manuscripts for future publication. I would love to have an acceptance rate of 100%. My philosophy is that every member of NACAA has interesting and important information to share about their work and our journal should function to do that.

Here are some of the activities accomplished in the 2022-2023 period:

- December 2022 issue – 18 published articles.

- June 2023 issue – 19 published articles.
- Improving the visual experience of the journal by alphabetizing publications by title.
- Creating guidelines for authors to ensure consistency in formatting and structure.
- Proposed update of criteria for peer review to include objective metrics that can be answered with a simple "yes" or "no." I am grateful for assistance and suggestions from Publications Committee members Teresa Steckler and Donna Beliech, and Scott Hawbaker.

Scott has been indispensable in his help to fix the little bugs that appear in the online platform. This has helped to streamline the online reviewing process and improve communications among the authors, peer-reviewers, and myself.

I hope to see many NACAA members at my presentation at 2023 AM/PIC titled "Improve your writing skills for peer-reviewed publications," developed in collaboration with Hamutahl Cohen (UCANR). I've included our description below.

Increasingly, Extension faculty and staff are asked to publish articles in peer-reviewed journals as part of the tenure and promotion process. This can present a hurdle for many aspiring authors who are unsure about their writing abilities and/or the submission and review process. In this presentation, we will address both concerns with tips for better writing and an explanation of the peer-review process as it pertains to the Journal of NACAA. After attending this presentation, participants should

- know the components of a peer-reviewed manuscript;
- understand best writing practices;
- be able to use the NACAA online system to submit and manage their manuscripts; and
- be comfortable with the peer-review process.

My name is Amber Yutzy, and I am the NACAA liaison to the National Outstanding Young Farmers of America. I attended the 2023 National Outstanding Youth Farmers Congress at the Hilton Appleton Paper Valley on February 16-19 this year. Experiencing the congress in person was amazing. I watched ten couples build lifelong friendships while competing against each other. It was an experience I will never forget. NACAA members submitted over 70% of the 2023 applications, with finalists from Arkansas, Alabama, California, and Pennsylvania. Congratulations to the members that nominated these individuals.

The Outstanding Young Farmers of America is a group of past nominees of the Outstanding Young Farmer Program. The group is designed to facilitate an exchange of ideas and friendship that encourages excellence and involvement in agriculture and the local, state, and national communities. There are approximately 1,500 members of the OFA across the nation. They utilize their connections in a robust networking format to assist farmers and promote the importance of America's farming community.

The OYF program aims to foster better urban-rural relations through understanding the farmers' endeavors, developing a further appreciation for their contributions and achievements, and informing the agribusiness community of the growing urban awareness of farmers' importance and impact on America's economy.

As the farmer's business has changed, so has their involvement in the community. Today's farmer is an active citizen, participating in local and state government, civic groups, and charitable organizations. It is not only fitting that farmers be honored for their contributions and achievements—it is essential. This award has been established to recognize outstanding achievements in agriculture and community involvement.

I would like to recognize our 2023 National Outstanding Young Farmers:

- Brad and Tara Peacock of Arkansas
- Jon and Amy Hegeman of Alabama

- Kyle and Rachel Zwieg of Wisconsin
- Carly and Betsy Long of Pennsylvania

It's time to nominate your young farmers for the 2024 awards year. NOYF is a wonderful opportunity for you to recognize fantastic young farmers in your community as county extension agents. I ask you to nominate an individual worthy of this prestigious award. You can find information about the award and application on the National Outstanding Young Farmer website at: https://www.outstandingfarmers.com/. Please start thinking about who would be worthy of this honor in your county or state. Applications are due September 1st, 2023. If your nominee is chosen as a top 10 finalist, NACAA will provide a stipend for you to attend the 2024 NOYF Awards Congress in Ferndale, WA. Do not hesitate to reach out to me for help and support with the application process. I, along with other NOYF representatives, will be in attendance at the NACAA AM/PIC. Please visit the trade show area to chat with past winners about their experiences.

Many thanks and appreciation are extended to the NACAA officers and board for their support of me representing our association on the Extension Journal, Inc. (EJI) board for the past six years. I have thoroughly enjoyed serving in the capacity as the liaison to NACAA for Extension Journal, Inc. I am currently serving as Past President and will be transitioning off the board this December.

As of January 1, 2021, the Journal of Extension (JOE) is published by Clemson University Press. Established in 1963, JOE is the flagship journal for Extension employees. As a refereed journal, JOE expands and updates the research and knowledge base for U.S. Extension professionals and other outreach educators to improve their effectiveness and serves as a forum for emerging and contemporary issues affecting U.S. Extension educators. Moreover, JOE provides a venue for professionals and students to publish original and applied research findings to share successful educational applications, scholarly opinions, educational resources, and challenges on issues of critical importance to Extension educators.

Through its commitment to author development, JOE also provides training and support for effective scholarly communications. JOE is a fully, open-access, quarterly journal included in the:

- Web of Science Core Collections Emerging Sources Citation Index (ESCI)
- Scopus (abstract and citation database)
- Education Resources Information Center (ERIC- full text database)
- Cabells Whitelist

2020 brought many changes to the face of JOE. Many of these changes were due to strategic planning implementation from 2019. Due to operating at a budget deficit for a number of years, the board explored options to increase revenues and reduce costs to produce the Journal of Extension. In 2019, in response to knowledge that EJI was experiencing financial issues, Clemson University Press submitted an unsolicited proposal to partner with EJI for production of the Journal of Extension and operation of the Extension Job Bank. The EJI board voted in 2020 to move forward with the proposed partnership. The new partnership allows EJI to save a minimum of $50,000 annually in operational expenses, thereby putting the organization back into the black financially. EJI signed an MOU with Clemson University Press on September 9, 2020, formalizing this partnership. Drew Griffin assumed the role as editor.

The transition of the Journal of Extension and the Extension Job Bank has been a success! The partnership was in place by the end of January 2021. The Journal of Extension has completely undergone a rebranding, complete with new logos and a marketing plan to raise the profile and awareness of the Journal. There is no longer a backlog in journal submissions (thanks to Drew and team)! We are currently ahead of schedule for the first time in several years, so we encourage you to visit our new website and consider publishing in the near future.

A fully expanded and more effective website (Journal of Extension | Clemson University) is currently in place and has so far proved invaluable to authors and peer reviewers alike. A tab was added for Author Resources with a variety of information. Authors can now track where their manuscript submission is in the publication process and, after an article is published, authors receive informational updates (such as download rates and locations). In addition, the Extension Jobs portal received a facelift. Check out the new site here: Extension Jobs – Jobs in Extension, Outreach, Research & Higher Education (joe.org)

Special thanks Since joining the EJI Board in January 2017, it has been a wonderful experience and a great opportunity to serve with other members of the Extension family from across our nation. The friendships and contacts I have made are priceless. Serving as the NACAA representative on the EJI board has been both an honor and privilege.

In 2023, I will have completed my 25th year of service as NACAA Executive Director, and what an incredible journey it has been. My involvement with NACAA began in 1996 when the NACAA Board of Directors decided to contract with me to take on the role of Publisher/Editor of The County Agent magazine. Previously, this responsibility had always been handled by an NACAA member. However, due to the time required to produce the magazine, the board saw fit to outsource these services. It was during my initial two meetings as the magazine's editor that I learned the board was considering the possibility of contracting an association management company for assistance.

At that moment, I seized the opportunity and threw my name into the hat, expressing my interest in taking on a more significant role. Looking back, I often joke that the reason I was chosen was simply because my bid price happened to be the lowest. Nonetheless, I am grateful that I submitted that bid.

Over the last 25 years, my responsibilities have expanded significantly to include managing donor/sponsor relations, editing the Proceedings, handling AM/PIC registration, and managing the association's website, among other tasks. My daily interactions with members via phone and email keep me constantly occupied. On average (excluding junk/spam mail), I receive over 750 valid emails and phone calls each month related to NACAA. These are not merely messages to read and discard; they often require immediate action on my part. I find immense satisfaction in being involved with NACAA and am hopeful to continue in my role, pending Voting Delegate/Board approval.

Please never hesitate to reach out to me via email or phone if there's anything I can assist you with. It would be my honor to provide any support you may need.

108th Annual Meeting and Professional Improvement Conference

National Association of County Agricultural Agents

NACAA AM/PIC 2023

IOWA

DES MOINES, IOWA

AUGUST 13-17, 2023

2023 NACAA ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT CONFERENCE

REGISTRATION
Iowa Events Center

Saturday:	3:00 pm - 6:00 pm
Sunday:	8:00 am - 7:00 pm
Monday:	8:00 am - 5:00 pm
Tuesday:	8:00 am - 2:00 pm
Wednesday:	8:00 am - 2:00 pm
Thursday:	NOT OPEN - TOUR DAY

COMMERCIAL AND EDUCATION EXHIBITS
Exhibit Hall B , Iowa Events Center

Sunday:	9:00 am - 1:00 pm (Set-up)
Sunday:	1:00 pm - 6:30 pm
Monday:	9:00 am - 4:30 pm
Tuesday:	9:00 am - 3:30 pm
Tuesday:	3:30 pm -5:00 pm (Take-down)

AWARDS, RECOGNITION & EDUCATIONAL DISPLAYS
POSTER DISPLAY
Exhibit Hall, Iowa Events Center

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:	9:00 am - 3:30 pm (Open)
Monday:	10:15 am -10:45 am (Meet the Authors)
Tuesday:	9:00 am - 3:30 pm (Open)

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 108th 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

TABLE OF CONTENTS

Welcome to Iowa

We are very excited to host all NACAA Members at the 108th AM/PIC. Our committees, members, and volunteers have been working hard to prepare for your arrival. Our goal is to provide you with the best experience possible during your stay in Des Moines. You can look forward to an outstanding professional improvement experience and great food, hospitality, and enjoyment.

AM/PIC kicks off Sunday afternoon in the Iowa Events Center Exhibit Hall with trade show exhibits, refreshments, and the "Welcome to Iowa" dinner sponsored by Iowa Soybean Association and Iowa Corn Growers Association. Our speaker for the Sunday opening ceremony will be the renowned Iowan Simon Estes. He will be sharing his thrilling life story and his beautiful operatic voice.

During the AM/PIC, our members will be introduced to cutting edge technology, a diverse agriculture sector, new and progressive research, and our state's natural beauty and history. In addition to the educational programs, you will enjoy a wide variety of trade talks, workshops, and Super Seminars. The theme of our national meeting is Growing People, Places, Products, and Profits.

Life members and spouses will enjoy the tours and educational opportunities that have been arranged. The Sons and Daughters program is fantastic. The kids will experience the Iowa State University campus, visit Living History Farms, and explore the wild side of Des Moines at the Blank Park Zoo.

Monday evening is "State's Night Out". We encourage you to make your plans early, and we feel confident you will find our local restaurants outstanding. Vans will be available on a first come - first serve basis to shuttle your state association group members to your destination.

Tuesday will be a night at the Iowa State Fair with special thanks to Iowa Farm Bureau Federation. If you elected to go to the Iowa State Fair when you registered, your registration packet will contain DART bus tickets, State Fair entry tickets, and meal vouchers valid for food and non-alcoholic beverages at almost any food stand or truck. Check out the fair events and the entertainment in advance by visiting the Catch Des Moines Booth in the registration area for details about the state fair. A few of the "must-sees" at the Iowa State Fair are the 4-H Exhibit Hall, historic Butter Cow, Avenue of Breeds, biggest bull and boar, horticultural displays, high-tech machinery, Ye Old Mill ride, and quilt competition. The last bus back from the Iowa State Fair leaves at midnight, so 'don't get left behind'. In addition, several volunteers are available to help your Iowa State Fair experience go smoother. Don't hesitate to ask for help with your State Fair plans.

Wednesday is our annual banquet; as you know, it is always a highlight each year. Dinner will feature a flame-grilled Iowa pork chop and award-winning Iowa wine sponsored by the Iowa Pork Producers Association. In addition to celebrating our DSA's and AA's, we will share the beauty of our state through the decorations on display that evening, which will be the culmination of a beautiful and unique theme for the entire week.

Thursday is tour day! The day begins with a breakfast buffet at the Hilton sponsored by Iowa Egg Council and Iowa Poultry Association. Nineteen tours will be ready to board buses per the pre-determined schedule from the west side of Hilton Level 2. The day concludes at Sukup End Zone in the Jack Trice Stadium at the ISU Sports Complex in Ames, Iowa. You will be treated to a steak dinner on the upper level, and ISU exhibits will be displayed on the lower level. Sukup Manufacturing, Iowa Beef Industry Council, and John Deere & Company are our sponsors for the Iowa Farewell Supper. Following supper, buses and vans will return everyone to the Iowa Events Center in Des Moines. The end zone ambiance and a divine menu promise to be a feast for the stomach and the eyes! The Udders Band will provide entertainment for the evening. And be sure to catch a selfie with Cy!

You will leave with a broad smile on your face, some brand new midwestern friends, a fully satisfied stomach, and many ideas and much information to support your programming!!

By the way, if you drove to the conference and parked in one of the two designated ramps, remember to get your free parking pass at the registration desk.

If you have any questions or need assistance while at AM/PIC, look for someone wearing our blue and white mesh cap with the Iowa NACAA logo. Remember, you can also install our conference app (available on our conference website) and look up information in the app.

The executive committee, all the committee chairs, and all the committee members hope you have a great experience in Iowa !!

The 2023 NACAA AM/PIC Executive Committee

Kapil Arora
Chair

Denise Schwab
Vice-Chair

Virgil Schmitt
Vice-Chair

Fred Hall
Vice-Chair

Ryan Drollette
Treasurer

Jennifer Bentley
Secretary

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Michigan

President-Elect
Keith Mickler
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Southern Region Director
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Teresa Steckler
Illinois

Western Region Director
Linden Greenhalgh
Utah

Association Policy Chair
Mike Hogan
Ohio

COMMITTEE CHAIRS

Program Recognition Council:	Joni Harper, MO
Communications:	Ron Patterson, ID
Professional Excellence:	Nick Simmons, FL
Public Relations & Agricultural Awareness	Tyrone Fisher, NC
Recognition and Awards:	Edwin Lentz, OH
Scholarship:	Stephen Hadcock, NY
Search for Excellence:	Linda McClanahan, KY
Professional Improvement Council:	Sherry Beaty-Sulllivan, AR
4-H and Youth Programming:	Brittany Council-Morton, FL
Ag. Economics & Community Development:	Madeline Schultz, IA
Agronomy & Pest Management:	Ted Wiseman, OH
Animal Science:	Mark Nelson, UT
Horticulture & Turfgrass:	Cyndi Lauderdale, NC
Natural Resources/Aquaculture:	Jody Gale, UT
Sustainable Agriculture:	Lindy Berg, ND
Extension Development Council:	David Marrison, OH
Agricultural Issues	Elena Rogers, NC
Early Career Development:	Heather Schlesser, WI
Leadership & Administrative Skills:	Amanda Douridas, OH
Teaching and Educational Technologies:	Colt Knight, ME

OTHER CHAIR POSITIONS

Annual Meeting:	Kapil Arora, IA
Association Policy:	Mike Hogan, OH
Life Members:	John Campbell, TN

NACAA SPECIAL ASSIGNMENTS

Executive Director; Publisher, The County Agent:	Scott Hawbaker, IL
Journal of Extension:	Melody Rose, TN
Journal of NACAA:	Linda Chalker-Scott, WA
Outstanding Young Farmer:	Amber Yutzy, PA

VICE DIRECTORS

North Central Region:	Scott Gabbard, IN
Northeastern Region:	Nick Polanin, NJ
Western Region:	Aaron Esser, WA
Southern Region:	Paula Burke, GA
Southern Region:	Sherri Sanders, AR

Phil Durst
President

Welcome to Iowa

We are glad that you come to the 108th NACAA Annual Meeting/ Professional Improvement Conference in Des Moines, Iowa. The theme is "Growing People, Places, Products, Profits." Speaking for your NACAA Board, our desire is for you to grow professionally, further develop your network, and be challenged to go home as an even better Extension professional. We believe that all that will happen here in Iowa!

Extension Agents/Educators/Advisors have been coming together for generations for the NACAA conference, not only because of tradition but also because of the value of the conference professionally. We have come together this year to share with and strengthen one another. Be sure to look around to see some of what makes Iowa unique and have fun doing it all!

One of Iowa's unique opportunities is the State Fair. Take time Tuesday evening to eat some fair food, examine champion livestock, see the exhibits, hear a performance, and maybe try your skill at a game of chance!

Each day, our program is filled with tremendous opportunities from special speakers to colleagues sharing successful programs, Super Seminars, and great tours! We are looking forward to hearing from Simon Estes on Sunday evening, Secretary Tom Vilsack on Monday morning, and Jolene Brown on Wednesday morning. Take time to orient yourself to the program in the booklet or on the app. When you have questions, reach out to someone nearby.

The NACAA Leadership Academy kicks off at this conference. This new venture is an important addition to the professional development offered by NACAA. Become an even better leader for your county, your state, and our association.

Be sure to spend time in the Trade Show area, talking with vendors and learning about their products or services. Our sponsors, donors, and exhibitors are special; be sure to thank them! Read over the posters by your peers and grab a snack in the Trade Show area.

I can't say enough about the great crew of Iowa Agents who have worked so hard on this conference. Thank you, Iowa! Thanks also to the National Committee Chairs and Vice-Chairs for your leadership in the AM/PIC program. Thanks, Scott Hawbaker, NACAA Executive Director, for the countless hours of work preparing. Thanks, too, to university administrators who may have joined us this week and to all who supported their members attending. Prove to them how much your attendance means by going home charged and ready!

NACAA President

108th ANNUAL MEETING
and
PROFESSIONAL IMPROVEMENT CONFERENCE
of the
NATIONAL ASSOCIATION OF
COUNTY AGRICULTURAL AGENTS
Des Moines, Iowa
August 13-17, 2023

Iowa Events Center = IEC

MEMBER

FRIDAY, AUGUST 11

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

8:00 am - **NACAA BOARD MEETING,**
5:00 pm Hilton Linear, Level 2

7:00 pm - **IOWA AM/PIC COMMITTEE MEETING,**
9:00 pm IEC Boardroom 4

SATURDAY, AUGUST 12

7:00 am **HORTICULTURE COMMITTEE PRE-TOUR, ANIMAL SCIENCE PRE-TOUR, NATURAL RESOURCES PRE-TOUR, SUSTAINABLE AG PRE-TOURS**

8:00 am - NACAA BOARD MEETING
5:00 pm Hilton Linear, Level 2

3:00 pm - **REGISTRATION**
6:00 pm IEC West Entrance, Level 3

3:00 pm - **SCHOLARSHIP AUCTION ITEM DROP-OFF**
6:00 pm IEC West Entrance, Level 3

SUNDAY, AUGUST 13

MEMBER

8:00 am- **REGISTRATION & SCHOLARSHIP AUCTION**
7:00 pm **DROP OFF**
IEC West Entrance, Level 3
Registration Bag Courtesy: Southern Risk Management Education Center, Catch Des Moines, MERCK, John Deere, Pipeline Ag Safety Alliance, Fairlife, Quaker Oats / PepsiCo, Iowa Pork Producers Association, Iowa Soybean Association

9:00 am - **COMMERCIAL EXHIBIT TRADE SHOW, EDUCATIONAL EXHIBITS, & NACAA POSTER SESSION SETUP**
1:00 pm IEC Exhibit Hall B, Level 2
Coordinator: Nick Simmons (FL), Professional Excellence Committee Chair

9:00 am - **SCHOLARSHIP SELECTION COMMITTEE**
5:00 pm IEC 311
Presiding: Stephen Hadcock (NY), Scholarship Committee Chair

9:00 am - **NOMINATING COMMITTEE MEETING**
12:00 pm IEC 301
Presiding: Bill Burdine (MS), Past President

12:00 pm - **PAST NATIONAL OFFICERS &**
2:00 pm **BOARD LUNCHEON,** IEC 302/303/304
Presiding: Bill Burdine (MS), Past President

1:00 pm - **COMMERCIAL EXHIBIT TRADE SHOW, EDUCATIONAL EXHIBITS, & NACAA POSTER SESSION DISPLAY - OPEN**
6:30 pm IEC Exhibit Hall B, Level 2

2:00 pm - **FIRST LADY'S RECEPTION**
4:00 pm Hilton Presidential Suite (Invitation Only)

2:00 pm - **LIFE/SPOUSE ORIENTATION,** IEC 307
2:45 pm Presiding: Alan Ladd (IA) Life Member

2:30 pm - **BREAK - Coffee and Refreshments,**
3:00 pm IEC Exhibit Hall B, Level 2

2:00 pm - **NACAA EDUCATIONAL FOUNDATION**
5:00 pm **ANNUAL MEETING & BOARD OF DIRECTORS MEETING,** IEC 308
Presiding: Fred Miller (NC), NACAA Educational Foundation President

SUNDAY, AUGUST 13

MEMBER

1:30 pm - **STATE OFFICERS WORKSHOP**
3:00 pm IEC 306
Presiding: Melody Rose (TN), Southern Region Director

3:00 pm **ANNIE'S PROJECT 20TH ANNIVERSARY**
4:00 pm **RECEPTION,** IEC 302/303/304

3:00 pm - **FIRST TIMER ORIENTATION**
4:30 pm Buzzard Billy's (Off-site)
Presiding: Keith Mickler (GA), President- Elect

4:30 pm - **WELCOME TO IOWA DINNER**
6:30 pm IEC Exhibit Hall B, Level 2 - (Ticket Required)
Courtesy: NACAA/Iowa Corn Growers Association, Iowa Soybean Association (Cashless bar available)

5:30 pm - **STATE PRESIDENT REHEARSAL FOR FLAG**
6:00 pm **CEREMONY,** IEC Grand Ballroom
Presiding: Phil Durst (MI), NACAA President

6:00 pm - **PARENTS ORIENTATION FOR SONS AND**
6:45 pm **DAUGHTERS PROGRAM,** IEC 309
Presiding: Jennifer Bentley (IA), and 2023 AM/ PIC Secretary

7:00 pm - **OPENING SESSION & INSPIRATIONAL**
8:45 pm **PROGRAM,** IEC Grand Ballroom
Presiding: Phil Durst (MI), NACAA President
- Welcome by President Durst
- Invocation - Phil Kaatz (MI)
- Presentation of colors - Iowa State University Air Force ROTC
- Pledge of Allegiance & 4-H Pledge Owen Bentley, Addison Bentley & Madie Deutmeyer
- National Anthem performed by Simon Estes
- Isiserettes Drill & Drum Corps Presentation of State Flags - Narrated by Larry Tranel (IA)
- Welcome and introduction of Governor Kim Reynolds (invited) – Dr. Jason Henderson, Vice-President, Iowa State University Extension and Outreach
- Welcome by Governor Kim Reynolds
- Special speaker: Simon Estes
- Announcements: Dr. Kapil Arora, 2023 AM/PIC Chair

SUNDAY, AUGUST 13

MEMBER

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines, Ice Cream from Iowa State University Creamery

9:00 pm - **STATE PICTURES, West Entrance, Stairs by**
10:00 p.m. **Registration**
(See schedule in back of program)

9:00 pm - **HOSPITALITY ROOMS**
10:30 pm See registration area for room listings

10:00 pm **IOWA AM/PIC COMMITTEE MEETING**
IEC Boardroom 4

MONDAY, AUGUST 14

6:30 am - **MORNING GROUP EXERCISE**
7:30 am Hilton Cloud Ballroom A

6:30 am - **BAYER CROPSCIENCE BREAKFAST -**
7:45 am **GENE EDITING - WHAT IS IT? WHY IT'S DIFFERENT!**
IEC 105-106 (Ticket Required)
Presiding: Ted Wiseman (OH), Chair - Agronomy & Pest Management
Courtesy: Bayer CropScience LP
Speaker: Keith Merrill – Genome Editing, Yield, Disease, and Quality Traits Varietal Project Lead, Plant Biotechnology, Bayer Crop Science

6:45 am - **VOTING DELEGATES BREAKFAST**
7:45 am IEC 107-108 (Invitation only)
Presiding: Donna Beliech (MS), NACAA Secretary
Courtesy: NACAA

7:30 am - **SNACK BAR**
4:00 pm IEC Exhibit Hall B, Level 2
Courtesy: Indiana Extension Educators Association

8:00 am - **REGISTRATION & SCHOLARSHIP AUCTION**
5:00 pm **DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON)**
IEC West Entrance, Level 3

8:00 am - **NACAA POSTER JUDGING**
10:00 am IEC Exhibit Hall B, Level 2

MONDAY, AUGUST 14

MEMBER

8:00 am - **GENERAL SESSION**
10:15 am IEC Grand Ballroom
Presiding: Phil Durst, NACAA President
- Happy Faces Video 2022
- Welcome - Dr. John Lawrence, retired Vice President Extension & Outreach
- Report to the Membership
- Introduction of 2023 Service to American/ World Agriculture Honoree, George Cummins, ISU Extension, retired
- 2023 Service to American World Agriculture Honoree - Ambassador Kenneth Quinn
- 4-H Talent Feature
- Recognition of Donors, President-Elect Keith Mickler
- 2027 AM/PIC Hosting State Presentation (Minnesota) Brad Carlson (MN) & Dave Nicolai (MN)
- Introduction of Keynote Speaker, Dr. John Lawrence
- Comments by Iowa Secretary of Agriculture Mike Naig
- Announcements - Dr. Kapil Arora, 2023 AM/PIC Chair

9:00 am - **COMMERCIAL EXHIBIT TRADE SHOW,**
4:30 pm **EDUCATIONAL EXHIBITS, & NACAA POSTER SESSION DISPLAY - OPEN**
IEC Exhibit Hall B, Level 2

10:15 am - **BREAK AND MEET THE AUTHORS POSTER**
SESSION, IEC Exhibit Hall B, Level 2
4-H Talent Feature
Courtesy: Minnesota Association of Extension Agricultural Professionals

10:30 am - **COMMITTEE WORKSHOPS FOR ALL**
11:40 am **MEMBERS** (Workshops are open to all members. Attend any workshop of interest and become active in our Association)

"How to Host an AM/PIC", IEC 301
Presiding: Kapil Arora (IA), 2023 AM/PIC Chair

Communications, IEC 311
Presiding: Ron Patterson (ID), Chair

Search for Excellence, IEC 304
Presiding: Linda McClanahan (KY), Chair

MONDAY, AUGUST 14

MEMBER

Professional Excellence, IEC 305
Presiding: Nick Simmons (FL), Chair

Public Relations & Agricultural Awareness, IEC 306
Presiding: Tyrone Fisher (NC), Chair

Recognition & Awards, IEC 307
Presiding: Ed Lentz (OH), Chair

Scholarship, IEC 308
Presiding: Stephen Hadcock (NY), Chair

4-H & Youth Programming, IEC 309
Presiding: Brittany Council-Morton (FL), Chair

Agronomy & Pest Management, IEC 302-303
Presiding: Ted Wiseman (OH), Chair

Ag Economics & Community Development, IEC 310
Presiding: Madeline Schultz (IA), Chair
Animal Science, IEC 312-313
Presiding: Mark Nelson (UT), Chair

Horticulture and Turf Grass, IEC 314
Presiding: Cyndi Lauderdale (NC), Chair

Natural Resources/Aquaculture, IEC 315
Presiding: Jody Gale (UT), Chair

Sustainable Agriculture, IEC 316
Presiding: Lindy Berg (ND), Chair

Agricultural Issues, IEC 317
Presiding: Elena Rogers (NC), Chair

Early Career Development, IEC 318
Presiding: Heather Schlesser (WI), Chair

Leadership and Administrative Skills, IEC 319
Presiding: Amanda Douridas (OH), Chair

Teaching & Educational Technologies, IEC 320
Presiding: Colt Knight (ME), Chair

10:30 am - **LIFE MEMBERS BUSINESS MEETING**
11:40 am IEC 101
Presiding: John Campbell (TN), National Chair

MONDAY, AUGUST 14

MEMBER

11:45 am - **AGRICULTURE AWARENESS &**
1:15 pm **APPRECIATION AWARD LUNCHEON**
IEC 104 (Ticket Required)
Presiding: Tyrone Fisher (NC), Public Relations & Agricultural Awareness National Committee Chair
Presenter: Leslie Rose (NC) - Nat. Winner
Topic: Increasing Awareness of Spotted Lanternfly in Forsyth County
Presenter: Timothy McDermott (OH) - Nat. Finalist
Topic: Extension Today
Presenter: Victoria Xiong (UT) - Nat. Finalist
Topic: Renovated Cooperation of the "Farm to Table" Program in Kane County
Courtesy: Bayer CropScience

11:45 am **FIRST TIME ATTENDEE LUNCHEON**
1:15 pm IEC 107-108 (Ticket Required)
Presiding: Keith Mickler (GA), President- Elect
Speakers: Cynthia Gregg (VA), Sherri Sanders (AR)
Courtesy: NACAA

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

CROP PRODUCTION
IEC 302/303/304 (Ticket Required)
Presiding: Katie Wantoch (WI), SFE Vice-Chair
Presenter: Phil Kaatz (MI), - Nat. Winner
Topic: MSU Extension Field Crops Team Virtual Breakfast Series
Presenter: Sara Bauder (SD), - Nat. Finalist
Topic: SDSU Extension Crop Hour
Presenter: Nicole Thompson (PA), - Nat. Finalist
Topic: Pesticide Recertification Workbooks for Remote Learners
Presenter: Jason de Koff (TN), - Nat. Finalist
Topic: Tennessee State University Drone Program 2020-2023
Courtesy: NACAA

CONSUMER & COMMERCIAL HORTICULTURE
IEC 102-103 (Ticket Required)
Presiding: Linda McClanahan (KY), Committee Chair
Presenter: Amy Dabbs (SC), - Nat. Winner
Topic: Bee A Friend To Pollinators: Pollinator Education & Agricultural Literacy for SC Educators

MONDAY, AUGUST 14

MEMBER

Presenter: Margaret Pickoff (PA), - Nat. Finalist
Topic: A Hybrid Educational Programming Model For the Pensylvania Green Industry
Presenter: Bethany O'Rear (AL), - Nat. Finalist
Topic: Grow More, Give More Program Closing the Gap of Urban and Rural Food Deserts in Alabama
Presenter: Mayerling Tatiana Sanchez-Jones (FL), - Nat. Finalist
Topic: Region-Wide Extension Support for Watermelon Producers
Courtesy: NACAA

11:45 am - 1:15 pm **EDUCATIONAL LUNCHEON – NEW ADVANCES IN THE FUTURE OF ANIMAL HEALTH - MERCK ANIMAL HEALTH**
IEC 105-106 (Ticket Required)
Presiding: Denise Schwab
Presenting: Brent Meyer, D.V.M., M.S. Beef Technical Services - Merck Animal Health
Courtesy: Merck Animal Health

1:30 pm - 2:30 pm **PROFESSIONAL IMPROVEMENT COUNCIL SEMINARS**

1:30 pm - 2:30 pm **AG ECONOMICS & COMMUNITY DEVELOPMENT**
IEC 310
Presiding: Blake Carter (GA)

1:30 -2:00 pm
Identifying farm management needs of WI's beginning commodity and specialty crop farmers
Presenter: Katie Wantoch (WI)

2:00-2:30 pm
Farm Accounting with Quicken: Going Beyond the Basics
Presenter: Wm. Bruce Clevenger (OH)

1:30 pm - 2:30 pm **HORTICULTURE & TURFGRASS I**
IEC 305
Presiding: Linda Chalker-Scott (WA)

1:30 -2:00 pm
Managing Urban Soils and Growing Media for Food Production
Presenter: Neith Little (MD)

MONDAY, AUGUST 14

MEMBER

2:00 - 2:30 pm
Creating a Resilient Landscape with Arborist Wood Chip Mulch
Presenter: Linda Chalker-Scott (WA)

1:30 pm - 2:30 pm **HORTICULTURE & TURFGRASS II**
IEC 306
Presiding: Danny Lauderdale (NC)
1:30 - 2:00 pm
Making Gadsden County Beautiful One Landscape Collaboration Effort At A Time
Presenter: Robbie Jones (FL)

2:00-2:30 pm
How to Handle Commonplace Root Diseases – An Agents Guide
Presenter: Timothy Waller (NJ)

1:30 pm - 2:30 pm **TRADE TALK CONCURRENT SESSIONS: OPEN TO ALL MEMBERS**
(See page 40-41 for Topic Descriptions)

FORAGE/TURF, SAFETY
IEC 315
Participants: Barenbrug,Pipeline Ag Safety Alliance

ANIMAL SCIENCE, CROP SCIENCE
IEC 316
Participants: Bayer Crop Science, National Pork Board, Iowa State Dairy Association/ Midwest Dairy Association

INTERNATIONAL PROGRAMS
IEC 317
Explorations by Thor

1:30 pm - 2:30 pm **IOWA SPECIAL WORKSHOPS OPEN TO ALL MEMBERS**

Climate Hubs and Extension - Partners in Climate Informed Decisions and Agriculture
IEC 312-313
Presiding: Virgil Schmitt (IA)
Presenting: Dennis Todey and Laura Nowatzke, USDA Midwest Climate Hub

MONDAY, AUGUST 14

MEMBER

Save a Child through Farm Safety Education Programs, IEC 318
Presiding: Denise Schwab (IA)
Presenting: Scott Heiberger, National Children's Center for Rural Agricultural Health and Safety; Megan Schossow, Upper Midwest Agricultural Safety and Health Center (UMASH); Brandi Janseen or Tabity Kuehn, Iowa's Center for Agricultural Safety and Health (I-CASH) and Susan Turner, Progressive Agriculture Foundation

Center for Agricultural Law & Taxation, IEC 319
Presiding: Ryan Drollette (IA)
Presenting: Kristine Tidgren, Center for Agricultural Law & Taxation

2:30 pm - 3:00 pm **BREAK - Refreshments**
4-H Talent Feature
IEC Exhibit Hall B, Level 2
Courtesy: The Ohio State University Extension

3:00 pm - 5:00 pm **REGIONAL MEETINGS & CANDIDATE PRESENTATIONS**
SOUTHERN Region, IEC 312/313/314
NORTH CENTRAL Region, IEC 107-108
NORTHEAST Region, IEC 309
WESTERN Region, IEC 320

5:00 pm **STATES NIGHT OUT**
States make own arrangements

5:30 pm **IOWA - STATE'S NIGHT IN (FOR IOWA ASSOC.)**
Hilton Cloud Ballroom B and C
(by invitation only)
Kevin Kimle, Rastetter Chair of Agricultural Entrepreneurship at Iowa State University will present "Stories of Successful Entrepreneurship"
Recognition of Sponsors
Presiding: Kapil Arora (IA), 2023 AM/PIC Chair

7:00 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** IEC Grand Ballroom
Cash bar available

8:00 pm **NACAA SCHOLARSHIP LIVE AUCTION**
IEC Grand Ballroom, Level 4
Cash bar available

MONDAY, AUGUST 14

MEMBER

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines and Ice Cream from Iowa State University Dairy Science Club

9:00 pm 10:00 pm **STATE PICTURES**
IEC West Entrance, Stairs by Registration

9:00 pm - 10:30 pm **HOSPITALITY ROOMS**
Hilton Hotel
See Registration area for room listings

10:00 pm **IOWA AM/PIC COMMITTEE MEETING**
IEC Board Room 4

TUESDAY, AUGUST 15

6:30 am - 7:30 am **MORNING GROUP EXERCISE**
Hilton Cloud Ballroom A

7:00 am - 8:30 am **ACHIEVEMENT AWARD RECOGNITION BREAKFAST,** IEC 107-108
Presiding: Ed Lentz (OH), Recognition & Awards Committee Chair
Courtesy: American Income Life Insurance Company (Invitation Only)

8:00 am - 2:00 pm **REGISTRATION**
IEC West Entrance, Level 3

7:30 am - 4:00 pm **SNACK BAR**
IEC Exhibit Hall B, Level 2
Courtesy: Illinois Extension Agricultural Association, Missouri Agricultural Extension

8:30 am - 11:30 am **DELEGATE SESSION**
IEC 302/303/304
- Presiding: Phil Durst, NACAA President
- Inspirational Thoughts – Melody Rose, Southern Region Director
- Delegate Roll Call
- Adoption of Agenda
- Appointment of Parliamentarian
- 2022 Delegate Session Minutes
- Nominating Committee Report
- Election of Officers
- Selection of 2027 AM/PIC Site
- Scholarship Committee Report
- NACAA Foundation Report

TUESDAY, AUGUST 15

MEMBER

- Treasurer's Report
- Adoption of 2024 Budget
- Confirmation of Committee Appointments
- New Business
- Confirmation of Directors/Vice Directors
- Recognition of Retiring Officers
- Installation of Incoming Officers, Directors, and Vice Directors
- Remarks: Keith Mickler, President-Elect

8:30 am - 11:30 am **SUPER SEMINAR 1 - Strategies for Building Successful Promotional Packages**
IEC 305
Presenters: Heather Schlesser (WI), Ashley Wright (AZ), Rachel Bearden (AR), Tim Waller (NJ)

8:30 am - 11:30 am **SUPER SEMINAR 2 - Soil Health, Carbon Credits, and Cover Crop Resources**
IEC 312-313
Presenters: Marshall McDaniel (IA), Alejandro Plastina (IA), Anna Morrow (IN)
Sponsored by: Midwest Cover Crops Council

8:30 am - 11:30 am **SUPER SEMINAR 3 - Landscape Mulch Myth-Busting,** IEC 306
Presenters: Dr. Chad Rigsby, Dr. Jeff Iles, Dr. Linda Chalker-Scott
Sponsored by: Barlett Tree Labs

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

8:30 am - 10:00 am **EARLY CAREER DEVELOPMENT SEMINARS,**
IEC 308
Presiding: Rachel Bearden (AR), Ashley Wright (AZ), Tim Waller (NJ)

8:30 - 9:00 am
Farmer-to-Farmer – What's the 411
Presenters: Jonathan Moyle (MD), Maefan Perdue (MD), Jennifer Rhodes (MD), Darren Jarboe (MD)

9:00 - 9:30 am
Experiences and Lessons in Growing an Impactful, Local On-Farm Research Program in South Central Nebraska
Presenter: Sarah Sivits (NE)

TUESDAY, AUGUST 15

MEMBER

9:30 - 10:00 am
Marketing Strategies for Extension Programs: Reaching New Audiences and Making an Impact
Presenter: Ashley Wright (AZ)

8:30 am - 11:30 am **TEACHING & EDUCATIONAL TECHNOLOGIES SEMINARS**
IEC 314
Presiding: David Yates (TN) , Scott Duggan (OR)

8:30 - 9:00 am
Planter University: Taking the Planter Clinic to the Next Level
Presenters: Virgil Schmitt (IA) & Rebecca Vittetoe (IA)

9:00 - 9:30 am
Hey Siri, Create an Extension Program - What are A.I. Chatbots and Will ChatGPT Take My Job?
Presenter: Andrew Holden (OH)

9:30 - 10:00 am
Perceptions of North Carolina Agricultural Extension Agents with Regards to Social Media Use in Extension
Presenter: Howard Wallace (NC)

10:00 - 10:30 am
Tackling the Digital Divide for Agricultural Producers in Ben Hill County, Georgia Through 4-H Youth Instructors
Presenter: Holly Anderson (GA)

10:30 - 11:00 am
Agricultural Tourism Education Uses Multiple Teaching Methods for Success
Presenters: Melissa Fery (OR), Audrey Comerford (OR)

11:00 - 11:30 am
Barns to Beaches: Multi-disciplinary use of Unmanned Aerial Vehicles (UAVs) in Agricultural Extension Work in Florida
Presenters: Jennifer Bearden (FL), Nicholas Simmons (FL), & Ray Bodrey (FL)

TUESDAY, AUGUST 15

MEMBER

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

9:00 am - 11:30 am **4-H & YOUTH**
IEC 315
Presiding: Shannon Dill (MD) , Donna Aufdenberg (MO)

9:00 - 9:30 am
Broiler Chick Project - Partnering 4-H Learning with Local Food Banks
Presenters: Maya Rowe (IA), Sarah DeBour (IA)

9:30 - 10:00 am
Connecting Show Life to Real Life: Improving Youth Livestock Projects Through Additional Livestock Industry Education
Presenter: Mark Mauldin (FL)

10:00 - 10:30 am
Steer Pool: Providing a Real World Livestock Experience
Presenter: Garth Ruff (OH)

10:30 - 11:00 am
Training Trainers to Teach Hydroponics
Presenter: Hannah Wooten (FL)

11:00 - 11:30 am
Hands-on with Honey Bees: Forging Our Next Generation of Beekeepers, Scientists, and Leaders
Presenter: Luis Rodriguez (FL)

8:30 am – 11:30 am **ANIMAL SCIENCE SEMINARS**
IEC 317
Presiding: Mark Nelson (UT), Cassie Yost (PA)

8:30 - 9:00 am:
Beef Cow Size and Record Keeping Project
Presenter: James Humphrey (MO)

9:00 - 9:30 am:
Tackling Dystocia with Sheep and Goat Producers
Presenter: Jacci Smith (OH)

9:30 - 10:00 am:
Forage Utilization and Cow Performance While

TUESDAY, AUGUST 15

MEMBER

Grazing Corn Residue in Nebraska
Presenter: Mary Drewnoski (NE)

10:00 - 10:30 am:
Serving the Research and Extension Needs of Growing Cattle Systems in Nebraska
Presenter: Brent Plugge (NE)

10:30 - 11:00 am:
The Relationship Between Heifer Management Style and Profitability
Presenter: Samantha Gehrett (PA)

11:00 - 11:30 am:
It's a Wormy Deal: Internal Parasite Strategies for Sheep and Goat Producers
Presenter: Melanie Barkley (PA)

8:30 am - 11:30 am **NATURAL RESOURCES/AQUACULTURE SEMINARS**
IEC 318
Presiding: Jody A. Gale (UT), Ross Overstreet (MS), Justin Mansberger (PA)

8:30 - 9:00 am
Tile Drainage and Water Quality Workshops for Women in Agriculture
Presenter: Kristina TeBockhorst (IA)

9:00 - 9:30 am
Mosquitoes Aren't a Barrel of Fun: Efficacy of Mosquito Larvae Control Methods in Rain Barrels
Presenter: Steven Yergeau (NJ)

9:30 - 10:00 am
Miller County Annual Buffalo Gnat Management Program
Presenter: Jennifer Caraway (TX)

10:00 - 10:30 am
Advancing Adoption of Soil Moisture Sensors Through On-Farm Training and Demonstration
Presenter: Alex Deason (MS)

10:30 - 11:00 am
Simple Water Conservation: Use a Rain Barrel
Presenter: Lisa Strange (FL)

TUESDAY, AUGUST 15

MEMBER

11:00 - 11:30 am
Helping Land Managers Control Invasive Plants in Natural Areas
Presenter: Krista Stump (FL)

8:30 am - 11:30 am **SUSTAINABLE AGRICULTURE SEMINARS**
IEC 319
Presiding:Lindy Berg (ND), Anna Hodgson (PA)

8:30 - 9:00 am
Turning Trash to Treasure: Using Milled Cherry Pits as a Garden Soil Amendment
Presenter: Taun Beddes (UT)

9:00 - 9:30 am
Freshly Fort Peck
Presenter: Wendy Becker (MT)

9:30 - 10:00 am
Miscanthus: An Alternative Crop for Marginal Lands?
Presenter: Haley Sater (MD)

10:00 - 10:30 am
A Comprehensive Regional Extension Program for Watermelon Production in Florida
Presenter: Emily Beach (FL)

10:30 - 11:00 am
Calibrating Prescribed Flush Cycles, Drop Fertigation Systems
Presenter: Mark Warren (FL)

11:00 - 11:30 am
Interseeding Cover Crops into Corn and Soybeans: What We've Learned
Presenter: Jennifer Rees (NE)

9:00 am - 3:30 pm **COMMERCIAL EXHIBIT TRADE SHOW, EDUCATIONAL EXHIBITS, AND NACAA POSTER SESSION DISPLAY - OPEN,**
IEC Exhibit Hall B, Level 2

10:00 am - 10:30 am **BREAK - Coffee and Refreshments**
IEC Exhibit Hall B, Level 2
4-H Talent Feature
Courtesy: Wisconsin Association of County Agricultural Agents (WACAA)

TUESDAY, AUGUST 15

11:45 am - 1:15 pm **COMMUNICATION/POSTER AWARDS LUNCHEON,** IEC 302/303/304 (Invitation Only)
Presiding: Ron Patterson (ID), Communications Chair and Nicholas Simmons (FL), Professional Excellence Chair
Courtesy: NACAA

MEMBER

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN LIVESTOCK PRODUCTION PROGRAM LUNCHEON**
IEC 105/106 (Ticket Required)
Presiding: Amber Yutzy (PA), SFE Vice-Chair
Topic: OSU Cattlewomen's Boot Camp
Presenter: JJ Jones (OK) - Nat. Winner
Topic: Small Ruminant Production in Wisconsin
Presenter: Carolyn Ihde (WI) - Nat. Finalist
Topic: Improving Sheep and Goat Production Efficiency and Profitability
Presenter: Melanie Barkley (PA)
Topic: Maine Pastured Pig Program
Presenter: Colt Knight (ME)
Courtesy: National Pork Board

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN YOUNG, BEGINNING OR SMALL FARMS/RANCHER PROGRAM LUNCHEON,** IEC 107-108
(Ticket Required)
Presiding: Linda McClanahan (KY), SFE National Chair
Topic: RU Ready to Farm: Getting Rooted in the Garden State
Presenter: William Hlubik (NJ) - Nat. Winner
Topic: Multifaceted Grape Production Programs for Young, Beginning, or Small Farmers/ Ranchers
Presenter: Gary Gao (OH) - Nat. Finalist
Topic: Developing a Comprehensive Curriculum for New and Beginning Farmers in Northeast Georgia
Presenter: Robyn Stewart (GA)
Topic: Harris County Beginning Farmer Series
Presenter: Jennifer Friend (WV) - Nat. Finalist
Courtesy: Farm Credit

11:45 am - 1:15 pm **SEARCH FOR EXCELLENCE IN ENVIRONMENTAL QUALITY, FORESTRY & NATURAL RESOURCES LUNCHEON**
IEC 102-103 (Ticket Required)
Presiding: Katie Wantoch (WI), SFE Vice-Chair
Topic: Improving Environmental Stewardship on

TUESDAY, AUGUST 15

MEMBER

Equine Farms
Presenter: Laura Kenny (PA) - Nat. Winner
Topic: Marion-Winston Landowner Tour and Regional Forestry Field Day
Presenter: Zachery Brannon (AL) - Nat. Finalist
Topic: Urban Tree Care and Management Education
Presenter: Krista Quinn (AR) - Nat. Finalist
Topic: Implementing Wildlife Conservation in Florida Golf Course Out-of-Play Areas
Presenter: Bonnie Wells (FL) - Nat. Finalist
Courtesy: NACAA

1:30 pm - 4:30 pm **EXTENSION DEVELOPMENT COUNCIL SEMINARS**

1:30 pm - 3:30 pm **LEADERSHIP AND ADMINSTRATIVE SKILLS**
IEC 309
Presiding: Dalton Dockery (NC), Laura Beth Kenny (PA)

1:30 - 2:00 pm
Programmatic Backfill - A Succesful Administrative Plan?
Presenters: Lee Beers (OH), Rob Leeds (OH)

2:00 - 2:30 pm
Building and Sustaining a Positive Team Culture - It Takes all of Us
Presenter: Kenzie Johnston (OH)

2:30 - 3:00 pm
Coming Back To The World of Extension, Perspectives On Surviving As An Experienced "New" Agent
Presenter: Robbie Jones (FL)

3:00 - 3:30 pm
Partnering with County Departments Can Save Money and Expand Impact
Presenter: Caitlin Justesen (FL)

1:30 pm - 4:30 pm **TEACHING AND EDUCATIONAL TECHNOLOGIES SEMINARS**, IEC 314
Presiding: Colt W. Knight (ME), Kelly McGowan (MO)

1:30 - 2:00 pm
How Communicating with Extension Clients has Changed in 45-years
Presenter: Donna Coffin (ME)

TUESDAY, AUGUST 15

MEMBER

2:00 - 2:30 pm
Behind the Scenes with OBS and Other Creative Tools for Program Presentation
Presenters: Andrew Holsinger (IL), Elizabeth Wahle (IL)

2:30 - 3:00 pm
Benefits and Drawback of Creating 360 Videos- A Virtual Reality Powerpoint
Presenters: Kate Hornyak (OH), Rob Leeds (OH), Jacci Smith (OH)

3:00 - 3:30 pm
Free Diagramming Tools for Extension Education
Presenter: Marissa Schuh (MN)

3:30 - 4:00 pm
360º Urban Ag Farm Tours: Taking Virtual to the Next Level
Presenter: James Jasinski (OH)

4:00 - 4:30 pm
Using a Performance Based Learning Model for Beginning Farmer Education Program
Presenters: Jennifer Jensen (ID), Colette DePhelps (ID)

1:30 pm - 3:30 pm **AGRICULTURAL ISSUES SEMINARS**
IEC 307
Presiding: Elena Rogers (NC), Chair

1:30 - 2:00 pm
Helping Small Rural Counties in Utah Participate in the Development of Federal Land Management Policy
Presenter: Trent Wilde (UT)

2:00 - 2:30 pm
Impact of Copper Sulfate Footbath Use on Manure, Soil, and Forage Copper Concentrations – Eastern Wisconsin
Presenting: Aerica Bjurstrom (WI)

2:30 - 3:00 pm
Coshocton County Fall Foliage and Farm Tour – Over 50 Years of Ag Awareness Through Community Collaboration
Presenter: David Marrison (OH)

TUESDAY, AUGUST 15

MEMBER

3:00 - 3:30 pm
Understanding the Health and Safety Needs of Urban Farm Workers
Presenter: Josh Campbell (OK)

1:30 pm - 4:30 pm **PROFESSIONAL IMPROVEMENT COUNCIL SEMINARS,**

1:30 pm - 4:30 pm **4-H & YOUTH**
IEC 315
Presiding: Heather Jennings (MS), Shannon Dill (MD)

1:30 - 2:00 pm
Making 4-H Activities Successful in Arkansas
Presenter: Kyle Sanders (AR)
2:00 - 2:30 pm
Ag Awareness for the Youth of White County
Presenter: Sherri Sanders (AR)

2:30 - 3:00 pm
Georgia's Top Hand Stockmanship and Stewardship
Presenter: Paula Burke (GA)

3:00 - 3:30 pm
Sometimes, Always, Never - The Importance of Teaching Youth about Pest Location
Presenter: Genevieve Christ (PA)

3:30 - 4:00 pm
Career AGsperience: Unlock the Secrets in Helping Youth Prepare for a Successful Career
Presenter: April Barczewski (MD)

4:00 - 4:30 pm
Mustang Camp - Promoting Lasting Change Through Utah 4-H
Presenter: Jessie Hadfield (UT)

1:30 pm - 4:30 pm **AG ECONOMICS AND COMMUNITY DEVELOPMENT**
IEC 310
Presiding: Madeline Schultz, Blake Carter, Chris Zoller (OH)

1:30 - 2:00 pm
Building Relationships with the Ho Chunk Nation through Agricultural Research and Programming
Presenter: Jerry Clark (WI)

TUESDAY, AUGUST 15

2:00 - 2:30 pm
Equipping and Empowering Extension Staff and Industry Professionals to Assist Virginia Agribusinesses to Successfully Transfer Farm Wealth to the Next Generation
Presenter: Rachel Henley (VA)

MEMBER

2:30 - 3:00 pm
A Team Approach to Addressing Farmer Mental Health and Farm and Rural Stress
Presenter: Chris Zoller (OH)

3:00 - 3:30 pm
Tax Planning for Producers Receiving Loan Servicing Assistance Payments
Presenter: C Robert Holcomb (MN)

3:30 - 4:00 pm
Evaluation of Farm Tours as an Effective Teaching Opportunity
Presenters: Hannah Wooten (FL), Jessica Ryals (FL)

4:00 - 4:30 pm
Customer Service Plans are Vital for Direct Farm Marketers & Agritourism Farms
Presenter: Eric Barrett (OH)

2:00 pm - 4:30 pm **AGRONOMY AND PEST MANAGEMENT**
IEC 316
Presiding: Ted Wiseman (OH), Travis Harper (MO)

2:00 - 2:30 pm
A Mobile Drift Risk Advisor for Oklahoma Producers
Presenter: James Lee (OK)

2:30 - 3:00 pm
On-Farm Evaluation of Flutriafol At-Plant Corn Fungicide
Presenter: Stephanie Karhoff (OH)

3:00 - 3:30 pm
Laboratory Soil Fertility Recommendations and Cost Comparison in Sevier County Utah
Presenter: Jody Gale (UT)

TUESDAY, AUGUST 15

MEMBER

3:30 - 4:00 pm
On-Farm Root-Knot Nematode Trials 2021-2022
Presenter: Blake Carter (GA)

4:00 - 4:30 pm
Developing a Variety Assessment Program for Florida Rice Producers
Presenter: Matthew VanWeelden (FL)

1:30 pm - 4:30 pm **ANIMAL SCIENCE**
IEC 317
Presiding: Cassie Yost (PA), Betsy Greene (AZ),

1:30 - 2:00 pm:
Impacts of the Maine Pastured Pig Program
Presenter: Colt Knight (ME)

2:00 - 2:30 pm:
22 Years and 42 Artificial Insemination Classes: Keys to a Successful AI Program
Presenter: Scott Jensen (ID)

2:30 - 3:00 pm
Growth Performance and Carcass Characteristics of Beef X Dairy Crossbred Cattle in the Feedlot. A Research and Extension Campaign
Presenter: Brooke Latack (CA)

3:00 - 3:30 pm
45 Years of Successful Range Livestock Education
Presenter: Melanie Heaton (UT)

3:30 - 4:00 pm
DART Army Reserve Training
Presenter: Donna Patterson (OK)

4:00 - 4:30 pm
Success of Bridging the Communication Gap Between Extension Industry Partners and State Agencies During a Disease Outbreak
Presenter: Abby Schuft (MN)

TUESDAY, AUGUST 15

MEMBER

1:30 pm - 4:30 pm **HORTICULTURE AND TURFGRASS**
IEC 305
Presiding: Kate Kammler (MO)

1:30 - 2:00 pm
Embracing Past Technologies – The Use of Correspondence Courses to Fulfill Pesticide Training Needs
Presenter: Tom Butzler (PA)

2:00 - 2:30 pm
Assessing the Effectiveness of Multi-State Green Industry Trainings
Presenter: Tim Daly (GA)

2:30 - 3:00 pm
ProHort: Programming for Green Industry Professionals
Presenter: Nicole Stoner (NE)

3:00 - 3:30 pm
Growing Missouri Commercial Horticulture with Online Courses
Presenter: Kate Kammler (MO)

3:30 - 4:00 pm
Renovated Cooperation of "Farm to Table" Program in Kane County
Presenter: Victoria Xiong (UT)

4:00 - 4:30 pm
Aphid Attack: Making Integrated Pest Management Education Engaging and Effective
Presenter: Wayne Hobbs (FL)

1:30 pm - 2:30 pm **NATURAL RESOURCES/AQUACULTURE I**
IEC 318
Presiding: Katie Pekarek (NE)

1:30 - 2:00 pm
Live Social Media Forestry Videos Expand Audience as Webinar Educational Tool
Presenter: Neil Clark (VA)

2:00 - 2:30 pm
Vegetative Response in Dorry Canyon to Pack Creek Wildfire
Presenter: Cory Farnsworth (UT)

TUESDAY, AUGUST 15

MEMBER

1:30 pm - 3:00 pm **SUSTAINABLE AGRICULTURE I**
IEC 319
Presiding: Patrick Byers (MO)

1:30 - 2:00 pm
BMP's in the Basin: An Educational Campaign to Preserve the Chipola Basin & Promote Conservation Agriculture
Presenter: Daniel Leonard (FL)

2:00 - 2:30 pm
USU Extension Ag Wellness-The Greatest Asset is You
Presenter: Joshua Dallin (UT)

2:30 - 3:00 pm
Developing Effective Local Beekeeper Associations and Educational Programs While Providing Answers to Common Beekeeping Questions
Presenter: Keith Fielder (GA)

3:00 pm - 3:30 pm **BREAK - Refreshments**
IEC Exhibit Hall B, Level 2
4-H Talent Feature
Courtesy: Nebraska Extension Agents Association

3:30 pm - 5:00 pm **COMMERCIAL EXHIBITS CLOSE AND TAKE DOWN,** IEC Exhbit Hall B, Level 2

4:30 pm - 10:00 pm **IOWA STATE FAIR,**
Gather at Hilton Pre-function Area, Level 2
Courtesy: Iowa Farm Bureau Federation

11:00 pm **IOWA AM/PIC COMMITTEE MEETING**
IEC Board Room 4

WEDNESDAY, AUGUST 16

6:30 am - 7:30 am **MORNING GROUP EXERCISE**
Hilton Cloud Ballroom A

7:00 am - 8:00 am **NATIONAL COMMITTEE MEMBERS BREAKFAST**
IEC 105-106 (Ticket Required)
(For all Present & Incoming Committee Members)
Recognition of Retiring Committee Chairs, Vice Chairs & Special Assignments

WEDNESDAY, AUGUST 16

MEMBER

Presiding: Scott Jensen (ID), NACAA Vice President,
Courtesy: NACAA

7:30 am - 3:00 pm **SNACK BAR**
IEC Grand Concourse, Level 3
Courtesy: North Dakota Association of Agricultural Extension Agents, South Dakota Association of Agricultural Extension Professionals

8:00 am - 2:00 pm **REGISTRATION**
IEC West Entrance, Level 3

8:30 am - 10:00 am **NACAA POLICY MEETING**
IEC 301
Presiding: Mike Hogan (OH) , NACAA Policy Chair

8:15 am - 10:15 am **GENERAL SESSION**
IEC Grand Ballroom, Level 4
Presiding: Phil Durst, NACAA President
- Call to Order and Welcome
- Greetings by Dr. Manjit Misra, Director, USDA-NIFA
- State Membership Awards
- Outstanding Young Farmer Program - Amber Yutzy (PA), Bill Burdine (MS)
- Introduction of Capstone Speaker - Madeline Schultz (IA)
- Capstone Speaker: Jolene Brown
- Oklahoma Hat Presentation - Casey Russell, Past President OAEAA
- Looking ahead - Keith Mickler (GA), NACAA President-Elect
- Announcements: Dr. Kapil Arora (IA), 2023 AM/PIC Chair

10:15 am - 10:30 am: **BREAK - Coffee and Refreshments,**
IEC Exhibit Hall B, Level 2
Courtesy: Kansas Extension Agents Association

10:30 am - 11:30 am **PROFESSIONAL IMPROVEMENT COUNCIL SEMINARS**

10:30 am - 11:30 am **AGRONOMY**
IEC 316
Presiding: Stephan Komar (NJ)

WEDNESDAY, AUGUST 16

MEMBER

10:30 - 11:00 am
Soybean yields Following Cover Crops and Fall-Applied P & K
Presenter: Bill Burdine (MS)

11:00 - 11:30 am
Soybean Omission Trial - The Effect of Crop Inputs on Yield
Presenter: Wayne Flanary (KS)

10:30 am - 11:30 am **ANIMAL SCIENCE**
IEC 317
Presiding: Steve Morgan (GA)
10:30- 11:00
Empowering Woman Producers Using Livestock Boot Camps
Presenter: JJ Jones (OK)

11:00-11:30
Beef Cattle Reproduction Workshops Utilize Multi State Partnerships to Improve Efficiency.
Presenter: Caitlin Justesen (FL)

10:30 am - 11:30 am **HORTICULTURE AND TURFGRASS I**
IEC 305
Presiding: Cyndi Lauderdale (NC)

10:30 - 11:00 am
Promoting Community Pollinator Plantings
Presenter: Jessie Hoover (LA)

11:00 - 11:30 am
Specialty Crop IPM Demo in White County
Presenter: Sherri Sanders (AR)

10:30 am - 11:30 am **HORTICULTURE AND TURFGRASS II**
IEC 306
Presiding: Danny Lauderdale (NC)

10:30 - 11:00 am
Observations in Treating Non-Bearing Pecans with Phosphite
Presenter: Andrew Sawyer (GA)

11:00 - 11:30 am
The Use of Moisture Sensors in Pecans
Presenter: Kyle Sanders (AR)

WEDNESDAY, AUGUST 16

MEMBER

10:30 am - 11:30 am **4-H & YOUTH**
IEC 315
Presiding: Donna Aufdenberg (MO)

10:30 - 11:00 am
Tackling Dystocia with Youth Sheep and Goat Producers
Presenter: Jacci Smith (OH)

11:00 - 11:30 am
Farm Safety Starts with YOUth! Implementing Tractor Safety Certification Statewide in North Dakota
Presenters: Angie Johnson (ND), Lacy Christopher (ND), Renae Gress (ND), Craig Askim (ND), Lindsay Overmyer (ND)

10:30 am - 11:30 am **AG ECONOMICS AND COMMUNITY DEVELOPMENT**
IEC 310
Presiding: Madeline Schultz (IA)

10:30 - 11:00 am
Farmers Markets: More than Corn and Tomatoes - Using the Seven Capitals Framework for Market Growth & Success
Presenter: Lindie Huffman (KY)

11:00 - 11:30 am
Tuesday Market: An Integrated Management Approach Leverages a Small Farmers Market for Synergistic Community Benefits
Presenter: Iris Mayes (ID)

10:30 am - 11:30 am **SUSTAINABLE AGRICULTURE**
IEC 319
Presiding: Matt Loller (FL)

10:30 - 11:00 am
Advancing Cover Cropping to a Purpose-driven, Site-specific Model
Presenter: Sarah Hirsh (MD)

11:00 - 11:30 am
Beyond Rules and Regulations: Food Safety Practices that all Small Produce Farms Need to Understand
Presenter: Elena Rogers (NC)

WEDNESDAY, AUGUST 16

MEMBER

10:30 am - 11:30 am **EXTENSION DEVELOPMENT COUNCIL SEMINARS**

10:30 am - 11:30 am **AGRICULTURAL ISSUES SEMINARS**
IEC 307
Presiding: Connie Strunk (SD), Vice-Chair

10:30 - 11:00 am
Powhatan County's Land Parcelization Through Virginia Cooperative Extension's Community Learning Through Data Driven Discovery (CLD3)
Presenter: Rachel Henley (VA)

11:00 - 11:30 am
Expanding Wildfire Preparedness to Farmers and Ranchers
Presenter: Jacob Powell (OR)

10:30 am - 11:30 am **EARLY CAREER DEVELOPMENT SEMINARS**
IEC 308
Presiding: Heather Schlesser (WI)

10:30 - 11:00 am
Lessons Learned From Managing Grants
Presenter: Kelly Nichols (MD)

11:00 - 11:30 am
Improve Your Writing Skills for Peer-Reviewed Publications
Presenter: Linda Chalker-Scott (WA)

10:30 am - 11:30 am **LEADERSHIP AND ADMINSTRATIVE SKILLS**
IEC 309
Presiding: Amanda Douridas (OH) - Chair

10:30 - 11:00 am
Reopening a County Extension Office after a 45-year "Break."
Presenter: Kurt Jones (CO)

11:00 - 11:30 am
Assessing Needs and Communicating Across Cultures
Presenter: Kalen Taylor (UT)

11:45 am - 3:00 pm **ADMINISTRATIVE LEADERS LUNCHEON & MEETING,** IEC 104 (Ticket Required)
Presiding: Bill Burdine (MS), Past President

WEDNESDAY, AUGUST 16

MEMBER

Presenter: Dr. Manjit K. Misra USDA NIFA Director
Hosted by: USDA NIFA

11:45 am - 1:15 pm **PIPELINE AG SAFETY ALLIANCE EDUCATIONAL LUNCHEON,**
IEC 107-108 (Ticket Required)
Program: Protecting Our Nations Farms As Well As Our Pipeline Infrastructure
Moderator: Keith Perkins (AR), NACAA Treasurer
Sponsored by: Pipeline Ag Safety Alliance

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

FARM & RANCH BUSINESS MANAGEMENT LUNCHEON, IEC 302/303/304 (Ticket Required)
Presiding: Katie Wantoch (WI), SFE Committee Region Vice-Chair
Topic: Know Your Numbers, Know Your Options
Presenter: Jessica Groskopf (NE) - Nat. Winner
Topic: Dairy Business Management To Improve Profitability
Presenter: Cassie Yost (PA) - Nat. Finalist
Topic: Agriculture Law Education Initiatives Annual Agricultural and Environmental Law Conference
Presenter: Paul Goeringer (MD) - Nat. Finalist
Topic: Annie's Project and Annie's Inspired Farm Management Courses for Women in Iowa
Presenter: Madeline Schultz (IA) - Nat. Finalist
Courtesy: NACAA

SEARCH FOR EXCELLENCE IN 4-H AND YOUTH PROGRAMMING LUNCHEON,
IEC 102-103 (Ticket Required)
Presiding: Amber Yutzy, SFE Committee Region Vice-Chair
Topic: Miami County Junior Chefs
Presenter: Amanda Bennett (OH) - Nat. Winner
Topic: Southeastern 4-H Crop Scouting School
Presenter: Brian Hayes (GA) - Nat. Finalist
Topic: Tailgate Day Camp
Presenter: Nicholas Simmons (FL) - Nat. Finalist
Topic: Tractor and Machine Certification for Youth in North Dakota
Presenter: Angie Johnson (ND) - Nat. Finalist
Courtesy: NACAA

WEDNESDAY, AUGUST 16

MEMBER

SEARCH FOR EXCELLENCE IN SUSTAINABLE AGRICULTURE LUNCHEON
IEC 105-106 (Ticket Required)
Presiding: Tatiana Sanchez (FL), SFE Committee Region Vice-Chair
Topic: Alabama Bermudagrass Hay Growers Summit Targets Advanced Producers
Presenter: Kent Stanford (AL) - Nat. Winner
Topic: Central Kansas Forage Systems Demonstration
Presenter: Cade Rensink (KS) - Nat. Finalist
Topic: Building Resources for Small and On-Farm Dairy Processors in Pennsylvania
Presenter: Ginger Fenton (PA) - Nat. Finalist
Topic: Sustainable Urban Food Production Program
Presenter: Lorna Bravo (FL) - Nat. Finalist
Courtesy: NACAA

1:30 pm - 4:00 pm **ARPAS TESTING, ANIMAL SCIENCE**
IEC 311
Moderator: Karl Hoppe (ND), North Central Region Animal Science Committee Vice Chair

1:30 pm - 4:30 pm **SUPER SEMINAR 4 – How to Document Impacts of Video and Social Media Content Beyond View Counts**
IEC 318
Moderators:David Yates (TN), Kelly McGowan (MO), Scott Duggan (OR)
Presenters: Colt Knight (ME), David Yates (TN)

1:30 pm - 4:30 pm **SUPER SEMINAR 5 – Emotional Intelligence as a Lever for Authentic DEI Work**
IEC 319
Moderator: Kimberly Richardson (MT)

1:30 pm - 4:30 pm **SUPER SEMINAR 6 – Reading the Farm**
IEC 317
Moderator: Lindy Berg (ND), Sustainable Ag Committee Chair
Sponsored by: SARE

1:30 pm - 4:30 pm **PROFESSIONAL IMPROVEMENT COUNCIL SEMINARS**

1:30 pm - 2:30 pm **AGRONOMY**
IEC 316
Presiding: Stephen Komar (NJ)

WEDNESDAY, AUGUST 16

MEMBER

1:30 - 2:00 pm
Soil Health and Nematode Response to Integrating Sudan Grass Rotation and Reduced-Risk Nematicides on Carrot in Southern Desert Valleys of California
Presenter: Philip Waisen (CA)

2:00 - 2:30 pm
The Mint Pest Alert – A Decision Support Tool for Mint Producers
Presenter: Christy Tanner (OR)

1:30 pm - 4:30 pm **HORTICULTURE AND TURFGRASS**
IEC 305
Presiding: Ginny Rosenkranz (MD)

1:30 - 2:00 pm
Hydroponic Education in Southeast Missouri
Presenter: Donna Aufdenberg (MO)

2:00 - 2:30 pm
Developing Best Management Practices for Native Plant Nurseries and Landscapes
Presenter: William Errickson (NJ)

2:30 - 3:00 pm
Developing Water-Wise Landscape Design Education
Presenter: Rowe Zwahlen (UT)

3:00 - 3:30 pm
Combining Field Research and Education to Grow the Lavender Industry in Missouri
Presenter: Kelly McGowan (MO)

3:30 - 4:00 pm
Fruit Tree Pruning Clinics – Twenty Years of Programming
Presenter: Eric Barrett (OH)

4:00 - 4:30 pm
Georgia Heritage Apple Orchard: History, Horticulture, and Community
Presenter: Clark Macallister (GA)

1:30 pm - 4:30 pm **PREPARING FOR FOREIGN ANIMAL DISEASES SPECIAL WORKSHOP**
IEC 307
Presenters: Dr. James Roth (IA), Dr. Christopher

WEDNESDAY, AUGUST 16

MEMBER

Rademacher (IA), Dr. Yuko Sato (IA), Danelle Bickett-Weddle (IA), Dr. Kapil Arora (IA), Dr. Jeff Kaisand (IA)

1:30 pm - **LEADERSHIP ACADEMY**
4:30 pm IEC 309
Presiding: Amanda Douridas (OH) - Chair

4:00 pm - **NACAA BOARD RECEPTION**
5:30 pm Presidential Suite Hilton (Invitation only)

4:30 pm - **FORMAL PICTURE OPPORTUNITY**
6:30 pm IEC Pre-function Area, Level 4, Room 402

5:00 pm - **DSA & AA RECIPIENTS, HALL OF FAME**
6:30 pm **RECIPIENTS, NACAA BOARD MEMBERS, REGION DIRECTORS, PAST OFFICERS, SPECIAL ASSIGNMENTS, SPECIAL GUESTS, COUNCIL COMMITTEE CHAIRS AND VICE CHAIRS ASSEMBLE FOR BANQUET**
IEC Pre-function Area, Level 4, Room 402

5:00 pm - **Pre-BANQUET SOCIAL**
6:30 pm IEC Pre-function Area, Level 4
(Cashless bar available)

6:00 pm - **4-H TALENT FEATURE**
IEC Grand Ballroom
4-H Talent featuring Evan Dunkel on piano

6:30 pm **ANNUAL BANQUET**
IEC Grand Ballroom (Ticket Required)

9:15 pm - **PRESIDENT'S RECEPTION**
11:00 pm Hilton Pre-function Area, Level 2
Courtesy: Michigan Association of Extension Agents

10:00 pm **IOWA AM/PIC COMMITTEE MEETING**
IEC Boardroom 2

THURSDAY, AUGUST 17

6:00 am - **BREAKFAST BUFFET**
8:00 am Hilton Cloud Ballroom B & C
Courtesy: Iowa Egg Council, Iowa Poultry Association

THURSDAY, AUGUST 17

6:00 am - **ASSEMBLE FOR PROFESSIONAL**
9:00 am **IMPROVEMENT TOURS**
Assembly area is Hilton Pre-function Area, Level 2, Cloud Ballroom A

MEMBER

6:30 am - **TOUR DEPARTURES**
9:00 am check your ticket time
Courtesy: SARE, Prinsco, Verbio, Fareway, Quaker Oats/PepsiCo, Fairlife

4:45 pm - **NON-TOUR PARTICIPANTS - SHUTTLE BUSES TO DINNER AT SUKUP END ZONE CLUB WILL DEPART FROM** Pre-function Area, Level 2

4:30 pm **INFORMATIONAL BOOTHS OPEN**
7:00 pm Level 1, Sukup End Zone, Jack Trice Stadium, Ames, IA
Iowa State University houses some of the leading and specialized national, regional, and state centers as well as departments and extension programs for addressing different agricultural and natural resources issues.
The following booths will be open for farewell meal participants to visit and discuss different topics of interest with booth staff.

#	Name
1	Ag Decision Maker
2	Department of Agricultural Education
3	Agricultural Marketing Resource Center
3a	Farm, Food and Enterprise Development Program
4	Center for Agricultural Law and Taxation
5	Crop Protection Network
6	Egg Industry Center
7	Iowa Nutrient Research Center
8	Iowa Pork Industry Center
9	Midwest Wine and Grape Industry Center
10	ISU Creamery
11	ISU Farms
12	ISU Meat Laboratory
13	ISUEO Master Gardeners
14	Plant and Insect Diagnostic Clinic

THURSDAY, AUGUST 17

MEMBER

4:30 pm **MUSICAL ENTERTAINMENT**
7:00 pm Level 1, Sukup End Zone, Jack Trice Stadium, Ames, IA
Dairy Larry and da Udders with Special 4-H Talent Guest Madie Deutmeyer

5:00 pm - **FAREWELL DINNER**
7:00 pm Sukup End Zone Club
Sponsored by: Sukup Manufacturing, Iowa Beef Industry Council, John Deere & Company

5:00 pm - Buses will run to IEC from Sukup End Zone
8:00 pm with last departure from Sukup at 8:00 pm

10:00 pm **IOWA AM/PIC COMMITTEE MEETING,**
Hilton Matrix

FRIDAY, AUGUST 18

8:00 am - **NACAA BOARD MEETING**
5:00 pm Hilton Matrix

TRADE TALK SESSION TOPICS:

(Concurrent Sessions held Monday afternoon, August 14, 2023)

FORAGE/TURF, SAFETY
IEC - 315

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,
Farming Safely Around Utilities

Whether it's installing a new fence, planting a garden, or maintaining a firebreak, every ground disturbing activity has the potential to impact a utility. Join the Pipeline Ag Safety Alliance to learn best practices on preventing damage to buried utilities while keeping land and communities safe and productive. This will be a shortened version of the luncheon to follow on Wednesday. For more information visit PipelineAgSafetyAlliance.com.

ANIMAL SCIENCE/CROP SCIENCE
IEC - 316
Bayer CropScience

Selective Herbicides at Bayer CropScience: What You Need to Know. John Buol, PhD. North America Technical Manager – Selective Herbicides at Bayer CropScience.

Selective herbicides can play a pivotal role in an integrated weed management system. As herbicide resistance in agricultural weeds continues to challenge crop producers, Bayer CropScience is committed to innovating and delivering weed management solutions that promote our vision of health for all, hunger for none. Participants will receive an overview of Bayer CropScience's selective herbicide products for broad acre crops and will be able to identify how these products fit Bayer's purpose of science for a better life.

National Pork Board

Topics discussed will be on the latest initiative of the National Pork Board and how American agriculture is positively being impacted.

Midwest Dairy Association

Maureen Windisch serves as Midwest Dairy Senior Manager of Consumer Insights & Data Analytics. In this role, Maureen is responsible for bringing the voice of consumers to Midwest Dairy's partners to grow consumer trust and sales of dairy products at stores and restaurants . She has over 20 years of market research experience in the food industry. Before joining Midwest Dairy, about a year ago, she worked for several food manufacturers such as Unilever and Schwan's as well as two market research firms out of Chicago (Circana and The NPD Group). Today she will be talking about what is compelling consumers to purchase dairy.

INTERNATIONAL PROGRAMS
IEC - 317

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 discuss travel in a post Covid environment and open the floor to any questions you might have related to travel.

2023 SERVICE TO AMERICAN/WORLD AGRICULTURE AWARD RECIPIENT

Dr. Kenneth M. Quinn
Former U.S. Ambassador to the Kingdom of Cambodia

Kenneth M. Quinn's two careers span 52 years of public service. He is recognized internationally for his success in confronting hunger, enhancing rural development and thwarting terrorism by promoting "Peace through Agriculture."

Quinn was born in the Bronx, NY, and grew up in Dubuque, Iowa. Following college graduation he was inspired to begin a 32 year career (1967 – 1999) with the American Foreign Service dominated by anti-terrorism and humanitarian assignments. His first assignment was village pacification in Vietnam (1967 – 1974). With the war raging, he worked to improve rural roads and infrastructure while ag extension agents were introducing IR-8, the miracle rice varieties developed in the Philippines using breeding techniques credited to Dr. Norman Borlaug. The improved roads and extension assistance resulted in increased ag production and access to ag inputs, markets, medical services and educational opportunities. As the rural economy improved, the appeal of the Viet Cong was reduced. Quinn addressed similar situations throughout his career and successfully applied the important strategies that he learned early in his career to improve lives and livelihoods elsewhere.

Serving along the Cambodian border, Quinn was also involved in life and death decisions earning the Army Air Medal for accompanying helicopter operations in combat situations. He also was first to report the flood of refugees into Vietnam fleeing the Khmer Rouge and the Killing Fields of Cambodia.

Because of his Vietnamese language skills and his knowledge of the war torn area, Quinn served as interpreter for President Gerald Ford in meetings with Senior South Vietnamese officials. He was instrumental in rescuing thousands of Vietnamese refugees in the days immediately before South Vietnam collapsed.

Quinn assisted Iowa Governor Robert Ray from 1975 till the early 1980s -welcoming the Tai Dam from Laos, rescuing the Vietnamese "boat people", and serving as the Executive Director of the Iowa SHARES program which sent lifesaving food and medicine along with volunteer doctors and nurses to sustain those escaping the Cambodian civil war in refugee camps in Thailand.

In the fall of 1980, Quinn hosted a delegation of Chinese Governors that came to Iowa to learn about productive agriculture. The Chinese group was led by Governor Xi Zhongxun, the father of Xi Jinping, the current President of China. Governor Xi became the chief architect of agriculture transformation and the Chinese economic development which followed. In 2012 Quinn hosted a U.S.-China High Level Ag Symposium with then Chinese VP Xi Jinping as keynote speaker.

In the early 1990s Quinn served as Deputy Assistant Secretary in the East Asia Bureau for the State Department where he oversaw development projects emphasizing infrastructure improvement and increased ag productivity in the Philippines, the Middle East and Cambodia. Quinn served as the U.S. Ambassador to Cambodia (1996-1999). As a result of these programs, the Khmer Rouge surrendered in March, 1999, ending the genocidal war which had claimed over 2 million victims out of an original population of 7 million.

Dr. Borlaug and businessman John Ruan, Sr. founded the World Food Prize in 1986 hoping it would become the "Nobel Prize for Food and Agriculture" and that Central Iowa would be seen as the Hunger Fighting Capital of America and the World. Ambassador Quinn served as World Food Prize President (2000 – 2020). Using his international contacts and exceptional communication and organizational skills, the visions of Borlaug and Ruan have been realized.

The $250,000 World Food Prize is awarded annually to individuals who have increased the productivity, quality and distribution of food. From 1987 – 2022, 51 individuals (43 men and 8 women) from 21 countries have been named WFP Laureates. Ambassador Quinn considers the following as significant achievements he initiated during his tenure as WFP President:

The laureate is announced in a ceremony at the State Department in Washington, D.C. each spring. The newest Laureate (s) receive their award in October at the Iowa State Capitol building in a unique ceremony that is televised and webcast live and is said to rival that of the Nobel Peace Prize.

The Dr. Norman E. Borlaug Award for Field Research and Application recognizes achievement in international agriculture and food production by an individual under the age of 40.

The Iowa Hunger Summit highlights efforts of Iowans to alleviate hunger both at home and abroad.

The World Food Prize youth education programs to inspire the next generation of students to be leaders combating hunger. Over 10,000 students from 26 U.S. states and 10 foreign countries participate annually. This has been accomplished through the Global Youth Institute, Borlaug-Ruan International Scholarships, Wallace-Carver USDA Fellowships, the Iowa Youth Institute and Youth Institutes in 23 other states and 2 foreign countries. Details of these programs are available on the World Food Prize website (https://www.worldfoodprize.org/).

The Norman E. Borlaug International Symposium is a three-day conference that focuses on the issues of global food security and nutrition. It annually attracts over 1,000 participants from more than 50 countries and has been referred to as "the premier conference in the world on global agriculture." The Symposium provides a neutral place where citizens from adversarial countries can meet, compare notes, work together to resolve common problems and continue the legacy of Dr. Borlaug.

Quinn initiated a $36 million campaign which transformed the former Des Moines Public Library into the WFP headquarters and Norman Borlaug Hall of Laureates. It is a destination for all to visit in Des Moines.

To honor Dr Borlaug, Quinn initiated the successful campaigns for Dr. Borlaug to receive the Congressional Gold Medal in 2007 and the installation of Borlaug's statue in the US Capitol on March 25, 2014, the centennial of Borlaug's birth.

On August 26th, 2014, Iran held a centennial observance of Dr Borlaug's birth. Ambassador Quinn spoke at the Iranian celebration. Quinn was the first former U.S. Ambassador ever invited to address a conference organized by the Iranian government.

In retirement Ambassador Quinn continues his work in service to US/ World Agriculture as a Foot Soldier in the Green Revolution promoting food for peace.

2023 AM/PIC SPEAKER PROFILES

Simon Estes (born March 2, 1938) is an operatic bass-baritone of African-American descent who had a major international opera career beginning in the 1960s. He has sung at most of the world's major opera houses as well as in front of presidents, popes and internationally renowned figures and celebrities including Bill Clinton, Richard Nixon, Boris Yeltsin, Yasser Arafat, Nelson Mandela and Desmond Tutu. Notably, he was part of the first generation of black opera singers to achieve widespread success and is viewed as part of a group of performers who were instrumental in helping to break down the barriers of racial prejudice in the opera world.

Thomas J. Vilsack was confirmed as the 32nd United States Secretary of Agriculture on Feb. 23, 2021 by the U.S. Senate. He was nominated by President Joe Biden to return to the role he served for eight years under President Barack Obama.

Under Secretary Vilsack's leadership, the U.S. Department of Agriculture is building back better by restoring the American economy, strengthening rural and historically underserved communities, responding to threats of climate change, creating good-paying jobs for American workers and the next generation of agricultural leaders, and investing in our kids and our families.

Secretary Vilsack is spearheading a transformation of the food system by creating more, better, and fairer markets and ensuring that the food system of today and the future is more resilient and more competitive globally. It will also offer consumers affordable, nutritious food grown closer to home.

From excessive drought to more extreme fires, our producers, farmers and ranchers are on the frontlines confronting the challenges associated with climate change. USDA is engaging the agriculture and forestry sectors in voluntary, incentive-based climate solutions to improve the resiliency of producers and to build wealth that stays in rural communities. Additionally, USDA is advancing investments in science and research to offer producers a toolbox to adapt to and mitigate climate change.

Secretary Vilsack continues to take bold, historic action to reduce barriers to access for historically underserved communities. By working to ensure all aspects of civil rights and equity are integrated, USDA is rooting out generations of systemic racism and building systems and programs inclusive of all USDA employees and customers.

Secretary Vilsack is also focused on ensuring Americans have consistent access to safe, healthy, and affordable food. USDA is investing in bold solutions that enhance food safety, improve the various far-reaching and powerful nutrition programs in the Department, and reduce food and nutrition insecurity in America.

Jolene Brown is a walking-talking spokesperson and champion for the people of agriculture. She's a farmer in Eastern Iowa, contributor to *Successful Farming* magazine's popular family business column, author of three great books and an inductee into the prestigious CPAE Speaker Hall of Fame. Her worldwide audiences appreciate her fun-filled spirit and valuable information. She's on a mission to share leading-edge best practices, appreciation, laughter and celebration to increase productivity, profitability and peace of mind.

LIFE MEMBER & SPOUSES

Brown's presentation is entitled:

"It's a Jungle Out There! Blazing New Trails for Agriculture"™

They're lurking in the jungle… changing job expectations, diverse needs of those we serve, rules and regulations and more. It's time to blaze a new trail because the pace, the people, our processes, our products, and programs have all changed, have we? During this fun-filled, eye-opening presentation, we'll discover today's top influencers on those we lead and serve. We'll learn the value of what we do is in the eye of the consumer, not the creator. With lots of humor and real-life stories, we'll laugh while we learn the joys of blazing trails in agriculture's "jungle!"

For more information please see: www.JoleneBrown.com

LIFE MEMBER & SPOUSES PROGRAM 2023 NACAA ANNUAL MEETING

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

SATURDAY, AUGUST 12

3:00 pm - **REGISTRATION**
6:00 pm IEC West Entrance, Level 3

SUNDAY, AUGUST 13

8:00 am- **REGISTRATION & SCHOLARSHIP AUCTION**
7:00 pm **DROP OFF**
IEC West Entrance, Level 3
Registration Bag Courtesy: Southern Risk

Management Education Center, Catch Des Moines, MERCK, John Deere, Pipeline Ag Safety Alliance, Fairlife, Quaker Oats / PepsiCo

8:00 am - **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
5:00 pm Hilton (See Registration for Room Number)

9:00 am - **COMMERCIAL EXHIBIT TRADE SHOW, EDUCATIONAL EXHIBITS, & NACAA POSTER SESSION SETUP,**
1:00 pm IEC Exhibit Hall B, Level 2
Coordinator: Nick Simmons, Professional Excellence Committee Chair

12:00 pm - **PAST NATIONAL OFFICERS &**
2:00 pm **BOARD LUNCHEON,** IEC 302/303/304
Presiding: Bill Burdine, Past President

2:00 pm - **BREAK - Coffee and Refreshments**
3:30 pm IEC Exhibit Hall B, Level 2

2:00 pm - **LIFE MEMBER/SPOUSE ORIENTATION,** IEC 307
2:45 pm Presiding: Alan Ladd (IA), Life Member

2:00 pm - **FIRST LADY'S RECEPTION**
4:00 pm Hilton Presidential Suite (Invitation only)

4:30 pm - **WELCOME TO IOWA DINNER**
6:30 pm IEC Exhibit Hall B, Level 2
(Ticket Required)
Courtesy: NACAA/IAEA

6:00 pm - **PARENTS ORIENTATION FOR SONS AND**
6:45 pm **DAUGHTERS PROGRAM,** IEC 309
Presiding: Jennifer Bentley (IA), and 2023 AM/PIC Secretary

7:00 pm - **OPENING SESSION & INSPIRATIONAL**
8:45 pm **PROGRAM,** IEC Grand Ballroom
Presiding: Phil Durst (MI), NACAA President
- Welcome by President Durst
- Invocation - Phil Kaatz (MI)
- Presentation of colors - Iowa State University Air Force ROTC
- Pledge of Allegiance & 4-H Pledge Owen Bentley, Addison Bentley & Madie Deutmeyer
- National Anthem performed by Simon Estes
- Isiserettes Drill & Drum Corps Presentation of State Flags - Narrated by Larry Tranel (IA)
- Welcome and introduction of Governor

LIFE MEMBER & SPOUSES

SUNDAY, AUGUST 13

Kim Reynolds (invited) – Dr. Jason Henderson, Vice-President, Iowa State University Extension and Outreach
- Welcome by Governor Kim Reynolds
- Special speaker: Simon Estes
- Announcements: Dr. Kapil Arora, 2023 AM/PIC Chair

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines, Ice Cream from Iowa State University Creamery

9:00 pm - **STATE PICTURES**, **West Entrance, Stairs by**
10:00 p.m. **Registration**
(See schedule in back of program)

9:00 pm - **HOSPITALITY ROOMS**
10:30 pm Hilton (See Registration for Room Numbers)

10:00 pm **IOWA AM/PIC COMMITTEE MEETING**
IEC Boardroom 4

LIFE MEMBER & SPOUSES

MONDAY, AUGUST 14

6:30 am - **MORNING GROUP EXERCISE**
7:30 am Hilton Cloud Ballroom A

6:30 am - **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
5:00 pm Continental breakfast, grab & go items, drinks, snacks and other refreshments throughout the day. Hilton (See Registration for Room Number)

7:30 am - **SNACK BAR**
4:00 pm IEC Exhibit Hall B, Level 2

8:00 am - **REGISTRATION & SCHOLARSHIP AUCTION**
5:00 pm **DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON)**
IEC West Entrance, Level 3

8:00 am - **GENERAL SESSION**
10:15 am IEC Grand Ballroom
Presiding: Phil Durst, NACAA President
- Happy Faces Video 2022
- Welcome - Dr. John Lawrence, retired Vice President Extension & Outreach
- Report to the Membership
- Introduction of 2023 Service to American/ World Agriculture Honoree, George Cummins, ISU Extension, retired

MONDAY, AUGUST 14

- 2023 Service to American World Agriculture Honoree - Ambassador Kenneth Quinn
- 4-H Talent Feature
- Recognition of Donors, President-Elect Keith Mickler
- 2027 AM/PIC Hosting State Presentation (Minnesota) Brad Carlson (MN) & Dave Nicolai (MN)
- Introduction of Keynote Speaker, Dr. John Lawrence
- Comments by USDA Secretary Tom Vilsack (invited)
- Announcements - Dr. Kapil Arora, 2023 AM/PIC Chair

9:00 am - **COMMERCIAL EXHIBIT TRADE SHOW,**
3:00 pm **EDUCATIONAL EXHIBITS, & NACAA POSTER SESSION DISPLAY - OPEN**
IEC Exhibit Hall B, Level 2

9:00 am - **SPOUSE WORKSHOPS**
11:00 am **WORKSHOP 1 - The Science of Parenting: Understanding Research and Reality**
Hilton - Element

10:30 am - **LIFE MEMBERS BUSINESS MEETING**
11:45 am IEC 101
Presiding: John Campbell, Chair

10:15 am - **BREAK AND MEET THE AUTHOR 's POSTER SESSION,** IEC Hall B
Courtesy:Minnesota Association of Extension Agricultural Professionals

12:00 noon - **LIFE MEMBER/SPOUSE LUNCHEON**
1:30 pm IEC 101
Presiding: Alan Ladd
Guest Speaker: Jeff Stein

1:30 pm - **SPOUSE ACTIVITIES**
4:30 pm Hilton Pre-function Area, Level 2
Shuttle vans will start transport at 1:00 pm for both Activity 1 and Activity 2 at the Hilton Pre-function area. Arrive as soon as possible. Final Van leaving at 1:30 pm

ACTIVITY 1 – State Capitol and World Food Prize Center

ACTIVITY 2 – Botanical Gardens

LIFE MEMBER & SPOUSES

MONDAY, AUGUST 14

2:00 pm - **SPOUSE WORKSHOP**
3:30 pm

WORKSHOP 3 - Wildlife Conservation in Iowa
Hilton - Element

2:30 pm - **BREAK - Refreshments**
3:00 pm IEC Exhibit Hall B, Level 2

3:00 pm - **REGIONAL MEETINGS & CANDIDATE**
5:00 pm **PRESENTATIONS**
SOUTHERN Region, IEC 312/313/314
NORTH CENTRAL Region, IEC 107-108
NORTHEAST Region, IEC 309
WESTERN Region, IEC 320

5:00 pm **STATES NIGHT OUT**
States make own arrangements

5:30 pm **IOWA - STATE'S NIGHT IN (FOR IOWA ASSOC.)**
Hilton Cloud Ballroom B and C
(by invitation only)
Honorable Secretary of Agriculture for Iowa, Mr. Mike Naig will present on Future of Iowa's Agriculture
Recognition of Sponsors

7:00 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** IEC Grand Ballroom
Cash bar available

8:00 pm **NACAA SCHOLARSHIP LIVE AUCTION**
IEC Grand Ballroom
Cash bar available

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines and Ice Cream from Iowa State University Dairy Science Club

9:00 pm **STATE PICTURES**
10:00 pm IEC West Entrance, Stairs by Registration

9:00 pm - **HOSPITALITY ROOMS**
10:30 pm Hilton Hotel
See Registration area for room listings

10:00 pm **IOWA AM/PIC COMMITTEE MEETING,**
IEC Board Room 4

LIFE MEMBER & SPOUSES

TUESDAY, AUGUST 15

6:30 am - **MORNING GROUP EXERCISE**
7:30 am Hilton Cloud Ballroom A

6:30 am - **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
5:00 pm Continental breakfast, grab & go items, drinks, snacks and other refreshments throughout the day. Hilton (See Registration for Room Number)

8:00 am - **REGISTRATION**
2:00 pm IEC West Entrance, Level 3

7:30 am - **SNACK BAR**
4:00 pm IEC Exhibit Hall B, Level 2

8:30 am - **DELEGATE SESSION**
11:30 am IEC 302/303/304

8:15 am - **SPOUSE ACTIVITIES**
2:00 pm **ACTIVITY - Living History Farms**
Gather at 8:15 am depart 8:30 am
(8:30 am - 2:00 pm)
Buses depart from the Hilton
Pre-function Area, Level 2

ACTIVITY - Nothing Compares to the Iowa State Fair 8:45 am - 2:00 pm
Walk a block to ride the DART Bus. Tickets needed for the bus ride will be provided.
Pre-function Area, Level 2

9:00 pm - **COMMERCIAL EXHIBIT TRADE SHOW,**
3:30 pm **EDUCATIONAL EXHIBITS, AND NACAA POSTER SESSION DISPLAY - OPEN**
IEC Exhibit Hall B, Level 2

9:30 am - **SPOUSE WORKSHOP**
11:00 am **WORKSHOP 1 - Preserve the Taste of Summer**
Hilton - Element

10:00 am - **BREAK - Coffee and Refreshments**
10:30 am IEC Exhibit Hall B, Level 2
Courtesy: Wisconsin Association of County Agricultural Agents (WACAA)

3:00 pm - **BREAK - Refreshments**
3:30 pm IEC Exhibit Hall B, Level 2
Courtesy: Nebraska Extension Agents Association

3:30 pm - **COMMERCIAL EXHIBITS CLOSE AND TAKE**
5:00 pm **DOWN,** IEC Exhibit Hall B, Level 2

LIFE MEMBER & SPOUSES

TUESDAY, AUGUST 15

4:30 pm - **IOWA STATE FAIR**
10:00 pm Gather at Hilton Pre-function Area, Level 2
Courtesy: Iowa Farm Bureau Federation

11:00 pm **IOWA AM/PIC COMMITTEE MEETING,**
IEC Board Room 4

WEDNESDAY, AUGUST 16

6:30 am - **MORNING GROUP EXERCISE**
7:30 am Hilton Cloud Ballroom A

6:30 am - **LIFE MEMBER & SPOUSES HOSPITALITY ROOM**
5:00 pm Continental breakfast, grab & go items, drinks, snacks and other refreshments throughout the day. Hilton (See Registration for Room Number)

7:30 am - **SNACK BAR**
3:00 pm IEC Grand Concourse, Level 3

8:00 am - **REGISTRATION**
2:00 pm IEC West Entrance, Level 3

8:15 am - **GENERAL SESSION**
10:15 am IEC Grand Ballroom, Level 4
Presiding: Phil Durst, NACAA President
- Call to Order and Welcome
- Greetings by Dr. Manjit Misra, Director, USDA-NIFA
- State Membership Awards
- Outstanding Young Farmer Program - Amber Yutzy (PA), Bill Burdine (MS)
- Introduction of Capstone Speaker - Madeline Schultz (IA)
- Capstone Speaker: Jolene Brown
- Oklahoma Hat Presentation - Casey Russell, Past President OAEAA
- Looking ahead - Keith Mickler (GA), NACAA President-Elect
- Announcements: Dr. Kapil Arora (IA), 2023 AM/PIC Chair

7:45 am - **LIFE MEMBERS & SPOUSES ACTIVITIES** -
4:30 pm Pre-function Area, Level 2 - Hilton
ACTIVITY: Bridges of Madison County
Gather at 7:30 am depart 7:45 am
(7:45 am - 4:30 pm)
Buses depart from the Hilton
Pre-function Area, Level 2

ACTIVITY: Iowa State University Tour
Gather at 9:00 am depart 9:15 am
(9:15 am - 4:00 pm)

LIFE MEMBER & SPOUSES

WEDNESDAY, AUGUST 16

Vans depart from the Hilton
Pre-function Area, Level 2

4:00 pm - **NACAA BOARD RECEPTION**
5:30 pm Presidential Suite Hilton (Invitation only)

4:30 pm - **FORMAL PICTURE OPPORTUNITY**
6:30 pm IEC Pre-function Area, Level 4, Room 402

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IEC Pre-function Area, Level 4
(Cashless bar available)

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6:30 pm **ANNUAL BANQUET**
IEC Grand Ballroom (Ticket Required)

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10:30 pm Pre-function Area, Level 2 Hilton

10:00 pm **IOWA AM/PIC COMMITTEE MEETING,**
IEC Boardroom 2

THURSDAY, AUGUST 17

6:00 am - **BREAKFAST BUFFET**
8:00 am Hilton Cloud Ballroom B & C
Courtesy: Iowa Egg Council, Iowa Poultry Association

6:00 am - **ASSEMBLE FOR PROFESSIONAL**
9:00 am **IMPROVEMENT TOURS**
Assembly area is Hilton Pre-function Area, Level 2, Cloud Ballroom A

6:30 am - **TOUR DEPARTURES**
9:00 am check your ticket time
Courtesy: SARE, Prinsco, Verbio, Fareway, Quaker Oats/PepsiCo, Fairlife

LIFE MEMBER & SPOUSES

LIFE MEMBER & SPOUSES

THURSDAY, AUGUST 17

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7:00 pm Level 1, Sukup End Zone, Jack Trice Stadium, Ames, IA
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3	Agricultural Marketing Resource Center
3a	Farm, Food and Enterprise Development Program
4	Center for Agricultural Law and Taxation
5	Crop Protection Network
6	Egg Industry Center
7	Iowa Nutrient Research Center
8	Iowa Pork Industry Center
9	Midwest Wine and Grape Industry Center
10	ISU Creamery
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12	ISU Meat Laboratory
13	ISUEO Master Gardeners
14	Plant and Insect Diagnostic Clinic

4:30 pm **MUSICAL ENTERTAINMENT**
7:00 pm Level 1, Sukup End Zone, Jack Trice Stadium, Ames, IA
Dairy Larry and da Udders with Special 4-H Talent Guest Madie Deutmeyer

5:00 pm - **FAREWELL DINNER**
7:00 pm Sukup End Zone Club
Sponsored by: Sukup Manufacturing, Iowa Beef Industry Council, John Deere & Company

5:00 pm - Buses will run to IEC from Sukup End Zone
8:00 pm with last departure from Sukup at 8:00 pm

10:00 pm **IOWA AM/PIC COMMITTEE MEETING**
Hilton Matrix

SONS & DAUGHTERS PROGRAM 2023 NACAA ANNUAL MEETING

SATURDAY, AUGUST 12

3:00 pm - **REGISTRATION**
6:00 pm IEC West Entrance, Level 3

SUNDAY, AUGUST 13

8:00 am- **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF**
7:00 pm IEC West Entrance, Level 3
Registration Bag Courtesy: Southern Risk Management Education Center, Catch Des Moines, MERCK, John Deere, Pipeline Ag Safety Alliance, Fairlife, Quaker Oats / PepsiCo

4:30 pm - **WELCOME TO IOWA DINNER**
6:30 pm IEC Exhibit Hall B, Level 2
(Ticket Required)
Courtesy: NACAA/IAEA

6:00 pm - **PARENTS ORIENTATION FOR SONS AND DAUGHTERS PROGRAM,** IEC 309
6:45 pm Presiding: Jennifer Bentley (IA), 2023 AM/PIC Secretary

7:00 pm - **OPENING SESSION & INSPIRATIONAL PROGRAM,** IEC Grand Ballroom
8:45 pm Presiding: Phil Durst (MI), NACAA President

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines, Ice Cream from Iowa State University Creamery

9:00 pm - **STATE PICTURES**, IEC West Entrance, Stairs by
10:00 p.m. Registration
(See schedule in back of program)

SONS & DAUGHTERS

MONDAY, AUGUST 14

6:30 am - **MORNING GROUP EXERCISE**
7:30 am Hilton Cloud Ballroom A

8:00 am - **REGISTRATION & SCHOLARSHIP AUCTION DROP OFF (AUCTION ITEM DROP OFF CONCLUDES AT 12:00 NOON),**
5:00 pm IEC West Entrance, Level 3

MONDAY, AUGUST 14

7:30 am **SONS & DAUGHTERS GATHER**
Hilton Cloud Ballroom A

7:45 am **SONS & DAUGHTERS DEPART FOR**
Iowa State University Tour

4:30 pm **SONS & DAUGHTERS RETURN**
Hilton Cloud Ballroom A

4:30 pm **STATES NIGHT OUT**
States make own arrangements

5:30 pm **IOWA - STATE'S NIGHT IN (FOR IOWA ASSOC.)**
Hilton Cloud Ballroom B and C
(by invitation only)
Honorable Secretary of Agriculture for Iowa, Mr. Mike Naig will present on Future of Iowa's Agriculture
Recognition of Sponsors

7:00 pm **NACAA SCHOLARSHIP SILENT AND LIVE AUCTION PREVIEW,** IEC Grand Ballroom
Cashless bar available

8:00 pm **NACAA SCHOLARSHIP LIVE AUCTION,**
IEC Grand Ballroom

9:00 pm **ICE CREAM SOCIAL**
IEC Pre-function Area, Level 4
Courtesy: Catch Des Moines and Ice Cream from Iowa State University Dairy Science Club

SONS & DAUGHTERS

TUESDAY, AUGUST 15

8:00 am - **REGISTRATION**
2:00 pm IEC West Entrance, Level 3

8:15 am **SONS & DAUGHTERS GATHER**
Hilton Cloud Ballroom A

8:30 am **SONS AND DAUGHTERS DEPART FOR**
Living History Farms

2:00 pm **SONS & DAUGHTERS RETURN**
Hilton Cloud Ballroom A

2:00 pm - **SONS & DAUGHTERS GAMES & ACTIVITIES**
4:00 pm Hilton Cloud Ballroom A

4:30 pm - **IOWA STATE FAIR,**
10:00 pm Gather at Hilton Pre-function Area, Level 2

WEDNESDAY, AUGUST 16

8:15 am **SONS & DAUGHTERS GATHER**
Hilton Cloud Ballroom A

8:30 am **SONS & DAUGHTERS DEPART FOR**
Blank Park Zoo

3:00 pm **SONS & DAUGHTERS RETURN**
Hilton Cloud Ballroom A

3:00 pm - **SONS & DAUGHTERS GAMES & ACTIVITIES**
5:00 pm Hilton Cloud Ballroom A

6:30 pm - **SONS & DAUGHTERS FAREWELL PARTY**
8:30 pm Hilton Cloud Ballroom A

THURSDAY, AUGUST 17

6:00 am - **BREAKFAST BUFFET**
8:00 am Hilton Cloud Ballroom B & C
Courtesy: Iowa Egg Council, Iowa Poultry Association

6:00 am - **ASSEMBLE FOR PROFESSIONAL IMPROVEMENT TOURS**
9:00 am Assembly area is Hilton Pre-function Area, Level 2, Cloud Ballroom A

6:30 am - **TOUR DEPARTURES**
9:00 am check your ticket time
Courtesy: SARE, Prinsco, Verbio, Fareway, Quaker Oats/PepsiCo, Fairlife

4:45 pm - **NON-TOUR PARTICIPANTS - SHUTTLE BUSES TO DINNER AT SUKUP END ZONE CLUB WILL DEPART FROM** Pre-function Area, Level 2

5:00 pm - **FAREWELL DINNER**
7:00 pm Sukup End Zone Club
Sponsored by: Sukup Manufacturing, Iowa Beef Industry Council, John Deere & Company

5:00 pm - Buses will run to IEC from Sukup End Zone
8:00 pm with last departure from Sukup at 8:00 pm

SONS & DAUGHTERS

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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
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1975	Goodwin, Norman J	Milwaukee, WI
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1982	Roberts, Wayne	Billings, MT
1983	Merrick, A Daniel	Wichita, KS
1984	D'Armond, Reymond	New Orleans, LA
1985	Sorensen, Dave	Hershey, PA
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1989	Curran, G. Richard	New Brunswick, NJ
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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
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2001	C. David McManus	Albuquerque, NM
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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

PICTURE SCHEDULE
Guests are welcome to join their home state delegation,
State DSA and AA recipients
will NOT be photographed at this time
(taken during award ceremonies)
STATE PICTURES WILL BE TAKEN AS PART OF THE CONFERENCE

BE PROMPT AS THESE MOVE QUICKLY

Iowa Events Center Main Registration Area Stairways

Sunday 9:00 pm - 10:00 pm	Monday 9:00 pm - 10:00 pm
Texas	Iowa
Oklahoma	Illinois
Montana	Minnesota
Washington	Colorado
Oregon	Florida
South Carolina	Alabama
North Carolina	California
Michigan	Georgia
Puerto Rico	Mississippi
North Dakota	Maryland
South Dakota	Delaware
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	Vermont

FUTURE ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT CONFERENCE DATES

2024 - Dallas, Texas
July 14 -July 18

2025 - Billings, Montana
June 29 - July 2

2026 - Denver, Colorado
July 8 - July 12

Poster Session

Applied Research

2023 NACAA

108th
Annual Meeting
and
Professional Improvement Conference

Des Moines, Iowa

2023 Poster Session
Applied Research

1st Place

SOLVING PERSISTENT PATHOGENS PROBLEM IN VIBURNUM PRODUCTION

Wael Elwakil
Extension Agent II, Fruit & Vegetable Production
UF/IFAS Extension, Hillsborough County
Seffner

Authors: Wael Elwakil, Shawn Shawn Steed, Marrissa Cassaway, Gary Vallad

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[2.] Shawn Steed, S. Multi County Agent IV, Environmental Horticulture Production, UF/IFAS Extension, Hillsborough County, Florida, 33584
[3.] Cassaway, M. Biological Scientist II, UF/IFAS Plant Pathology Department, GCREC, Florida, 33598
[4.] Vallad, G. Professor of Plant Pathology, UF/IFAS Plant Pathology Department, GCREC, Florida, 33598

Situation: Viburnum species are one of the top-selling ornamental shrubs in Central Florida and placement in landscapes. This includes?Viburnum suspensum?and?V. odoratissimum. Nurseries propagate viburnum by using landscape or production stock plants that may appear healthy, but often harbor several foliar diseases prevalent in nurseries and landscape environments. These diseases then compromise production during the propagation stage. This is especially problematic for ornamental shrub nursery production reliant on overhead irrigation that is optimal for foliar pathogen spread and development. While effective fungicide treatments can help manage foliar diseases during container production, making applications during or immediately following propagation may improve liner production and limit disease losses following transplanting. Objectives were to measure the efficacy of five fungicide products during liner (cutting) production as either a soil drench or a dip-treatment for cuttings to minimize disease development early in the production cycle. Methods: Two cutting propagation trials were conducted with drip and drench applications of 5 treatments and a control. Treatments were replicated 4 times in a complete randomized block. Disease incidence was measured weekly and destructive sampling for dry shoots and roots weight was conducted at the end of the trails. Results: Drench and dip applications of tested fungicides showed a reduction in disease severity. However, some drench fungicide applications had a negative effect on cutting vigor. Conclusion: Fungicide applications during propagation reduced disease development. Nevertheless, using disease-free cutting coupled with protective fungicide application will greatly reduce disease severity as well as delay the disease onset on viburnum, especially during the critical propagation stage.

2nd Place

PERFORMANCE OF SUMMER-SEEDED COVER CROPS

Lizabeth Stahl
Extension Educator - Crops
University of Minnesota
Sherburn

Authors: Lizabeth Stahl, Axel Garcia y Garcia

[1.] Stahl, L. Extension Educator - Crops, University of Minnesota Extension, Minnesota, 56171
[2.] Garcia y Garcia, A. Sustainable Cropping Systems Specialist, University of Minnesota Extension, Minnesota, 56182

Farmers are not always able to plant their crop due to extreme conditions (e.g. a prevent plant situation due to an excessively wet spring), or areas of a field may become devoid of a crop (e.g. drown-out spots) beyond normal planting dates. Planting a cover crop in these areas can reduce soil erosion and prevent fallow syndrome, which occurs when a lack of living plant roots from the previous year decreases the population of beneficial soil mycorrhizae which aid in the uptake of nutrients. Limited information exists regarding the performance of cover crops seeded mid-season in Minnesota. This research trial was initiated to determine the biomass production of various cover crops seeded mid-season. This information in turn, will be used to help guide cover crop species selection when prevent plant or other establishment/stand issues occur. Eight single cover crop species and one mix (3 cover crop species) were seeded with a drill in small plots (20ft x 20ft) on 7/13/22 at the Southwest Research Center and Outreach Center near Lamberton, MN, in a RCBD with 4 replications. Biomass samples were collected from ~11 ft2 on 8/26/22 and from ~3 ft2 on 10/31/22 in each plot. ANOVA was conducted on the results and means were separated using Fisher's Least Significant Difference (LSD; p=0.05). Within a sampling date, significant differences were found among the cover crops in the amount of biomass produced. Despite a drought during the growing

season, sorghum sudangrass (Sorghum x drummondii) performed exceptionally well compared to the other cover crops evaluated, resulting in an average of 6,823 pound/acres of dry biomass on 8/26/23. Meanwhile, crimson clover (Trifolium incarnatum) and Teff (Eragrostis tef) resulted in only 81 and 337 pounds/acre of dry biomass, respectively, at this time. Most cover crops increased their biomass by the 10/31/22 sampling date, but still did not reach the amount produced by sorghum sudangrass.

3rd Place

GIANT MISCANTHUS PRODUCTION ON MARYLAND EASTERN SHORE MARGINAL LAND: GRASSROOTS EFFORTS TO RESEARCH AN ALTERNATIVE CROP

Haley Sater
Agent Associate – Agriculture and Food Systems
University of Maryland Extension
Salisbury

Authors: Haley Sater, Sarah Hirsh, Jon Moyle

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[2.] Hirsh, S. Somerset County Agriculture Educator , Univeristy of Maryland Extension, Maryland, 21853
[3.] Moyle, J. Poultry Specialist , University of Maryland Extension, Maryland, 21801

The Eastern Shore of Maryland has historically been a productive area for growing conventional grain crops. However, in certain areas close to the Chesapeake Bay tributaries or low elevation three serious challenges have arisen: saltwater intrusion, frequent flooding events and increased deer pressure. These once fertile fields for growing agronomic crops have been left fallow or suffered total yield losses. Preliminary research has indicated that an alternate grass crop could withstand these marginal conditions. Giant miscanthus (Miscanthus giganteus) is a sterile hybrid warm season grass that was bred to be a biomass crop. It has a potential market on the Eastern Shore because it is used in local poultry houses as a bedding material. The goal of this study is to evaluate a 10 acre commercially managed field of miscanthus in an area where all three factors (saltwater intrusion, deer pressure, and flooding) are present. Our research methods included observations about deer traffic using wildlife cameras, soil moisture monitoring at different depths in six areas of the field and 20 12 m subplot yield measurements. Results indicate that miscanthus can be grown successfully on marginal land with a first-year yield average of 2.8 tons per acre.

National Finalists

INVESTIGATING THE VALUE OF SOIL HEALTH TESTING APPLIED RESEARCH

Amanda Douridas
Extension Educator
OSU, Madison County
London
Authors: Amanda Douridas, Elizabeth Hawkins, Jason Hartschuh

[1.] Douridas, A. Extension Educator, The Ohio State University, Ohio, 43140
[2.] Hawkins, E. Field Specialist, Agronomic Systems, The Ohio State University, Ohio, 45177
[3.] Hartschuh, J. Field Specialist, Dairy Management and Precision Livestock, The Ohio State University, Ohio, 43420

Farmers wanted help identifying ways to measure and benchmark soil health. It was important that the tests were affordable to run, reliable in providing information about changes in the soil, and repeatable and consistent to be able to monitor changes over time. Could we meet these criterion by collecting samples from fields across Ohio and compare test results with field management practices to produce guidelines for soil health testing and result interpretation? Samples were collected from 376 fields across Ohio from 2020-2022. Samples were sent to a soil testing lab for analysis for standard soil fertility including organic matter, and emerging soil health indicators: permanganate oxidizable carbon (POxC), respiration, and wet aggregate stability. Soil properties were evaluated to determine if changes could be detected based on past management of the fields sampled. We found that sampling depth had an impact on results and should be consistent over time. Soil type also influenced results; therefore, it is recommended that comparisons be made within fields over time. There was an upward trend in POxC as years of continuous cover crop use increased. CO2 respiration showed a downward trend as years of continuous no-till increased but multiple years under cover crops held respiration steady. The soil health indicators tested showed the ability to detect differences based on management over time and have the potential to be used to track changes in soil health at the field level. Sampling depth and soil type are important considerations when making comparisons and benchmarking soil health. Through this work, Ohio farmers were provided with recommendations for selecting soil health tests and results to help them understand what the results mean.

WINTER RYE AS A PRECEDING COVER CROP FOR PINTO BEAN PRODUCTION IN NORTH DAKOTA

Gregory Endres
Extension Cropping Systems Specialist
NDSU Extension
Carrington

Authors: Gregory Endres, Hans Kandel, Michael Ostlie

[1.] Endres, G. Extension Cropping Systems Specialist, North Dakota State University, North Dakota, 58421
[2.] Kandel, H. Extension agronomist, NDSU, North Dakota, 58108
[3.] Ostlie, M. REC Director and agronomist, NDSU, North Dakota, 58421

North Dakota ranks first in U.S. pinto bean acreage. Production is primarily with conventional-till soils, which are susceptible to erosion. A four-year field study was conducted by North Dakota State University at Carrington to establish winter (cereal) rye as a living ground cover in the fall and spring prior to pinto bean production, providing benefits including protection from soil erosion and aid in weed management. Study objectives include: measure bean seed yield with winter rye as a preceding cover crop, determine optimum time for terminating rye based on bean planting date, and assess weed control. Winter rye was planted as a cover crop during early fall and pinto bean was planted into rye residue or live plants during late spring of the following year. Treatments (including a conventional-production check) were based on timing of rye termination with glyphosate, ranging from 36 days before to 11 days following bean planting. Soil-applied herbicides were included in selected treatments to compare weed control with rye. Bean seed yield with winter rye terminated 16-36 days before planting averaged 1,705-1,855 lb per acre and was statistically similar to the conventional check. Yield was reduced 22-35% with rye terminated near or after planting compared to yield with preplant terminated rye. During each year, topsoil moisture was reduced by delaying rye termination until near or after bean planting, and rainfall to replenish topsoil moisture was less than normal, reducing the timely establishment of bean plants. Ground cover generally was greater with delay of rye termination near or after planting compared to the conventional check or preplant termination of rye. Grass and broadleaf weeds generally had similar control with the use of soil-applied herbicides and when rye termination was delayed until near or after planting. Weed control generally was reduced with early rye termination without soil-applied herbicide as the lack of live rye allowed weed presence earlier in the season. The study results indicate this production strategy can provide similar bean yield as a conventional-production system with proper management of the rye, reduce potential of soil erosion and control weeds.

DO FUNGICIDES INCREASE YIELD AND GRAIN QUALITY OF WHEAT ENOUGH TO COVER THE COST OF TREATMENT?

Jenny Carleo
Area Specialized Agent
NC Cooperative Extension
Statesville

Authors: Jenny Carleo, Christina Cowger

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The milling and baking market for soft red winter wheat in North Carolina provides an opportunity for growers to earn a higher income from their crop than if it were sold for animal feed. Fungicides are a significant input cost intended to protect yield and grain quality. Some growers perceive an increase in wheat yield and quality when fungicides are applied even in the absence of fungal disease. To test this hypothesis, we are evaluating if fungicide in the absence of disease pays for itself by ensuring that wheat is of high enough quality to sell at a premium to the milling and baking market for flour. This project will help update our science-based disease management recommendations, which currently state that fungicide applications are not cost-effective in the absence of disease. The study investigates different fungicide application timings and modes of action to identify which fungicide approaches are most cost-effective for the grower. Small plots (10’ x 10’) were planted at the NCDA&CS Piedmont Research Station in Salisbury, NC, in each of two years. No significant fungal diseases appeared in the test in either year. In both years, there was no impact of fungicide on yield ($P \geq 0.19$), protein ($P \geq 0.44$) or falling number ($P \geq 0.60$). No DON (vomitoxin) was found in any of the samples. The Miravis Ace fungicide significantly increased test weight when applied at flowering or when applied twice, although the increase was less than 0.5 lb/bu ($P \leq 0.05$). The cost of the labeled rate of Miravis Ace applied twice in the 2021-2022 growing season was $40.04/Acre. The local price of wheat on the day of harvest was $9.72. When return on investment (ROI) was calculated, fungicides did not increase yield or quality enough to cover the cost of the products in these years with no disease pressure. Data from another growing season and an environment with fungal disease are needed to gain a full picture of ROI to the grower.

FUNGICIDE OPTIONS FOR QOI-RESISTANT AERIAL BLIGHT IN SOYBEAN

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Aerial blight is a major fungal soybean disease in Louisiana, and the same pathogen causes sheath blight in rice. Rice and soybean are very often grown in rotation, and the pathogen (Rhizoctonia solani) survives for years in the soil which makes disease management difficult. To confound management, strobilurin (QoI) fungicides have limited efficacy in many areas of Louisiana. Since strobilurin resistance has not yet occurred on research stations in Louisiana, our team looked to Louisiana farmers' fields for answers. Multiple, small plot replicated fungicide efficacy trials evaluating experimental and commercial products were conducted at multiple locations in southwest Louisiana (Acadia and Calcasieu Parishes) and research stations over the course of seven growing seasons. Strobilurin fungicides were not effective on aerial blight in any on-farm trial over the six-year period. Six commercially available fungicides containing succinate dehydrogenase (SDHI) materials were identified that significantly (based on ANOVA and Tukey post hoc at P=0.10) reduced aerial blight severity and preserved yields compared to the non-treated control. Fungicides containing SDHI materials consistently resulted in less aerial blight severity and preserved yields over the seven year period when compared to strobilurin products. In the short term, SDHI active ingredients should be considered for aerial blight management in strobilurin-resistant areas. Although currently useful, fungicides with very specific mode-of-actions such as SDHIs historically have been short-lived in their usefulness, and pathogen populations will eventually develop resistance. Future research should focus on experimental fungicides, resistance mitigation, fungicide use patterns, and identification/development of resistant varieties resistant to aerial blight.

EFFECTS OF REDUCED-RISK NEMATICIDES ON TARGET AND NON-TARGET NEMATODES IN LOW DESERT VEGETABLE CROPPING SYSTEM

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Root-knot nematodes (Meloidogyne spp.) are the most economically important nematodes ranking at the top among ≈4,300 plant-parasitic nematode species described. In southern desert valleys of California, M. incognita and M. javanica are predominantly found to be infecting vegetable crops. Management of Meloidogyne spp. depends on the use of EPA Restricted-Use Pesticides or California Restricted Materials, which are high-risk nematicides. Considering the current global paradigm shift in favoring the use of environmentally conscious approaches, high-risk pesticides are either banned or their use is restricted. The use of reduced-risk nematicides with selective mode of action including fluazaindolizine (Salibro™) and fluopyram (Velum® One) would not impact non-target nematodes. The objectives of this study were to examine the effects of Salibro and Velum on Meloidogyne spp., and to determine the non-target effects on beneficial nematodes. A field experiment was conducted in a grower's field in Coachella Valley, California during the summer of 2022. Four treatments were tested including Salibro I (one application at 31 fl oz/ac 2 weeks post-plant), Salibro II (two applications each at 15.5 fl oz/ac 2- and 6-weeks post-plant), Velum (2 applications each at 6.8 fl oz/ac 4- and 6-weeks post-plant), and untreated control. Each treatment was replicated 4 times and arranged in a randomized complete block design. Okra was directly seeded on 36-inch beds. The nematicide treatments were delivered by chemigation through single driplines buried 2-3 inches deep per bed. Soil samples were collected before chemigation and

at monthly intervals thereafter for the duration of the okra crop to extract nematodes. Salibro discriminately suppressed only the target root-knot nematodes but not the non-target beneficial nematodes. Especially, Salibro II suppressed Meloidogyne population because a second application was critical to maintaining a lethal dose in the rhizosphere to control juveniles that hatch from surviving eggs in response to host root exudates. This demonstrated Salibro's selective activity against target nematodes, which suggests its compatibility with beneficial nematodes or soil health. In contrast, Velum suppressed both target and non-target nematodes alike. The findings reiterated the selective nature of Salibro targeting only plant-parasitic nematodes. Salibro can be an important IPM option for sustainable nematode management.

NATIVE GRASSES FOR LOW-INPUT LANDSCAPES APPLIED RESEARCH

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Ornamental grasses are popular nursery and landscape plants that are low maintenance and deer resistant. Many native grasses demonstrate ornamental qualities as well as abiotic stress tolerance. Grasses can attract pollinators and perform valuable ecosystem services in green infrastructure applications. This program evaluated 46 taxa of ornamental grasses and sedges for their aesthetics, growth characteristics, bloom times, and summer performance in field trials at the Rutgers Specialty Crop Research and Extension Center in Cream Ridge, New Jersey. Open-pollinated native species propagated from NJ genetics were compared to commercially available native cultivars and common non-native industry standards. Several native species were among the top performers, including Big Bluestem (Andropogon gerardii) 'NJ Open-pollinated' and 'Blackhawks', Little Bluestem (Schizachyrium scoparium) 'The Blues', Switchgrass (Panicum virgatum) 'Purple Tears', and Coastal Panicgrass (Panicum amarum) 'NJ Open-pollinated'. These taxa demonstrated a high degree of heat and drought stress tolerance and were minimally affected by any insect or disease problems, making them strong candidates for low-input landscapes. Programming associated with the native grass trials was communicated to commercial horticulture professionals through three field tours (135 participants) and an in-person presentation at the New Jersey Landscape Contractors Association Trade Show (50 participants). Complimentary educational native grass programming targeted to a home gardener audience was also delivered through two virtual programs (258 participants). Evaluation surveys indicated that commercial growers and landscapers gained knowledge regarding best management practices for native grasses, and they were likely to incorporate this information into their operations, while home gardeners indicated they were likely to plant native grasses in their landscapes. This comprehensive approach provided both consumers and producers with science-based extension programming focused on native grasses leading to a strong likelihood of incorporating more of these plants into low-input, sustainable landscapes.

NORTH CENTRAL REGION ENTRIES:

EFFECT OF SULFUR SOURCE AND PLANTING DATE ON SOYBEAN YIELD

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With reduced rates atmospheric deposition of sulfur to soil in recent years, there was interest from a cooperating farm to evaluate the effect of sulfur applications to soybeans. Soybean sulfur sources and planting date interactions were investigated over three years at two locations in Northwest Ohio. Three sulfur sources applied at a rate 20 pounds of actual sulfur were applied at planting; dry ammonium sulfate, potassium thiosulfate, and ammonium thiosulfate. The first location was the Northwest Ag Research Station in Custar, Ohio where multiple sulfur sources were applied at two planting dates. The first planting was as early as soil conditions were fit, and the second a month later. The other location was near Archbold, Ohio working with a local farmer on a single planting date. At the

Northwest research station planting date had a significant effect on yield with a 10 bushel per acre yield increase when planting as early as possible compared to the later planting. Potassium Thiosulfate had an interaction with planting date, lowering yields on the earlier plantings and not affecting yield at later planting dates. Lower yields may have been caused by a stand reduction in the potassium thiosulfate plots. Another potential cause of yield loss in the earlier planting was cooler soil temperatures that did not occur in the later planting dates. The field-scale trials also did not show an effect of sulfur treatment and were planted between our small plot planting dates. Overall, applications of sulfur of various sources did not have an effect on soybean yield, however planting dates did have an effect as demonstrated in other studies.

SURVEYING AGRONOMIC MANAGEMENT PRACTICES IN OHIO

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The Ohio State University Agronomic Crops (AgCrops) Team was formed in 1995 to address corn, soybean, wheat, and forage producer needs. It is comprised of 40 researchers and Extension professionals representing six different academic departments within the College of Food, Agricultural, and Environmental Sciences. The AgCrops Team serves Ohio's agronomic crop industry by creating educational opportunities, providing accurate and timely information, and conducting applied research. To maintain our relevancy and increase our effectiveness, stakeholders were surveyed to assess growing practices in Ohio. The two main objectives of the survey were to 1.) identify current and emerging agronomic practices in Ohio and 2.) prioritize future extension research and programming based on identified trends. An online 10-minute survey was developed using Qualtrics XM software. Survey questions were customized based on occupation category. Respondents directly managing or advising crop acres were asked a suite of questions pertaining to tillage, genetic packages, pesticide and fertilizer use, precision technology adoption, cover cropping, and other management practices. The survey was directly emailed to 5,685 C.O.R.N. newsletter subscribers resulting in 480 completed responses representing 9 countries and 23 states. Of these 480 responses, 398 were Ohio residents representing 69 out of 88 total counties with an average of five survey participants per county. One example of the type of information gained is most producers plant cover crops for their benefits with less than 10% doing so because of government funding. This informs educators on how to approach greater adoption of cover crop use. Overall, this data will allow the AgCrops Team to identify future research and programming needs and better serve Ohio's agronomic crop industry.

WINTER ANNUAL CEREAL GRAIN FORAGE YIELD AND QUALITY ACROSS MULTIPLE SPECIES AND HARVEST DATES

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In order to boost per-acre profitability, many ruminant livestock producers in Ohio are turning to annual forage feeds for their livestock. By utilizing annual forages, cash grain crops and forages can be produced on the same acres each year. To aid producers with selecting winter annual forage species for their operation we compared cereal rye, triticale, barley, and wheat. Each species was harvested when the head was in the boot stage- Feekes 10.0, and again when it had fully emerged in pollination- Feekes 10.5. The two harvest dates help producers select the best species for their operation even as it matures and quality changes at different rates. This trial was conducted over two years in three locations across Ohio to capture the large climate variation in the state.

Forage species and harvest date treatments had

significantly different impacts on yield and quality factors. The location also had a significant effect. Triticale had the greatest yield increase from Feekes 10 to Feekes 10.5 of 0.93 tons dry matter per acre while barley increased the least only gaining 0.36 tons of dry matter per acre. Cereal rye had the greatest yield at Feekes 10.0 but was out-yielded by triticale at Feekes 10.5. All species had lower crude protein values as they mature from Feekes 10.0 to Feekes 10.5. Barley had the greatest crude protein at all harvest dates with Feekes 10.5 having higher crude protein than all other species at Feekes 10.0. NDF increased in all species from Feekes 10.0 to Feekes 10.5. Advancement through forage maturity leads to a reduction in TDN for all species.

This information will help Ohio farmers determine the best winter annual cereal grain to plant as forage for their livestock needs. Understanding how forage quality changes over time allows farmers to match forage harvest timing to their harvest management abilities.

2022 WINTER WHEAT RESPONSE TO NITROGEN RATE IN NORTHWEST OHIO

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Producers rely on university research to apply the proper rate of nitrogen for optimal wheat yields and to reduce the risk of nutrient loss to the environment. Few nitrogen rate studies have been completed in recent years in the Eastern Corn Belt. The objective of this study was to determine the nitrogen rate for optimal yields for soft red winter wheat at this location. AGI 217B, a medium-maturity variety, was established in the fall of 2021 at the OARDC Northwest Agricultural Research Station near Custar, Ohio. Nine spring nitrogen rate treatments were applied as soon as the field was suitable for equipment with urea-ammonium nitrate after greenup (Feekes GS 3) and before Feekes GS 5. Rates included in the study were 0, 40, 60, 80, 100, 120, 140, 160, and 180 pounds per acre. All treatments received 27 pounds of nitrogen per acre prior to planting. Experimental design was a completely randomized block replicated four times. Analysis was a simple ANOVA. Grain yield, test weight, leaf nutrient analysis, and spike number were measured for each plot. The yields were 56, 83, 95, 101, 105, 109, 109, 117, and 114 bushels per acre for the 0, 40, 60, 80, 100, 120, 140, 160, and 180 nitrogen rates, respectively. Grain yields were significantly larger than the 0 treatment for all nitrogen rates, $p < 0.10$. Yields significantly increased with each larger nitrogen rate until the 80-pound treatment. Yields were similar between the 80 and 100 rates; the 100, 120, and 140 rates; the 120, 140, and 180 rates, and the 160 and 180 rates. Yield increases diminished and plateaued after the 100-pound rate, suggesting an optimum nitrogen rate between 80 and 100 pounds of nitrogen per acre. Data from this site will be used to determine future nitrogen rates for wheat in the Extension Bulletin E-2567, Tri-State Fertilizer Recommendations for Corn, Soybean, Wheat, and Alfalfa.

EXPLORATION OF INDUSTRIAL HEMP FOR FIBER AND SEED OIL PRODUCTION

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The purpose of this study was to investigate industrial hemp variety performance for fiber and grain production and determine optimum economic nitrogen application rates. Interest in industrial hemp increased in Wisconsin due to recent legalization of the crop. No current research existed to assist farmers with decisions regarding variety selection and nitrogen application management. Trials were established in Buffalo County, Chippewa County and Monroe County at Whirling Thunder Farm with the Ho-Chunk Nation. Eight varieties were planted in 2021 and 2022 at all three locations to determine fiber dry matter yield performance and grain yield. Results of the variety trials were variable in production between sites but did give some clear indications of higher performing varieties measured by yield of total biomass and stem biomass per

acre. Grain yield data was harvested at one location over the two years. No relationship was determined between fiber and grain yield among the eight varieties investigated. The nitrogen application rate trial plots received 0, 40, 80, or 120 pounds of nitrogen at planting. The trial was a replicated complete-block design. Yield response was highly variable and did indicate a trend in nitrogen needed by the crop. Two varieties were used for the nitrogen trial. Field days were held as outreach programs to provide information and results of the project. Ninety-seven farmers and participants attended field days at the three locations.

CORN NITROGEN FERTILIZER APPLICATION TIMING AND RATES

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Four years of corn nitrogen fertilizer application timing and rate trials were conducted at the University of Missouri Graves Chapple Extension and Education Center located at Fairfax, Missouri. The trial's objective is to determine if preplant 120-pound nitrogen rate followed by additional rates of nitrogen at V-8 and V-16 timing would increase nitrogen efficiency. There were eleven treatments as 0, preplant 120 and 240 nitrogen rate and 8 treatments with a preplant rate of 120 pounds nitrogen with two timings and four nitrogen rates. The two post application timings were applied at corn stage V-8 or V-16. The additional nitrogen treatments were rates of 30, 60, 90 and 120 pounds of nitrogen. The nitrogen source was urea treated with Agrotain. The experimental design was a complete randomized design with five replications. Yield results indicate preplant 240 pounds of nitrogen maximized yield at 221 bushels. The preplant nitrogen rate of 120 pounds yielded 198 bushels. All additional nitrogen rates and application timings increased yield compared to the preplant 120-pound rate. Yields were maximized with preplant nitrogen rate of 120 pounds and an additional supplement nitrogen rate of 90 pounds providing 210 pounds of total nitrogen. Mean yields for adding 90 pounds of nitrogen at V-8 were 220 bushels and V-16 were 219. The additional rate of 120 pounds resulting in a combined amount of total nitrogen of 240 pounds did not increase yields compared to 90-pound rate. In summary, yield data indicates a preplant rate of 240 pounds was not needed to maximize yield. Yield was maximized by 120 preplant nitrogen followed by 90 pounds at either V-8 or V-16.

MAXIMIZING FORAGES IN PASTURES BY MECHANICALLY CONTROLLING WEEDS

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Increasing quality forages in pastures is an integral part of any grazing system. Not only can weeds lower the quality of pasture forages, but a few can be invasive and even toxic. Mechanically mowing pastures is one method producers can use if they do not want to spray herbicides. The purpose of this three-year study was to determine if forage quantity in pastures could be changed by varying the timing of mowing throughout the late spring and summer growing period without the use of herbicides. Treatments in this study consisted of: (1) Control (no mowing), (2) June only mowing, (3) July only mowing, (4) August only mowing, (5) September only mowing, (6) June and August mowing, (7) July and September mowing, and (8) mown each month; June-July-August-September. The control treatment averaged 268 lbs/ac DM of weeds and 2283 lbs/ac DM forages. The overall weed dry matter (DM) pounds/acre (lb/ac) shows that mowing in June, July or July/September were higher than all other treatments. The September and June/August treatments yielded the most forages of 2328 and 2313 lbs/ac on a DM basis, respectively. The lowest quantities of forages resulted in the July treatment of 1955 lbs/ac, while mowing monthly only produced 1990 lbs/ac DM.

BEEF X DAIRY CROSSBREEDING AND CALF MANAGEMENT PRACTICES ON WISCONSIN DAIRY FARMS

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Utilizing beef genetics on dairy cattle has rapidly grown since 2010. Extension Educators, with the assistance of USDA Agriculture and Food Research Initiative funds, surveyed Wisconsin dairy producers utilizing beef genetics about sire selection criteria and beef x dairy crossbred calf care. Survey questions asked about general farm production, sire and dam selection, breeding results, newborn calf management, milk feeding practices, and marketing. Surveys were collected from 40 farms. Participating producers had been using beef sires for an average of five years, and beef sire selection decisions were predominantly made by the farm's AI representative (53%), followed by the farm owner or manager (40%). Eighty-five percent of farmers used Angus sires, 20% used Limousine or Simmental x Angus, and 17.5% used Simmental. Less than 12.5% used Wagyu, Limousine x Angus, Charolais, or Hereford sires. The "3 C's": conception rate, calving ease, and cost per semen straw were the leading beef sire selection criteria, with each identified by 50 to 75% of producers. Less than 20% of farmers surveyed also identified feedlot and carcass performance traits, including ribeye area, weaning and yearling weights, frame score, marbling, and using a terminal or all-purpose sire index as sire selection criteria. Opportunities exist to influence dairy producers to emphasize performance trait selection more. Respondents reported treating their beef x dairy crossbred calves the same as their replacement dairy heifer calves, except for neonatal vaccinations for scours and respiratory disease. Farmers retaining ownership of beef x dairy crossbred calves were more likely to administer neonatal vaccines than those selling them at less than two weeks of age. Ninety-five percent of farmers fed their beef x dairy crossbred calves' colostrum within six hours of birth, and all fed colostrum within twelve hours. When asked about the amount of colostrum fed, 67% reported feeding at least 4 quarts at first feeding. Thirty-three percent of the farmers feeding less may be splitting colostrum feedings or feeding less than recommended amounts. We have identified colostrum management practices and transfer of passive immunity for beef x dairy crossbred calves as areas of future study.

EVALUATION OF TWO FUNGICIDE APPLICATION METHODS

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On-farm research trials in 2022 evaluated two fungicide application methods, aerial and ground, on corn to determine any differences in yield, plant health, and economics. The study was a random design with a minimum of three replications. Corn seeding rate at site one was 33,000 seeds per acre and 35,500 seeds per acre at site two. Site one was a 100 acre no-till field planted on May 15 and harvested on November 4. Site two was a 103 acre no-till field planted on May 13 and harvested October 29. Visual assessments were completed throughout the growing season to monitor plant growth and disease development. Fungicide was applied in late July at both sites.

Yield data was collected at each site using a calibrated yield monitor. At site one, the aerial application averaged 243 bushels per acre, the ground application averaged 239 bushels per acre. The control, where no fungicide was applied, averaged 198 bushels per acre. A statistical analysis using Fisher's Protected Least Significant Difference (LSD), tested at 0.1, was 7, with a CV of 2.3%. There was no statistical difference between application methods. There was a statistical difference between application methods and the control. At site two, the aerial application averaged 211 bushels per acre and the ground application averaged 214 bushels per acre. No

control was used at this site. The LSD, tested at 0.1, at this site was 8, with a CV of 1.6%. There was no statistical difference between application methods. An economic analysis revealed the aerial application at site one was $3.78 less per acre than the ground application. At site two, the ground application was $4.00 less than the aerial application. The results from 2022 indicate that both application methods are effective, and economics is the main factor to be used in selecting an application method.

NORTH EAST REGION ENTRIES:

THE RELATIONSHIP BETWEEN DAIRY HEIFER MANAGEMENT STYLE AND PROFITABILITY

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In an ongoing USDA NIFA funded research project, members of Penn State Extension are collecting heifer growth, management, and financial data from 20 organic and 20 conventional dairies in Pennsylvania. Researchers are tracking heifer growth by collecting hip height and body weight at four different time points, birth, weaning, pre-breeding, and freshening. Body condition scores were recorded at the pre-breeding and freshening time points. Heifer management questions assessing the specific age range are asked to the farmers at each of the four measuring time points and ranked. How the farmer answers the questions are ranked as a high risk, moderate risk, or low risk practice. Degree of risk is also determined based on researcher observations regarding current management practices. Whole farm financial analyses are completed on each of the 40 farms to separate out the heifer enterprise from the dairy enterprise to determine the cost to raise a healthy heifer from birth to first calving. More than 500 heifers have been measured across all the farms and many different heifer management practices have been observed that have influenced heifer growth. One of the project's goals is to calculate the cost to produce heifers and explore how management practices and heifer growth impact dairy profitability. Farm financial data and heifer growth data has been summarized for 2021. Data analysis for 2022 is in progress. The 2021 dairy and heifer cost of production for conventional farms ranged from $14.77 to $25.92 per day. The cost of production (COP) to raise a heifer from birth to first calving ranged from $1,489 to $3,789, with the average at $2,235. Dairy and heifer COP for organic farms ranged from $22.69 to $37.81 per day. The heifer COP for organic farms ranged from $1,082 to $4,384 with the average at $2,149. Feed cost per day was a big contributor to the difference in heifer cost per day. With the data collected from this project, the researchers will share improved management strategies relating to heifer nutrition, housing, and health programs that can address the problems that contribute to a higher heifer COP.

SOUTHERN REGION ENTRIES:

ASSESSING WATER USAGE IN NON-CONVENTIONAL RICE

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This applied research trial set forth to demonstrate the feasibility of, and establish water usage, using the border irrigation and furrow irrigation methods in rice. These methods require a field that does not possess a cross slope. The border field was divided by small levees/borders every 60-80ft. These borders are not required to be as substantial as in traditional fields but provide just enough height to direct water down the field. The furrow rice was planted on 30-inch beds with furrows running the length of the field. Water is then flushed across the fields to ensure adequate irrigation and not put into a traditional flood. Before irrigation was initiated, a flow meter was attached to the well used for each field. An Agsense moisture reader was also installed in each field with probes at 4in, 6in, 12in, and 18in. Each week the change on the flow meters were recorded and the Agsense moisture sensors were consulted. This data was used to determine when to initiate irrigation. After irrigation was terminated the water usage of these fields were calculated in acre/in of water. The border field used 19.5 acre/in of water while the furrow field used 20.6 acre/in of water. These fields used between $52 and $58 less water per acre compared to the state average. This resulted in savings of over $2,000 across each field.

USING AERIAL IMAGES AND IMAGEJ TO MACHINE COUNT DOGFENNEL (EUPATORIUM CAPILLIFOLIUM) IN FLORIDA PASTURES

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Objective: Dogfennel (Eupatorium capillifolium) is a perennial weed commonly occurring in Florida pastures. Dogfennel's aggressive characteristics have shown to cause significant loss in pasture yield and forage production. Herbicides are the most cost-effective method of control of this weed. Herbicide control assessments such as percentage control estimates and plant counts are methods of evaluating herbicide efficiency. However, percentage control estimates are subjective and require a trained eye, and plants counts are time consuming and labor intensive. The objective of this research was to determine if aerial images and machine counting will provide a more effective and precise plant count compare to hand counting. Methods: Six plots measuring 37.2 m2, were examined using hand counting and machine counting using drone images and ImageJ. ImageJ is a software developed for the national institute of health to count cells in images taken under a microscope. The aerial images were RGB (red, green, blue) and captured using a DJI Phantom 4 at an altitude of 30.5 m. The color threshold used in ImageJ to distinguish the dogfennel from Bahiagrass (Paspalum notatum) was a hue of 55-120, saturation of 129-255, and brightness of 0-167 and a color space of HSB. This research was conducted in July 2022. Results: All plots had an average of 8.83 dogfennel plants when counted by hand. Machine counting indicated that there were on average 8.33 plants. An unpaired t-test was used to analyze the data. The p-value is 0.0577. While not a quite a significant difference, increasing the plot size and repeating this experiment will likely produce a significant difference. In each plot, the hand count number was higher than the machine count number, thus indicating that the aerial image was not adequate for machine counting. Conclusion: One possible reason that the results were not significant was because of the plot size. The other is the inability of the drone to see small plants. A possible remedy for this is to fly the drone at a lower altitude. Machine counting using ImageJ software has shown promise of being a useful tool that we may utilize in the future.

EFFECTS OF CATTLE REMOVAL DATE ON SUSTAINABILITY OF COOL-SEASON ANNUAL GRAZED COVER CROP SYSTEMS

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Grazing of cool-season cover crops has been shown to be a viable tool in extending the grazing season while mitigating environmental risks associated with row crop farming systems. Grazing cover crops is not novel, but most information available on this practice focuses on soil health as opposed to forage production and animal performance. The objective was to evaluate the effects of cattle removal date on steer performance, forage yield, and forage quality. Twelve 1.2-ha pastures were established in a forage mix consisting of 'Cosaque' oats (Avena strigose), 'FL401' cereal rye (Secale cereal), 'AU Sunrise' crimson clover (Trifolium incarnatum), and 'T-raptor' brassica (Brassica napus × B. rapa) and randomly allocated to be grazed through either mid-February (FEB), mid-March (MAR), or mid-April (APR) with an un-grazed control (CON). Three tester steers were randomly placed in each paddock with the exception of CON and allowed ad libitum grazing. Animals were weighed every 30 d for determination of average daily gain (ADG). Forage was harvested bi-weekly and analyzed for average yield, NDF, ADF, and CP. All data were analyzed using MIXED procedure of SAS version 9.4 (SAS Inst., Cary, NC). The following data represents the complete four-year project. Differences in yield were detected between CON and FEB (3,913 vs.

5,284 lb/acre; P < 0.001), CON and MAR (3,913 vs. 4,206 lb/acre; P < 0.001), and CON and APR (3,913 vs. 5,698 lb/acre; P < 0.001). No differences were detected among grazing treatments for forage allowance, grazing days per hectare, stocking density, NDF, or ADF. No differences were detected among treatments for initial BW, ADG, or BW gain per acre. These results indicate that grazing will reduce covercrop yield, but removal date of cattle will not further affect forage yield or steer average daily gain. After four years, cattle removal date did not impact soil compaction.

PLANTING DISTANCE CAN INCREASE THE YIELD OF PD RESISTANT PREDOMINATELY VITIS VINIFERA GRAPEVINE '502-20'

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Vitis vinifera grape acreage is limited in Alabama due to Pierce's disease (PD) caused by the bacterium Xylella fastidiosa (Xf) and vectored by insects from the family Cicadellidae. UC Davis breeding program has developed PD resistant germplasm and has released 5 predominantly V. vinifera cultivars. Although PD resistant V. vinifera cultivars are currently available, no V. vinifera grapes management recommendations exist for production in Alabama. An experimental vineyard was planted at the Chilton Research Extension Center, AL in 2017 to determine the effect of planting distance on PD resistant 94% V. vinifera selection '502-20' growth and productivity. The experiment utilizes a randomized complete block design consisting of three replications and three vines per replication. Vines were planted at distances of 1.8m x 3.7m, 2.1m x 3.7m, and 2.4m x 3.7m. Total yield and number of clusters was measured at harvest for each vine. Fruit samples were collected to determine fruit total soluble solids (TSS), titratable acidity and pH. Our results suggest that 2.4m x 3.7m treatment resulted in the highest yield of 17.4 kg/vine in 2022, significantly higher than yields from other treatments (12.6 kg/vine and 9.6 kg/vine for 2.1m x 3.7m and 1.8m x 3.7m respectively). Planting distance of 2.4m x 3.7m resulted in the highest number of clusters/vine (53), while vines planted at 1.8m x 3.7m responded with the lowest number (38) of clusters/vine. Planting distance of 2.4m x 3.7m resulted in the largest cluster weight of 540g and also had the highest TSS. No significant differences were found among titratable acidity or juice pH. Current results indicate planting distance 2.4m x 3.7m is optimal for sustainable production of PD resistant 94% V. vinifera grape '502-20'. Further research will be conducted to expand current knowledge, and develop management recommendations for the successful production of V. vinifera grapes in Alabama.

RAGWEED CONTROL IN OVERGROWN AREAS

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ABSTRACT

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We wanted to demonstrate the take down power of herbicides in comparison to brush hogging. Many producers have areas they might not cut for hay or can't get around to fencing and after a couple of seasons of neglect it becomes overgrown enough that measures must be implemented to get that property back into production. Brush hogging is often times the method of choice, but herbicides offer another and perhaps a more affordable option. 24D, Grazon P+D, and Weedmaster were the chosen herbicides for control. All three herbicides provided 100% control. So 24D at $7.00 per acre would be the cheapest option compared to $9.50 per acre for Grazon P+D or Weedmaster. Many brush hogging costs are impossible to calculate due to the fact that many areas like these present another set of challenges and cost associated with more frequent breakdowns due to visibility issues or areas that are too rough to cover.

ECONOMIC ANALYSIS OF PECAN PRODUCTION IN GEORGIA

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This poster outlines the costs and income involved with pecan production in Georgia. It allows growers, as well as potential growers and ag lenders, an understanding of the costs involved with pecan production, as well as the income at different production and price levels. Costs and revenues are given on a per acre basis. The budget allows growers to compare their expenses, production, and prices received against the budget. The budget was prepared using information obtained from growers, chemical, fertilizer, and machinery dealers, and University of Georgia researchers and Extension specialists. Expected profitability is calculated at different yield levels and prices is included, as are the percentage chances for different monetary returns per acre. Expected yields and price per pound are listed. Costs for different fertilizer elements are enumerated, as are other expenses, allowing growers to substitute their own actual expenses for those in the budget in order to adapt the budget to their own situations.

EFFECT OF NITROGEN SOURCES AND RATES ON DRY MATTER YIELD OF HYBRID BERMUDAGRASS

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The effectiveness of different nitrogen fertilizer sources for summer forage production is often discussed. There is debate whether urea nitrogen is less effective than ammonium nitrate for bermudagrass production. Most research shows either no or small differences in forage yield between these sources, yet the belief persists that much of the N in urea will be lost during hot summer weather. Further, new additives are available that reduce N volatilization losses from urea potentially improving its effectiveness for summer forage production. This study was initiated to compare the forage yield response of hybrid bermudagrass to ammonium nitrate, urea, urea with two N loss preventative additives, and urea ammonium nitrate (UAN 32%) applied at three N rates. Treatments were arranged as a randomized complete block design with four replications. The plots were harvested 4 times and clipped to a height of approximately 3 inches. Nitrogen sources were not significantly different for dry matter yield. Nitrogen rate did significantly influence yield with dry matter increasing with increasing N rate. The biggest DM increase per unit of N was from the 30 lb N per acre rate followed by the 60 lb N rate. It should be noted that each nitrogen application received rainfall within 5 days after nitrogen application.

DEER SCHOOL PROJECT

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There is a limited amount of credible information and data available to landowners, farmers and property managers in Kentucky that addresses wildlife habitat management and specifically food plots. Many clientele seek

information from the University of Kentucky Cooperative Extension Service to improve their woodlands and wildlife habitat. Increased information in these areas will result in an overall improvement in deer herd health and overall satisfaction of the hunters. Therefore, the habitat will be better suited to produce trophy whitetails, increase hunter success, maximize landowner revenue through hunt leasing and provide overall positive economic impacts throughout the state.

In response to this need, Extension Agents for Agriculture and Natural Resources Education from Simpson and Allen Counties partnered with Dr. Matt Springer, University of Kentucky Wildlife Specialist to conduct food plot research to assist wildlife managers in making appropriate planting and overall management decisions on their property. This research involved 6 different annual forages, trail camera surveillance, exclusion cages to monitor grazing pressure and forage nutrient sampling.

Once the surveillance period concluded, data was compiled and presented at the "Kentucky Deer School". In addition to the forage research data, agents worked with University of Kentucky Specialists to offer hands-on training about white-tailed deer. Dr. Matt Springer presented an interactive session on aging and scoring white-tailed deer. Dr. Gregg Rentfrow also presented a live processing demonstration with a deer carcass. Fifteen people from 4 counties attended the Kentucky Deer School. According to post-meeting evaluations, 100% of respondents increased their knowledge due to this program. 100% reported that they plan to implement this newly acquired knowledge when processing, aging and scoring deer, or planting food plots. 100% also indicated that they would attend another wildlife program in the future. Agents have been better informed about food plot forages to achieve various objectives which has allowed for more research-based recommendations to over thirty clientele.

TOO C.O.O.L. FOR RULES: A PILOT STUDY OF CONSUMER PERCEPTIONS ABOUT COUNTRY OF ORIGIN LABELING ON BEEF

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There are many regulations and consumer-driven attributes surrounding the processing and packaging of meat products in the United States, including country of origin labeling (COOL) on beef cuts and ground beef. Under COOL regulations, retailers must display mandatory labels that indicate where certain food products originated. These products are labeled with "Product of the U.S.A.," "Born, Raised, and Slaughtered in the U.S.A.," or one of a few variations on this theme. This is not mandatory for beef. Without any COOL measures in place, this opens the door for beef to be imported from any country, further cut or processed in the U.S., and subsequently labeled "Product of the U.S.A." This raises concerns amongst American cattle producers and food-conscious consumers. How much do consumers care about what country their beef comes from? The primary objective for this pilot study was to determine whether consumers are familiar with country of origin labeling and what it represents on beef. A secondary objective was to describe what value or importance country of origin labeling holds personally for consumers. Results from face-to-face interviews showed that consumers were unfamiliar with country of origin labeling criteria in general. About 66% of participants said they look for local food when shopping, but only 33% look for local when buying beef specifically. This may indicate that beef country of origin is not a priority for these consumers. They also had negative reactions when they learned foreign beef could be labeled as "Product of the USA." This pilot study will be expanded to a broader participant base to continue to assess consumer knowledge and value of country of origin labeling on beef.

ENTOMOPATHOGENIC NEMATODES AS AN ALTERNATIVE MANAGEMENT STRATEGY FOR GRAPE ROOT BORER

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Grape root borer (GRB) is a native pest that attacks both cultivated and wild grape vines. GRB larvae spend nearly two years underground feeding, subsequently damaging vines by girdling the roots. Injury due to GRB larvae often goes unnoticed until it is too late, leading to a reduction in winter survival and fruit quality, and even vine death. Chlorpyrifos, the main insecticide labeled for use against GRB, was banned in 2022, and as such effective

curative treatments for GRB control are limited. Previous research has shown that entomopathogenic nematodes (EPN) can effectively reduce GRB in grape production. During the 2020 and 2021 growing seasons, two EPN strains, Steinernema feltiae (Sf) and Heterorhabditis bacteriophora (Hb), were evaluated at commercial wine grape vineyards in north Georgia (two sites in 2020, and four sites in 2021). Pheromone-baited bucket traps were used to monitor adult GRB flight, and soil beneath the vines was examined for presence of exuviae (pupal casings). During both years, adult GRB moths were active from mid-July to early September, but substantially more moths were collected in 2020 than 2021. In terms of GRB emergence, both the Hb and Sf treatments had fewer exuviae than control vines, with Hb treatments performing the best. Similarly, when evaluating GRB management at all four vineyard sites, Hb treated vines had significantly fewer exuviae than control vines, whereas Sf had only marginally fewer exuviae than control vines. Evidence that the EPNs, particularly Hb, may reduce GRB infestation is encouraging and warrants further research.

ANALYZING BENEFITS OF NEMATODE RESISTANT COTTON VARIETIES

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As with many other pests in row crop fields, it is very important for producers to protect their cotton crop from root-knot nematodes. The Effingham and Screven Extension Agents worked with a producer to complete a cotton variety trial which led to further research on the impact of nematode resistant cotton varieties. Agents were able to rank cotton varieties in a moderate nematode infestation and share this data with the producer and the cotton industry at a national conference. This has led to greater yield potential for the producer and others who have received data from this research. The results from this trial revealed some very impactful data. Root gall ratings showed the RK nematode resistant variety Phytogen 400 had the lowest root gall rating and both resistant varieties Phytogen 400 and Phytogen Px5C45 had the lowest nematode soil counts. To further explain the outcome of this trial, both RK nematode resistant varieties out yielded all other varieties by at least 50.6 lbs. Resistant varieties averaged a gross return to farm of $1,048.20 while non-resistant varieties returned an average of $857.52. From seeing the advantage of planting RN resistant varieties in the trial field in 2020, the producer planted 160 acres of nematode resistant cotton in 2021 which according to the research will return an increased revenue of $30,508.80 in his operation alone. This data has been shared with the producer, at county production meetings, with agents across the State of Georgia and was presented at a national meeting of the cotton industry at the Beltwide Cotton Conference. Utilizing this data 3,000 acres of RK infested cotton would have an impact of increased farm income of $572,040 in similar operating conditions.

USING CULTIVAR MIXTURES TO IMPROVE YIELD STABILITY OF COTTON (GOSSYPIUM HIRSUTUM L.) IN UNPREDICTABLE ENVIRONMENTS

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Cultivar selection is a critical decision growers make before the growing season begins. One of the best predictors for a cultivar's performance is yield stability, or consistent performance across soil types, rainfall patterns, years, seeding rates, tillage practices, management practices, etc. However, there is not one cultivar that will outperform competitors in all environments. Blending cultivars that perform well in contrasting environments, or blending cultivars known to portray a high degree of yield stability across environments, may help spread the risk and improve yield stability in multiple environments when accounting for the uncertainty of growing conditions for any given year.

Five cultivars were chosen for this experiment based on prior performance in replicated trials that each have unique ideal environments and growing conditions. Some cultivars were chosen based on a high degree of yield stability across a broad range of environments in years with frequent rainfall and years with noticeable drought stress. Other cultivars were chosen based on consistent performance in either high-yield or low-

yield environments. There were eight treatments which included each cultivar planted alone, all five mixed in equal proportions by seed count, and two binary cultivar treatments in a 50 percent mixture by seed count. Trials were conducted across 23 environments during 2017 and 2018. Stand counts were collected along with yield and fiber quality at harvest.

Statistically, mixtures did not produce a yield significantly different than an individual cultivar 61 percent of the time. A mixture was as likely, or more likely, to produce a lint yield lower than the highest yielding cultivar in a given year, as opposed to producing a lint yield higher than the lowest yielding cultivar. The data suggest that using a cultivar mixture will not help improve yield stability the majority of the time compared to the highest of the component cultivars.

BUBBLES CAN QUICKLY LOCATE COSTLY HIDDEN TROUBLES

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Heating fuel is one of the largest annual expenses for a poultry producer. Gas is pumped from a holding tank or meter through high-pressure trunk lines that usually run on the outside of poultry houses exposing the lines to temperature fluctuations that cause expansion and contraction of the rigid steel piping. Each threaded connection has the potential to leak, costing the producer money and creating a potential safety hazard. Surveyed producers rarely check their gas piping for leaks unless a catastrophic event occurs. We hypothesize that gas leaks increase with increasing house size and house age. A field survey was conducted on 101 broiler houses on 23 farms ranging in age from new to 33 years old and of varying sizes in central and south Alabama. For each house, the total number of connections on the trunk line were counted. A soap solution in a hand sprayer was used to evaluate each connection for leaks. Leaking fittings were counted before being evaluated as percentage of total fittings to account for variation across houses. Pearson correlation matrices were used to determine correlations of house age and floor area on total number of fittings and percentage of leaking fittings. Total number of fittings ranged from 36 to 170 per house and was strongly correlated to floor area [$r(99) = 0.70$, $p < 0.0001$]. Larger floor areas require more heaters and longer piping systems. Leaking fittings ranged from 0% to 32% per house and was not correlated with either house age [$r(99) = 0.03$, $p = 0.74$] or floor area [$r(99) = 0.05$, $p = 0.65$] for the houses surveyed. The overall average of leaking fittings was 6.9% per house. From these results, leaks seem to be more about craftsmanship than house age or house size. Producers should check for leaks annually or when an increase in fuel usage is seen. A producer can spend less than 30-min per house to evaluate the high-pressure trunk lines. During fall 2022 producer meetings, many were surprised with our findings and immediately went to their farms and found a variety of hidden leaks.

BWRAP HAY BALES

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John Deere hay bale wrapping technology has evolved over time and this demonstration project was utilized to collect moisture data comparing net wrapped hay to Bwrap hay over an Oklahoma winter period between 150 to 180 days. Results: Bales were stored in 2 different location however, producers storage site cattle had broken into the bale and therefore data was not included on that location. The Kerr Center location storage lasted 157 days with moisture readings collected on the Net wrap bale and B wrap bale. There was approximate 83 lbs. and 70 lbs. of additional water collect over the storage time in the net wrap and B wrap respectively. Based on difference in bale weights

it was calculated that if the additional moisture might be refused by livestock then losses on the net wrap bale is 8% and B wrap is 6%.

IDENTIFYING TRENDS IN 4-H/FFA MARKET LAMB DATA

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To identify trends in the 4-H/FFA market lamb project, historical data from the Augusta County 4-H/FFA Market Animal Show and Rockingham County Fair was analyzed. Data analyzed included final (show weight), beginning weight, average daily gain ultrasound carcass data and sale price per lb and sale gross over the floor price. A total number of 4,394 lambs were included in the study. Augusta lamb final weight increased from an average of 113.95 lbs in 2007 to 119.62 lbs in 2022, although not linearly. Rockingham lamb final weight increased from a low in 2013 of 114.90 lbs to a high in 2021 of 127.10 lbs. Augusta ultrasound loineye area increased from 2008 (2.63 in2) to 2016 (3.40 in2), though remained flat to a slight decrease from 2016-2022. Combined for both shows, ultrasound loineye area was more highly correlated to final weight (0.59) than rib fat (0.44), indicating though lambs are bigger, they are still acquiring muscle. Despite this, lamb loin muscle area did not increase, (3.40 in2 in 2016 vs 3.16 in2 2022). Sale prices for lambs in 2021 and 2022 showed no significant differences in price per lb for light versus heavy lambs, but did show a significant difference in the gross sale value per lamb for light lambs versus heavy lambs. However, no significant difference in average gross value was observed between medium weight lambs and heavy weight lambs, though a nominal difference was seen.

WESTERN REGION ENTRIES

FATE OF INTERSEEDED COVER CROPS FOLLOWING CORN SILAGE HARVEST

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Planting companion cover crops (CC) between corn potentially increases on-farm forage in integrated crop-livestock systems. Potential advantages of interseeding CC into corn are a longer growing season for CC when compared to after-harvest planted CC and possibly more biomass. However, a significant disadvantage of growing CC in corn is that the corn canopy will greatly reduce photosynthetically active radiation available for CC growth. In a 2021 trial, severe CC stunting and CC mortality were observed. Additionally, a unique challenge for interseeding CC in the western U.S. is irrigation. For example, in surface irrigated corn, furrowing between corn rows often delays interseeding and CC germination which reduces the CC growth period prior to corn canopy closure. A trial at five sites in Utah was conducted in 2022 because of an information scarcity of Utah-based information on interseeded CC persistence in corn. The effect of corn population on CC establishment, persistence, and biomass was evaluated. Treatments consisted of three corn populations planted in four randomized blocks at rates of 23, 28, and 34 thousand plants per acre. Untreated controls (0 corn plants per acre) were not included in the trial because the study took place in the crop fields of cooperating farmers. CC were planted in interrow spaces at 18lb per acre. Interseeding occurred at

corn V6. No significant difference was observed between treatments for CC emergence, CC persistence, and CC biomass. However, there was a significant difference between plant emergence and persistence prior to the first killing frost in 2022, p<.001. Furthermore, there was a significant difference between the frequency of species per square foot, p<.001. Finally, plants per square foot and biomass were positively correlated, r (34) =.54, p=.001 and CC biomass may be predicted using a regression model, p<.001, R2=0.74. Understanding CC fate and predicting biomass can reduce some uncertainty and support pre-plant and post-harvest decisions farmers make when integrating CC into corn.

THE EFFECT OF LOWERING CORN POPULATIONS ON INTERSEEDED COVER CROP YIELD AND QUALITY

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As Utah producers have begun interseeding cover crops into rows of growing corn, USU Extension has aimed to provide applicable research detailing the optimal timing and conditions for a successful corn and cover crop harvest. This research project focuses on the effects of lowering corn populations on interseeded cover crop yield and quality, as well as overall corn silage yields.
Three research plots, placed in producer-owned corn fields, were selected across the state of Utah. Plots were 30' long (30-inch row spacing) and 15' wide with three treatments including normal (N; 34,000 plants/acre), low (L; 28,000 plants/acre), and very low (VL; 23,000 plants/acre) corn population levels with cover crop interseeded at the V6 corn growth stage in each treatment. A control was also utilized and was planted at the same rate as the normal treatment (34,000 plants/acre) but did not have any cover crop interseeded within the plot. Treatments were replicated four times utilizing a randomized complete block design. All corn production practices were managed by the cooperating producers. Hand harvesting occurred in late September 2022, when silage corn had reached 65% moisture. A 10' section of the two innermost corn rows in each plot was harvested to determine the overall corn silage yield. Two smaller sections of cover crop (0.2 m2) were harvested in late October 2022 to determine cover crop yield and nutritional quality. A sub-sample of 3 randomly selected corn stocks, and the cover crop sub-sample, were chopped in a woodchipper and prepared for forage quality analysis. Corn and cover crop quality samples were analyzed at a certified lab for nutritional parameters.

Cover crops interseeded into N corn populations averaged 1302.58 kg/hectare. Cover crops interseeded into L corn populations had 1746.37 kg/hectare. Interestingly, cover crops interseeded into VL corn populations averaged less than cover crops interseeded into L, but averaged more than cover crops interseeded into N populations at 1625.99 kg/hectare. Final statistical analysis is currently pending.

REDUCTION IN TEFF (ERAGROSTIS TEF) LODGING IS EFFECTED BY RATE OF APOGEE® PLANT GROWTH REGULATOR AND PLANT GROWTH STAGE

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Teff (Eragrostis tef) is a warm season grass that is gaining in popularity due to its high forage and hay quality combined with its annual seasonality and ability to do well in hot, dry conditions. There is an increasing need for seed for planting an annual crop as well as a human food market which uses the gluten free seed as the grain ingredient in injura. Growers in the Palo Verde Valley have been growing teff for seed for the past 8 years, but have found that the fine stems which contribute to high hay quality are highly susceptible to lodging when a seed

crop is being produced. Two rates (3.5 and 7.0 oz./acre) of Apogee® plant growth regulator (active ingredient = 27.5% prohexadione calcium) were applied to fall teff seed crop when distance to top leaf collar was approximately 4.7 inches. While treatments resulted in highly significant height differences and reduced initial lodging soon after application, they did not prevent extensive lodging when seed heads started to form. These data were utilized the following spring in decisions to both increase rates and initiate applications earlier in teff growth. As interactions of higher rates with growth stage were unknown, single applications of Apogee® at rates 7.25 and 14.5 oz./acre applied when top collared leaf distance from soil was 2.75 inches. These were compared with applications made 10 days later when top collared leaf distance was 7 inches. The 7.25 oz./acre rate was also applied twice. Lodging data at harvest indicated that the best treatment was the 14.5 oz./acre rate applied when top leaf collar was at 7 inches (only 10.8% lodging) followed by the two applications of 7.25 oz. (28.8%). These were easily notable in the field, as almost 85% of untreated teff was lodged. Field trials with the two treatments which resulted in least lodging are needed to verify that treatments do not have a detrimental effect on seed yields.

FIELD TRIALS OF POMEGRANATE (PUNICA GRANATUM) CULTIVARS

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The University of Nevada Extension Field Station in Northeast Clark County is conducting field trials of pomegranate (Punica granatum) cultivars not previously grown in Southern Nevada. Pomegranates are widely grown and marketed in Northeast Clark County but the market is dominated by the 'Wonderful' cultivar. The objectives of this research are to determine each cultivars' potential to flourish in the region and support producers with research-based information that could benefit both established and new specialty crop producers economically.

Replicates of 18 cultivars of pomegranates as cuttings were received from Youpin Sun at Utah State. The cuttings were planted outdoors in April of 2019 in a "nursery" setting; 80 surviving plants were transplanted to the orchard in March of 2020. They were hand-watered at transplant in addition to bi- weekly drip irrigation, and pruned for structure. Plants were measured regularly for growth and fruit production. An initial blind taste testing and brix measuring was conducted in November of 2021. In fall of 2022, plants were measured for growth, along with recording number of fruit, total fruit weight and minimum and maximum fruit diameters for each plant.

In the taste test, Carolina and Arturo cultivars rated 4.7 for overall appearance against Wonderful's rating of 4.9 (on a 5 point scale). ML rated best for aril color at 4.3 against Wonderful's 4.9. The Mollar cultivar rated the highest of all experimental cultivars for sweetness (4.4), tartness (3.8), lack of bitterness (4.2), seed hardness (4.6), and overall desirability (3.8), and exceeded Wonderful in sweetness (4.2) and lack of bitterness (3.5). Surh-Anor tested the highest in 2021 with a brix of 17.54. For fruit production in 2022, Al-Sirin-Nar averaged 93 fruits per plant; Chiva was the least productive with 20 fruits. Surh-Anor had both the largest maximum diameter fruit at 13.06 inches and the largest average fruit weight at 0.53 lbs.

The next step in this trial is to provide a few producers with cuttings of five cultivars to replicate the trials on their properties. The varieties under consideration because of this research are: Mollar, Carolina, ML, Al-Sirin-Nar and Surh-Anor.

Poster Session

Extension Education

2023 NACAA

108th
Annual Meeting
and
Professional Improvement Conference

Des Moines, Iowa

2023 Poster Session
Extension Education

1st Place

CULTIVATING COMMUNITIES: A CLEMSON EXTENSION PROGRAM FOR SOUTH CAROLINA COMMUNITY GARDENS

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CHARLESTON

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In response to increased grant funding to address food access and equity through community gardening, Clemson Extension developed the online training course “Cultivating Communities.” The online course teaches community gardeners essential skills to create sustainable community gardens.

Participants begin by developing garden teams and assessing the needs and skills of their community through S.W.O.T. analysis and reciprocal mapping exercises. Students learn about site analysis, soil preparation, raised bed vs. in-ground gardening, and irrigation basics through engaging instructional videos. Additional topics covered include food safety, crop selection, integrated pest management, and garden management. In addition, practical assignments, including soil and irrigation water testing, help participants gain access to their local county extension agents and local resources while discovering valuable information about their chosen site.

Teams of community gardeners must successfully engage in all coursework and submit three practical activities that jumpstart the community garden development process. Upon course completion, participants receive an interactive digital badge to share with their network.

The South Carolina Association for Community and Economic Development (S.C.A.C.E.D.) funded the pilot cohort in April 2022. The organization awarded $3,000 to twenty-one community garden grant applicants. S.C.A.C.E.D. required each community garden site’s team to complete the course before receiving the funds. The leader of each group received an educational materials box with books and equipment to support the community garden.

Over eighty participants enrolled in the pilot, and Clemson Online issued sixty-eight interactive digital badges to those community gardeners who completed the training. Twenty gardens received final funding for implementation. Additional cohorts for new grant awardees will take place spring of 2023.

2nd Place

CONNECTING FLORIDA FARMERS THROUGH MONTHLY STATE-WIDE INVASIVE SPECIES WEBINARS

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Invasive species pose significant threats including

economic losses in agriculture, human and animal health hazards, disruption of native ecosystems and more. A recent study suggests that the U.S. loses around $1.2 trillion annually due to invasive species. Florida is high risk for the introduction of invasive species and thus, education is critical to protecting agriculture and natural resources. Research demonstrates that farmers, green industry professionals, and the public play an important role in early detection of invasive species, but awareness is critical to developing strong volunteer-based networks. UF/IFAS Extension Seminole County partnered with the Florida First Detector Program to host a state-wide First Friday webinar series on invasive species. Bi-weekly cooperator meetings with regulatory agencies guided creation of agendas targeting diverse audiences of farmers, landscapers, homeowners, and more. Beginning in September 2022, an hour-long webinar occurred on the first Friday of every month. Webinars were approved for Florida Department of Agriculture and Consumer Services Pesticide Continuing Education Units (CEUs) in 11 categories. Monthly webinar recap blogs and video recordings were also shared broadly. Post-webinar surveys were utilized, and 6-month follow up surveys will be implemented to measure outcomes as the program continues. The six webinars, thus far, have been highly successful, with over 420 participants, more than 300 CEUs issued, and over 1,600 views on recap blogs and recordings. In post-webinar surveys, an average of 95.5% (321/336) indicated they agreed or strongly agreed that they understood the topics measured (+30.3% from before webinar). Additionally, 94.3% (317/336) self-reported increased knowledge on invasive species and 99.4% (328/330) intend to adopt at least one practice learned (i.e. reporting suspect pests, using caution to avoid spreading invasive species, employing integrated pest management, etc.). The First Fridays with Florida First Detector webinars have broadened the capacity to teach diverse audiences about invasive species identification and early detection. The series has directly contributed to the acquisition of over $136,000 in grant funds to further support invasive species educational programs in 2023 and 2024. Since the series began, other researchers and extension professionals have directly reached out for guidance on hosting interdisciplinary webinars based on this model.

3rd Place

NM SOUTHERN REGIONAL LIVESTOCK SCHOOL

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The goal of the Southern Regional Livestock School is to provide an opportunity for youth and their parents to learn the ins and outs of livestock projects to better equip them for a successful project year. Livestock projects are goal oriented ventures providing youth self-discipline, self-responsibility, empathy, character and record keeping skills. Youth and parents will develop a better understanding of showmanship/presentation of their animal, training/exercise programs, day to day care, and basic feeding knowledge. The school is divided into four species specific instructional tracks including sheep, goat, swine and cattle. Each track allows a maximum of thirty participants. Areas of focus include Showmanship, Nutrition, Grooming and Clipping, Animal Health and Animal Selection. At registration youth are provided a school t-shirt and a species specific “starter kit” bucket including halters, hair products and brushes. An optional fourth day to livestock school is also offered as an open livestock jackpot. Youth have an opportunity to present mastery of skill with not only those who participated in the school but with other youth from around NM. For the past two years, Southern Regional Livestock School had a total participation of 245 youth reaching at least five SW Counties. 95% of which indicated they had a deeper understanding of their livestock project after participating in the school. 97% of participants also indicated they were more confident in all components of the school including showmanship, day to day care, clipping and grooming, feeding and nutrition and show day preparation. One individual indicated their favorite component of livestock school was “The feedback and the way I could see results from hands-on-learning”. A parent additionally stated “both of my boys gained so much confidence from the workshop. This was their first year in cattle breeding. There was so much to learn, but the confidence they gained is unexplainable.”

NATIONAL FINALISTS

ALABAMA BERMUDAGRASS HAY GROWERS SUMMIT TARGETS ADVANCED PRODUCERS

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The Bermudagrass Hay Growers Summit is an in-state Extension workshop that began in 2017 and is based on a grassroots need to educate advanced hay producers seeking more than basic hay production instruction. The original objective was to provide current information and timely updates for bermudagrass hay producers in northern Alabama. Typically held in February, the timing allows for immediate implementation of certain practices prior to spring green up. It has evolved into a statewide event after proven success as a regional offering. The workshop utilizes a traditional lecture format with varying educational components, based primarily on past participant evaluations. Educational topics have covered insect pests, weed control, fertilizer requirements and application timing, nutrient management, industry perspectives, nutrient availability, cash flow budgeting and hay storage techniques. Average attendance for the target audience is 18 people, with a total of 11,266 acres under their management each year. Due to university restrictions for in-person programming, the 2021 meeting was conducted virtually and open to anyone (95 in state; 33 out-of-state attendees). Extension news articles, email blasts, social media posts, word of mouth and local advertising are utilized each year to promote the workshop. A mix of PowerPoint presentations, speaker panels and round table discussions throughout the day encourage group interaction. Evaluation results over six years (2017-2022) indicate 98.2% of participants found the information useful to their operation and 98.8% reported the program met their expectations. The average rating (1-5 scale) of all topics delivered was a 4.63 across all years, indicating satisfaction with selected topics. Evaluation results show a 29.4% average increase in knowledge and the average, annual economic impact from implementing the information presented of $17,704.60 per person. While it is important to reach new and beginning farmers and ranchers, progressive producers need continued education designed to meet their production needs in an ever-changing enterprise.

USING SOLAR TECHNOLOGY TO INCREASE RANGELAND GRAZING MANAGEMENT

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Livestock water is an increasingly scarce resource in most western rangelands with availability and distribution influencing grazing management decisions across the west. Grazing rangelands during consecutive years of drought has become increasingly difficult as historic water sources run dry. With advances in solar technology pumps and lift stations, livestock producers have been able to develop water sources and distribute it across once dry landscapes. These new livestock watering systems can push water 350+ vertical feet in elevation, allowing managers to move water from low elevation areas to mountain ridges and hilltops. Water can then be stored at high elevation locations and gravity fed through pipelines to distribute water across rangelands. Solar water systems provide increased flexibility in grazing management by allowing access to historically underutilized areas.

This presentation will look at one case in Utah where AUMs have quadrupled since the installation of solar water systems on the ranch. The historical water sources on the Half Circle Cross Ranch began to dry up after several years of drought conditions. Looking for alternative water sources, the managers were introduced to solar powered livestock water systems. The first solar water system was installed on the ranch in 2015 with financial assistance from the Utah Department of Agriculture and Food's Grazing Improvement Program. Since then, over 40 miles of pipe, 95 new trough locations, and 34,700 gallons of water storage have been installed, all of which are powered by solar. These additional water locations and storage have provided the ranch manager with ways

to manage the ranch that he once only dreamed of. He has been able to increase stocking rates, rest pastures and provide a valuable resource for himself and other local ranchers.

RU READY TO FARM

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The Rutgers Beginner Farmer Training Program is addressing the continuing viability of the agriculture industry in New Jersey by providing resources and training for new farmers.

The average age of farmers in New Jersey is approaching 60 years old, and many growers do not have a succession plan or a next generation to take over the farm. The goal of our program is to provide the necessary training and networking to increase the chances of success for new farmers. This is accomplished through a three- phase program. Phase 1 includes on-line training, classroom instruction, and field trips to successful small farms. In phase 2, participants plan, grow, and distribute 50 CSA farm shares to customers. In phase 3, our team provides support for participants to secure their own land or work with experienced successful farmers. To date, 86 participants have completed phase 1 of the program. This project has generated $70,000 back into our program through fees and farm sales. As a result of the program, there are 9 active farmers growing on 80 acres and 8 established farms that have employed program participants. Pre- and post-program surveys and structured interviews indicate that 90% of participants had a significant increase in knowledge and skills because of the program. A Word Press website and Canvas platform were developed to provide educational information and resources.

ADVANCING COVER CROPPING TO A PURPOSE-DRIVEN, SITE-SPECIFIC MODEL

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Cover crops can provide various benefits such as scavenging nutrients, adding organic matter and nitrogen to the soil, reducing compaction, or competing with weeds. However, often the same cover crop species and management tactics are applied, regardless of field-specific factors or goals. The objective of this project is to encourage strategic cover crop planning, which can increase the agronomic, economic, and environmental benefits achieved through cover cropping. In this project, Extension Educators plan cover crops with farmers according to site-specific factors, such as soil conditions, field-history, crop rotation and goals. Farmers identify the top needs of the field that can be addressed through cover cropping, identify and potentially create gaps in the cash crop rotation to fit cover crops, and critically evaluate the limitations of cover crops. Farmers then evaluate cover crop species and management that will provide the most benefits while also fitting within the farmer's limitations. Collaborating farmers receive technical and financial support to plant up to three different cover crop systems on up to 150 acres on Maryland's Eastern Shore. Collaborating farmers also participate in farmer-to-farmer learning circles, and complete a Social Network Analysis survey to inform Extension educators on how cover crop knowledge is gained and shared among farmers. Educational events at collaborating farms serve to demonstrate at the field scale to the broader farming community that there is not a one-size-fits-all cover crop and that cover cropping should involve significant planning with regards to site-specific factors and cover crop purpose. After the first season of the project, all field-day survey respondents indicated the program as good or excellent overall, and that as a result of the field-day, they

have an “average” or “a lot” likelihood to evaluate various cover cropping options rather than just blanket applying “a cover crop” on the farm; plant cover crop mixes; and plant a cover crop that will be more likely benefit their following cash crop.

PLANNING, IMPLEMENTING AND EVALUATING THE FLORIDA PANHANDLE BEEKEEPING CONFERENCE & TRADESHOW

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Objectives: Florida has a rich history of honey production. The Florida Panhandle is well known for its impressive production of gallberry, wildflower, clover and Tupelo honey. There are nearly 5,000 registered beekeepers in the state managing over 650,000 colonies (Bustamante, Ellis & Bammer 2022). These figures include both commercial beekeepers and Florida’s robust backyard, hobby beekeeping industry as well. With such a large amount of operating apiaries come a need to continually educate beekeepers on the latest University research and assist beginner beekeepers in getting their hives off to a healthy start. Due to the lack of beekeeping extension education in northwest Florida, beekeepers and advisory groups asked Northwest District Extension Agents to devise an annual conference and tradeshow to educate beekeepers on the latest techniques in honey production, queen rearing and hive production.

Methods: This annual event was designed to engage beginner and advanced level beekeepers through presentation tracks at different levels of experience. All tracks highlight the latest research-based beekeeping management practices. As an added practical learning activity, hands-on open hive experiences were also available for participants. Examples of the learning objectives were honey extraction, splitting hives, hive construction, smoker lighting and safety, pollination, honey sources, and integrated pest management. There were also a honey tasting contest, door prizes and tradeshow with regional vendors.

Results: There were 149 attendees completing the post survey over the last two conference years. A sample of the survey results concluded that 84% of respondents could identifying healthy hives through visual observation, 82% gained knowledge on virus impact on bee health, 82% indicated a greater confidence in managing their own hives according to UF/IFAS practices, 76% indicated they will expand the hives operation, and 88% indicated gaining knowledge in queen biology.

Conclusion: This annual conference and tradeshow provides a learning experience for backyard and commercial beekeepers with valuable continuing education. This educational event is the forum of the latest techniques that can improve skill set and the informed decision-making process a beekeeper needs to sustain and grow their footprint on Florida Agriculture.

A COMPREHENSIVE RISK MANAGEMENT PROGRAM FOR EMERGING SD SHEEP PRODUCERS

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A needs assessment indicated 43% of sheep producers in South Dakota have been involved in the industry for 10 years or less; a similar national trend exists. Thus, SDSU Extension with support from the SD Sheep Growers Association created the Emerging Sheep Producers Program. This yearlong, nine-session program for people with 10 years or less of management experience in sheep production allows participants to increase knowledge in all aspects of the industry. Throughout the program participants are creating a business plan, and learning about sheep care through workshops, webinars, tours, and hands-on field days. This program is coupled with networking opportunities with experienced producers and professionals. To date, 21 participants completed

three sessions (Business plan basics, Sheep production basics, and Lambing time basics). Overall, the objective of this program is to help mitigate risk and increase overall success in raising sheep through educational workshops and 1 on 1 mentoring. Prior to the start of the program the majority (17 participants) rated their current knowledge/ experience level with sheep as 'beginner' defined as "some knowledge/experience, but not enough to teach or answer someone else's questions on raising sheep". This has justified the need of the program and preliminary evaluation of participants change in understanding has occurred. 73% of participants felt neutral to uncomfortable or very uncomfortable about production calendars compared to 26% after the first session. During this evaluation one participant quoted "After learning about the different calendars and systems, it seems easier to plan the year out for costs, breeding and marketing." As this program progresses it is hopeful that greater change of understanding occurs and that knowledge learned is applied to setting up a successful business plan.

FRESHLY FORT PECK
EXTENSION EDUCATION

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Food Sovereignty has been a goal of the Fort Peck Reservation, especially with the onset of the COVID-19 crisis. Our vision was to create a meal kit with produce raised on the Fort Peck Reservation and provide it to Tribal Elders and local food banks. This was a collaborative effort among the Fort Peck Tribes Community Services Program, Fort Peck Tribes Natural Resources Department, Natural Resources Conservation Service (NRCS), Health Promotion and Disease Prevention (HPDP), and MSU Extension. The Fort Peck Tribes annexed a 3-acre portion of land with use of a large storage building, to be used for growing produce, agriculture demonstration purposes, and future projects. The NRCS provided assistance to erect two high tunnels valued at $17,000, and HPDP provided a working budget of $65,000 for the purchase of equipment and other associated costs. A recipe was designed that would allow certain garden produce to be harvestable in the fall timeframe and to stimulate healthy eating. The Fort Peck Tribes provided a buffalo for the meat in the meal kit as well as for other meat lessons. Honey was extracted from MSU Extension's hives at the pumpkin patch. Potatoes were grown in the Tribal Extension Garden, and pumpkins and squash were harvested from the Fort Peck Tribes 1-acre Community Services Garden Project site. In addition, the potato seed was sourced from the MT State Certified Seed Lab, bees were purchased from a Montana owned company, and local buffalo was used for meat classes. The challenges to the project were the ongoing drought in Montana affecting the loss of corn, onions, and dry beans, a grasshopper invasion, and supply chain issues. Despite the nuisances, "Freshly Fort Peck" kits were contributed to 135 low-income households at a market value of $40 each for a cost-savings of $5,400. In addition to the kits, 29 other educational food sovereignty activities were conducted reaching 489 people. These included meat classes, a food sovereignty scholarship recipient, container workshops, a Master Gardener Class, horticulture classes, a pumpkin patch for the local Kindergarten classes, and produce giveaways.

FACILITATING FARMER ADOPTION OF CLIMATE RESILIENCE PLANS

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While climate change can feel like an overwhelmingly complex problem, Extension programs can provide approachable guidance to help farmers plan for resilience. University of Minnesota Extension partnered with The Land Stewardship Project to host a pilot program to support farmers in developing comprehensive climate resilience plans. Laura Lengnick (Risk to Resilience LLC), author of the USDA's Adaptation Resources for Agriculture Guide facilitated the program. We followed a five-step process: 1. Holistic goal setting, 2. Understanding climate risks, 3. Brainstorming adaptation strategies, 4. Prioritizing strategies and developing a plan for implementation

and evaluation, 5. Presenting the plan to peers and facilitators for feedback. Twelve small-scale fruit and vegetable farms participated, meeting five times over a ten week period. We used a mix of lecture, small group discussion, peer consultation, and individual work to foster a collaborative learning environment and peer-to-peer learning. Traditional risk management frameworks tend to highlight technological or natural resource based solutions; growers in this cohort were prompted to draw from natural, human, social, physical, and financial resources. The participating farmers improved their knowledge of risk management, and all twelve farms developed a resilience plan. We followed up with participants one year later, and all had made changes to their farms based on their plans. The process helped growers feel less overwhelmed by climate change and begin to take steps towards resilience, and the cohort model helped growers to think more creatively and communally about resilience while providing a network of support.

NORTH CENTRAL REGION

DEVELOPING AN EDUCATIONAL DONATION GARDEN EXTENSION EDUCATION

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The Iowa State University Extension and Outreach Winneshiek Donation Garden were solidified with the help of a dedicated group of volunteers who meet in 2022 to determine the need, desire, and commitment to providing this community space. The committee's mission is to provide a safe and accessible garden growing space for the Winneshiek County community. Outreach to community members through educational opportunities by collaborating with 4-H members, Master Gardeners, RSVP volunteers, and Iowa State University Extension and Outreach Winneshiek County.

By securing the location at 2316 Sweet Parkway Road, Decorah, Iowa, this group of volunteers was able to develop a master plan and receive a donation and grants for funding. Plans included infrastructure details for an accessible fenced 30' x 90' raised garden box area, irrigation, storage shed, pergolas, and a produce washing station. Implementation of this was in the Spring-Fall of 2022.

Educational engagements are the following: interactive signs, planning and building skills, food pantries received educational recourses and produce, and gave tours to the community. In 2023 the team has planned upcoming projects, including 4-H Garden Club, youth workshops, and specialist lead education programs.

In 2022 the donation garden planning began in January, and the team of volunteers broke ground in April. After working on the infrastructure, the team donated 750lbs to the food pantries in the first year. The team members included ISU Extension and Outreach Winneshiek County, 4-H members, Master Gardeners, Northeast Iowa RSVP volunteers, Green Iowa AmeriCorps, and landscape contractors. Our goals for 2023 are to increase food production and educational outreach.

The donation garden has decreased food insecurity in our local community. It has increased access to fresh produce, learning opportunities, wellness and physical activity, social interaction, networking, and a habitat for ecology.

BUILDING AG AWARENESS & COMMUNITY TRADITIONS THROUGH A FALL FOLIAGE AND FARM TOUR

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For over 50 years, a partnership of OSU Extension, the U.S.D.A. Farm Service Agency of Coshocton County, and the Coshocton Soil and Water Conservation District has offered the Coshocton County Fall Foliage and Farm Tour attracting over 1,500 individuals annually. The goal of this drive-it-yourself tour is to educate attendees about agriculture and to allow attendees to view the splendor of the fall foliage along the winding back roads of this east-central Ohio Appalachian county. This two-day tour is held in October and over 20% of attendees are from outside of Coshocton County. On average it annually attracts attendees from one-third of Ohio's 88 counties as well as at least 5 other states. Coshocton County encompasses 567 square miles of land over 22 townships and has 1,191 farm operations. The tour highlights a different section of the county each year, featuring 4 to 5 townships with

a driving loop of approximately 50 miles. Each year the tour highlights major sectors of the agricultural industry including beef, dairy, small-ruminant livestock, equine, grape and wine, and row, forage, and horticulture crops. Additionally, the tour highlights some of the historical landmarks of the townships highlighted. Evaluations results over the past five years indicate that over 95% of the attendees learned something new about Coshocton County's agriculture industry. This poster describes Extension Educators can engage community partners to highlight their local agriculture industry. The management steps to developing a drive-it-yourself tour, working with farm family hosts, marketing, sharing leadership between agricultural agencies, and how to mitigate risks will be shared through this poster exhibit.

TEACHING QUALITY ASSURANCE FOR ANIMALS TO GAIN MARKET ACCESS

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Quality Assurance for Animals curriculum provides consistent information to livestock producers on best management husbandry techniques coupled with scientific knowledge. Included are best practices for good record keeping, protecting herd health, ensuring safety and well-being of animals, and creating a safe food supply to consumers. When adopting best management practices, higher quality meat reaches the supermarket, consumers are more confident, resulting in increased demand and profitability.

The two main audiences targeted for Quality Assurance for Animals programs were youth involved with raising and marketing livestock through Jr Fair exhibitions and adult producers marketing livestock to packers. In the past five years, more than 2,000 youth have received training annually. Adults receive training every three years and there are more than 300 each training.

For the youth trainings, participant survey data indicated that 85% increased their knowledge on proper animal care, 92% increased their understanding on the importance of a Veterinarian-Client-Patient-Relationship (VCPR), and 97% increased their knowledge on the importance of animal identification. Additionally, 90% of survey participants indicated an increase in understanding of the importance of reducing antibiotic use and how they can care for their animal to accomplish that objective.

As a result of quality assurance training, adult participants reported they intended to make the following changes in their farm operations. Changes mentioned were 30% improved record keeping and animal identification, 13% reduced handling stress when working and loading animals, 13% improved facilities for better livestock handling, and 6% for both having a valid VCPR as well as improved needle and injection site selection.

The Quality Assurance for Animals programs are showing significant knowledge gain in both youth and adult audiences. This increased knowledge results in improved animal husbandry practices resulting in better market access and wholesome food products.

EDUCATING OHIO MENTAL HEALTH COUNSELORS TO UNDERSTAND THE STRESSORS IN AGRICULTURE

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Mental health is a concern in rural communities, especially for those involved in agriculture. The CDC reports suicide rates for males in farming, fishing, and forestry higher than the total population (2016). Farmers/ranchers face unique stressors, that many outside of agriculture don't understand. To confound the problem, rural communities lack access to trained mental health providers, or have counselors that don't understand the challenges farmers/farm families face on a daily and seasonal basis. Recognizing the seriousness of the problem, a cross-disciplinary team from three Extension areas (agriculture/natural resources, family/consumer sciences, and community development) created a new training program directed towards mental health professionals. These counselors are required to obtain Continuing Education Units (CEUs) to maintain their license. The Farm Stress Certified Program has an overarching goal to teach mental health professionals about unique agricultural stressors. Specific objectives are to: 1) Improve behavioral health awareness and health literacy for mental health service professionals; 2) Increase capacity of mental health service professionals to serve in a rural community; and 3) Improve outcomes and experiences for agricultural workers and their families. Our team developed a partnership with OSU College of Social Work (CSW), where CSW agreed to advertise and manage CEUs available through the Ohio Counselor, Social Worker, and Marriage and Family Therapist Board or the Ohio Chemical Dependency Professionals Board. Providers who complete the entire series receive a "Farm Stress Certified" designation. The program is valued at $100/person and has been offered in multiple formats including a 1-day workshop, webinar series, and online asynchronous. Over 1,000 professionals attended at least one of the three modules, with nearly 400 professionals completing the entire program earning 7.5 CEUs and designated as Farm Stress Certified. A post-program evaluation indicated: course content was suitable and useful (97.5%), instructors presented course content effectively (98.9%), and the course content met expectations (98.6%). Due to the program's success and feedback, a Farm Stress Certified 2.0 version is in development for 2023. The program has created a new audience for Extension educators. By working together with mental health professionals there can be positive impacts for rural and agricultural communities.

FARM PULSE – ADAPTING FINANCIAL MANAGEMENT CURRICULUM FOR ONLINE LEARNERS

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Imagine sitting down at a computer to complete an online course and instantly becoming confused, overwhelmed, and frustrated with the amount of information. While farming is high-tech, most farmers have limited experience with online education as compared to accessing the internet to check email, pay bills, or simply browsing the web. Online courses should be fun, engaging, and interactive, rather than a source of frustration and stress. Farmers are already experiencing a prolonged period of significant financial stress that has contributed to farmers reevaluating their financial situation and business plans. The Farm Pulse: Financial Management and Analysis curriculum looked to adapt and update written workshop materials into a more relevant format for use in-person, as stand-alone educational videos, and an on-line course. This curriculum was developed to assist farmers in identifying strengths and weaknesses of their business to assist them in making decisions that will improve their farm profitability. The curriculum is available on Canvas, UW's online learning management system. Canvas' browser-based interface works on multiple devices, allowing farmers to progress through the course wherever and whenever they have internet access. The course will take farmers approximately six hours to complete and is comprised of eight modules of asynchronous online learning, with much of the content drafted by Wantoch. The course lessons feature short readings and videos teaching key concepts; knowledge checks feature interactive learning experiences; and each lesson concludes with a short quiz to reiterate the learning objectives for the lesson. Participants will choose from either a dairy or livestock and grain case farm to follow throughout the course, completing hands-on, interactive financial activities related to these case farms. After completing the course, participants can transfer these skills from the case farms to their own farm businesses. Farm Pulse: Financial is being piloted by seven farmers in January – May 2023, with full release planned for summer 2023. The course fulfills education requirements for USDA Farm Service Agency loan borrowers in Wisconsin. A course preview is available at https://canvas.wisc.edu/

courses/348354 and also accessed through the UW Extension Farm Management website - https://farms.extension.wisc.edu/programs/farm-pulse/.

USING GARDENS AND PRODUCE TO REACH ALL COMMUNITIES IN OUR COUNTY

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The purpose of the garden was to educate the community about straw bale gardening. Throughout the growing season, eighteen articles with photos appeared in the OSU Extension Clermont County eNewsletter, 1981 subscribers. These included: articles on how to start a straw bale garden, vegetables harvested, pollinators and pests observed, weather conditions, and the use of upcycled materials. Information was distributed during the fair, garden, and the Extension Office. Master Gardener Volunteers (MGV) answered questions at their booth during the fair. Information about the advantages of planting herbs and flowers with vegetables was included in the weekly eNewsletter. Handouts were available at the MGV fair booth that described what specific vegetables, herbs, and flowers were planted together to attract pollinators or deter pests. The garden also included signage to help with the identification of the plants. The demonstration project brought new light to the MGV program within the community. The informational brochure and weekly articles in the eNewsletter highlighted MGV projects and donations. Around 500 pounds of vegetables from the garden were donated to OSU Clermont Extension Family and Consumer Sciences (FCS) and SNAP-Ed programs, Owensville Commons senior living apartment complex, HOPE Community Center, and the YWCA of Greater Cincinnati. The SNAP-Ed program utilized the donated produce throughout the Summer and Fall to introduce program participants to different recipes that they might not have been willing to try on their own. The FCS program used produce during the Dining with Diabetes program and as part of food preservation classes. During the fair week at least 150 people visited the MGV booth. This was documented by the number of brochures passed out, and by the number of people who entered the drawing for different baskets of garden tools and materials. Many fair visitors were aware of the garden through the e-newsletter. Some attendees indicated they wanted to try straw bale gardening and plan to encourage their children to try it as their next 4-H project. Fairgoers appreciated the vegetables that were available for taking. Our vegetable basket was another demonstration of the variety of vegetables that can be grown in straw bales.

HYDROPONIC EDUCATION IN SOUTHEAST MISSOURI

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Hydroponic growing methods can be a sustainable alternative over traditional growing methods of specialty horticultural crops. The purpose of this educational programming was to educate students, hobbyists, secondary education ag teachers, and growers about sustainable hydroponic farming through a combination of lecture, demonstration, printed guide sheets, recorded video interviews, and hands-on activities. During 2022, there were 23 events that took place with various topics related to hydroponic production. These included introduction to hydroponic crop production focusing on different types of hydroponic systems, growing, and managing hydroponics crops, understanding pH and EC in nutrient solutions, monitoring and managing diseases, pests and environmental stresses, and career opportunities in hydroponics. In addition to the educational events, numerous PowerPoint presentations, resource guides, schematic drawings and a video was created aide participants with hydroponic growing. In schools, 54

students gained experience operating and growing in three different hydroponic units (NFT, Dutch bucket, deep water culture and aeroponics). They grew lettuce, kale, basil and tomatoes through a crop cycle. At one-day events, 396 students learned about hydroponics and watched demonstrations. During workshops, 127 adult learners experienced active hydroponic systems and through lecture and hand-on experiences, learned how to operate the systems. In the evaluations, all participants indicated a knowledge increase. All participants reported an increase in knowledge of hydroponics. All three teachers in the schools continued to teach hydroponics after the program sessions ended. Four students pursued horticulture in college and are considering hydroponics. 37 students tried hydroponics at home after the programs. Four of the high school purchased hydroponic supplies online before the one of the educational events was over.

DEVELOPING A FOUNDATION FOR A SUCCESSFUL CAREER IN THE FIRST YEAR

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To develop a strong foundation as an Agriculture Educator, making connections in the community is critical. My first day of employment was the first day of the county fair, which provide an excellent opportunity to meet and assess the needs and priorities of the community. Through the support of a supervisor, formal and informal mentors, and onboarding training, valuable insight and perspective is utilized. I began building a foundation by becoming a member of local, state, and national organizations, joining university teams, visiting local businesses and farms, and shadowing at co-worker's programs and field days. An experienced educator told me when you meet a person in the first year they will be glad to have met you, but if you wait till the second year they will wonder why it took so long. In the first month, I joined local organizations including Farm Bureau and the local Agriculture Center Board. These organizations provide a direct line of communication with local clientele, potential educational programs, and support local businesses. I joined state and national organizations including Ohio and American Forage and Grassland Councils, and NACAA. These organizations provide resources around the country to be shared with and implemented by clientele. Other resources that provide learning and programming opportunities are regional and state program planning meetings, and commodity/topic specific meetings. After a Gallia County needs assessment was completed, programs were provided to address needs. With forage-based livestock as the primary source of agricultural income, grazing programs, and quality assurance have been provided. Gardening and forestry programs have been taught based on interest from clientele. Communication and visibility with clientele has improved with the use of social media, electronic and traditional newsletters, and state websites and publications. To build on this foundation an emphasis needs to be on building more relationships through farm visits, media, other organizations, and community involvement.

LEPIDOPTERAN PEST MONITORING NETWORK IN OHIO FIELD CROPS

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Twelve counties in Ohio were monitored for various lepidopteran (moth/caterpillar) agronomic pests during the 2022 field season: Adams, Brown, Clark, Fulton, Hardin, Madison, Muskingum, Putnam, Trumbull, Van Wert, Wayne and Wood. This network monitored the summertime pest populations across Ohio for black cutworm (Agrotis ipsilon), true armyworm (Pseuduletia unipuncta), European corn borer (Ostrinia nubilalis, including Indiana and New York variants), corn earworm (Helicoverpa zea), and fall armyworm (Spodoptera frugiperda); all of which have the potential to cause economic injury in Ohio field crops. Trapping was coordinated through the Department of Entomology and conducted by county-based Extension Educators to collect data and maintain traps. Depending on the species, bucket traps or wing traps were used with a corresponding pheromone lure; these were checked weekly during the monitoring season. Trap updates were provided to the public through the Ohio State University Extension Crop Observation and Recommendation Network (C.O.R.N.) to provide timely information to producers to encourage scouting and timely pest management decisions. Significant economic pest outbreaks were not detected in 2022, though isolated elevated levels of moths were trapped at some individual county locations. Monitoring for fall armyworm in 2022 was a priority following an unusually severe outbreak in 2021; however the presence of fall armyworm in 2022 was minimal. The lepidopteran pest monitoring network is a successful example of an Extension outreach team effort to inform producers of timely pest outbreaks.

ORGANIZING FOR GLOBAL IMPACT: THE GLOBALIZING EXTENSION INNOVATION NETWORK OF THE COOPERATIVE EXTENSION SYSTEM

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The U. S. Cooperative Extension System (CES) hides an untapped treasure of experience able to contribute globally to impact people's lives. The Globalizing Extension Innovation Network (GEIN) was formed to inventory and make connections within and across the CES of extension educators prepared to be agents of change at a geographically limitless level. This poster presents a five-year collection of experience within CES in efforts internationally or working with immigrant communities and the GEIN innovation to integrate global dynamics and cultural knowledge in extension programs.

The impacts of GEIN include 1) the development of publications and resources for educators, administrators, and stakeholders to support global engagement of all levels of extension, 2) the development of relationships to support programs like Farmer-to-Farmer appointments, and 3) a strategic plan to strengthen global extension engagement across CES through professional development, networking, mentoring, and connection to APLU ECOP, USDA, and other partners. GEIN will serve as a foundation for establishing partnerships, creating professional development opportunities for educators, and serving as a point of entry for educators wishing to integrate global programming and international opportunities to their work portfolios.

In addition, GEIN has developed a sub-group on the Extension Foundation's Connect Extension platform as a one-stop resource for accessing a knowledge base of Extension system experiences, best practices, and partnership opportunities for extension educators to engage with global programs. The GEIN sub-group will offer followers an opportunity through topic discussions to engage and network with peers.

We also share lessons learned from previous experience or advocating on behalf of the integration of global and international programming contributes to our local extension stakeholders and community. GEIN promotes the value of global dynamics and cultural knowledge integrated in programming from a shared pool of knowledge across the country, helping our systems engage globally at home and abroad.

SMALL FARMS, BEGINNING AND NEW

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According to Ohio State University Extension bulletin 973, "The United States Department of Agriculture defines a "beginning farmer" as an individual who has been farming 10 years or less, regardless of age. In 2017, 24% of Ohio farmers were considered beginning farmers." To meet the needs of these new and beginning farmers. The Ohio State University Extension Small Farm Team offers yearly conferences, colleges, and field days to help answer small farm questions. The focus of the four-week college is to teach farm management skills that will be necessary to run a farm. To build upon the skills learned at the colleges we then offer day-long conferences and field days that are more enterprise focused. At the three-day Farm Science Review the Small Farm Team offers a help desk and enterprise speakers followed by question and answering sessions every day.

Attendees impact statements have shown that after attending the Small Farm educational events that they learned:
How to set realistic goals
Bookkeeping skills
Licensing and Permits
Information to create business plan
Farm transition
Creating balance sheets
This enterprise might not be right for me

We used the data from 2,100 attendees' evaluations to build future conferences, field days and Farm Science Review topics.

BILINGUAL TRAINING AND EDUCATION PROGRAM TO IMPROVE PRACTICES THAT AFFECT MILK QUALITY

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As agriculture's labor pool continues to shrink, the dairy industry faces the challenging reality of attracting and retaining employees. Other businesses like construction, landscaping, hotels, and restaurants are competing for the same type of labor.

Producing high-quality milk is a labor intense job, yet it is a product that doesn't receive a high payment compared to other industries. Although pay is a high motivator to stay in a job, employees are often more successful and retained at higher rates if training is offered. Training helps satisfy that need to develop and challenge their own set of skills and makes them feel a sense of ownership to the farm.

Iowa State University Extension and Outreach Dairy Team partnered with the University of Nebraska-Lincoln Dairy Extension and Alltech to develop a free, online milker training program that is available in both English and Spanish. It has been designed to help dairy farm employees better understand the hows and whys of handling and milking cows. The training includes video demonstration of on-farm practices to emphasize key milking and management techniques, resource materials and animations, and quizzes to receive certificates of completion. It can be accessed by going to https://go.iastate.edu/milkertraining

The online training has been available to the public for ~8 months and the project team is still working on promotion of its availability to the industry. There is a promotional video to help explain the online training and how to access the program. To date, it has received 296 views in Spanish and 279 views in English.

It is now posted on the National FARM program website (Farmers Assuring Responsible Management). https://nationaldairyfarm.com/animal-care-training-resources/ The National FARM program works with dairy producers, cooperatives, processors, and industry partners to demonstrate the highest standards on U.S. dairy farms.

CAN YOU HEAR ME NOW? UNDERSTANDING HEARING LOSS AND PREVENTION STRATEGIES FOR FARMERS AND RANCHERS

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Farmers, ranchers and others in agriculture work daily in noisy environments. From the engine of a tractor to squealing hogs in a swine barn, sound levels on the farm present a serious danger to one's hearing. A U.S. study by the National Safety Council revealed that 92% of the farmers who participated were exposed to extreme noise levels while carrying out daily tasks. Of those participants, 78% reported suffering from hearing loss. Prevention of hearing loss has emerged as a key issue in avoiding the risks to health and safety that exist due to hearing concerns. Staff in NDSU Extension and the NDSU School of Nursing partnered to develop educational resources and outreach approaches to address the issue of hearing loss in agricultural populations.

THE PHYTOPOETRY PROJECT

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The Phytopoetry Project is a multi-media Extension communications effort using short-form poetic literature to attract end-users to land-grant Extension. Subjects include plant disease, insects, and topics associated with production or protection of gardens, landscapes, and horticultural and field crops. Phytopoetry consists of humorous or thoughtful poetry following established forms (i.e., haiku) or using rhythm, rhyming, and/or alliteration. The goal of Phytopoetry is to increase use and positive perception of Extension. The objectives are to increase knowledge of and access to Extension resources; increase use of Extension resources; and promote use of Integrated Pest Management (IPM). A series of phytopoetry videos were released episodically on YouTube, consisting of fictional character Sebastian E. Bartholomew, played by NACAA-member Adam Sisson, as a bumbling and pompous plant poet. Videos generally direct viewers to Extension resources after Sisson steps out of character with words like "For real, if you need help with this plant pest, university Extension has resources." Season 1 consists of 25 videos with titles like Do You See Dead Plants or Cute Fluffy Soybean Slayer. Videos have 3,850+ views with 55+ hours of watch time and a second season is planned. Twitter and Instagram accounts (@phytopoetry) were created to drive interest and showcase content, which can include illustrations, videos, images, and text. An example is the "The Twelve Days of IPM," a parody of "The Twelve Days of Christmas," which promoted Extension sources during the 2022 holiday season. In 2023, the Twitter engagement rate was 2.7%, with 200,000+ all time impressions across Twitter and Instagram accounts. At Field's End is a bound book compiling images and poetry about crop diseases produced as a collaboration between Extension workers at Iowa State University and Auburn University. With poem titles such as "Knotty Nematodes," and "Real Crop Scouts Ride Dinosaurs," this hard cover book brings attention to corn and soybean diseases in a humorous fashion. 225 copies have been printed, but we plan to print 1,000 more for additional promotion at appropriate agricultural-related events or through other dispersal routes. Phytopoetry multi-media content can be accessed via https://linktr.ee/phytopoetry.

BROILER CHICK PROJECT - PARTNERING 4-H LEARNING WITH LOCAL FOOD BANKS

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According to the Iowa Department of Education, Bureau of Information and Analysis, 60.4% of Mason City youth receive free/reduced lunch. The Cerro Gordo County 4-H Broiler Chick Program teaches youth about the development of food and the poultry industry. The ISU Extension and Outreach Office Cerro Gordo County partnered with Hawkeye Harvest Food Bank, Clear Lake/ Ventura Food Pantry, and Mason City Community Kitchen. Through the Broiler Chick Project, youth learned about raising poultry to market weight and where food comes from. The project is open to any 4-H or Clover Kid member and half the costs are covered for all participants. This allows members of underrepresented groups to attend

and feel included. After the first year of this program, we saw an increase in the number of participants in the poultry project. From summer of 2021 to summer of 2022, we saw a 67% increase in participant numbers. The project generated 355 pounds of meat donated to our three food bank partners, which equals 1,420 servings of fresh poultry for those in need. Each food pantry was given Spend Smart. Eat Smart. recipe cards, along with contact information for our local nutrition educator. ISU Extension and Outreach intends on continuing the Broiler Chick Program in the future, with the desire to educate all Cerro Gordo County 4-H youth about food security and the poultry industry in Iowa.

IMPROVING PESTICIDE AND FERTILIZER DECISIONS FOR ENVIRONMENTAL QUALITY

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Required training for farmers to purchase and apply pesticides and fertilizer provides the opportunity to teach current research and environmental management principles. Farmers are required to attend three hours of training for their pesticide applicator license and one hour of training for their fertilizer applicator certification once every three years. These programs are administered through the Ohio Department of Agriculture with a partnership agreement with Ohio State University Extension.

During the period 2020-2022, pesticide applicator trainings emphasized on-target application technologies, switching modes of action to minimize weed resistance, sprayer rinsate management, and the importance of following pesticide label instructions. In addition to environmental quality, human health concerns were addressed with sessions on personal protective equipment and research findings on pesticide exposure. Fertilizer applicator certification focused on reducing nutrient applications, reducing nutrient leaching and run-off, and best management practices such as cover crops and tillage reduction.
There are 422 farmers in Clinton, Fayette, Pickaway, and Ross counties in Ohio that have a pesticide license or a fertilizer certification, with the majority having both. These growers annually apply fertilizer and pesticides to the 873,000 tillable acres in the four counties growing primarily annual crops of corn, soybeans, and wheat. Participant evaluation for the pesticide applicator training confirmed that 93% adopted practices that protect the environment, 95% improved pesticide handling practices, and 94% improved personal safety practices. Adopted practices identified by participants included proper handling and application according to label, using drift reduction nozzles, measuring wind speed, and increased use of personal protective equipment. Fertilizer applicator certification evaluations showed that 92% plan to review their soil test phosphorus recommendations and 90% will change their nutrient management practices. Most common practice changes were incorporating applied nutrients immediately following application and the adoption of a living crop such as a cover crop. Additionally, 96% of the participants indicated an increased awareness of crop nutrient's role in environmental degradation. Required training to maintain certifications is an effective way to change farm production practices resulting in improved environmental quality and personal safety. Program evaluations show significant impact in achieving these program objectives.

EXTENSION PROGRAMMING: RADIO THROUGH MULTIPLE MEDIA

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Radio is a great way to reach clientele. Nebraska Extension aims to meet clientele where they are, in methods they are comfortable with. The Yard and Garden Radio show is a live show where listeners call in with their questions about lawns, trees, gardens, annuals, perennials, and damage or problems within these plants. It runs for 90-minutes each Friday for 18 weeks through the spring and summer with 2 additional shows in the fall, for a total of 20 shows per year. Each week a new guest host from Extension or another agency joins Nicole Stoner to answer the questions and fill in between questions with things they may be seeing or doing for research. The show has been on the radio for over 40 years, hosted by Nicole for 12 seasons. In 2015 a blog featuring answers to questions from the show was developed and in 2021 the recorded

show has been published as a podcast. These additions allow for clients to listen when it is convenient for them and to access written versions of the answers to all of the questions.

The radio show alone reaches 4,500 people weekly, there have been 1,500 views to the blog posts since 2015 and the podcast has been downloaded 600 times for the 2 seasons it has been recorded. The Yard and Garden radio show is a fun, interactive method to get information out to the public. From this one radio show, I was able to reuse it in multiple media platforms to reach more people. It seems that once the podcast became active, less people read the blog Q&A reports, showing that people prefer to listen to the show rather than just read about it. Listening on the podcast recordings allows fans of the show to hear all the other information given in between calls that wasn't captured in the blog posts. It is also a great way for a person in an Extension position to interact with other colleagues. In a survey following the show, 56% indicated that they listen to the show every week and 31% said it was because the show is entertaining while they learn about yard and garden management. 58% indicated that listening to the show has led them to reduce water or pesticide use. When asked how, the respondents said it was due to 'learning not to randomly spray once I see bugs' or to 'select more effective options that last longer'.

RE-ENGAGING MASTER GARDENER VOLUNTEERS IN A RURAL AND URBAN INTERFACE

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Many grand challenges have been a long-time concern for the Master Gardener Volunteer program in Greene County, Ohio. The county is situated near a metropolitan area; yet maintains a strong balance between urban and rural interests. This poster will discuss ways that Master Gardener Volunteers were re-engaged in rural and urban interface of Greene County, Ohio. Five years ago, the large group was dis-engaged and did not feel part of the Extension mission. Extension staff found that relationships are built on trust, commitment, and communication. Today, they are rejuvenated and engaged in teaching home horticulture in the community, managing demonstration gardens, teaching others to grow their own food and more. Meanwhile, the group has grown in numbers. Volunteer recruitment and engagement takes time. By re-engaging existing volunteers, we can magnify these efforts. Even the simplest efforts can be effective in volunteer retention. For example, Master Gardener Volunteers aided in a horticulture display at the county fair to also promote themselves. Additionally, Master Gardener Volunteers helped to develop online curriculum and taught weekly in class educational sessions for a school garden program. All these things can be accomplished through volunteer activities, public educational programs, community partnerships, and volunteer appreciation. This is not to mention the countless success stories of the thus far more than seventy-five Master Gardener Volunteers in the county program. The results of this re-engagement have been two-fold for OSU Extension by opening doors to collaborations such as with others interested in joining the program and with other agencies across the county.

USING AN AGRICULTURAL BREAKFAST TO EDUCATE SCHOOL OFFICIALS

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The Tuscarawas County Fair occurs the third week of September, when local schools are in session. This creates additional stress for 4-H and FFA members exhibiting projects at the fair, assuming key leadership roles, and being involved in other fair related activities. Teachers and school leaders expect students to stay current with their studies, and some question why their students miss one or more days of school to be at the county fair.

The Agriculture Breakfast was created to teach school officials that their students are not "goofing off" while at the fair. Rather, it is an experience that provides numerous learning and leadership opportunities. Held in conjunction with our local Farm Bureau, this event annually attracts approximately 50 school leaders from the nine school districts in the county. The program includes a free breakfast, educational program featuring several 4-H and FFA members, and a guided tour of the fairgrounds. Feedback and evaluations have been overwhelmingly

positive and has resulted in an improved understanding and appreciation by school officials of the students who participate in the fair.

NORTH EAST REGION

GROWING URBAN AGRICULTURE IN BRIDGEPORT, CT

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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 extremely limited growing space, lack of capital resources and policy differences between cities. Bridgeport, CT is a coastal city with over 25% of the population experiencing food insecurity. 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 Bridgeport, CT area and increase the amount of fresh produce available to the local community. The 7-month long course consisted 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 were also incorporated in classroom activities. Participants indicated they gained knowledge in all topics presented (with the exception of one individual on the topic of food justice) and that the most helpful part of the training program was the in-field and market experience. Fifteen persons participated and seven completed the program. Two have initiated farms in the 2023 growing season. This program will be offered in again in Bridgeport, CT and expanded to New Haven, CT in 2023.

CELEBRATING 20 YEARS OF ANNIE'S PROJECT

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In 2003, Ruth Hambleton established Annie's Project with a $2,000 grant from Deb Rood's NC-RME Women in Agriculture program. From the humble start of one class in Illinois to today, Annie's Project has grown to 38 states and one US Territory. This poster will highlight the growth of Annie's Project and share the educational impacts of its programs. Annie's Project uses a methodology that builds confidence, develops networks, and creates lifelong learners among women farmers, ranchers, and growers.

In Annie's Project programs, trained facilitators provide safe harbor, connection, discovery, and shared experiences utilizing locally vetted instructors and presenters who deliver unbiased research-based information to small, dynamic groups of women in agriculture. Participants are empowered to be successful through education, networks, and resources. The educational topics cover one or all areas of agricultural risk management including marketing, production, financial, human resource, and legal.

Educational delivery methods include in-person, virtual live sessions, virtual self-guided recorded sessions, with many courses using a hybrid approach. With the help of 800 plus facilitators, Annie's Project has reached over 19,000 women. The national Annie's Project program evaluation includes a pre and post test to determine knowledge gain in risk management. The evaluation results show Annie's Project risk management courses are effective in achieving the goal of improving women's knowledge in all five areas of agricultural risk management.

SOUTHERN REGION

ON THE FARM: TRAINING 4-H YOUTH IN PEST MANAGEMENT AND AGRIBUSINESS CAREERS

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Background/Situation: One of the largest industries in the southeastern United States is agriculture, with the average farmer being 57.5 years old. It's imperative to educate youth on this sector and increase community engagement. Pest identification and farm management are important concepts necessary for agribusinesses. We expanded their agricultural career knowledge and increased their chance of pursing a position in agriculture long term. This annual three-day program focused on 7-12th grade youth from Florida, Georgia, and Alabama. Objectives/Purpose: Educate youth on farm systems and crop management practices. They acquired integrated pest management and best management practice skills. Extension educates and connects youth with opportunities, this program trained them in necessary skills to acclimate to the work force following school. Methods/Evaluation: County extension agents transported youth to businesses in Jackson County, Florida, Houston County, Alabama, and Seminole, Grady, and Mitchell counties in Georgia. The group toured fields and facilities with farm owners and managers. Evaluation was done annually using pre/post tests. The goal was to increase knowledge on insect, weed, and disease identification, as well as common farm tools and equipment. Results: Over five years, we educated 103 youth on local agribusinesses and careers in their communities. Participants toured farms, businesses, and university research stations in Florida, Georgia, and Alabama. Sixty-five of the 103 answered pre/post surveys and results can be applied to our entire study population. On the individual level, 100% of youth reported learning something new pertaining to crop systems and management. Baseline group knowledge levels averaged 44%, ending levels averaged 75%, demonstrating a 45% knowledge increase across years as result of this program. Conclusion: Youth were excited to gain real world experience from local agribusiness leaders. Several have even functioned as crop scouts after school to earn money. Extension teaches and trains future leaders, even if not all these youth remain in agriculture, they may

one day be in a position to advocate for it. Background/ Situation: One of the largest industries in the southeastern United States is agriculture, with the average farmer being 57.5 years old. It's imperative to educate youth on this sector and increase community engagement. Pest identification and farm management are important concepts necessary for agribusinesses. We expanded their agricultural career knowledge and increased their chance of pursing a position in agriculture long term. This annual three-day program focused on 7-12th grade youth from Florida, Georgia, and Alabama. Objectives/Purpose: Educate youth on farm systems and crop management practices. They acquired integrated pest management and best management practice skills. Extension educates and connects youth with opportunities, this program trained them in necessary skills to acclimate to the work force following school. Methods/Evaluation: County extension agents transported youth to businesses in Jackson County, Florida, Houston County, Alabama, and Seminole, Grady, and Mitchell counties in Georgia. The group toured fields and facilities with farm owners and managers. Evaluation was done annually using pre/post tests. The goal was to increase knowledge on insect, weed, and disease identification, as well as common farm tools and equipment. Results: Over five years, we educated 103 youth on local agribusinesses and careers in their communities. Participants toured farms, businesses, and university research stations in Florida, Georgia, and Alabama. Sixty-five of the 103 answered pre/post surveys and results can be applied to our entire study population. On the individual level, 100% of youth reported learning something new pertaining to crop systems and management. Baseline group knowledge levels averaged 44%, ending levels averaged 75%, demonstrating a 45% knowledge increase across years as result of this program. Conclusion: Youth were excited to gain real world experience from local agribusiness leaders. Several have even functioned as crop scouts after school to earn money. Extension teaches and trains future leaders, even if not all these youth remain in agriculture, they may

one day be in a position to advocate for it. Background/ Situation: One of the largest industries in the southeastern United States is agriculture, with the average farmer being 57.5 years old. It's imperative to educate youth on this sector and increase community engagement. Pest identification and farm management are important concepts necessary for agribusinesses. We expanded their agricultural career knowledge and increased their chance of pursing a position in agriculture long term. This annual three-day program focused on 7-12th grade youth from Florida, Georgia, and Alabama. Objectives/Purpose: Educate youth on farm systems and crop management practices. They acquired integrated pest management and best management practice skills. Extension educates and connects youth with opportunities, this program trained them in necessary skills to acclimate to the work force following school. Methods/Evaluation: County extension agents transported youth to businesses in Jackson County, Florida, Houston County, Alabama, and Seminole, Grady, and Mitchell counties in Georgia. The group toured fields and facilities with farm owners and managers. Evaluation was done annually using pre/post tests. The goal was to increase knowledge on insect, weed, and disease identification, as well as common farm tools and equipment. Results: Over five years, we educated 103 youth on local agribusinesses and careers in their communities. Participants toured farms, businesses, and university research stations in Florida, Georgia, and Alabama. Sixty-five of the 103 answered pre/post surveys and results can be applied to our entire study population. On the individual level, 100% of youth reported learning something new pertaining to crop systems and management. Baseline group knowledge levels averaged 44%, ending levels averaged 75%, demonstrating a 45% knowledge increase across years as result of this program. Conclusion: Youth were excited to gain real world experience from local agribusiness leaders. Several have even functioned as crop scouts after school to earn money. Extension teaches and trains future leaders, even if not all these youth remain in agriculture, they may one day be in a position to advocate for it.

EXTENSION COLLABORATION WITH LOCAL GOVERNMENT YIELDS SUCCESSFUL AGRICULTURAL AWARENESS IMPACTS WITH URBAN RESIDENTS

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Sumter County, Florida is a historically rural, agriculture-focused community. However, in recent years it has undergone rapid development with the establishment of The Villages – one of the largest and fastest-growing retirement communities in the United States. The 2020 Census population of Sumter County was 129,752 residents, up 39% from the 2010 Census population of 93,420. The presence of an expanding urban area presents both commercial opportunities and preservation challenges for farmers. As the urban block is now the largest voting bloc, there is an advantage in instilling an awareness of, and appreciation for, agriculture in the county. This view is shared by both UF/IFAS Extension and Sumter County government, who collaborated to plan a farm tour with the sole purpose of allowing citizens of The Villages to experience the importance of the agricultural industry in their backyard. The 2023 Sumter County Farm City tour was held at Flowerwood Nursery, a large ornamental nursery with a new Villages development under construction across the street. After a presentation on the history of agriculture in Sumter County, participants learned about cattle grazing and ecosystem services, how to create a butterfly garden, and how drones are used in agriculture. On the nursery tour, Flowerwood demonstrated the concerted efforts they had put in place to reduce the need to spray pesticides before new residents moved in next door. Surveyed participants (n=45) who attended the Sumter County Farm City tour demonstrated a 51% gain in knowledge of Sumter County Agriculture, and 100% plan on attending a future Farm-City tour in 2023.

USING AERIAL IMAGES AND IMAGEJ TO MAP BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIA) IN FLORIDA

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Situation: Brazilian Pepper (Schinus terebinthifolia) is classified as a noxious weed in Florida. It occurs primarily in Central and South Florida. We are currently working on a separate biocontrol project for Brazilian pepper control in Hernando County, Florida. To determine the success of the biocontrol project, we created maps of the biocontrol release site prior to release. Method: We created a map of Brazilian Pepper using drone images that are stitched together (orthomosaics) and ImageJ. ImageJ is a software developed for the National Institute of Health to count cells in images from microscopy. The aerial images were RGB (red, green, blue) and captured using a DJI Phantom 4 drone at an altitude of 121 m. The color threshold used in ImageJ to distinguish the Brazilian Pepper from all other plants was a hue of 66-80, saturation of 91-147, and brightness of 0-141 and a color space of HSB. This flight and image analysis was conducted in August 2022. Results: Using this process, we produced a map that shows the Brazilian Pepper in red. Twenty-five trees were chosen at random to ground truth and compared to the predictive map. The accessible portion of this site is approximately 16 hectares. Of the 25 predicted Brazilian pepper trees, all 25 were examined from the ground and found to be indeed Brazilian pepper (100%). Conclusion: This is the byproduct of another project, but one that may be very helpful to land managers to control invasive plants in the future. This could be adapted to other large plants such as trees and shrubs depending on the color threshold that is selected. Flying at 121 m would not be ideal for identifying small plants. For emerging stands a much lower altitude would be needed.

YOUTH GREW A VEGETABLE GARDEN AND GAVE IT AWAY

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Situation: Existing research supports that youth gardens can not only influence healthy eating choices, and manage childhood obesity, but also can provide a sense of well-being and may lead to gardening endeavors later in life. Gardening engages youth who work together to plant, maintain and harvest fruits and vegetables. In multiple studies, children who grow their own food are more likely to eat a diet consisting of food they have grown. The combination of fresh fruits and vegetables and physical activity in the garden can lead to a reduction in childhood obesity. Additionally, students who participated gardening programs had greater science achievement gains. Methods: UF/IFAS Extension Sumter County Master Gardener Volunteers sponsor a large youth garden for over 40 youth every week during the school year. The participating school-age youth selected the Youth Garden as an after-school activity with over 20 attending on one of two days the garden as part of the Sumter County Youth Center in Bushnell, FL. Youth learn life skills as they sow seeds, propagate plants, and grow, and harvest fruits and vegetables. Results: Since April 2022, a total of 379 youth participated in the Youth Garden. Youth demonstrate vegetable gardening knowledge gain through observation by Master Gardener Volunteers. In 2022, participating youth not only took fresh vegetables home to enjoy, but also donated 750 heads of lettuce in the fall and , 5.5 pounds of onions, 104.5 pounds of cabbages, 23.75 pounds of broccoli and 18.75 additional pounds of lettuce in the spring. The vegetables they had grown were donated for families in need to the Hope Center Food Bank in Bushnell, FL. Conclusion: The Master Gardener Volunteers are sharing their knowledge, the youth gardeners are helping to grow vegetables and giving them away to families in need demonstrating empathy for their community.

COMMUNITY BASED COLLABORATIVE EFFORT TO AID FARMERS IN BATTLING CLIMATE CHANGE

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Cover crops aid in carbon sequestration, prevent soil erosion and run off, and help conserve nutrients for succeeding crops. The goal of this effort is to break down knowledge and financial barriers limiting implementation of cover crops. Gadsden County, Florida, USA, uses a collaborative approach through coordination with many agencies, to help farmers implement on farm cover cropping. Collaborators include UF/IFAS and FAMU Extension Gadsden County, UF/IFAS North Florida Research and Education Center, Gadsden County Soil and Water Board, Northwest Florida Water Management District, Florida Department of Ag and Consumer Services (FDACS), Office of Ag Water Policy, and the USDA Natural Resources Conservation Service. Activities include educating famers on the use of cover crops, instruction on cover crop selections, based, in part, on Extension field demonstrations, providing cost-share for best management farming practices (BMP), and providing access to three no-till seed/grain drills for farmers via low-cost rental. The drill rentals allow over 1000 acres (400 ha), in small land holdings, which would normally have been left fallow, to be seeded in cover crops each year. Additionally, a BMP cost share program through FDACS, Office of Ag Water Policy, allows large scale farms to purchase no-till grain drills to implement conservation BMP's. These implements account for a portion of the around 6000 acres (2400 ha) (2017 USDA Census of Agriculture) of cover crops planted each year. This collaborative team works closely to influence a greater number of farmers to understand the value of cover cropping for their farm operation, and to implement another useful climate-smart tool for their toolbox.

WHAT'S IN BLOOM ENGAGES VOLUNTEERS & EDUCATES THE COMMUNITY

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North Carolina Cooperative Extension, Forsyth County Center, manages two public gardens to showcase plants that can be grown in the Piedmont region. In April 2020, Extension Agent Leslie Rose created the "What's in Bloom" page of the Extension website to share photographs of plants in bloom at these gardens while visitors were sheltering at home due to COVID-19. Due to the popularity of What's in Bloom, the page continues to be updated, even after visitors have returned to the gardens. In 2022, Extension Master Gardener Volunteers began collecting photographs and cultural information about plants blooming weekly. In this way, the page serves a dual purpose: (1) to inform community members about plants that grow and bloom seasonally in the Piedmont region of NC and (2) to develop skills in plant identification and horticultural research in Extension Master Gardener Volunteers. From March through October 2022, volunteers collected up to four photographs in each of Extension's gardens. In addition, volunteers wrote a 2-3 sentence description of each plant, including identifying information and growing requirements. Photographs were updated on the Extension website weekly. The What's in Bloom website has received increasing pageviews each year since its creation, with a total of 3,045 pageviews between 2020 and 2022. Based on feedback from website visitors, 96% gained knowledge that was helpful in their garden. Two people reported visiting Extension's gardens after viewing the What's in Bloom page. Twelve volunteers served as What's in Bloom scouts in 2022; of these, 50% work at jobs that prevent them from participating in other regular volunteer activities. Volunteer evaluation feedback showed that 100% gained skills in plant identification and researching growing information for plants. The What's in Bloom page serves to educate both the community and Extension Master Gardener Volunteers, strengthening horticultural skills in both audiences.

SMALL FARM SCHOOLS EMPOWER BEGINNING FARMERS IN SANTA ROSA COUNTY

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The population in Santa Rosa County continues to grow. Thankfully the agricultural community is robust due to continued interest from new growers and the willingness to diversify among existing farms. The purpose of the schools was to introduce beginning farmers to various aspects of fruit and vegetable production and farm management and promote better business decisions. The schools were conducted for 42 total participants. The schools also included farm tours to give participants firsthand knowledge from local, experienced farmers. Classes started with lectures, followed by open discussion and hands-on activities. Class topics included: Suitable and Marketable Crops for the Florida Panhandle; Fertility and Soils; Irrigation Installation and Management; Whole Farm Pest Management; and Business and Marketing. Participants received a binder with printed presentations and supporting materials, a flash drive with digital copies of printed materials, and a hand lens. Overall self-reported farming knowledge increased by 96% across all topics. Program participants indicated a value of more than $10/acre per year, in the form of savings or increased profit, from the knowledge they gained from the school. A Facebook group was established to allow networking and collaboration among class participants, established farmers, and the Extension Office.

COUNTY HAY VERIFICATION PROGRAM

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The cost of producing hay is seldom ever known by producers. Projects like this one has shown hay costing at least $40 per 4x5 round bales. The goal of this project is to help producers realize the cost of hay production and to make recommendations to help make production more efficient. This project also teaches producers to use Integrated Pest Management principles to better manage their forage. A verification field is one where the producer agrees to work with the County Extension Agent and follows Extension recommendations. Visits were made weekly to scout for pests such as weeds and insects. Based on pest found, recommendations would be made. Inputs were recorded on the field throughout 2021-22 and the State Agriculture Economic Specialist assisted in putting together an enterprise budget for the field. This information is reviewed with the producer to help them better understand the economics of producing hay. The information is also used to educate producers through meetings and newsletter articles. The producer baled 4x5 round bales that averaged 805 lbs. in 2021 and 831 lbs. in 2022. The cost per bale was $36.09 per bale in 2021 and $51.69 per bale in 2022.

GULF COAST CATTLEMEN'S CONFERENCE

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Over the past several years cattle producers in Southwest Alabama began expressing a need for a large conference

that specifically focused on beef cattle production in our region of the state. To address these needs, agents created an advisory group that consisted of influential and respected producers from throughout the region. This group included local Cattlemen's Association directors, Farmers Federation members, feed store managers, and research station directors. Out of this meeting, the Gulf Coast Cattlemen's Conference was born. The topics were suggested and ultimately chosen by the advisory group based on local producer needs. The best, nationally known, speakers were invited to come and speak about the chosen topics. The conference also included a full trade show with multiple levels of sponsorship available. A total of 12 sponsors/vendors participated in the event, contributing sponsorship dollars that covered all costs associated with the conference. The 1st Annual Gulf Coast Cattlemen's Conference was held in Atmore, Alabama on August 12th, 2022. A total of 167 producers from throughout South Alabama, Northwest Florida and Southeast Mississippi were in attendance. In addition, 25 sponsors, Extension personnel, governmental employees, and Auburn University graduate students were in attendance. This represented a total impact of 36,583 acres and 12,852 head of cattle. Additionally, 99% of attendees said that they increased their knowledge, and 98% plan to implement this knowledge in the next 12 months. Overall, producers were very excited and supportive of this event. Utilizing a small and influential advisory group helped garner local support and awareness of the conference, ultimately making it successful. After the 2022 conference, the advisory group met again to discuss impacts and any changes that could be made to improve the conference. The program advisory team also discussed plans and topics for the next year's conference. With this model, we hope to continue talking about and planning the Gulf Coast Cattlemen's Conference for years to come. The Gulf Coast Cattlemen's Conference has initiated new and improved upon existing invaluable relationships with local leaders and producers, further expanding Extension's impacts in our area.

GPS TECHNOLOGY IN WEED CONTROL

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Many producers look for opportunities to decrease input costs, while still getting effective control. While many producers are using herbicide, not many have invested in precision technology. The Extension office frequently gets asked for options on GPS technology and if the technology is worth the investment. A small acreage hay field was used that had a large brush pile near the center and easy to visualize fence rows. Jason Keller drove his tractor across half the field spraying on sight, using landmarks in the field, with the GPS monitor covered where he could not see it. For the remaining half of the field, he used the GPS guidance system. Guidance systems (GPS Units) can help reduce cost through minimizing excessive skipping and overlapping of inputs. Often this savings is between 10-30% of total input costs. Purchase of a new unit is recommended when a break even can be achieved. In this case, annual input cost of $1,500 and misapplication of 25% results in a potential savings of $375/acre. In 3 years, that would be $1,125/acre. In 5 years, that would be $1,875/acre. If this producer was spraying at least 4 acres, the GPS Unit would achieve break even.

EQUIPMENT WISE (WOMEN INCREASING SKILLS AND EDUCATION)

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The United States Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) reported 7,653 farms, totaling 780,688 acres, were run by a female principal operator in 2012. These numbers have increased to 16,456 farms in 2017, farming 2,043,877 acres. During a post program survey of the 2021 Cattle WISE (Women Increasing Skills and Education) program, attendees stated there was a major need for equipment-specific programming. The 2018 data from the U.S. Bureau of Labor Statistics indicates that the agricultural sector is still the most dangerous in America with 574 fatalities, including 19 fatalities in Virginia's agriculture, forestry, fishing, and hunting sectors. The program team chose to expand the program into two full days of programming; one day dedicated to Equipment WISE and another for

Cattle WISE. Equipment WISE was designed to focus on: tractor operation, maneuvering trailers, proper tie down of loads, ATV safety, sprayer calibrations, small engine troubleshooting, and chainsaw operations. At the conclusion of the Equipment WISE program, participants were surveyed about their experience. Over 95% of participants stated that the Trailers: Backing and Driving, Securing Your Load and Tractors: Driving and Operation, PTO's and Implements either met or exceeded their expectations and ranked the information provided as excellent. These types of results showed the planning team the value of adding Equipment to the already established Cattle WISE programming. Furthermore, over 88% of participants stated that the Chainsaw Station was beneficial and informative. Finally, 92% of individuals stated that their confidence level in the given topic areas had increased due to the programming provided during Equipment WISE. One individual stated that she was "excited to show off to my dad!" and "I'll be promoting others to participate in future events."

EVALUATION OF FERTILITY INPUTS AND UREASE INHIBITORS ON WARM SEASON FORAGE YIELD

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Recent increases in fertility inputs have led producers to question extension recommendations and reduce fertilizer applications. This practice has led to yield reductions in their hay fields. The objective of this study was to evaluate the effect of extension recommended rates of fertilizer and urease inhibitors on forage yield.

The study was conducted at one location in Northeast, Arkansas in Harrisburg in a commercial hay production field. Plot size was 10' X 35'. Plot layout was 4 treatments of 1 replication. Soil samples were taken before first fertility application. Ph was 6.4 and considered to not be a limiting factor. University of Arkansas fertility recommendations were followed in all plots. Phosphorous was applied in total in the first application, whereas Potash was split into four equal parts with the nitrogen application. Fertilizer applications were made at 30-day intervals in May, June, July, August following the harvest of the plots, and the October harvest simulated the amount of forage that would be stockpiled. Stand density and height measurements were taken before each harvest. The center 3' by 35' of the plot was harvested, weighed, and a sample taken and calculated for dry matter.

Results of this study were evaluated by growth and dry matter per acre. The effect of different fertility regimes on warm season forage yield will be presented in this poster.

IMPLEMENTING BEHAVIOR CHANGE IN NATURAL RESOURCES TO SENIOR CITIZENS

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The Villages, located in Sumter County Florida, is one of the largest retirement communities in the United States. The influx of seniors to Sumter County has made it one of the highest median age counties in the United States. 58% of residents are over 65 years of age. UF/IFAS Extension Sumter County was invited to participate in The Villages Enrichment Academy. The Enrichment Academy was developed for community education and enrichment to its senior citizens. The objective of Extension was to provide classes emphasizing and educating local wildlife and natural resources to enrich the lives of its residents. Each class is two-hours long. A fee of $21.00 is charged for each guest and $15.00 for each resident. The Enrichment Academy promotes all classes within The Villages. They also provide a meeting room at no charge, along with all necessary audio and visual components. A total of 12 events were conducted in 2022, having 228 registered participants. Behavior change was measured using a end-of-the-year follow-up survey captured by Qualtrics. 100% of surveyed participants (n=13) stated they had a greater knowledge and appreciation of native wildlife after attending one or more classes. 92% (n=12) stated they shared their new knowledge of native wildlife identification skills to at least one person. 61% (n=8) stated they shared their new knowledge of invasive species identification skills to at least one person. 30% (n=4) stated they provided habitat for native wildlife in their landscape after attending one or more classes. 83% (n=10) stated they now have successfully identified native wildlife in their landscape after attending one or more classes. 30% (n=4) stated they

now have taken up birding after attending one or more classes. 38% (n=5) have visited a new park or wildlife management areas as a result of attending one or more classes. As a result of successful programming, The Villages Enrichment Academy has now included programming from our Family and Consumer Sciences agent and Horticulture agent.

IRRIGATING LANDSCAPES WITH HARVESTED RAINWATER: A PRIORITY OR NOT?

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Rationale: Irrigating landscapes in economically distressed counties is significantly less attainable than in economically stable areas. Taylor County residents were less inclined to install a barrel because of financial inhibitors to purchase, and less concerns of water savings because private wells are the source of water for both irrigation and drinking outside city limits of Perry. The motivation for saving water is not a priority when water is plentiful and at no measurable cost.Methods: Educational programming in Taylor and Hillsborough Counties have differing results. Both county's presentations include information on how to decrease potable water use in landscapes using rain barrels/cisterns. Both include demonstrations/information on how to create a rain barrel from a food grade tote, installing a spigot, reconfiguring the top of the barrel, creating overflow accommodations, use for harvested water from roof structures versus non-roof surfaces, connecting multiple barrels, painting the barrel and maintenance needed. Results: Many Hillsborough County residents attending a rainwater harvesting workshop installed the barrel provided for a $5.00 fee. Historically, the majority of survey respondents in Hillsborough (88%) harvested between 1-250 gallons per month. The remaining 12% indicated a savings average of 103-201 gallons per month. Taylor County water savings were similar to Hillsborough.In Taylor County seventy-five percent indicated after attending rainwater harvesting workshop that they had a better understanding of the purpose and practicality of a rain barrel and would purchase and install one if they could afford to do so. Fifty-two percent (n=44) of participants purchased a rain barrel after workshops for $45. In Hillsborough County the knowledge increase post workshop was eighty-five percent, and all households received a food grade barrel. Conclusion: Taylor County residents have below average incomes, median household incomes and above average poverty and illiteracy rates compared to state averages. These factors make it difficult to invest in educational programs. The workshops increased their awareness of water qualities and impacts to plants. A socioeconomic status does not seem to deter the desire to learn. If rain barrels are made available for lower costs, interested city water users will be able to report on water savings. While Hillsborough had larger audiences because of the population difference and longevity of the program.

UPDATING NITROGEN RECOMMENDATIONS FOR COTTON IN FLORIDA

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Situation: UF/IFAS collaborating with the Florida Department of Agriculture and Consumer Services, has conducted one of a two-year project to develop improved nutrient management recommendations in conjunction with the Best Management Practices (BMPs) program. The current UF cotton nitrogen (N) rate of 60 lbs/acre was based on non-peer reviewed work from 1981 when average yield was 601 lbs/acre. In 2019 average yields were 930 lbs/acre, a 55% increase. BMP enrollment requires following UF recommendations, but 60 lbs/acre N constraint hinders participation. Objective: 1) Provide justification of updated rates to achieve high yields without impacting water quality and 2) Quantify yield optimization and N leaching under different rates. Methods: A randomized complete block design with four replications and six N treatments (0, 45, 90, 135, 180 and 225 N/acre), allowed for destructive sampling. Nitrogen was broadcast as urea, and one location had lysimeters to quantify leaching. Fertility, aside from N, followed Mehlich-3 recommendations. Sampling included soil, plant tissue, petiole, and leachate. Crop development was recorded, data included stand establishment, NDVI, LAI, and yield. Results: Year one yields establish baseline data is currently being developed.

EXTENSION PROVIDES EDUCATION THROUGH FORAGE TESTING IN CARROLL COUNTY

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Hay yield losses have historically been insured against weather-related disasters through the Farm Service Agency (FSA) Non-Insured Crop Disaster Assistance Program (NAP). The 2018 Farm Bill included a yield adjustment determined from laboratory analysis of hay quality for those producers enrolled in the NAP program. USDA FSA staff serving Carroll County asked the Virginia Cooperative Extension Agriculture and Natural Resources Agent in Carroll County to help producers collect and submit representative forage samples to be used to determine hay quality for the NAP program.

In 2019, 2020, 2021 and 2022 the Agent used this opportunity to not only provide hay sampling services, but also to educate producers on interpreting the results and using the results to make better use of their hay resources. Educational activities included both one-on-one interaction and producers meetings. Four hundred fifty-two forage samples from seventy-five different producers were collected during the four years. Sixty-eight percent of these producers had never tested hay before enrolling in the program. Forty-three percent of these producers had not been involved with extension programs previously. Each producer who worked with the Agent received, on the average each year, an indemnity payment of $9,951 from FSA for participating in the program.

SC WOMEN'S AGRICULTURAL NETWORK INAUGURAL CONFERENCE

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The South Carolina Women's Agriculture Network (SC WAgN) was developed as an overarching initiative to provide all women in agriculture the tools they need to grow their success, feel confident in their roles and provide a network for women in agriculture in our state. Currently, there are three existing program areas under SC WAgN: Annie's Project, Ladies Engaged in Agriculture Development, and Women Owning Woodlands. Each of those areas had their own developed programs and network of participants; however, agriculture in South Carolina is not one-dimensional, and different program areas often overlap. Creating a larger SC WAgN Conference to unite and educate females on all aspects of agriculture is essential.

The SC WAgN Conference was the state's first women-in-agriculture conference offered by Clemson Cooperative Extension. This two-day event allowed participants to attend farm tours of Clemson's facilities to expose them to research, practices, and resources available through Clemson University. In addition to farm tours, the first day of the conference offered attendees the time and space to network and make connections through a casual social event. The conference's second day provided educational breakout sessions on farm income tax basics, agriwellness, finance, hydroponics, forestry, agritourism, marketing,

youth agriculture education, integrated pest management, and more.

Following the educational sessions on day two, a survey was given to each participant to complete. Short-term outcomes included witnessing participants interact and share ideas with each other. Participants also shared contact information with presenters and others to follow up in the future. The results from the overall Conference survey showed that 94.3% of participants felt that the conference met or exceeded their expectations, and 91.4% said that they would attend the next conference if available.

Sixty-five program participants from all across South Carolina attended the inaugural SC WAgN Conference. Twenty-five speakers provided over eight hours of educational content. Based on the post-conference survey and feedback, the SC WAgN committee has decided to make this an annual event.

"SUPER BUGS" IN CATTLE

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Internal parasite control has been an ongoing issue in the OK cattle industry for many years and there is an increasing concern of parasite resistance with several of the common over the counter anthelmintics. Resistance is determined if there is less than 95% reduction in fecal parasite ova 14 days post treatment. The resistance is due to many factors including, incorrect dosing, overusing the same products and rotating anthelmintics too frequently. This had led to what some may call "super bugs", meaning because of the misuse of common dewormers we have developed resistant parasite populations that are no longer killed by the deworming products. OSU Extension in Adair County conducted a study to help gather data for a statewide study initiated by the OSU College of Veterinary Medicine to determine parasite resistance in Oklahoma beef cattle herds. A local producer provided twenty-nine calves to be used for this study. All had been weaned 30 days prior, average 500 pounds, with no deworming history. Fecal samples were collected on day one prior to being treated with Dectomax (doromectin) pour on, the producer's normal anthelmintic for his mature cows. Post treatment fecal samples were collected on day 14. All samples pre/post treatment were analyzed using the fecal egg count reduction test (FECRT). Results as follows: Number of samples included in final analysis- 24, average pre-treatment egg count- 191.8, average post-treatment egg count- 207.3, resulting in zero efficacy of the dewormer and an actual 8% increase in fecal egg count post treatment. The Adair County Annual Pasture Tour allowed us to share these results and information with other producers. We had an in the field demonstration and discussion with a local veterinarian as well as OSU Extension area specialists concerning parasite resistance in cattle. The discussions involved rotating through different classes of anthelmintics, pasture management, and animal care. Evaluations reported that participants gained a better understanding of recommended management practices to improve overall herd heath. The study results were also presented to the Adair County Cattleman Association to educate more producers on the growing concerns of "super bugs."

CALIBRATING PRESCRIBED FLUSH CYCLES

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Drip fertigation systems, when properly managed, provide opportunities for increased use efficiencies for both water and crop nutrients. In the Suwannee Valley region of Northeast Florida, drip fertigation in combination with plastic mulch is used on a variety of high value horticultural crops. Among these crops, the region produces approximately 11,000 acres of spring watermelons; over half of the acres grown in Florida. Using soil moisture probes and weekly petiole sap tests, extensive efforts are made to help optimize efficiencies and to minimize potential environmental impacts relating to the use of crop nutrients.

One component of the 4R Nutrient Stewardship Program addresses fertilizer placement. Without proper and uniform placement, fertilizer efficiencies can be greatly diminished.

In drip fertigation systems, where soluble fertilizers are injected into the irrigation system during operation, placement is controlled by the management of irrigation water used to deliver the fertilizer. The less water used; the higher in the root profile the nutrients can be maintained. For this reason, fertilizers are typically injected at the end of an irrigation cycle. At the end of an injection event, proper flush times are the required to ensure that the fertilizer is pushed out of the system while the system is still at operating pressure.

Failure to properly flush a system at the end of an injection event can result in ununiformly applied fertilizer, clogging and emitter failure, and reduced crop performance. This project has demonstrated that proper system calibration is a required and justifiable activity. Standard estimated flush times used widely across the region, prior to this service, were shown to be significantly deficient in properly placing important crop nutrients.

In Levy County, over the previous two-year period (2021-22), 71 producer fields were evaluated with 87% being found significantly out of calibration. According to a season end grower survey, farmers estimate that services such as flush time calibration and petiole sap testing represented a $200/ acre value. Of the 1,785 acres in Levy County currently being managed with the support of this program, this represents a $357,000 annual benefit.

DEVELOPING PERSONAL RISK MANAGEMENT PLANS AND MARKETING STRATEGIES FOR SMALL AND HISTORICALLY UNDERSERVED PRODUCERS IN SOUTHEASTERN NORTH CAROLINA

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Producers need the ability to deal with risks that come with new attractive farming opportunities. The program was funded by a grant with Digital Extension Risk Management Education and National Crop Insurance Services and was conducted during the first half of 2022. Project goal was to assist small and historically underserved producers in Southeastern North Carolina respond to risk by developing their own personal risk management and marketing plans. Applied education consisting of eight sequential workshops (7 virtual, 1 in-person; 30 hours total) supplemented by homework assignments and individualized counseling was delivered via a partnership of subject matter experts and local educators to farmers and ranchers in Southeastern North Carolina. Program outcomes show that 51 producers and 6 educators acquired the risk management and market analysis skills and understanding of their own operations to set a goal, and delineate three implementation actions for each goal, for each of the five areas of risk and five key marketing mix variables. Each participant was interviewed at the project's end, with educators reporting that 47 producers participated in all activities of the project accomplishing 3,661 (average 77.9) hours of homework. Surveys taken four months after the last workshop, showed that 36 of the 51 producers had accomplished at least half of their actions and 13 had completed all of their actions which included: installing high tunnel greenhouses and deep well irrigation systems, receiving financial assistance, having roadside marketing signs printed and developing personal webpage and social media pages. Farmers now have the confidence they need to deal with future risks.

AROUND THE WORLD WITH 4-H: A VIRTUAL FIELD TRIP CLUB

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Around the World with 4-H is a virtual, synchronous club designed by 4-H agents to reach youth throughout their state. The objective was to offer opportunities for youth to be exposed to various cultures. We set out to highlight a different country at each monthly meeting. Each meeting would offer exposure through virtual tours, recipes, vocabulary, and facts. Intended goals were for

youth to understand the importance of knowing about other cultures, explore and respect diversity, and develop skills in cross-cultural communication and travel. Originally offered through Chester 4-H, the program is now a partnership between Chester, Fairfield, and Newberry Counties with participation not limited to these counties. The virtual component is open to youth aged 5-12 from any state or country. The program is also delivered through an in-person club tuning in together in Newberry. The ongoing program, started in December 2021, currently boasts 95 participants from 22 South Carolina counties, 4 other states, and Canada. Monthly, agents lead an hour meeting held via Zoom to introduce a country through an interactive presentation that provides information on cultures, holidays, food, language, currency, geography, and wildlife using maps, recipes, hands-on activities, interviews, and virtual tours. Youth are provided with a follow-up related recipe and hands-on activity to complete at home. As of March 2023, club members have "traveled" to fourteen different countries. Parents completing the evaluation tool noted that the program is "fun, engaging, and easy to connect" and that their family enjoys "learning about the different countries and their cultures, as well as the hands-on activity with each meeting." 100% of respondents agree or strongly agree that the activities were useful, encouraged respect for other cultures, were age-appropriate, utilize an easy-to-navigate platform, and they would be interested in attending other virtual 4-H programs. Evaluations also show positive results in cultural learning and respect, as well as ease of participation. While original goals did not include offering this program via different delivery modes, this was an unintended outcome of a joint county program. Additionally, the program is helping reach new audiences: 43% of youth registered are new to 4-H.

SOUTH FLORIDA'S CATTLE MANAGEMENT FOR WOMEN

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Women are taking a greater role in the decision making and management of cattle ranches. However, during traditional Extension livestock programs, it has been noted that female participants tend to wait until the end to ask questions privately or do not ask at all. In response, the South Florida Beef Forage Program agents held a pilot program in 2019 to address the educational and participation gap between women and their male counterparts. The program focused on subjects such as animal handling, beef quality assurance, forages, nutrition, record keeping, reproduction and handling the media. Class size was limited to allow for interaction with participants. After the 2019 program, the committee reviewed the survey data and realized this type of program was needed and effective. In 2021 the Cattle Management for Women program was developed using input from and information requested by cattlewomen. The programs focus was on cattle pen design; forage and grazing management; soil, tissue, hay and water sampling; alternative enterprises for ranchers; EID and benefits of use; calf care; weed identification; beef quality assurance and best management practices; record keeping; sprayer calibration; media training; and dystocia. The average participation is 30 attendees to allow for small group learning and hands-on activities. Observational evaluation indicated that female participants were more engaged for this program than when participating in traditional programs. The overall knowledge gain for this program is 54% with the highest gain found in the question-and-answer session for uses of Electronic Identification and Weed Identification at 69%. The behavior change was 79% with changes in the areas of sampling, weed control, record keeping, calf care and herbicide application. With women's involvement, ranches could increase profitability by having someone in management who understands, and is able to implement best management practices and see strategies from a different view. Women traditionally take on roles dealing with the record keeping and financial management of the business. Today, more are in the field working alongside their husbands, brothers, and paid workers holding the same role as their male counterpart. This program has assisted in providing these women with the resources and tools needed to be successful.

PATH TO PREPAREDNESS: BUILDING EMERGENCY CAPABILITIES IN SOUTHWEST GEORGIA

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Georgia is consistently faced with a variety of natural disasters including hurricanes, wildfires, tornadoes, and floods. These events can sometimes strike with very little warning and leave our citizens vulnerable. Preparation is crucial to minimizing losses in the home or on the farm. With offices in all 159 counties, UGA Extension agents are ideally located to assist communities in times of need by providing necessary information and training for emergency preparedness, response, and recovery. A state-level team from UGA was awarded a USDA/NIFA grant to build internal capacity for emergency management. Each Extension district selected their own Emergency Preparedness Team (EPT). The Southwest EPT's goal was to increase their own emergency knowledge with a variety of trainings and workshops. Southwest EPT members attended a three-day initial training for all district EPTs, coordinated their own community emergency response team training in Southwest District, worked with County Extension Coordinators to write emergency plans for each Extension office, and received hands-on drone training for aerial agricultural damage assessments. As a result of their commitment to emergency preparedness, the Southwest EPT members completed 412 total training hours, protected over 150 Extension faculty staff with an office emergency plan, and can now cover over 2 million acres of planted cropland that can be visually assessed via drone in the event of a natural disaster. The Southwest EPT is ready for the next phase that will include community education events that better prepare our families and farms for emergencies.

BREEDING SOUNDNESS EXAM DAY: ENCOURAGING FERTILITY MANAGEMENT AMONG LOCAL BEEF PRODUCERS

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Herd uniformity resulting from a shortened, breeding season enhances the marketability of beef cattle. Reproductive issues within a herd can jeopardize profitability. The Oglethorpe County Agriculture and Natural Resources Extension Agent has received reports of low conception rates during individual consultations with 4 different local cattle producers. Although no single cause of conception deficiencies has been identified, there is a need for more investigation and education on factors that affect fertility. A bull breeding soundness exam (BSE) is a widely accepted best management practice for monitoring bull fertility annually, yet many producers neglect BSEs. Not all cattle working facilities are conducive to working with larger more aggressive animals, particularly those facilities used by small and beginning farmers. The agent collaborated with a local veterinarian to offer a BSE haul-in day making the recommended exams more accessible and affordable for producers. A total of $1050 monetary and in-kind sponsorships were secured to facilitate education and reduce program costs. A highly discounted rate was offered as free vaccination and deworming. BSEs were performed by a licensed veterinarian on 15 bulls from 9 different farms. One bull was found to be "unsatisfactory" based on parameters. Two other bulls were categorized as "classification deferred" and recommended for re-testing in 30 days. The bull that failed the exam was in good working shape last year and was expected to service 36 females this year. The owner indicated on a pre-exam survey that they sell calves for around $650 each per year. The potential economic loss for that producer if a BSE had not been performed was $23,400.

MISSISSIPPI ADVANCED MASTER GARDENER COURSE

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The purpose of this educational course was to increase the outreach capacity of the Mississippi Master Gardener (MG) Volunteer program by training select MGs to become leaders in the statewide organization. This was accomplished by providing a two-day in-person training with presentations and hands-on activities. The curriculum was developed by numerous specialists with MSU Extension. Participants were instructed on advanced horticulture topics and a variety of proven teaching techniques. They were then required to complete a follow-up project within six months to become an Advanced Master Gardener. These projects were approved at every step by the State MG Coordinator. Once fully completed, the projects were shared with all county MG groups across the state. Four Extension publications and six PowerPoint presentations were developed for use by any MG in the state. These will be used to educate clientele on numerous topics related to horticulture and technology. The four MSU Extension publications are newly listed with the print on demand system, so the exact number of downloads is not currently available. The estimate is that they will be downloaded a total of 250 times each year. The six PowerPoints have been presented a total of 22 times to over 225 clientele, educating them on Planting for Pollinators, Getting in Shape to Garden, How to Successfully Grow and Maintain Lantana, Preparing an Insect Collection, Perennial Flowers in the Shade, and Starting a MG Website. Each presentation has been evaluated and edited to be engaging and effective in providing sound research-based horticultural information.

LIVESTOCK EMERGENCY RESPONSE FOR FIRST RESPONDERS

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In March 2022, a cattle pot trailer with 108 feeder cattle, weighing an average of 550 pounds each, rolled over in Pulaski County, Georgia. Large trailers on narrow roads with low/soft shoulders, have strong potential to rollover, especially if animals shift their weight. The Livestock Emergency Response Program (LERP) is a 5-hour class designed to provide attendees with necessary skills to respond to a roadway incident effectively and safely. The 2022 LERP trainings were held at four locations across Georgia: Murray, Dougherty, Coweta, and Warren. First responders were the target audience and included law enforcement, EMS, fire, animal transportation professionals, tow truck operators, emergency management professionals, veterinarians, and public safety officials. The goal was to prepare them for a roadway livestock emergency, thus allowing them to improve animal welfare, reduce public perception issues and enhance safety for responders, the public, and livestock on scene. In addition to classroom instruction, attendees participated in hands-on activities and real-world scenarios to enhance the following topics: Transportation and Hazards; Biosecurity and Mortality Management; Incident Command and Debrief; Animal Behavior; and Animal Handling and Trailers. Continuing education units were offered for GA POST, GA FF Standards and Training, TRIP and others. Program partners were the Georgia Department of Agriculture, Georgia Department of Transportation, University of Georgia Extension, Georgia TIME Task Force and local Cattleman's Associations. 125 participants attended the four workshops representing 16 counties: Bullock, Carroll, Clark, Coweta, Dougherty, Gordon, Henry, Houston, Glascock, Lowndes, McDuffie,

Monroe, Murray, Pulaski, Tift, and Warren. Thirty-three attendees completed evaluations and results indicated that 78% strongly agreed that the content was useful and the time dedicated was appropriate; over 80% strongly agreed it built on their existing knowledge, they learned methods/ practices they could apply to mitigate incident impacts and they better appreciated the responder and motorist safety element of TIM in quick clearance of livestock emergency incidents; 88% of attendees felt that goals and objectives were clearly explained and 85% felt materials were clear and delivered at an appropriate pace; 79% felt that training aids facilitated understanding and over 90% strongly agreed the trainer's subject matter knowledge was satisfactory.

EDUCATING YOUNG CATTLEMEN THROUGH INNOVATIVE COMPETITIONS

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Georgia cattle producers own approximately 1.3 million head of cattle worth more than $676 million. Annual cash receipts total more than $262 million, making cattle production the state's sixth largest cash crop. Because cattle are grown in all 159 counties of Georgia, the beef industry has a large impact on the state's economy. The average age of the Georgia farmer is 60, which has increased 2 years since 2007. This means to sustain the cattle industry in the state, more young people need to enter into production. Although there are many opportunities to learn about beef cattle through the showring and ag education classes, projects focusing on beef cattle production outside of the showring and classroom are limited. The University of Georgia's Beef Team hosts two competitions to educate youth and encourage them to be involved in beef cattle production. First, the Georgia Junior Herd Builder Program allows youth to compete while developing a group of three heifers. Students not only become BQA certified, but learn about cattle nutrition, reproduction, herd health, record keeping and much more. This program was started in 2021 and to date, 18 youth have completed the program. The Top Hand Stockmanship and Stewardship Contest seeks to inspire, educate, and equip Georgia's youth with the skills, knowledge, and confidence to be successful advocates and/or employees of the beef cattle industry. Contestants compete in teams of three, working cattle through a handling facility, demonstrating good stockmanship skills, knowledge of quality assurance and health product use. The inaugural contest was held in the Fall of 2022. Twelve teams of 3 competed across three regional contests, with six teams advancing on to the state contest. These competitions are put on through a collaborative effort of the University of Georgia Beef Team, Georgia Cattlemen's Association, and allied industry sponsors.

ELEVATED EQUINE: CONNECTING EQUINE OWNERS WITH UGA EXTENSION

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The equine industry in Georgia, as well as Newton County, has grown in scope over the last decade. The total Equine Farm Gate value in Newton County is over $9 million. It contributes a significant amount to the local and state economy. Majority of horse owners rely on local feed shops and other local equine professionals to get information about care and management of horses. Information gathered by horse owners from local feed stores, farriers and other members of the equine community is often not research-based or accurate. This information can be out-of-date, ineffective and more commonly opinion-based. Previous equine programming from Extension has been targeted towards 4-H youth and the adult education has been minimal. Newton County is becoming home to more equine owners with the presence of multiple boarding facilities, several trainers and a 35,000 square foot horse arena. The equine community in Newton County and surrounding counties has often contacted the ANR Agent regarding equine management questions. There is also a need for more youth equine programming and events. The Agent has also renewed the 4-H Horse Club activities. The junior 4-H horse judging team placed 2nd at the State 4-H Horse Judging contest in April 2022.

The Newton ANR Agent has gathered equine resources into one location on the Newton ANR blog web site. The Newton County Extension Equine Resources site, on the Newton ANR Blog site, created an easily accessible site for clientele to view archived equine presentations and publications. There is now a quarterly equine newsletter called, "The Leading Rein." The "Leading Rein" equine newsletter reaches over 2000 people with each issue published. The Newton ANR Agent has also hosted multiple equine virtual programs. There are also virtual programs scheduled for 2023. The programs to date have had 250 registered participants. Individuals attending provided the following verbal feedback: "I didn't even know what to look for with mild colic. Now I know what to do and when to call my vet."

TRI-STATE FRUIT AND VEGETABLE CONFERENCE

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Objectives: The Florida Panhandle and surrounding areas have the necessary chill hours in the winter months that allow for diversification in specialty crops that require chill hours. According to the 2017 Census of Agriculture the number of vegetable and melon farms increased 6 % on 9,000 acres (a 68% increase) and blueberry and strawberry farms increased 37%. With the growth of this area this conference became necessary to provide education on a variety of topics for small to medium sized, diversified cucurbit and vegetable producers in the Tri-State region including the counties in the Panhandle, Alabama, and Georgia. This area has many established farmers and residents growing specialty vegetables and fruit crops.
Methods: This annual event is designed to engage beginner and advanced level farmers and residents through presentations at different levels of experience. All these presentations highlight the latest research-based management practices by a mix of specialists from Auburn University, University of Georgia, and the University of Florida. A full morning with educational sessions with lunch to follow is scheduled at the beginning of each year. Examples of the learning objectives were drip irrigation and fertigation, specialty vegetable and fruit crops on blackberries, carrots and potatoes, hydroponics, cucurbit updates, cover crops and soil health, and budgeting and marketing a farm. There was also door prizes and a tradeshow with regional vendors that supported the program through sponsorships.
Results: There were 144 attendees at the last two conferences and 107 (74%) that completed the post survey. A sample of the survey results concluded that 70% of respondents plan to make management or practice change to their operation, 98% gained knowledge on trap and cover crops, and 19 individuals indicated that they made changes as a direct result of ideas discussed in last year's Tri State conference. Attendees represented 16 counties across the Tri-State area.
Conclusion: This annual conference and tradeshow provides a learning experience for the Tri-State area with valuable continued education. This education event is the forum of the latest information that can improve farm management and practices for the future of Agriculture.

COMPARISON OF SOIL PH METERS: STORE-BOUGHT, PORTABLE SCIENTIFIC METERS, AND UNIVERSITY SOIL ANALYTICAL LAB PH METER

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Situation: Annually, many homeowners visit UF/IFAS Extension St. Lucie County plant clinics seeking solutions for unhealthy plants. Extension Agents commonly advise homeowners to send soil samples to the University of Florida Extension Soil Testing Laboratory (ESTL) for pH analysis. Many clients have informed Agents that they intend to utilize a pH meter they purchased from a local store. laboratory. The purpose of this experiment was to determine whether the pH meter in ESTL and store-bought pH meters produced significantly different results.
Methods
A four-question survey was given to 115 St. Lucie County residents. Survey questions included - have you measured your soil pH, and if so, how; have you ever used a store-bought soil pH meter, and do you feel that these types of pH meters are accurate? 64% (N=74) of respondents stated that they believe store-bought pH meters are accurate,

while 32% (N=37) stated store-bought pH meters may or may not be accurate, 4% (N=4) stated that store-bought pH meters are not accurate. To test the accuracy of store-bought pH meters, we decided to submit a soil sample to the UF lab and use three different pH meters purchased from a store. For pH testing, soil samples were collected from three different sites. The results of three commercial pH meters were compared with those of two portable scientific pH meters and the ESTL pH readings.
Results
Results from the portable scientific pH meters and the ESTL were very similar. The results for the store-bought pH meters were significantly different from that of portable scientific pH meters and ESTL pH results.
Conclusion
Store-bought soil pH meters produce a wide range of readings. Since store-bought pH meters are inaccurate, they should not be used in place of scientific pH meters, or the pH meter used in the university's soil testing laboratory. This could lead to confusion for homeowners attempting to diagnose landscape issues.

JOURNEYMAN FARMER CERTIFICATE PROGRAM ENGAGES NEW AND BEGINNING FRUIT AND VEGETABLE FARMERS IN NORTHEAST GEORGIA

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The UGA Journeyman Farmer Certificate Program was developed in 2015 to provide agribusiness and production education to new and beginning farmers, who account for 35% of farmers in Georgia (USDA, 2017). AgGeorgia, Lincoln, and McDuffie County UGA Extension collaborated to present a one-day AgAware workshop, seven educational sessions on fruit and vegetable production, and a farm tour of a Lincoln County U-Pick operation in spring of 2022. Business planning topics were covered in the AgAware workshop that offered FSA Borrowers Training Credit and was attended by 34 individuals from 8 counties. Fruit and vegetable production training was attended by 27 participants from 5 counties, and the farm tour was attended by 10 participants. Attendees were equally split between hobby farmers (43%), new agribusinesses (29%) and those diversifying an existing agricultural operation (28%). The majority of attendees had been producing less than 1 year (57%), and had never used Extension services (45%). As a result of the program, 19 participants received certification after meeting attendance and examination requirements. Post-program evaluations indicate that 100% of attendees gained knowledge of fruit and vegetable production, 95% indicated they would use the information provided and 85% indicated an intention to use Extension services in the future. A post-program evaluation conducted 6 months after the program found that attendees implemented behavioral changes such as improved record keeping, use of business plans, use of conservation practices and crop rotation, and other best practices for production. These behavioral changes have resulted in reduced pest pressure and damage, increased yields, reduced input costs, and increased profitability. All respondents attributed the Journeyman Farmer Certificate Program to improving their operations. As a result of feedback for this program, classes have been held to cover suggested topics of food preservation (July, 2022) and small flock production (August-September, 2022), with plans underway to offer pasture management and small ruminant classes in 2023.

SHARING THE KNOWLEDGE: ANNUAL MASTER GARDENER SYMPOSIUM IN HENRY COUNTY, GA

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The State of Georgia has many Master Gardeners who continually need continuing education opportunities to improve their skills. With the many developments and the complexities of horticultural science, the need for Master Gardener Extension Volunteers is essential. In partnership with the Henry County Master Gardeners, UGA Extension Henry County has planned and implemented four Henry County Fall Gardening Symposiums since 2018. The program was also open to the public; some participants were not Master Gardener Extension Volunteers. Each program has had four presenters who discussed native plants, pollinators, winter gardening, gardens in small spaces, and others. A total of 177 people have participated in the program since its inception. It also had a silent auction and several vendors. A post-program evaluation of the qualities and information presented by each speaker was given to the attendees. Of those who responded, on a

scale of one to five, with one being the lowest and five the highest, the average was 4.75. Several of the participants commented, “All of the speakers were interesting. Their presentations were educational, and I have new ideas that I plan to implement in my garden. Thank you for this opportunity,” and “This program has been amazing. I have learned much about the type of plants that can make a difference in improving the appearance of my landscape. Many new ideas to think about for my situation,” and “I learned much today that I found helpful and will use it.’

INITIATING CROSS-PLATFORM RECERTIFICATION OPPORTUNITIES FOR LICENSED IRRIGATION CONTRACTORS

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Over the last few decades, automatic in-ground irrigation of Louisiana landscapes has become popular despite annual rainfall averaging 45-65 inches per year. With state level regulatory requirements in place since 2005, Louisiana is one of four states that mandates annual licensure for irrigation contractors, which is dependent on receiving six full hours of in-person continuing education every third year. Louisiana Irrigation Association partnered with LSU AgCenter to meet these educational requirements. In 2020, the COVID-19 pandemic pushed continuing education toward an online platform for the first time. Thus, this project’s immediate goal was to develop and utilize versatile educational material appropriate for cross-platform delivery (in-person or virtual) that is educational, interesting, applicable to their businesses, and relatively new to Louisiana contractors while meeting the regulatory requirements of recertification. The primary metric was measured through direct feedback about the quality and delivery of the educational material as well as the overall experience with the cross-platform structure. A majority of the 115 participants, which represent a third of the licensed landscape irrigation contractors in the state, thought the educational content was interesting and informative (89%), teleconferencing software was suitable (90%), they could see/hear content appropriately (89%), class was at the same level or an improvement to previous classes (69%) and preference for future virtual class options (80%). As a secondary metric, basic technical questions were asked after each covered topic to assess attendance and attention. The educational content was designed to introduce the newest technologies, connect nationally conducted research to Louisiana’s climate and culture, and relate familiar basic concepts from irrigation scheduling and system auditing to the functionality and automation of smart technologies and two-wire systems. Out of five classes, the correct answer for each technical question was selected by most contractors (60%-93% correct response rate). Ideally, knowledge implied through quiz results would directly translate to water, energy, and labor savings for both the contractor and irrigator.

THE USE OF MOISTURE SENSORS IN PECANS

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High quality pecans require water from either rainfall or irrigation. Most places rely on a combination of the two. In Arkansas, irrigation is supplemental due to the abundance of rainfall. However, considering mature pecan trees can require as much as 2000 gallons of water per week during the growing season, the timing and quantity of irrigation is important for the crop.

Agent has been conducting research at three pecan orchards (Bevis, Feland and Bransford) to determine need and timeliness of irrigation scheduling. Soil moisture sensors were installed at 6,12,18 and 30 inches to monitor the uptake of water in the soil profile. The depth of importance for daily moisture is at the 12-to-15-inch area of the soil. The feeder roots are at this depth and run horizontally to draw in needed moisture. Each set of sensors have a telemetry unit which monitors and records the readings and makes them accessible by smart phone and an app to the agent and grower. Readings were taken weekly. Agent was able to help the growers know when the orchard needed to be irrigated by determining the amount of water in the soil profile and how fast the trees were using the water. In drought conditions such as the summers of 2021 and 2022 it became apparent that irrigation scheduling was vital to producing an adequate crop load. Feedback from cooperators was extremely favorable, since “seeing is believing” and they had access to the app and could monitor tree stress in the orchard. Bob Bevis realized the need for ample water and the timeliness of each irrigation event for his orchard because

of this demo. He now has plans to build a reservoir to use as a source of water, especially in drought years. He realized he cannot depend on well water alone to supply the needs of his expanding orchard.

A TUPELO HONEY INSPIRED 4-H BEEKEEPING CLUB

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Objectives: Gulf County, Florida is home to a rich history and tradition of Tupelo honey production. However, in recent years, there has been a decrease in younger beekeepers in the profession. A 4-H club experience can help re-energize such important cultural interests and galvanize strengths for the next generation of Gulf County Beekeepers. After a needs assessment, a newly formed 4-H Beekeeping Club was implemented in 2022 to teach youth basics in managing bee colonies and how to market honey products.

Methods: Utilizing feedback from the Overall Extension Advisory Committee and interest from the community, a club leader as well as volunteers were selected. Monthly meetings followed, where topics were taught, such as the history of beekeeping, honeybee basics, and how to work a colony. As an added bonus to the curriculum, youth attended the annual UF/IFAS Bee College and UF/IFAS Extension Northwest District Panhandle Beekeeping Conference and Tradeshow. Here, 4-H members received hands-on training with open hives, as well as lectures presenting the latest research in disease management, state rules & regulations and tips on how to market their honey products.

Results: The 5-member club presently manages five hives. Youth participated in competitions for both the UF/IFAS Northwest District Panhandle Beekeeping Conference and Tradeshow and the North Florida Fair 4-H. At the District Conference, a 4-H member finished 1st place in the smoker lighting contest and another 4-H member placed 3rd in the honey show. At the North Florida Fair competition, two 4-H members received blue ribbons for their painted hive designs and another 4-H member received a blue ribbon and merit award for her bee wrap entry. This unique, handmade product is used as an environmentally safe, natural wrap to keep food safe and fresh.

Conclusions: 4-H beekeeping club learning experiences provide youth with hands-on, as well as scientific knowledge, all while adding the element of an investment in the future for this important historical agricultural commodity. Experience in 4-H clubs such as this, aid youth in gaining knowledge and skill sets, allowing for growth into responsible and productive citizens.

WESTERN REGION

ONLINE URBAN FARMER TRAINING

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With the increase of urban agriculture in Utah, and their benefits to our communities (food accessibility, environmental sustainability, community connection and health), Extension needs to expand resources for urban agriculture systems.

The number of small farms, or micro farms, defined as 1-9 acres, increased by six percent between 2007 and 2012 (USDA, 2012). Along with the growth of urban agriculture comes a variety of benefits to communities, including food security, environmental sustainability, and physical and mental health (Hazell, 2005; Colasanti et al., 2012). Urban farms provide communities with access to fresh and local food, which addresses concerns of both food security and environmental sustainability (Lovell, 2010). In 2012, 14.8% of Utah's population experienced food-insecurity, with was above the national food-insecurity rate of 12.3% reported in 2016 (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2017). The reduced cost of transportation and packaging required in urban farm systems is often reflected in market prices, making local commodities more available at lower costs (Hazell, 2015), and thus more affordable for low-income families. Furthermore, systems such as farmers markets and community gardens have shown to increase fruit and vegetable intake (Savoie-Roskos, et.al, 2015) and builds community relationships, cultural identity, recreation, and

more realistic understanding of and personal connection with food (Lovell, 2010). Multiple studies have cited that increasing social bonds, crisis support, greater resource acquisition including funding and positive policy creation are benefits of urban agriculture (Santo et al., 2016). Additionally, urban farming supports increased biodiversity, micro-climate regulation, reduced air pollution, recycling of organic waste through composting, and upholds cities' capacity to produce food in times of crisis (Santo et al. 2016). The reduced energy input required in urban farm systems can reduce greenhouse gas emissions (Lovell, 2010).

Increase in:
Outreach locally and globally through online recourses,
Success & profitability for Utah Beginner Urban Farmers,
Sustainable practice through education,
Accessibility of locally grown produce/agricultural products,
Funding for expansion of course content.
Impacts:
80% increase in knowledge of urban farming,
60% urban farming operations re-analyzing business plans,
20% implement changes within project period.

MANAGING COMPLEXITY ON WORKING LANDSCAPES ACROSS THE WEST: BUILDING CAPACITY TO REDUCE HUMAN-WILDLIFE CONFLICT

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Ranchers are a primary source of information for other ranchers, and previous experience coping with complex challenges is a key driver of the adoption of adaptive management practices. Strong, collaborative networks create opportunities for formal and shared learning, and good leadership within these networks is critical. Given the important role that peer-to-peer learning plays in adapting to natural resource related challenges, ranchers and UCCE advisors from Northeastern CA visited several ranchers in Idaho and Montana to learn more about how they have adapted their operations under increasingly complex, and compounding, challenges over the past two decades. One of these challenges is increasing apex predator pressure. Here, we present information gained during small-group discussions and ranch tours, specifically about the impact of non-lethal tools and management strategies implemented to reduce livestock-predator interaction within these operations.

Land manager experience is an important aspect of developing applied solutions to complex land management challenges. The perspective shared by Rocky Mountain ranchers, in addition to the perspective of California ranchers, can help inform realistic and effective on-the-ground management solutions to predator related challenges for livestock producers, extension agents, and government officials.

MUSTANG CAMP: PROMOTING HEALTHY LANDS AND HEALTHY HORSES

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In 1971, the Wild Free-Roaming Horse and Burro Act declared wild horses and burros (WHBs) as "living symbols of the historic and pioneer spirit of the West" and required that the Bureau of Land Management and U.S. Forest Service to protect WHBs from "capture, branding, harassment, or death." Public characterizations of WHBs range from being an American heritage symbol to be preserved at all cost, to an undesirable invasive pest fit for eradication (Scasta et al., 2018). Previous work has identified common misunderstandings of WHB ecology and

history which at least partially may inform public opinion (Frey, 2021). Survey results from 3,000+ U.S. respondents indicated only 35% correctly identified horses as non-native. Surprisingly, < 10% of Utah and Nevada residents understood that WHBs are not native to the Americas and only 40-60% knew that horses were managed in Nevada and Utah. Many youth in Utah may not be familiar with wild horses or at least may not have formed opinions regarding their management. Our objectives were twofold. 1) develop a youth WHB engagement model, and 2) quantify changes in WHB knowledge and attitudes towards their management. Our programming, known as "Mustang Camp" provides an opportunity for youth, including underserved populations, to gain science-based knowledge and create informed opinions. To accomplish our objectives, we used a mix of classroom, on-range education and hands-on experiences with free roaming equids for 56 youth over the past two years. Approximately half indicated they had not seen WHBs previously. Pre- versus post-program knowledge test scores increased by 42.71% including a 161% increase in correctly identifying horses as non-native ungulates. Additionally, a 346% increase was observed for those in favor of interventional management. There was an 87% increase in acceptance of "round-up" population controls and a 34% increase in acceptance of contraceptive use. Additional evaluation metrics indicated that participants' interest and opinions on management shifted as they gained science-based knowledge. Over 90% of attendees had continuing interest in learning more about WHBs and their management in the future.

REDIRECTING RURAL MENTAL HEALTH IN AGRICULTURE WITH COMET

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In 2012 the High Plains Research Network was initiated as part of the University of Colorado School of Medicine. The mission statement of the network is: To provide excellent rural health care by translating the best scientific evidence into everyday clinical practice. Multiple challenges face rural community members in accessing mental health care and support. The High Plains Research Network Community Advisory Council, mental health professionals, and researchers developed an intervention to help community members be more prepared to support others' mental health needs – especially before a condition becomes an emergency – in everyday conversations and settings. The program, Changing Our Mental and Emotional Trajectory (COMET), trains community members in the seven-question COMET Conversational Health Questionnaire to "be the other person."

For several years after that, the concept sat idle on a shelf until 2019 when tragedy hit another small eastern Colorado community of only a few hundred people. Within a span of a few weeks, four individuals committed suicide. All either were or had been involved in agriculture. Under the guidance of the Southeast Health Group, four individuals came together to discuss the issue of mental health and crisis prevention. All the individuals had their own stories to tell about their experiences in dealing with mental health with both employees and others they knew personally. The group felt that most of the mental health training courses were too long and would not reach enough of a target audience. Eventually the COMET concept, a shorter, two-hour training, was presented and accepted by the group as the best fit to raise awareness in the agriculture community.

COMET provides community members with a tool to identify and support others who may be experiencing mental health distress. Community members report that a short but interactive training opportunity increases their likelihood of engaging others in mental health conversations to support social connection and reduce risk for crisis.

4-H FRIDAYS - CREATING YOUTH/ADULT PARTNERSHIPS

Mark Nelson
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BEAVER

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Caring adults' partner with youth in 4-H Friday clubs to provide an environment where youth can reach their full potential. The 4-H Fridays program was established to meet the needs of local youth and to expand 4-H opportunities. Extension/4-H staff collaborated with

the 4-H Advisory Council to develop a club model that reduces barriers for both youth and adults to engage in 4-H activities. Youth gain knowledge and skills and feel a sense of belonging through experiences with positive adult relationships. Objectives for the program include: Building skills and meeting the needs of youth and expanding opportunities through a variety of 4-H project areas. Our 4-H Fridays are also designed to recruit, train, support, and engage volunteers. 4-H Friday clubs are for 3rd – 6th grade youth and are held after school on Friday afternoons at local elementary schools. Clubs are led by 4-H volunteers. 4-H council members assist with project selection, volunteer identification and training. 4-H Discover Club curriculum is utilized to simplify leading clubs. Some of the impacts of this program include: Eight years of 4-H Fridays have positively impacted 821 youth, and 167 volunteers. Youth have learned communication, leadership, cooperation, and listening skills. Youth have made new friends, explored STEM subjects, and practiced leadership skills. Adults have benefited from serving their community and have encouraged others to lead clubs. Numerous project areas have been taught including archery, art, babysitting, cake decorating, aerodynamics, wildlife, and African safari. 4-H Fridays is an effective way to expand 4-H opportunities.

WASHINGTON STATE AGRABILITY PROJECT: REBUILDING AN EXTENSION PROGRAM

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Affiliated with the National AgrAbility Project, the USDA-funded Washington State AgrAbility Project (WSAP)?has served farmers, ranchers, and agricultural workers?throughout the state?inhibited by injury, illness, or disability since 2019. The program helps ease the return to work?and?daily living activities?and reduce the rate of secondary injury. Educating and getting sign ups for the program during a pandemic proved difficult, requiring the switch from in person to mostly online outreach. In early 2020 WSAP was developing assistive technology (AT) lending library kits while delivering in-person trainings and demonstrations. However, with an elevated focus on behavioral health and excessive stress brought on by the pandemic, farmers and stakeholders were eager for behavioral health messaging which then opened the door for WSAP to present to more audiences. The task at hand sent several WSAP staff searching for new careers (Farming, Ag Education, Marketing and Electric bus sales) and allowed an opportunity to redesign how the WSAP program would be ran in the final year (4) of the grant. Given the immense geographic area of Washington State it was determined that additional employees would be required to complete the outreach activities. A total of 4 full and part time employees were hired, training occurred online and in person at the University of Washington in Seattle with Co-PI's Washington Assistive Technology Act Program (WATAP) and Northwest Access Fund on September 12th, 2022. Since that time there have been outreach performed at multiple workshops and conferences. A total of three home assessments have been performed. eNote write ups deadlines were met and weekly team meetings completed. The team is well on its way of accomplishing deliverables laid out in the original grant application and is excited for the future outreach events.

DEVELOPING A PEST MANAGEMENT BOARD GAME

Jason Thomas
Extension Educator
University of Idaho
Rupert

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Sustainable farm managers need to have a thorough understanding of Integrated Pest Management (IPM) to deal with ongoing and emerging pests. Our team developed an educatonal board game known as pest friends, which allows players to make decisions and experience the consequences of said decisions. The game is a simulation of a fictitious crop known as lunar wheat. In the simulation, players encounter new and unknown bugs, research them and then make decisions based on scouting data and research. After the players go through a growing season they are able to see the consequences of their decisions and how insect populations fluctuated over the season. This poster will showcase how the game works in a simplified manner to help county agricultural agents learn about this new tool which was recently created.

Award Winners

(Ag Awareness, Search For Excellence, JCEP Creative Excellence, Hall of Fame, Daniel Kluchinski Memorial Scholarship, Distinguished Service Award, Achievement Award, Communications)

2023 NACAA

108th Annual Meeting and Professional Improvement Conference

Des Moines, Iowa

Agriculture Awareness and Appreciation Award

NATIONAL WINNER

INCREASING AWARENESS OF SPOTTED LANTERNFLY IN FORSYTH COUNTY

Leslie Rose
Extension Horticulture Agent
NC State University
Winston-Salem

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Forsyth County, North Carolina, is located in the central Piedmont region of the state. The county is largely urban, but is also home to small farms, a substantial nursery and landscape industry, wineries, livestock, and other agricultural activities. The spotted lanternfly is a non-native, invasive pest which can infest a variety of important agricultural crops and landscape plants, thus posing a threat to the agriculture industry. The first population of spotted lanternfly in North Carolina was confirmed in Forsyth County in June 2022. Shortly thereafter, the Forsyth County team of agriculture agents, including April Bowman, Taylor Darnell, Celine Richard, Leslie Rose, and Phyllis Smith, formed the Forsyth County Spotted Lanternfly Education Program. The Program includes a variety of activities intended to raise awareness in the community about the threat of spotted lanternfly and to train residents on identifying, reporting, and managing the insect. Educational efforts include written information, verbal announcements, one-on-one education, and workshops focused on spotted lanternfly identification and management. In its first year, the Forsyth County Spotted Lanternfly Education Program has reached thousands of people, including training over 50 residents in specific strategies to manage the invasive insect. The program is ongoing, as awareness of the spotted lanternfly will continue to be important to reduce the threat it poses to North Carolina agriculture.

NATIONAL FINALISTS

AGRICULTURE AWARENESS AND APPRECIATION AWARD

Timothy McDermott
Ext. Educ., ANR
Columbus

Team Members: McDermott, T[*1], Lobb, J[2]
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Extension has a powerful story to tell. While Extension has widespread community awareness in rural areas, we lag in awareness in urban environments and with new potential clients, especially with key audiences including millennial, Latinx, BIPOC, New American, immigrant, and refugee residents that are most in need of our programming and that are critical to our future growth. Franklin County Ohio is the largest county by population and contains the 14th largest city in the US, Columbus. Leadership in Franklin County prioritizes Urban Agricultural engagement for personal and family food security via the Local Food Action Plan needs-assessment, created in 2017. This makes Urban Agriculture Awareness priority one for OSU Extension Franklin County and with our large population, we need to tell our story in innovative ways to reach all audiences. One way to tell our story is through partnership marketing, an approach where two or more brands collaborate by combining their strengths to achieve a larger common goal. Extension's strengths are its people, their knowledge, and their relationships. What is needed is a partner who can take our brand to a larger audience and to new people; a partner who shares a similar client focus, but wants to collaborate, not compete, to achieve engagement that benefits both sides. To achieve greater urban agriculture engagement, Extension Educator Tim McDermott envisioned the Extension Today strategic marketing collaboration with NBC4 WCMH-TV Columbus. We are using engaging videos through partnership marketing to deliver Extension content to our shared client residents based on needs assessments and driven by data. All our television and social media engagement redirects back to Extension's extensive list of research-based links and publications to further inform and bond clients to Extension. In a little over a year this partnership has had

a net reach of 2,027,594 clients via television, 5,262,930 impressions via social media, over 432,000 video views, and 30,000 visits to the Extension Today landing site.

AGRICULTURE AWARENESS AND APPRECIATION AWARD

Victoria Xiong
Extension Assistant Prof.
Utah State University
Kanab

Team Members: Xiong, V[1]
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Kane county sits on the southern border of Utah. The top three economic revenues are tourism, services, and agriculture. Some international points of interest in Kane County are Lake Powell, Zion National Park, Bryce Canyon National Park, and Grand Canyon-north rim. With a population of just over 7,500, Kane county serves over 23,000 nationwide and international tourists on average before the COVID-19 pandemic. During the pandemic, local restaurants and resorts realized the importance of being self-sufficient in primary produces and supplies, surviving challenging situations with few tourists, and serving the local community better. Starting in January 2022, the Kane County agriculture agent renovated the initial "Farm to Table" program that two restaurants: The Wild Thyme Café and the Zion Mountain Ranch, adopted. The renovation started with soil and water tests for the on-site raised beds, established garden, and hydroponic system then moved on with seasonal production planning. Trained Master Gardeners were assigned to give small workshops for the facility employees before the gardening season, following onsite scouting and helping during the production season. With professional help and guidance, the growing season overcame the obstacles, including nationwide tomato root rot and production decline, pest prevention and control in the very early stage, and irregular summer rain/drought periods. The end-of-season impacts showed that 1) The Wild Thyme Café achieved the self-sufficient goal of 75% tomatoes, 90% of chili pepper & cucumbers, and 100% of herbs & eatable flowers; 2) the Zion Mountain Ranch achieved the self-sufficient goal of 50% tomato, 75% chili pepper & small fruits, 100% pumpkin and winter squashes, and 100% beef and bison meat; 3) The Wild Thyme Café saved more than $1800 per week on purchasing the produces, while the Zion Mountain Ranch saved over $2500 during the harvest season; 4) the fresh production gardens and facilities attract at least 20% tourists while encouraging 50% local customers to visit the restaurants.

STATE WINNERS

SOUTHERN REGION

Alabama	Guilherme Morata
Arkansas	Rachel Bearden
Florida	Kalan Royal
Kentucky	Lindie Huffman

Search for Excellence in Sustainable Agriculture

NATIONAL WINNER

ALABAMA BERMUDAGRASS HAY GROWERS SUMMIT TARGETS ADVANCED PRODUCERS

Kent Stanford
Associate Extension Professor/Extension Specialist
Alabama Extension
Crossville

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[6.] Regional Extension Agent - Farm and Agribusiness, Alabama Extension, Guntersville, Alabama, 35976

The Bermudagrass Hay Growers Summit is an in-state Extension workshop that began in 2017 and is based on a grassroots need to educate advanced hay producers seeking more than basic hay production instruction. The original objective was to provide current information and timely updates for bermudagrass hay producers in northern Alabama. Typically held in February, the timing allows for immediate implementation of certain practices prior to spring green up. It has evolved into a statewide event after proven success as a regional offering. The workshop utilizes a traditional lecture format with varying educational components, based primarily on past participant evaluations. Educational topics have covered insect pests, weed control, fertilizer requirements and application timing, nutrient management, industry perspectives, nutrient availability, cash flow budgeting

and hay storage techniques. Average attendance for the target audience is 18 people, with a total of 11,266 acres under their management each year. Due to university restrictions for in-person programming, the 2021 meeting was conducted virtually and open to anyone (95 in state; 33 out-of-state attendees). Extension news articles, email blasts, social media posts, word of mouth and local advertising are utilized each year to promote the workshop. A mix of PowerPoint presentations, speaker panels and round table discussions throughout the day encourage group interaction. Evaluation results over six years (2017-2022) indicate 98.2% of participants found the information useful to their operation and 98.8% reported the program met their expectations. The average rating (1-5 scale) of all topics delivered was a 4.63 across all years, indicating satisfaction with selected topics. Evaluation results show a 29.4% average increase in knowledge and the average, annual economic impact from implementing the information presented of $17,704.60 per person. While it is important to reach new and beginning farmers and ranchers, progressive producers need continued education designed to meet their production needs in an ever-changing enterprise.

NATIONAL FINALISTS

CENTRAL KANSAS FORAGE SYSTEMS DEMONSTRATION

Cade Rensink
District Director
K-State Research & Extension
Salina

Team Members: Rensink, C[*1], Wisbey, J[*2], Henderson, J[*3]
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With shifting weather patterns, increased grain market volatility and skyrocketing input costs, significantly more farmers and ranchers have been seeking technical assistance on converting crop acres to grazing lands in an attempt to find more stability and resiliency with livestock production. Concurrently, the soil health movement has gained momentum resulting in more questions about the viability of cover crops, how they can potentially work in in cropping rotations and which ones have multiple uses / benefits. To address both of these issues, the Central Kansas Forage Systems Demonstration was developed in 2021 to increase awareness of "non-traditional" warm and cool season forages available to producers to use as cover crops and/or grazing resources for enhancing soil health. In collaboration with the Saline County Conservation District, an informal on-farm study was established in the Central Kansas Extension District. This two-year effort was funded by a grant from the Kansas Department of Agriculture Division of Conservation and donations from two regional seed companies. The project included three plantings of perennial forages and 10 annual grass cover crops (four warm-season and six cool-season). Additionally, due to their on-site presence, two non-replicated invasive species control plots were also designed. In 2022, two field days were held to showcase the outcomes of the project. Attendees took part in several educational presentations on the principles of soil health and cover crop management as well as tours of the various forage plantings and herbicide trials. Field notes, site results and other supporting resources were provided in packets given to participants. In total, there were 94 people from 12 Kansas counties who attended the two events. Participants were asked to complete an on-site written post assessment. Nearly 95% of the respondents (n=55) indicated the information presented was "valuable" or "very valuable". Of particular note, over half of these people were not currently using grass cover crops in their operations. However, as a result of the field days, those respondents rated their likelihood of incorporating forage covers into their cropping rotation and grazing them in the next one to three years as 70% and 74%, respectively.

BUILDING RESOURCES FOR SMALL AND ON-FARM DAIRY PROCESSORS IN PENNSYLVANIA

Ginger Fenton
Dairy Extension Educator
Penn State Extension
Mercer

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The Penn State Extension Value-added Dairy team seeks to serve a diverse and rich dairy processing industry in Pennsylvania by providing introductory and technical resources. A needs assessment guided the development of program objectives to increase knowledge about labeling dairy foods, to develop materials in English and Spanish to assist in exploring options for value-added enterprises, to assist processors in complying with regulations, and to provide guidance for understanding markets and consumer preferences. A portfolio of resources including

webinars, fact sheets, videos, articles, social media, online courses, conference calls, and discussion groups was used to respond to needs. Following a dairy labeling webinar series, 88% of the survey respondents indicated they were at least somewhat likely to use the information presented. A series of ten introductory factsheets in Spanish have had 13,648 views while the accompanying videos have been viewed 3,342 times. On post-webinar surveys, all participants (n=52) viewing webinars on various topics related to food safety regulations and business management considerations including marketing and consumer preferences indicated the information was useful and 98% were at least somewhat likely to use the information from the webinars. Covid required a rapid shift in programming methods to webinars, online resources, conference calls, and print materials to meet various needs expressed by value-added dairy entrepreneurs and existing processors. Methods for evaluating programming included post-webinar surveys, recording the number of participants along with the views of archived materials, noting the reach to stakeholder organizations, and feedback received from partners and participants.

SUSTAINABLE URBAN FOOD PRODUCTION PROGRAM

Lorna Bravo
CED/Urban Horticulture Agent
UF/IFAS
Davie

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Background: Since September 2019, the six-week "Sustainable Urban Food System program" has been led by Dr. Jiangxiao Qiu from UF/IFAS Fort Lauderdale Research Center and UF/IFAS Extension agents Lorna Bravo in Broward and Jessica Ryals in Collier County. The team launched the first Sustainable Urban Food Production program in South Florida after hearing community members' and stakeholders' feedback on the urgent need to focus educational efforts on urban food production for small beginning farmers within the context of Florida, currently undergoing accelerated urbanization. Objective: This multi-disciplinary approach brings together UF statewide researchers and county extension faculty. The program audience is geared toward small farmers, urban farmers, community gardeners, homeowners, schoolteachers, entrepreneurs, urban planners, regulatory personnel, and marginalized communities to start or expand food production in urban settings. Method: We introduced a comprehensive UF/IFAS Extension six-week short-course Urban Food Production module in Broward County. Participants learned practices on sustainable urban agriculture and regulations, business, marketing plans, financial resources, urban food production systems, water and energy conservation, and best management practices. Participants engaged with various technologies, including rain barrels, drip irrigation, composting, hydroponics, and growing plants in small spaces, and adopted them into their practices. They expanded their knowledge by growing UF Lettuce lines in a Hydro Kit (Deep-water culture system model) designed explicitly for this purpose. Results: Multi-year pre- and post-survey results showed substantial subject-specific knowledge increases (>90%). There was also overwhelmingly significant interest (85% –100%) in behavioral changes or behavioral intention changes. Participants also reported increased knowledge and interest in developing business and marketing plans (91 – 96%) and implementing technologies into urban agricultural practices. Our survey also revealed knowledge gains and willingness to behavior changes (96 – 100%) related to adopting practices for food safety, cottage food operations, and post-food harvesting. Conclusion: Current efforts are underway to expand this into (1) a statewide program and (2) a fully online course on the Sustainable Urban Food Program available to participants across the U.S. and overseas, and (3) be synergistically integrated as core modules into existing extension programs such as Florida Master Gardeners, Climate Resilience, Florida, and Florida Master Naturalist.

STATE WINNERS

SOUTHERN REGION

Arkansas	Amy Tallent
Georgia	Laura Ney
Oklahoma	Donna Patterson

WESTERN REGION

New Mexico	Donald, Don Martinez
Utah	Mark Nelson

Search for Excellence in Crop Production

NATIONAL WINNER

MICHIGAN STATE UNIVERSITY VIRTUAL BREAKFAST SERIES

Phil Kaatz
Extension Educator
MSU Extension
LAPEER

Team Members: Kaatz, P[*1], Anderson, E[*2], Curell, C[*3], Falor, J[*4], Fronczak, S[*5], Gross, P[*6], Jean, M[*7], MacKellar, B[8], Kelley, L[*9], Staton, M[*10]
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When the COVID-19 pandemic started in March of 2020, extension programming went from primarily a face-to-face format to all virtual programs. The Michigan State University (MSU) Extension Field Crops Virtual Breakfast Series, initiated in 2018, was perfectly positioned for this new learning environment. Stakeholder focus groups asked MSU Extension to provide relevant, timely, up-to-date education in short interactive sessions. The MSU Field Crops Team planned and implemented online Zoom meetings for field crops producers, agribusiness professionals, governmental agency personnel, and others interested in field crops. Throughout the growing season, from April through September, timely and relevant crop and pest management topics were identified and strategically scheduled. Weekly sessions were facilitated by MSUE educators and featured a different MSU campus specialist with a different topic on issues or concerns such as weeds, diseases, insects, soil fertility, and crop management. The MSU State Climatologist also provided detailed weekly weather updates. Following the presentations, a 25-minute question and answer session was allotted for participants. When a rapid response for agriculture is necessary in times when extreme weather occurs, the series was nimble, flexible, and pivoted to help navigate situations.

At the onset of the pandemic, producers and agribusiness pesticide applicators also struggled to obtain recertification credits for restricted use pesticides (RUP). Virtual Breakfast provided an avenue for obtaining RUP and Certified Crop Advisor recertification credits. The series was positioned at the right time to meet the needs of field crops producers, crop consultants, and agribusiness personnel by providing education and needed re-certification credits.

Between 2020 and 2022, there were 9,183 live participants for the series. Every major crop producing area of Michigan representing 58 out of 83 counties had participation. Additionally, 13 different states and 11 foreign countries had participants.

Participants completed online evaluations annually and based on the respondents, (N=383), an average of 97% increased knowledge. Respondents indicated they changed management on 726,431 acres, representing a value of increased revenue or savings worth $8,817,431, and averaged $11.50/acre.

NATIONAL FINALISTS

SDSU CROP HOUR

Sara Bauder
SDSU Extension Agronomy Field Specialist
SDSU Extension
Tyndall

Team Members: Bauder, S[*1], Varenhorst, A[*2], Bachmann, A[*3], Bly, A[4], Graham, C[5], Strunk, C[*6], Karki, D[7], Clark, J[8], Kleinjan, J[9], Wagner, P[*10], Johnson, P[11], Rozeboom, P[12], Shires, M[*13], Edwards, L[*14], Davis, J[15], McMaine, J[16], Kringen, D[17]
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The SDSU Extension Crop Hour Webinar series was created to provide current, research-based cropping system updates and information to agriculture producers and agri-business professionals throughout the state of South Dakota, and the surrounding region. Beginning in 2021 during a socially distant time, the webinar took place every Tuesday through Friday from 10-11am from January 4 to March 26, 2021, in lieu of in-person meetings. The program was continued in 2022 and 2023, three days per week for eight and six weeks, respectively. Our team accomplished this by identifying common crop production issues and interests, combining them into weekly topics, identifying a host for each week, and organizing speakers. A total of 4,700 participants attended over the course of 78 sessions from 2021-2023. Following each presentation, participants were asked if they learned something useful from the webinar using Zoom polling. On average, 21% of 2021 and 2022 program respondents said “yes a great deal,” 43% said “yes quite a bit,” and 35% said “yes a little.” Additionally, 35% said that they are “very likely” to share the information they learned, with 43% saying that they were “moderately likely” to share, and 20% said they were “a little likely” to share what they had learned (n=2084). In 2023, participants were asked how they would rate their knowledge on the topic following the presentation, on average 40% of respondents said “much better,” and 49% said “somewhat better.” In addition, 2023 attendees were asked, “Do you plan to use information from today’s presentation to improve your farming practices (or those you advise)?” 35% of respondents said “very likely,” 43% said “somewhat likely,” and 20% said “a little likely” (n=588). The program provided timely agronomy-based information, creating an improved understanding of best management practices among our audience consisting of famers and agri-business professionals. In addition, the virtual platform allowed more information to be disseminated to a larger audience than ever reached by traditional regional crop clinic meetings. The program was considered a great success by SDSU Extension staff and will impact meeting planning and format of delivery in the coming years.

PESTICIDE RECERTIFICATION WORKBOOKS FOR REMOTE LEARNERS

Nicole Thompson
Extension Educator
Penn State Extension
Coudersport

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Penn State Extension educators recognized an immediate need to help private pesticide applicators, predominantly farmers, when many in-person pesticide recertification meetings were canceled in March of 2020 at the start of the COVID-19 pandemic. Though some were able to pivot existing online courses and webinars, many farmers either did not have appropriate internet bandwidth to access online options, or did not have computers and/or access to the internet. Penn State's team of extension educators and support staff also quickly pivoted to bring back an older tool from the extension toolbox: the "mail-in" or correspondence course. After many discussions with the Pennsylvania Department of Agriculture, the agency that administers pesticide recertification credits, we agreed on content, rigor, and length. A pilot of two workbooks were approved and produced for 100 pesticide applicators. Since the initial response was positive, we continued developing content and published nine workbooks on pesticide safety, agronomic, and horticultural topics. It was essential to stay true to the integrity and standard of our traditional courses. The authors did so by using program objectives and methods that matched our in-person and online offerings. Applicators using the workbook would need to read and recall terminology and definitions, identify pests or pesticide safety issues, read recommendations on pest control strategies or pesticide safety practices, and use reflection questions to reinforce their own learning. Then they needed to take a quiz that was mailed to campus for grading and awarding of pesticide credits. We were shocked by the popularity and positive feedback, selling nearly 5,000 workbooks to date. Participants overwhelmingly saw value in the workbooks for their content, and many expressed this option as a more flexible learning method in the survey results. Evaluations also indicated that the majority of pesticide applicators plan to adapt a practice that was recommended in the workbook. For example, almost 80% of the applicators felt better prepared to choose products that are less toxic to pollinators after completing the Pollinators and Pesticides workbook. Additionally, more than 90% of the applicators felt better prepared to respond to a pesticide spill after completing the Pesticide Spill Protocol workbook.

TENNESSEE STATE UNIVERSITY DRONE PROGRAM 2020 - 2023

Jason de Koff
Specialist
Tennessee State University
Old Hickory

Team Members: de Koff, J[*1]
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Over the last three years, the Tennessee State University Drone Program has focused on providing farmers with hands-on experience in flying drones and information on how those drones can be used in agriculture, the rules and regulations, and different options and costs. In addition, a Part 107 remote pilot certification training program was also implemented to assist those interested in getting their drone certification. Between both trainings, there were over 400 stakeholders served. Evaluations of the drone workshop found 94% of respondents increased their knowledge, 53% indicated interest in purchasing a drone in the next two years, and 75% realized drones were not as difficult to fly as they originally believed. Evaluations of the certification training found that in 2021 and 2022 100% of respondents indicated an increase in knowledge, 90-95% believed the activities were helpful, and 70-95% felt more confident in getting their certification.

In addition to the trainings, 6 fact sheets were developed and made available online along with 9 videos and three trade publications. New this year is a fact sheet focused on using drones in forestlands and nurseries and a 5-module video series that allows stakeholders to receive the Part 107 remote pilot certification training at their own pace and at no cost.

STATE WINNERS

NORTH CENTRAL REGION

North Dakota	Mohamed Khan

SOUTHERN REGION

Arkansas	Andrew Sayger
Florida	Mark Warren
Georgia	Holly Anderson
Texas	Shane McLellan

WESTERN REGION

California	Michael Rethwisch

Search for Excellence in Consumer or Commercial Horticulture

NATIONAL WINNER

BEE A FRIEND TO POLLINATORS: POLLINATOR EDUCATION & AGRICULTURAL LITERACY FOR SC EDUCATORS

Amy Dabbs
Statewide School & Community Gardening Coordinator
CLEMSON UNIVERSITY
CHARLESTON

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Clemson Extension and the non-profit organization, The Bee Cause Project have partnered to address the need for K-12 educators and students to learn about pollinators' critical role in food production and environmental stewardship. The initial step towards this goal was developing a comprehensive lesson plan called "Bee a Friend to Pollinators: Create & Advocate for Pollinator-Friendly Schools and Community Spaces". The COVID-19 pandemic delayed plans to utilize the lesson and activities to create pollinator-friendly habitats at schools.

In the wake of national school shutdowns, teachers and students were eager to return to hands-on garden-based learning opportunities. A grant from the South Carolina Department of Agriculture was used to develop an online course and digital badge program for teachers that helped students leap from the screen to the schoolyard.

The online professional development course "Bee A Friend to Pollinators: Pollinator Education & Agricultural Literacy for SC Educators" built on the foundation of the original lesson plan and expanded to lead educators into the world of the small but mighty pollinators that live alongside us. Participants learn about pollinators and plants that provide us with our favorite foods. As a requirement for course completion, participants must develop a detailed plan to make their campus more pollinator-friendly, utilizing the knowledge gained in the online course.

Clemson Extension 4-H Youth Development, Horticulture, Natural Resources extension agents, The Bee Cause Project, and the University of Georgia Extension provided the educational content and curriculum. The course, developed by instructional designers at Clemson Online, is the first externally certified course in Quality Matters™ for Clemson Online Extension programming.

The pilot cohort of the class was held in the Summer of 2022, with more than 40 teachers from Georgia and South Carolina earning interactive digital badges and renewal credits from the South Carolina and Georgia Departments of Education. After the first cohort, the Bee Cause Project established a Habitat Grant Pilot Program. It awarded 15 participating schools a total of $15,000 in grants to put their pollinator-friendly habitat plans into place.

NATIONAL FINALISTS

A HYBRID EDUCATIONAL PROGRAMMING MODEL FOR THE PENNSYLVANIA GREEN INDUSTRY

Margaret Pickoff
Horticulture Extension Educator
Penn State University
Newtown

Team Members: Pickoff, M[*1], Swackhamer, E[*2], Snyder, K[*3], Korman, A[*4], Delvalle, T[*5], Ford, T[6], Abbey, T[7], Butzler, T[*8], Adam, S[*9], Fowler, J[*10], Benner, R[*11], Feather, S[12], Walsh, B[13], Christ, G[*14], Bupp, G[15], Landschoot, P[16], Norman, C[17],

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A hybrid educational program model was developed by members of the Penn State Extension Green Industry Program Team to respond to evolving client needs and preferences during the Covid-19 pandemic and lay the groundwork for programming in the post-pandemic era. Clients could choose from asynchronous, on-demand webinars or in-person pest identification walks held around the state to access high-quality, relevant information and gain professional continuing education credits. Twenty educators contributed a total of 89 programs with 2,027 participants over a two-year period, generating $21,200 to support future green industry programming in our state. Evaluation data indicate that the hybrid model was successful in conveying key educational concepts, that participants increased their knowledge, intended to adopt new practices, and earned the professional credits they needed, and that registrants valued having a choice of educational delivery method to accommodate their ability to travel and preference for in-person or at-home learning. The hybrid approach allowed for better geographical coverage and greater predictability about which professional continuing education credits were available to participants during the programming year. This approach also increased the efficiency with which educators could offer programming by concentrating planning tasks and reducing duplication of effort.

GROW MORE, GIVE MORE PROGRAM CLOSING THE GAP OF URBAN AND RURAL FOOD DESERTS IN ALABAMA

Bethany O'Rear
REGIONAL EXTENSION AGENT
ALABAMA COOPERATIVE EXTENSION SYSTEM
BIRMINGHAM

Team Members: O'Rear, B[*1], Carroll, D[*2], Smith, K[*3]

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Objectives: The purpose of "Grow More, Give More" (GMGM) is to enable home gardeners to help combat food insecurity in urban and rural areas of Alabama by collaborating with community food donation sites. The educational objective of GMGM is to impart lifelong gardening skills to increase sustainability for individuals and communities. Thirty-three percent of the population in Alabama lives in a "food desert, defined by USDA for urban dwellers as one mile, and rural dwellers ten miles, from a supermarket or grocery store. Methods: Educators on the Home Grounds Horticulture Team developed training videos, written instructions, and supply lists related to vegetable production. Supply lists specified plans and supplies needed to grow vegetables

in containers, garden boxes, raised beds and in-ground rows. Educational programs and activities were planned throughout the growing season to support GMGM participants. These included online webinars, community gardening expositions, talks at libraries, farmer's markets and gardening clubs, hands-on workshops, and access to an Extension agent and Master Gardener Helpline. The donation sites include food banks, schools, community centers and places of worship. Results: Since 2020, 114,029 pounds of vegetables have been donated to 120 food donation sites in 45 counties in Alabama with an estimated retail value of $204,986.00. Over the course of 3-years, participants have been trained at 250 training events across Alabama. They indicated an average program value of $76 per event. Over the 3-year period an average of 68% of participants reported they had implemented practices taught through GMGM training workshops. Finally, participants indicated an average cost savings from learned techniques of $113 per program. Conclusion: Through Extension agents and a network of community and Master Gardener volunteers, GMGM provides the support and knowledge home gardeners and communities need to grow and manage successful food crops. As a philanthropic program, GMGM also provides increased social awareness and energizes our volunteers and communities.

REGION-WIDE EXTENSION SUPPORT FOR WATERMELON PRODUCERS

Mayerling Tatiana Sanchez-Jones
Commercial Horticulture Agent
UF/IFAS Alachua County Extension Office
Newberry

Team Members: Sanchez-Jones, M[*1], Beach, E[*2], Pittman, T[*3], Capasso, J[*4], Warren, M[*5], Hochmuth, B[*6]

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Florida is the top watermelon producer in the country and one-third of the production (about 7,500 acres) is in the Suwannee Valley (SV) Region. Regional and County Extension Agents in this region (~10 counties) work together to better serve this industry and offer an array of services including weekly production updates, in-season sap testing, fertigation flush cycle calibration, rapid disease diagnostics, on-farm research, and annual grower meeting. As a group, our purpose is to deliver science-based information and contribute to the sustainability of watermelon production through the adoption of best management practices (BMPs). Regional in-season production updates are distributed weekly by each agent via text, email or the Remind app. Flush cycle calibration at the beginning of the season and weekly sap tests are completed by request. Agent's weekly site visits inform the group about growers' needs, pests, diseases, and crop nutrient status. Sponsorship from industry donors enables the group to provide nutrient and disease testing at no cost to participant growers. Close relationships with stakeholders support grant applications and facilitate on-farm trials for pest, nutrient and disease issues in partnership with state specialists, water management districts and the department of agriculture. In-person assistance, phone and written communications, and meetings, are used to communicate results and other relevant information to stakeholders. Our extension efforts and BMP adoption are evaluated through in-person and digital surveys. A 2021 survey (n=18 representing 3,340 acres) indicated that surveyors use sap testing (83%), local county agent (83%), weekly production updates (72%), and the rapid diagnostic program (55%). In the last 3 years, about $150,000 in funding from multiple sources has supported this group's research and extension activities and our annual meeting continues to be well attended (n=189 in 2022). Engagement with Extension has resulted in increased adoption of BMPs including the use of control-release fertilizer (750 acres) in the current growing season. The comprehensive work of this group has led to engaged participation from growers, strong partnerships with the allied industry and support from governmental entities to facilitate the adoption of BMPs in the Suwannee Valley Basin Management Action Plan (BMAP).

STATE WINNERS

NORTH CENTRAL REGION

Illinois	Ken Johnson
Kansas	Cassie Thiessen
Nebraska	Nicole Stoner
Ohio	Nanette Neal

NORTHEAST REGION

New Jersey	Belinda Chester

SOUTHERN REGION

Arkansas	Krista Quinn
Georgia	Greg Huber

Kentucky	Macy Fawns
Texas	Shane McLellan

WESTERN REGION

Utah	Victoria Xiong

Search For Excellence in 4-H Programming

NATIONAL WINNER

MIAMI COUNTY JUNIOR CHEFS

Amanda Bennett
Ext. Educ., ANR
Ohio State University Extension
Troy

Team Members: Bennett, A[*1], Barton, A[2], Adams, J[3]

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[3.] Ext. Educ., 4-H/Youth, , Troy, Ohio, 45373-3239

Many youth today are two generations removed from households where healthy food is prepared from fresh ingredients. This makes food preparation and nutrition education for today's youth important. For youth to make informed, healthy decisions about their food, they need to have skills and knowledge about nutrition and cooking.

The county extension office has offered a unique cooking program for youth ages 6 through 12 since 2018 reaching over 398 youth. Youth are introduced to USDA's myPlate nutrition guidelines and Four Steps of Food Safety (clean, separate, cook and chill). Participants move through five stations where they practice the steps of following a recipe, demonstrate food and kitchen safety practices, learn basic knife skills, identify common and unique kitchen equipment, interactively engage in hands-on food preparation, learn about how and where their food grows, and prepare food to take home. Each year the program centers on a theme. Previous themes include: international food, during which the youth learned a little about the culture of the country of the day, were exposed to and prepared traditional cuisine, and learned about the agriculture community of the country. In 2021, each day of the program centered on elements from popular children's books and, in 2022, the theme highlighted food central to three popular holidays.

The program was evaluated each year via an online survey completed by the parents. The survey consisted of questions gauging use of new skills (89% agreed), increased interest in cooking (82% agreed), plans to incorporate a recipe or a skill in the future (82% agreed), and increase in overall confidence in the kitchen (96%). Additional comments included: "[My daughter] loved the program! She even made the pizza quesadillas for the family one night!" and "Thanks for showing my daughter that cooking can be fun because I am a terrible cook and don't really enjoy doing it. Now she helps me in the kitchen!"

As a result of the program, the county extension office has gained outside partnerships with a local baker, butcher, the health department, and has brought in over $5,000 in sponsorships.

NATIONAL FINALISTS

TRACTOR AND MACHINE CERTIFICATION FOR YOUTH IN NORTH DAKOTA

Angie Johnson
NDSU Extension Farm & Ranch Safety Coordinator
North Dakota State University
Fargo

Team Members: Johnson, A[*1], Christopher, L[*2], Aasand, K[*3], Askim, C[*4], Folske, D[*5], Overmyer, L[*6], Racine, J[7], Kiser, B[*8], Smith, M[*9], Schmidt, R*[10], Brummund, P[*11], Crimmins, S[*12], Bedgar, S[*13], Kralicek, T[14], Seykora, M[*15], Vig, M[16], Thompson, K[17], Brotherson, S[18]

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Agriculture had the leading number of occupational fatalities across industries for youth age 17 and younger from 2011-2020. It is estimated that about 33 children are injured in agriculture-related incidents every day. Evidence-based safety trainings for youth and their families is needed to help prevent injuries and deaths of youth on farms/ranches.

The U.S. Department of Labor has established the Hazardous Occupations Order for Agriculture, containing statutes of specific occupations in agriculture that are hazardous for youth to perform under the age of 16. Youth ages 14- and 15-year-old must become certified in a tractor and machine safety program, certified by Extension agents or agricultural education instructors, to work on a non-family member's farm. While many agents grew up on a farm, many do not have confidence or experience in training youth how to operate tractors safely, resulting in a need for youth certification opportunities.

The Tractor and Machine Certification Program in North Dakota was a multifaceted project to address the needs of 1) 14-15-year-old youth who wish to operate tractors for an employer; 2) Parents, guardians, and employers of youth on farm operations and 3) NDSU Extension personnel.

In 2022, a workshop was held to train agents to lead tractor certification programs for youth. This resulted in two statewide tractor safety certification camps involving 16 Extension agents reaching 27 total youth across North Dakota.

Extension agents had a 46% increase in knowledge of using the safety training curriculum and a 40% increase in knowledge of how to teach tractor safety to youth after attending the training. Additionally, 100% of youth camp participants passed their exams during camp with an average increase in knowledge of 24%. Extension agent's confidence to engage with youth farm safety camps was shown by the increase of statewide camping opportunities, with over 20 agents leading the program in three different regions across North Dakota in 2023. The results of the program resulted in management changes, such as using hand signals to communicate on the farm. Follow-up surveys completed by parents showcased how two youth experienced a decrease in farm-related injuries because of participation in camp.

TAILGATE DAY CAMP

Nicholas Simmons
County Extension Director and Commercial Livestock Agent II
Cantonment

Team Members: Simmons, N[*1], Estevez, B[2], Schortinghouse, A[3]

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The Tailgate Day Camp was created to educate youth about the use of animal protein in the diet by teaching the art and science of safely preparing beef, pork, poultry, and seafood in an outdoor setting. This camp provided a hands-on learning experience for youth (ages 10 to 18) and their parents. The Tailgate Day Camp was a four-day camp lasting 6 hours a day during the summer of 2021 and 2022. Due to Covid-19, the camp was held as a virtual day camp in 2020 and 2021 and included many of the same concepts presented as videos, activities, and challenges in an online form. In 2021, the camp was featured both as a virtual and in-person camp. At the in-person Tailgate Day Camp, youth learned about cooking equipment, food safety, fire building, smoking and slow-cooking meat, and meat selection. Participants learned about locally grown livestock, meat science and meat preparation, food safety, healthy eating habits, and the Florida 4-H Tailgating Contest. This project increased agriculture awareness and the importance and life skill of cooking outdoors. From 2020-2022, 155 youth participated in virtual and/or in-person Tailgate Day Camps hosted by Escambia County 4-H. Youth that participated in either in-person or virtual versions of the day camp from 2020-2022 earned $11,500 in scholarship money by placing first or second in their

respective divisions at the state contest. The Tailgate Day Camp also sparked other counties to create their own version of the camp, with nine additional NW Extension District counties incorporated grilling activities into their existing day camps, impacting 199 youth. Six-month post-camp phone surveys with parents indicated that 100% (n=16) of participants practiced safe grilling techniques at home and cooked protein in an outdoor setting for their families.

SOUTHEASTERN 4-H CROP SCOUTING SCHOOL

Brian Hayes
County Extension Coordinator
University of Georgia
Camilla

Team Members: Hayes, B[*1], Carter, E[*2], Meadows, C[3], Cloud, C[*4], Mack, S[*5], Bowling, C[6], Warner, A[7], Miller, R[8], Hayes, L[9], Teresa, A[10], Sherard, S[11]

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ABSTRACT
Background/Situation: One of the largest industries in the southeastern United States is agriculture, with the average farmer being 57.5 years old. It's imperative to educate youth on this sector and increase community engagement. Pest identification and farm management are important concepts necessary for agribusinesses. We expanded their agricultural career knowledge and increased their chance of pursing a position in agriculture long term. This annual three-day program focused on 7-12th grade youth from Florida, Georgia, and Alabama. Objectives/Purpose: Educate youth on farm systems and crop management practices. They acquired integrated pest management and best management practice skills. Extension educates and connects youth with opportunities, this program trained them in necessary skills to acclimate to the work force following school. Methods/Evaluation: County extension agents transported youth to businesses in Jackson County, Florida, Houston County, Alabama, and Seminole, Grady, and Mitchell counties in Georgia. The group toured fields and facilities with farm owners and managers. Evaluation was done annually using pre/post tests. The goal was to increase knowledge on insect, weed, and disease identification, as well as common farm tools and equipment. Results: Over five years, we educated 103 youth on local agribusinesses and careers in their communities. Participants toured farms, businesses, and university research stations in Florida, Georgia, and Alabama. Sixty-five of the 103 answered pre/post surveys and results can be applied to our entire study population. On the individual level, 100% of youth reported learning something new pertaining to crop systems and management. Baseline group knowledge levels averaged 44%, ending levels averaged 75%, demonstrating a 45% knowledge increase across years as result of this program. Conclusion: Youth were excited to gain real world experience from local agribusiness leaders. Several have even functioned as crop scouts after school to earn money. Extension teaches and trains future leaders, even if not all these youth remain in agriculture, they may one day be in a position to advocate for it.

STATE WINNERS

NORTH CENTRAL REGION

Iowa	Melissa Beermann
Nebraska	Randy Saner

NORTHEAST REGION

West Virginia	Natasha Harris

SOUTHERN REGION

Alabama	Allie Logan
Arkansas	Courteney Sisk
Kentucky	Jessica Bessin
Mississippi	James Shannon
South Carolina	Alana West
Texas	Katie Pace
Virginia	Jeremy Daubert

WESTERN REGION

Arizona	Betsy Greene
Colorado	Lacey Taylor
New Mexico	Sara Marta

Search for Excellence in Farm and Ranch Business Management

NATIONAL WINNER

KNOW YOUR NUMBERS, KNOW YOUR OPTIONS

Jessica Groskopf
Extension Educator
University of Nebraska-Lincoln
Scottsbluff

Team Members: Groskopf, J[1], McClure , G[*2]
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Nebraska's "Know Your Numbers, Know Your Options" online farm financial management course exemplifies Excellence in Farm and Ranch Business Management due to its long track record of adult learner success. This course uses "flipped classroom" techniques to teach farm financial management. Twenty-two online sessions of "Know Your Numbers, Know Your Options" have been completed in Nebraska since June 2020, with 137 registered participants.

The flipped classroom method relies on learners watching lessons prior to class. It allows students to complete assignments and engage in discussion during scheduled class time. "Know Your Numbers, Know Your Options" is a four-class financial management course that uses this technique. This curriculum focuses on balance sheets, cash flow statements, and income statements.

"Know Your Numbers, Know Your Options" transitioned online during the COVID-19 Pandemic. To accomplish this, Nebraska Extension developed a course website with updated video lectures and homework related to a realistic case study farm. Rather than attending an in-person class at the local Extension Office, participants engaged in an hour and half long Zoom discussions.

As a result of this curriculum, course participants increased their confidence in every category: developing basic financial documents, calculating financial ratios, interpreting financial benchmarks, and discussing their financial situation with others.

Here are what learners have said about this course when asked, "What was the most important thing you learned in this workshop?":

I feel more confident about my understanding of financial records. It is also important for me to know which records are important to keep and how to best organize them
The simple examples of how to lower liabilities and increase assets. I liked that they were ideas that could be implemented on my operation right away.
The potential for calculating and getting a handle on the financial aspects of the business, no matter how large or small. This is a great tool for planning for the future for our small Ag business.
I realized the value of having these statements prepared to aid in decision-making when the time presents itself, and I am less intimidated by the work of doing them.

NATIONAL FINALISTS

ANNIE'S PROJECT AND ANNIE'S INSPIRED FARM MANAGEMENT COURSES FOR WOMEN IN IOWA

Madeline Schultz
Women in Ag Program Manager
Iowa State University Extension and Outreach
Ames

Team Members: Schultz, M[*1], Brown , C[*2], Drollette, R[*3], Hatting , P[*4], Christensen , T[*5], Johanns , A[*6], O'Rourke, M[*7], Leibold , K[*8], Hooper , A[*9], Wright, G[*10], Hart , C[11], Schultz, M[*12], Hyde, C[13]
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, Iowa, 50011-3611
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Women have significant employment, management, and ownership on family farms in Iowa. The 2017 Census of Agriculture showed Iowa had 45,786 women producers. Nationally, the census reported 74 percent of women producers were involved in recordkeeping and financial management. In Iowa, the 2017 Farm and Rural Life poll showed women participated in record keeping or financial management at substantially higher rates than men. The Iowa State University Extension and Outreach farm management team reaches out to the audience of women in agriculture with Annie's Project and Annie's-Inspired multi-session courses. The courses support women as they make key financial decisions by addressing agricultural risk in the areas of finance, human resources, legal, marketing and production. In the past three years, January 2020 to December 2022, the team delivered 36 farm management multi-session courses and pilot programs reaching 420 women. For the 268 women completing surveys, 100% identified one or more change they made, or intended to make, to better manage risk. From 2020 to 2022, the team developed two new courses: Advanced Grain Marketing for Women, and Women Managing Farmland. Women Planning Ag Businesses and Women Managing Farm Finances courses were significantly revised. The team created twelve new publications, ten new videos, and updated more than 18 publications specifically for use with our courses for women in agriculture (but also accessible to others). The Ag Decision Maker website and newsletter, as well as the women in ag website and newsletter provide additional resources. The evaluation work of the team includes pre- and post-course surveys for Annie's Project and Managing for Today and Tomorrow, retrospective end of course surveys for other courses, Ripple Effects Mapping focus groups, participant interviews, local steering committees to guide needs assessment and success stories. Women are key stakeholders in the production of safe, affordable, and accessible food. Extension educators have an important role in educating and supporting the audience of women in agriculture. When Iowa State University extends knowledge and empowers women, all Iowans benefit through expanded agricultural businesses, greater conservation of natural resources, and increased support for the community of women in agriculture.

AGRICULTURE LAW EDUCATION INITIATIVE'S ANNUAL AGRICULTURAL AND ENVIRONMENTAL LAW CONFERENCE

Paul Goeringer
Sr. Faculty Specialist and Extension Legal Specialist
Department of Agricultural & Resource Economics, University of Maryl
College Park

Team Members: Goeringer, P[*1], Zimmerman, R[2], Cook, N[3], Everhart, S[4], Todd, M[5], Jarboe, D[*6], Thilmany, E[7]

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The Agriculture Law Education Initiative (ALEI) aims to provide legal risk management outreach and education to the Maryland agricultural community. Educational objectives include increased knowledge of legal issues impacting their operations, empowering operations to make better legal decisions, and creating a network of attorneys and agricultural operations working together.

The annual conference held each November in Annapolis, except for two virtual years, annually attracts 150 participants. The conference is made possible through sponsorships and registration fees.

The conference is annually evaluated for outcomes with sessions and impacts. Results include: Ninety-eight percent of attendees felt the conference increased their agricultural and environmental law knowledge. On average, over sixty percent of attendees were satisfied with sessions for the past three years. Ninety-three percent will attend next year's conference. (n=137, 3 years of data).

Evaluations are conducted annually through Qualtrics. Attendees are given a QR Code or URL to evaluate the sessions and the conference. The attendees are also sent

the evaluation after the conference and encouraged to complete it. The same questions are used annually to allow us to evaluate the conference better.

DAIRY BUSINESS MANAGEMENT TO IMPROVE PROFITABILITY

Cassie Yost
Extension Educator
United States
Huntingdon

Team Members: Yost, C[1]

[1.] Extension Educator, , Huntingdon, Pennsylvania, 16652

In today's industry, dairy farmers continue to face many challenges including consumer criticism, environmental regulations, inflation, and more. Therefore, farmers and producers must make precise management decisions to remain viable. As an Extension Educator, I have committed time and effort to help producers across the state make management changes to decrease costs, increase output, and improve farm profitability. As an educator, I design and deliver educational products focusing on dairy business management which include performing whole farm analyses, designing benchmarking guidelines, participating in a research grant focusing on heifer costs of production, and performing on-farm assessments to identify potential weaknesses and opportunities. These efforts strive to increase knowledge of cash flow analysis to improve financial record keeping and knowledge of cropping systems, understanding how heifer programs impact a farm's financial health, and educating farmers on the various Penn State Dairy Business Management team tools to make educated financial decisions to improve the breakeven cost of production for their farms. Since performing these analyses, I have completed 28 cash flow analyses for producers from 7 Pennsylvania counties to determine their farm's breakeven cost of production. Of the 28 farms analyzed, producers adopted changes that resulted in an average improvement of $1.50, this equates to an estimated increase in revenue of $1,291,429.00. On-farm evaluations and drill-downs are conducted following consultations as well as analyzing dairy production records for the individual farms to track increased production. Multiple on-farm financial analyses are also compared from year to year to track any financial improvements in the operations. These evaluation techniques have led to 96% of producers increasing their knowledge of how cropping systems and their heifer program can impact the farm's cost of production. 65% of farmers planned to utilize the team's financial resources, 80% planned to implement culling strategies to reduce heifer rearing costs, and 100% planned to utilize the heifer numbers worksheet to determine exactly how many heifers to raise on the farm. The programming efforts and on-farm analyses are enabling farmers to determine and monitor their cost of production and make management decisions to improve the financial health of their operations.

STATE WINNERS

SOUTHERN REGION

Alabama	Dennis Brothers
Florida	Christa Kirby
South Carolina	Charlotte Maxwell

Search for Excellence in Livestock Production

NATIONAL WINNER

OSU CATTLEWOMEN'S BOOT CAMP

JJ Jones
Area Agricultural Economics Specialist
Oklahoma Cooperative Extension Service
ADA

Team Members: Toothman, O[*1], Patterson, D[*2], Patterson, J[*3], Denman, T[*4], Bay, D[*5], Biggs, R[6], Jones, J[*7]

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[2.] Rogers County Ag Educator, OSU Extension, Claremore, Oklahoma, 74017
[3.] Adair County Ag Educator, OSU Extension, Stillwell, Oklahoma, 74960
[4.] Carter County Ag Educator/Multi County Specialist, OSU Extension, Ardmore, Oklahoma, 73401
[5.] Ellis County Ag Educator, OSU Extension, Arnett, Oklahoma, 73832
[6.] Extension Specialist, OSU Extension, Stillwater, Oklahoma, 74074
[7.] Area Agricultural Economics Specialist, , ADA, Oklahoma, 74820-1406

According to the 2017 Census of Ag there are 46,267 beef cattle operations in Oklahoma. Of those 26,523 (57.3%) have female operators and 17,539 (37.9%) are principally operated by females. Yet female attendance at OSU Cow/Calf Boot Camps and other extension programs have averaged less than 10%. At the same time other extension programs such as Annie's Project and Women in Agriculture conferences have had tremendous success

empowering women agricultural producers to become better business operators. The OSU Cattlewomen's Boot Camp is a project that combines elements of two successful programs, Annie's Project and the Oklahoma Livestock Boot Camps. Using teaching models from the boot camps and Annie's Project, the program creates an informative and engaging learning experience for female producers covering various methods on how to manage the production, financial, and market risks when operating a beef cow/calf operation. Forty-six female producers attended the camp in June 2022. Topics covered at the camp include cattle handling, general herd management practices such as ID, ear tagging, and castration, cow body condition scoring, heifer and bull selection, calving season management, reproduction, parasite control, farm business planning, budgeting, farm financial statements, record keeping, record keeping systems, nutrition, forage systems, forage analysis and testing, cattle health and vaccinations, marketing, beef quality assurance certification and estate planning or succession planning. Pre and post-tests scores showed an increase in knowledge gained of 24.4% with the largest increase coming in the areas of risk management and parasite management. Self-evaluation from participants indicated an increase of knowledge of 74.3% with the largest increase coming in forage production and herd nutrition. When asked about perceived adoption of practices taught during the camp, the average adoption rate was 73.5%. The perceived value of the camp to their operation ranged from $100 to $3,000 with an overall total value of $23,635.

NATIONAL FINALISTS

SMALL RUMINANT PRODUCTION IN WISCONSIN

Carolyn Ihde
Agriculture Educator
UW-Madison Division of Extension
Prairie Du Chien

Team Members: Ihde, C[*1], Seefeldt, L[*2], O'Rourke, B[3], Taylor, T[4], Halfman, W[*5]

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[3.] Extension Livestock Specialist, UW Madison - Department of Dairy & Animal Sciences , Madison, Wisconsin, 53706
[5.] Arlington Sheep Unit Manager, UW Madison - Department of Dairy & Animal Sciences , Arlington , Wisconsin, 53911
[5.] Beef Outreach Specialist, UW-Madison Division of Extension, Bloomer, Wisconsin, 54724

The purpose of the UW-Madison Division of Extension and Department of Dairy & Animals Sciences' Small Ruminant Program is to expand the knowledge and skills of beginning sheep and goat producers in Wisconsin for increased economic viability and to support environmental sustainability. Extension Educators and Outreach Specialist created a multi-tiered program to meet the following objectives: increase producer knowledge of operating costs; increase producer knowledge regarding management decisions, female reproduction, lambing husbandry, nutritional needs, creating and using budgets to determine profitability, marketing small ruminants and their products; and for producers to increase economic viability by adapting management strategies. The Small Ruminant program consists of a yearly winter Zoom webinar series, a lambing school, presentations, a budget tool, and articles. The webinars are recorded and available on the UW-Madison Extension Youtube Channel. The first Badger Lambing School in February 2023 at the UW-Madison Arlington Research Unit was an in-person two-day lambing workshop offering participants the opportunities for different types of learning with presentations from extension staff, a veterinarian, and an industry nutritionist; small group discussions; and demonstrations on assisting with birthing; processing neonatal lambs, sheep handling, and hoof care. Webinar topics include ewe and lamb nutrition, gestation, lambing/kidding, ram care, grazing, marketing, resource management, parasites, meat-goat production, and creating enterprise budgets. Presentations at the Wisconsin Sheep & Wool Festival in September 2022 and 2023 in Jefferson, Wisconsin, discussed pasture and parasite management, using body condition scores to make management decisions and an introduction to the sheep flock operation enterprise budget tool. Articles and factsheets are

published on the Extension Livestock webpage. Three thousand two hundred twenty-eight participants have registered for the 12 webinars hosted during the past three years. The nine posted webinar recordings on Youtube have been viewed 3,487 times. Between November 17, 2022, and February 21, 2023, the sheep enterprise budget has been viewed 202 times, and the budget tool has been downloaded 49 times.

MAINE PASTURED PIG PROGRAM

Colt Knight
State Livestock Specialist
University of Maine Cooperative Extension
Orono

Team Members: Knight, C[*1]

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In Spring 2019, the University of Maine Cooperative Extension was awarded a Maine Food and Agriculture Center grant to create a research/demonstration herd of pigs called the Maine Pastured Pig Project. A small group of registered Berkshire pigs was established at the J. F. Witter Teaching and Research Center adjacent to the University of Maine campus in Orono, ME. Because most research and production data were gathered from large-scale confinement swine operations, this herd was going to serve as a means to gather insight and production data on a typical small-scale/backyard/pasture operation in the New England area. Insights gathered from this project served as a springboard for 41 educational seminars, 13 educational videos(>7000 views), and 3 fact sheets(>3000 views), 4 collaborations with Maine media outlets, invitations to speak in 3 other states on raising pastured pigs, co-authoring a research grant with Maine Department of Agriculture, Conservation, and forestry, and a course offered to undergraduates at the University of Maine, AVS 267 – Swine Production. Educational events/seminars included introductory to advanced swine information, meat processing education, and youth events to over 750 individuals. The project helped secure $35,270 in funding. Participants of swine programs reported an overall score of 4.88/5 for knowledge gained, 4.75/5 for Usefulness of Information, and 4.98/5 for Quality of Presentations. Roughly, 75% of participants in swine programs and webinars reported an increase of confidence in ability to keep pigs; 63% agreed to adopt one new practice to improve their herds heath; 50% intended to implement at least one new practice they learned to improve animal productivity; and 30% responded they will have a source of meat or income for the families now.

IMPROVING SHEEP AND GOAT PRODUCTION EFFICIENCY AND PROFITABILITY

Melanie Barkley
EXTENSION EDUCATOR
PENN STATE UNIVERSITY
BEDFORD

Team Members: Barkley, M[*1], Hartman, D[*2], Maierle, C[*3]

[1.] Extension Educator, Bedford, Pennsylvania, 15522
[2.] Extension Educator, Penn State Extension, Montoursville, Pennsylvania, 17754
[3.] Extension Educator, Penn State Extension, Mercer, Pennsylvania, 16137

Sheep and goat production programs were developed for producers to gain a better understanding of sheep and goat production from basic information to more advanced production topics. The purpose of the programs was to improve production efficiency and increase profitability. It's a Wormy Deal FAMACHA workshops taught producers concepts related to internal parasite life cycles, strategies to prevent internal parasites, and how to use

FAMACHA scores to identify individuals requiring anthelmintic treatment. Getting Your Genetics Right webinars helped producers better understand how to utilize estimated breeding values (EBVs) for selecting productive and profitable sheep. Webinars featured a variety of topics identified through discussions with producers. These webinars began during the pandemic and have continued during the winter months with monthly webinars offered each year during the winter. Workshops such as the Sheep and Goat Profit Schools and the Meat Quality and Value-Added Products Workshop were designed to provide more in-depth information on production topics. A post evaluation summary indicated that 99.6% of participants learned something new, 97% learned a moderate to considerable amount, and 80% planned to use the information to make changes to their operation's management practices. Follow up evaluations conducted at least six months after the programs indicated that producers who attended these programs experienced economic benefits from decreased health care costs, decreased death loss, increased weaning weights, decreased feed costs, and increased production. Economic value data was collected through follow-up evaluations of select programs. Economic value to participants included: $38,075 from It's a Wormy Deal workshops, $278,195 from Pasture and Grazing Management webinars, and $108,290 from Practical Solutions to Increase Lamb and Kid Survival webinar. Total economic value of the programs evaluated was $424,560.

STATE WINNERS

NORTH CENTRAL REGION

Indiana	Ophelia Davis
Iowa	Jennifer Bentley
Nebraska	Leslie Johnson

NORTHEAST REGION

Maryland	Jennifer Rhodes

SOUTHERN REGION

Alabama	Kelly Palmer
Arkansas	Rachel Bearden
Florida	Cindy Sanders
Georgia	Robyn Stewart
North Carolina	Lauren Greene
Texas	Shane McLellan
Virginia	Jennifer Ligon

WESTERN REGION

California	Brooke Latack
Colorado	Scott Stinnett
Montana	Rose Malisani
New Mexico	Savannah Graves

Search for Excellence in Young, Beginning, or Small Farmers/Ranchers

NATIONAL WINNER

RU READY TO FARM: GETTING ROOTED IN THE GARDEN STATE

William Hlubik
County Agent 1, Professor
Rutgers Cooperative Extension
North Brunswick

Team Members: Hlubik, W[*1], Pearsall , B[*2], Errickson, W[*3], Errickson , L[4], Melendez, M[5], Eberly, L[6], Muehlbauer, M[*7], Besancon, T[8]

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[2.] Senior Program Coordinator, member, North Brunswick, New Jersey, 08902
Monmouth Agricultural Agent , member, Freehold, New Jersey, 07728
[3.] Director of Rutgers Gardens, non-member, New Brunswick, New Jersey, 08901
[4.] Mercer County Agricultural Agent , Member, Trenton, New Jersey, 08638
[5.] Program Assistant and Videographer, non-member, North Brunswick, New Jersey, 08902
[6.] Hunterdon County Agricultural Agent, Member, Flelmington, New Jersey, 08822
[7.] Associate Extension Specialist in Weed Science, non-member, Chatsworth, New Jersey, 08019

The Rutgers Beginner Farmer Training Program-"RU Ready to Farm" is addressing the continuing viability of the agriculture industry in New Jersey by providing education, support and guidance for new and beginning farmers.

The average age of farmers in New Jersey is approaching 60 years old, and many growers do not have a succession plan or a next generation to take over the farm. The strong support of the public for farmland preservation and for purchasing local farm products provides the framework for success of new farmers with sound business plans. The goal of our program is to provide the necessary training and networking to increase the chances of success for new farmers. This is accomplished through a three- phase program. Phase 1 includes on-line training, classroom instruction and field trips to successful small farms. In phase 2, participants plan, grow, and distribute 50 CSA farm shares of vegetables and flowers to customers. Phase 2 includes season long hands-on guidance on production, harvesting, packaging, and marketing with farm coaches. In phase 3, our team provides support for participants to secure their own land or work with experienced successful farmers. As a result of this program 86 participants have completed phase 1 of the program. This project has generated $70,000 back into our program through fees and farm sales to help insure long term project sustainability. As a result of the program there are 9 active farmers growing on 80 acres and 8 established farms that have employed program participants. Pre and post program surveys and structured interviews indicate that 90% of participants had a significant increase in knowledge and skills because of the program. Twelve participants completed phase 2 of the program and provided 46 farm shares to over 92 people for an estimated $15,730 value of produce and flowers. A Word Press website and Canvas platform were developed to provide educational information and resources. Evaluation tools were subject to IRB approval with most survey questions utilizing a 4-point Likert scale.

NATIONAL FINALISTS

MULTIFACETED GRAPE PRODUCTION PROGRAMS FOR YOUNG, BEGINNING, OR SMALL FARMERS/RANCHERS

Gary Gao
Professor and Extension Specialist
Ohio State University South Centers
Piketon

Team Members: Gao, G[1], Eckstein, C[2], Murphy, K[3], Smith, M[4], Dami, I[5], Slaughter, R[6], Sherman, B[7], Robertson, B[8], Steiner, T[9]
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[5.] Professor, The Ohio State University, Wooster, Ohio, 44691
[6.] Research Assistant, The Ohio State University, Piketon, Ohio, 45661
[7.] Program Assistant, The Ohio State University, Piketon, Ohio, 45661
[8.] Event Senior Coordinator, The Ohio State University, Piketon, Ohio, 45661
[9.] Outreach Specialist , The Ohio State University, Wooster, Ohio, 44691

Grape production can be an effective way for young, beginning, or small farmers/ranchers to get into agriculture. Most Ohio vineyards are around 5 acres in size while the largest one has 170 acres. More and more younger farms are getting into grape production while many of our grape growers are beginning farmers. The educational objectives of the Ohio Grape and Wine Conference (OGWC) are to educate growers about the principles and practices of best vineyard practices. The objective of the Ohio Vineyard Assistance Program (VEAP) was to help growers select the right site, varieties, and establishment techniques. The objective of the Online Fruit Pruning School was (OFPS) to teach people how to properly prune fruit crops. OGWC, VEAP, and OFPS were offered as a part of our educational activities to help young, beginning, or small farmers/ranchers. Our teaching Methods included an in-person OGWC on February 20 and 21 in 2023, in-person onsite VEAP consultations at 21 vineyards in December 2022, and an OFPS on March 9 and 14 in 2023. Our 2023 OGWC drew 239 attendees and 31 exhibitors. Our 2023 OFPS drew 618 registrants while VEAP drew 34 applicants. The total number of acres reported by OGWC survey respondents was 645. Twenty-seven acres of new vineyards were added. The survey results from OGWC showed that 97% of them found the topics of our topics relevant while 98% of them will use the knowledge learned in this conference. VEAP helped add 27.25 acres in new wine grape plantings that will bring in an estimated economic impact of $599,500. Around 380 people were shown the correct fruit pruning techniques. Our evaluation included a questionnaire that was included in the conference booklet for the OGWC. The responses were collected at the end of OGWC. The impact of VEAP was measured by the actual number of new wine grape acreage planted. Each acre of wine grapes can be turned into $22,000 in wine. Live testimonials of Online Fruit Pruning School and total attendance were recorded in Zoom meetings. Quite a few suggested topics and speakers will be incorporated into our future program agendas.

HARRISON COUNTY BEGINNING FARMER SERIES

Jennifer Friend
Extension Instructor
West Virginia University Extension Service
Clarksburg

Team Members: Friend, J[*1]

[1.] Extension Instructor, , Clarksburg, West Virginia, 26301

Highlights from the 2017 census indicate that 30-34% of farms in Harrison County are operated by beginning farmers. In fact, West Virginia is in the top ten states of Beginning-Producer operated farms at 31% of all farms being operated by beginner farmers. The COVID-19 pandemic has caused a shift for people to grow more of their own food and step into farming as a business. With the added interest in agriculture along with a significant percentage of farms being operated by beginner farmers, a program to "get them off on the right foot" was needed. Goals for the program were for participants to identify a market and what products to market; for example, vegetable or fruit produce, to gain skills in farm financial management; to identify a record keeping system and use records to make business decisions; to gain stress management skills; and to learn about the available resources and agencies for agriculture producers. There were 6 two-hour sessions with 10 participants. The five-month follow up evaluation indicated that all participants can describe their ideal customer, 86% (8 respondents) can manage stress; 86%(8 respondents) use farm tax tools, programs, resources, and organizations available to farmers and ranchers. The Beginner Farmer Series also served as a recruiting tool for other Extension programs including Beef Quality Assurance, Master Gardeners, workshops and field days.

[1] Census of Agriculture. Highlights | New and Beginning Producers. USDA. (2020, November). Retrieved from https://www.nass.usda.gov/Publications/Highlights/2020/census-beginning%20-farmers.p

DEVELOPING A COMPREHENSIVE CURRICULUM FOR NEW AND BEGINNING FARMERS IN NORTHEAST GEORGIA

Robyn Stewart
County Extension Coordinator
University of Georgia
Lincolnton

Team Members: Stewart, R[*1], Cranston, S[2], Williams, T[*3]
[1.] County Extension Coordinator, Lincolnton, Georgia, 30817
[2.] Agricultural and Natural Resource Agent, Thomson, Georgia, 30824
[3.] County Extension Coordinator, Appling, Georgia, 30802

According to the 2017 USDA Agriculture Census, 35% of farms in Georgia are categorized as new or beginning operations and account for 24% of the agriculture land use in the state. From 2021 onwards, UGA Extension Agents in Northeast Georgia have collaborated with Extension specialists, AgGeorgia, the UGA Small Business Development Center, the USDA Farm Service Agency, and the NRCS to develop a comprehensive curriculum for the business and production education of new and beginning farmers in Georgia. Teaching tools for the programs included lectures series, hands-on field days, newsletters, and one-on-one support from teaching staff. The first year focused on introducing new and beginning farmers to Georgia's agricultural commodities and supporting resources available for their use with the "So, You Want to Be A Farmer" program in 2021. Year two included business and small fruit and vegetable training through the "Journeyman Farmer Certificate Program, "where 19 participants became certified Journeyman Farmers. Small fruits and vegetable production was emphasized due to feedback provided in year one. The curriculum reached 186 registrants in year one and 34 registrants in year two. Voluntary post-program evaluations indicate participants are able to increase knowledge, use the information provided in their operations, and implement behavioral changes as a result of the programs. For example, six months after the 2022 program, attendees reported that they improved record keeping, created business plans, and incorporated conservation practices and crop rotation in their operation. These behavioral changes resulted in reduced pest pressure and damage, increased yields, reduced input costs, and increased profitability. All respondents have attributed this curriculum with improving their operations. The final year will focus on further developing the business and marketing expertise of new and beginning farmers through the "Master Agrimanager" program, to be offered in spring of 2023 to an estimated 20-30 participants.

STATE WINNERS

NORTH CENTRAL REGION

Minnesota	Natalie Hoidal

SOUTHERN REGION

Arkansas	Nicole Nichols
Florida	Jonael Bosques-Mendez
Kentucky	Samantha Saunders
North Carolina	Nelson Brownlee
Oklahoma	Olivia Toothman

Search for Excellence in Environmental Quality, Forestry and Natural Resources

NATIONAL WINNER

IMPROVING ENVIRONMENTAL STEWARDSHIP ON EQUINE FARMS

Laura Kenny
Equine Educator
Penn State
Collegeville

Team Members: Kenny, L[*1], Smarsh, D[2], Kirkland, B[3], Reed, H[*4], Brackenrich, J[*5], Thompson, N[*6], Duppstadt, L[7]

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[3.] Former Educator, former Penn State, Washington, Pennsylvania, 15301
[4.] Educator, Penn State, York, Pennsylvania, 17402
[5.] Educator, Penn State, Waynesburg, Pennsylvania, 15370
[6.] Educator, Penn State, Coudersport, Pennsylvania, 16915
[7.] Educator, Penn State, Bedford, Pennsylvania, 15522

Equine operations are notorious for poor pasture management in Pennsylvania, and frequently contain large bare areas of ground which can lead to soil erosion and nutrient loss to surface water. In most cases, this poor management simply stems from a lack of agronomic and environmental background and knowledge. The objectives of this program were to increase knowledge of basic pasture management concepts and techniques among horse farm managers; increase adoption of pasture management practices on horse farms; and improve the overall condition (self-assessed) of pastures on horse farms to reduce soil erosion and nutrient runoff risk. The program includes two educational offerings: Equine Environmental Stewardship Short Course and Equine Pasture Walk Workshops. The Short Course has been offered as an 8-10 topic lecture-based short course both in-person and virtually 3 times from 2020-2022, with 108 registrants. In addition, 3 hands-on Pasture Walks have been offered on farms in 3 counties with 29 registrants. Post-program evaluations show significant knowledge increases and intent to adopt programs learned during the programs. Two-year follow-up surveys for the Short Course revealed that pasture quality on participating farms had improved by 23% and that 75% of respondents stated that the course overall "Significantly" impacted their farm management decisions. All respondents reported adopting at least one pasture management practice learned during the course, including selecting new forages to seed in pastures, soil testing every three years, and resting pasture after grazing. As a result, all respondents reported that their pastures now have greater than 70% total cover (the threshold for minimizing erosion) and 50-70% desirable cover (providing feed for horses and reducing the need for purchased feed). It is estimated that this program impacted 1,544 acres and 548 horses.

NATIONAL FINALISTS

MARION-WINSTON LANDOWNER TOUR AND REGIONAL FORESTRY FIELD DAY

Zachery Brannon
County Extension Coordinator
Alabama Cooperative Extension System
Double Springs

Team Members: Brannon, Z[*1]

[1.] County Extension Coordinator, , Double Springs, Alabama, 35553

Outdoor field days and landowner tours are not new teaching methods used by Extension. These events can be a very effective educational method. Teaching forestry topics using this rather traditional Extension technique generates excellent audience response, promotes understanding, and stimulates changes in attitudes and behavior. We want to make landowners more aware of the importance of their natural resources and promote positive attitudes. We also work to increase the participants' knowledge of basic management skills and cultural techniques. In October 2022 the Winston County Extension Office partnered with the USFS, Alabama Forestry Commission, Winston County Natural Resource Council, and the Alabama Department of Agriculture which gave us in total $2,000.00 to help make this event happen. By pulling all these groups together we were able to provide a great day of practical learning that addressed serious issues for many of our local stakeholders. The Marion-Winston Landowner Tour and Regional Forestry Field Day was held at the farm of Bill Self in Haleyville, Alabama. This workshop was designed for local landowners, forester, loggers, wildlife biologist, and farmers that wanted to learn how to properly manage their forests. The workshop included animal control experts,

United States Forest Service personnel, Alabama Forestry Commission personnel, and Extension professionals covering the following topics: short leaf pine initiative, water quality / SMZs , non-native invasive species, and prescribed burn. With our partners we had an outdoor demonstration featuring several different learning stations and opportunities to learn. This workshop provided practical information for landowners and natural resource professionals. We offered CEUs, PLMs, and extension learning credits at this event. A total of 66 individuals participated in this workshop. We issued surveys to gain feedback and survey results indicated the following: 100 % of program attendees found the information presented useful and applicable to their operation and an increase in knowledge regarding short leaf pine initiative, water quality / SMZs , non-native invasive species, and prescribed burn. Attendees assigned an estimated positive economic impact totaling $131,250 averaging $1,988.63 per response. Knowledge gained from this Regional Forestry Field Day impacted a total of 6,000 acres.

URBAN TREE CARE AND MANAGEMENT EDUCATION

Krista Quinn
Conway

Team Members: Quinn, K[*1], Massey, C[*2], Smith, S[*3], Fisher, H[4], Scott, J[5]

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[2.] County Extension Agent, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, 72704
[3.] Plant Diagnostician, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, 72704
[4.] Urban Forestry Partnership Coordinator, Arkansas Department of Agriculture Forestry Division, Greenbrier, Arkansas, 72058
[5.] Urban Forester, City of Fayetteville, Fayetteville, Arkansas, 72701

Trees provide many social, environmental, and economic benefits in urban environments. However, approximately 36 million trees die or are removed in urban areas in the United States annually. Proper tree care and management can reduce canopy loss, protect tree resources, and improve tree survival and growth in urban environments. Objectives of this educational program include: 1. Encourage communities to recognize and manage trees as valuable community resources 2. Teach the public about the benefits of trees in communities and how to properly care for trees 3. Teach professional arborists, groundskeepers, and municipal staff how to properly care for trees and encourage arborist certification through the International Society of Arboriculture. A variety of teaching methods including involvement with community groups, virtual and in-person presentations, hands-on workshops, written articles, preparation of tree management plans and canopy analyses, and tree care demonstrations were used to meet educational objectives and meet the needs of various audiences. Over 5,000 people participated in these educational programs and many now have a better understanding of proper tree care and are using better planting, pruning, mulching, and irrigation techniques. At least 17 individuals took the certified arborist exam and groups receiving tree management plans implemented many of the recommended pruning and tree care practices. These educational programs have encouraged many urban residents and communities to value their urban forests and actively manage their tree resources.

IMPLEMENTING WILDLIFE CONSERVATION IN FLORIDA GOLF COURSE OUT-OF-PLAY AREAS

Bonnie Wells
Extension Agent II, Commercial Horticulture
University of Florida
Cocoa

Team Members: Wells, B[*1]

[1.] Commercial Horticulture Agent, University of Florida-IFAS, Cocoa, Florida, 32926

Reports estimate Florida's population will reach 33.7 million people by 2070, increasing development that will sprawl into the state's natural lands. Natural areas across Florida are home to an impressive amount of native wildlife facing a significant crisis with urban sprawl increasing and habitats shrinking. Golf courses combine well-mowed turf with trees and have large out-of-play areas that provide a diverse environment attractive to many types of wildlife. Golf courses tend to be permanent landscapes, not likely to be bulldozed during urban sprawl. Furthermore, the high densities of golf courses in Florida can create a network of natural patches to improve wildlife corridors across the southeastern US. Therefore, golf courses that implement wildlife conservation in out-of-play areas can support biodiversity, enhance sustainability and become a haven for wildlife during urban sprawl. Realizing the need for wildlife conservation and opportunity for golf course superintendents, a University of Florida/IFAS Extension program was created to improve the sustainability of golf courses through wildlife habitat enhancement projects in out-of-play areas. Results over the past three years include reaching 331 golf course management professionals through educational programs related to wildlife conservation. Post-education survey

results (n=279) indicated a knowledge increase in the benefits and strategies for wildlife conservation and a strong intent to adopt at least one wildlife habitat enhancement strategy presented. Seven golf courses established wildlife habitats in out-of-play areas through landscaping with native vegetation, encouraging wetlands, minimizing pesticides, installing bird nesting boxes, planting pollinator habitats, and modifying pond littoral zones to better support biodiversity. As a result of wildlife conservation efforts through this program, five local golf courses have received international recognition through Audubon International's Cooperative Sanctuary for Golf Courses certification program. Adoption of wildlife conservation in out-of-play areas by golf courses across Florida will expand and strengthen wildlife corridors nationwide.

STATE WINNERS

SOUTHERN REGION

Georgia	Blake Carter
Kentucky	Linda Hieneman
Mississippi	James Shannon
Oklahoma	Josh Campbell
South Carolina	Ryan Bean
Texas	Katie Pace

JCEP CREATIVE EXCELLENCE AWARD

NATIONAL WINNER

Jason de Koff
Specialist
Tennessee State University
Old Hickory

Team Members: de Koff, J*1
Specialist, , Old Hickory, Tennessee, 37138

IIn 2010, I began my career as an Extension specialist with Tennessee State University. I strive to identify unique opportunities to disseminate information on emerging issues using relevant and engaging learning methods. I believe the following examples make me an excellent candidate for the JCEP Creative Excellence Award.

I received a USDA-NIFA grant in 2012 to build a mobile biodiesel demonstration (Fig. 1) to show farmers the equipment and process of making biodiesel from seed to fuel. This demonstration was also used at local schools to show youth other applications of agriculture and engage them in discussion about bioenergy. I developed a biodiesel bingo game that allowed youth to learn about the different types of feedstocks that could be used to produce biodiesel (Fig. 2). In 2022, I was invited to use this and other materials I had developed as part of the FEM STEM Bahamas Green Energy Workshop where I presented on bioenergy and engaged students in activities related to bioenergy (Fig. 3). In 2015, I was awarded a grant from Southern SARE to develop and implement a curriculum based on biomass energy which also incorporated the mobile biodiesel demonstration. This curriculum won an award from the American Society of Agronomy and can be found on the Extension Foundation's website at https://farm- energy.extension.org/biomass-energy-training-curriculum-tn/ (Fig. 4). Impacts of the train-the-trainer program found that 94% of agents increased their knowledge of no-till production of winter canola, on-farm biodiesel production and the REAP program. Evaluations of workshops that involved the mobile biodiesel demonstration observed increases in knowledge, interest, and awareness of biodiesel production and biodiesel feedstock production. The bioenergy program resulted in over 2,000 direct contacts, over 100,000 indirect contacts, 7 fact sheets, 5 videos with over 30,000 total views, features on RFD-TV, Mother Earth News, the American Society of Agronomy (Fig. 5), and local news broadcasts.

In 2018, I received a grant from Southern SARE to develop and implement a train-the- trainer curriculum focused on soil health which can be found at https://www.tnstate.edu/faculty/jdekoff/SoilHealth.aspx (Fig. 6). As part of the project I also engaged in establishing demonstration plots for Extension agents to use in their programming (Fig. 7) and created a soil health test kit for agents to use in the field (Fig. 8). There was also a fact sheet, which was a NACAA National Finalist, and video which has received over 7,000 views, that were developed as part of the project. Evaluations found that 96% of agent participants increased knowledge of soil health principles.

In 2018, I also received a grant from USDA-NIFA to engage farmers in Extension training related to using drones in agriculture. The workshops that were developed and implemented allowed farmers to "fly before they buy" a drone and engaged farmers on topics that included how drones could be used in agriculture, the laws and regulations for using drones, and different types of drones, sensors, software and their associated costs (Fig. 9). As a part of this project, I also developed a curriculum that was used to train farmers, extension agents, teachers, crop consultants, and research faculty so that they could get their Part 107 remote pilot certification. A number of activities were developed to assist participants in learning

the material (Fig. 10). In 2022, I was invited to speak on the drone program for a Crop Science Society of America symposium at their annual

meeting and at the Alabama Precision Ag workshop in 2023. Also in 2023, I participated in a USAID Farmer-to-Farmer project where I engaged students at the College of Agriculture, Science and Education in Jamaica in learning about drones and created drone maps of their agricultural research fields (Fig. 11). The drone program resulted in 6 fact sheets, 9 videos (17,000+ total views), three trade publications, and was a NACAA National Finalist in the Search for Excellence, Crop Production. This program engaged over 350 farmers across 14 counties in Tennessee and evaluations found that 54% of farmers increased their interest in purchasing a drone in the next 2 years and 80% of agents had increased capacity to assist stakeholders with questions related to drones and software.

These programs have allowed me to earn success and provide important impacts to stakeholders in Tennessee and other parts of the world. The delivery methods and hands-on, relevant opportunities that I incorporated allowed me to make greater impacts than the material alone would have allowed. I believe these creative additions are the blueprint for developing engaging Extension programs and make me an excellent candidate for the JCEP Creative Excellence Award.

To see Figure images - please go to: https://www.nacaa.com/file.ashx?id=13d48fe9-2210-4940-bcca-b73cba982246&w=2000&h=2000

DAN KLUCHINSKI MEMORIAL SCHOLARSHIP AWARD

NATIONAL WINNER

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

I plan on attending and presenting at the 2023 National Association of County Agricultural Agents (NACAA) Annual Meeting/Professional Improvement Conference (AMPIC) from August 12 to August 17 in Des Moines, Iowa (https://www.nacaa.com/am-pics/des-moines-2023). This year's conference theme is "Growing: People. Places. Products. Profits." The AMPIC is a showcase for Extension professionals from varied backgrounds to highlight their work and exchange strategies to adapt to challenging situations and new, unique ways to deliver their programming.

Since 2017, I have been the New Jersey State Committee Chair for Natural Resources and Aquaculture. I plan on attending a variety of sessions at the AMPIC appropriate for supporting and increasing my knowledge in these areas. I hope to use this additional knowledge in the programs that I develop and conduct, which focus on water resource protection and sustainable land management. The information that I will receive at this conference will be implemented to better educate the county residents, Master Gardeners, Environmental Stewards, municipal and county government agencies, and non-governmental organizations in Ocean and Atlantic Counties on managing water resources and guiding recommendations on maintaining environmentally-friendly landscapes.

In addition, I hope to share my own program experiences in Natural Resources and Aquaculture with my colleagues. For example, I have partnered with the Ocean County Mosquito Commission to evaluate mosquito control methods for rain barrels. Extension provides information on practices to reduce the potential for mosquitoes to breed in rain barrels. The relative success of these practices, however, had not been previously studied, so this project was developed to evaluate the effectiveness of Extension-recommended mosquito control methods appropriate for rain barrels. 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 Extension professionals to assure rain barrel owners that they are conducting the best practices possible. This will also help with wider adoption of rain barrels as a practice and more water being conserved for the future.

Receiving this scholarship would be such an honor as I had the privilege of working with Dan Kluchinski as our Department Chair for a few years before his passing. I hope to respect his legacy by making the most of my experiences at the NACAA AMPIC in Des Moines, Iowa this year.

NATIONAL WINNER

Brooke Latack
Livestock Advisor
University of California Division of Agriculture and Natural Resources
Holtville

I am applying for the Dan Kluchinski Memorial Scholarship Award to aid in funding my travel to the 2023 Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents in Des Moines, Iowa from August 12-17, 2023. I have been serving as livestock advisor for the University of California Cooperative Extension since October 2017. I have been a member of NACAA since 2021. I was able to attend the virtual AM/PIC in 2021, but the 2023 AM/PIC will be my first in-person national NACAA meeting. I have submitted a presentation abstract, several communication award applications, and a search for excellence application. If selected for any of those submissions, I will be able to share more about the livestock programming done in the desert area of California, including feedlot cattle research and extension. I have also been selected as the California recipient of the Achievement Award that I will be receiving at the 2023 AM/PIC. I had the opportunity to attend the 2022 Chad Reid Western Region NACAA PIC to present a poster, network, and learn from other extension professionals in the western region. It was extremely helpful to hear from colleagues close to my programmatic area and I look forward to learning and networking more with extension professionals on a national level at the 2023 NACAA AM/PIC. Being able to hear research and extension programming done by others throughout the country will provide valuable professional growth that I can bring back to my programmatic area and help provide clientele with an even more robust and effective program. I particularly look forward to learning from others involved in the livestock extension sector and potentially find collaborators for future research and extension efforts. If awarded, the Dan Kluchinski Memorial Scholarship award will help make travel to the 2023 NACAA AM/PIC possible to experience the opportunities presented by NACAA. As I am in the early stage of my career, this professional development opportunity will strengthen my programming and ultimately benefit clientele in the desert area of California.


NATIONAL ASSOCIATION
COUNTY AGRICULTURAL AGENTS
RESEARCH
EXTENSION
LAND GRANT COLLEGE
NACAA

2023 NACAA
Distinguished Service Award Winners

NORTH CENTRAL REGION


Illinois
Andrew Holsinger


North Dakota
Rick Schmidt


New Jersey
Rebecca Magron


Arkansas
Amy Heck


Indiana
Bryan Overstreet


Ohio
Shelly Dee Jepsen


New York
April Wright-Lucas


Arkansas
Craig Allen


Iowa
Madeline Schultz


Ohio
Sam Custer


Pennsylvania
Laura Kenny


Florida
Kevin Camm


Kansas
Cade Rensink


South Dakota
Amanda Bachmann


West Virginia
Alexandria Smith


Florida
Frank Dowdle


Michigan
Jeannine
Schweihofer


Wisconsin
Tina Kohlman

SOUTHERN REGION


Florida
Grantly Ricketts


Minnesota
Betsy Wieland

NORTHEAST REGION


Alabama
Bridgette Brannon


Georgia
Mark McCann


Missouri
Gene Schmitz


Maryland
Doris Behnke


Alabama
M. Landon Marks


Georgia
Chris Tyson


Nebraska
Kelly Feehan


New Hampshire
Kelly McAdam


Alabama
Edward Sikora


Georgia
Clark Macallister

Kentucky
Lindie Huffman

South Carolina
Rick Willey

Virginia
Neil Clark

Kentucky
Philip Konopka

South Carolina
David Dewitt

WESTERN REGION

Louisiana
Jeremy Hebert

Texas
Dena Floyd

California
Betsy Karle

New Mexico
Jack Blandford

Mississippi
Trent Barnett

Texas
Tommy Phillips

Colorado
Brian Kailey

Oregon
Melissa Fery

Mississippi
Brady Self

Texas
Ricky Thompson

Idaho
Rebecca Mills

Utah
Joshua Dallin

North Carolina
Jenny Carleo

Texas
Scott Willey

Montana
Shelley Mills

Washington
Steve Norberg

North Carolina
Steve Duckett

Texas
Wes Utley

North Carolina
Dan Wells

Texas
Tyler Fitzgerald

Oklahoma
Chad Webb

Virginia
Scott Jerrell

2023 NACAA
Achievement Award Winners

NORTH CENTRAL REGION

Illinois
Nathan Johanning

Nebraska
Sarah Sivits

Indiana
Molley Hasenour

North Dakota
Anitha Chirumamilla

Indiana
James Wolff

Ohio
Erika Lyon

Iowa
Josh Michel

Ohio
Garth Ruff

Kansas
Travis Carmichael

South Dakota
Jaelyn Whaley

Michigan
Monica Jean

Wisconsin
Carolyn Ihde

Minnesota
Claire Lacanne

Missouri
Tamra Reall

NORTHEAST REGION

Maine
Glenda Pereira

Alabama
Geni Payne

Maryland
Kelly Nichols

Arkansas
Colin Massey

New Jersey
William Errickson

Arkansas
Phil Horton

New York
Katelyn Walley-Stoll

Florida
Danielle Sprague Williams

Pennsylvania
Anna Hodgson

Florida
Daniel Leonard

Florida
Kevin Athearn

SOUTHERN REGION

Alabama
Gavin Mauldin

Georgia
Alicia Holloway

Alabama
Darrue Sharpe

Georgia
Aubrey Shirley

Georgia
Brian Hayes

Oklahoma
Olivia Toothman

Virginia
Laura Maxey-Nay

Kentucky
Jessica Barnes

South Carolina
Andrew Jeffers

Virginia
Roy Flanagan

Kentucky
Nicole Rhein

South Carolina
Janet Steele

WESTERN REGION

Louisiana
Heather Kirk-Ballard

Tennessee
Lester Humpal

Arizona
Juan Arias

Oregon
Scott Duggan

Mississippi
Kyle Lewis

Texas
Jesse Rodriguez

California
Brooke Latack

Utah
Benjamin Scow

Mississippi
Drew Gholson

Texas
Sierra Stephens

Colorado
Scott Stinnett

North Carolina
Daryl Anderson

Texas
David Oates

Idaho
Jason Thomas

North Carolina
Blake Szilvay

Texas
Josh Kouns

Montana
Patrick Mangan

North Carolina
Dylan Lilley

Texas
Andy Holloway

New Mexico
Sara Marta

2023 NACAA
Hall of Fame Award Winners

2023
North Central Region
Hall of Fame Award

Larry Howard

Nebraska
37 Years - Retired

Larry Howard has been a valuable asset for Nebraska Agriculture during his 35-year Extension career, providing education programs and community leadership as a single Agricultural Agent/ Educator in Cuming County, Nebraska's top agriculture and top livestock county. Larry continues to provide leadership in his community and to the University of Nebraska-Lincoln (UNL) in his role as an Emeritus Professor.

Larry's Extension education program focused on beef, swine, and dairy production for adults and youth. His efforts helped the people of Cuming County become the first and only Nebraska county to garner over $1 billion in market value of agricultural products. The county leads the state and has been in the top 30 nationally in all agriculture products and is in the top five nationally in beef production. In the last five years of his career, his livestock program was expanded to cover ten northeast Nebraska counites. Larry's programs were innovative, cutting edge and were often the first to address local needs. In addition to educating local clients, Larry helped US military members with livestock management issues and hosted out of state and international visitors on numerous occasions. Larry has received 13-National, 14-Regional, and 35-State NACAA awards including the Search for Excellence award as a national winner two times and as a national finalist five times. He has been recognized by UNL for outstanding team programming six times and received service awards from the Nebraska Pork Producers and the Nebraska Beef Council. Innovative and award-winning programs and his desire to make a difference in people's lives are the hallmarks of Larry's work.

Involvement in professional associations has been a mainstay throughout Larry's career in Extension and continues into retirement. He joined NACAA in 1985 and has been involved at all levels of NACAA, the Nebraska Chapter of NACAA, JCEP, ESP and Nebraska Cooperative Extension Association. He has served in leadership roles during four JCEP workshops, four NACAA AM/PIC's, served as NACAA Director on the Board, served as NC Vice Chair for three different NACAA committees and has attended 30 AM/PIC's. He was recognized very early in his career by receiving numerous service awards including the NACAA AA and DSA. He also received the ESP DSA and the Mid-career award.

Humanitarian activities have always been very important to Larry throughout his life. He has worked with volunteers during his entire career and knows the value of giving back to his community and region. He has been involved in numerous volunteer activities beyond his job assignment and has served in leadership roles in many organizations at the community, county, state, and regional levels. He has received award recognition several times for his volunteer work including being inducted into the Nebraska Hall of Agricultural Achievement, received the prestigious AKSARBEN Good Neighbor award, and his local Chamber of Commerce Agribusiness Recognition award.

Larry Howard has made a career of education, leadership, and service with a long record of achievement. The Nebraska Chapter of NACAA is proud to nominate him for the 2023 Hall of Fame Award.

DSA awarded in 1996

2023
Northeast Region
Hall of Fame Award

Lee Stivers

New York
26 Years - Retired

I have had the good fortune of being involved in food and farming for most of my life, specifically with agricultural research and extension, for thirty-five years. It has been a tremendously interesting, rich, and often challenging professional road. The road carried me through three highly acclaimed land-grant universities: the University of California at Davis, Cornell University, and Penn State University. It allowed me to work with an astonishing variety of horticultural producers: farmers growing hundreds of acres of lettuce in the Salinas Valley of California, farmers managing thousands of acres of processing vegetables in western New York, smaller direct marketing operations in New York and Pennsylvania, organic growers big and small, urban farmers, greenhouse growers both high- and low-tech and even tiny backyard farmers in coastal Guyana. Reflecting on this time, I find common threads woven through these experiences.

Sustainable Agriculture-It's More Complicated Than I Thought. In 1985 I headed off to UC Davis for graduate school, convinced that organic farming was the only thing that could address the problems of modern agriculture. I had been working in New England in food cooperatives, local farms and in developing organic certification standards. My eyes were opened by the scale and complexity of California agriculture and the rigorous agricultural science training UC Davis provided. The concept of "sustainable agriculture" was just gaining traction at that time. It seemed to me more functional, nuanced, and scientifically based. I carried that concept of sustainable agriculture with me throughout my research and extension work in New York and Pennsylvania.

Science is Our Foundation. I am eternally grateful for the opportunity to study at UC Davis because that is where I learned to think like a scientist and to do science in the field. I am similarly thankful to Cornell and the Penn State faculty with whom I collaborated. They supported me in doing applied research and publishing it as part of my extension work. Agricultural extension and research go hand in hand, strengthening each other to serve our clientele best.

You Can't Do It Alone. The most productive, impactful, and satisfying experiences I have had in my career have all been collaborative efforts. Examples of these experiences include:

Working as one of three area specialists covering a six-county, 70,000-acre vegetable production base in western New York.

Leading a partnership between Cornell University and New York vegetable producers to establish a research farm in western New York.

Being an integral part of Pennsylvania's statewide team of Good Agricultural Practices (GAPs) trainers.

Collaborating with twelve states' greenhouse specialists to publish a weekly e-newsletter titled "eGRO."

Teaming up with Pennsylvania co-workers on multiple statewide multi-year variety evaluation trials.

Being a member of a group of faculty, extension educators, and farmers working together on an award-winning beginning farmer project.

My involvement with PACAA and NACAA has been one of the true highlights of my extension career. I sincerely regret not joining earlier when I was with Cornell Cooperative Extension.

DSA awarded in 2009.

2023
Southern Region
Hall of Fame Award

Paul Wigley

Georgia
35 Years - Retired

Paul Wigley has devoted his life to the agronomic and economic success of farmers in Southwest Georgia and beyond. His work and volunteer contributions impact the agricultural industry and rural communities across the country and globally.

Paul's career as a University of Georgia Extension agent spanned 1978-2013, including a two- year post-retirement encore contract. After retirement, he served as a crop consultant to some of the top-producing peanut farmers in the United States. In both career roles, Paul conducted local trials for determining the products and practices that help Southwest Georgia peanut farmers deliver the highest crop performance under insect, nematode and disease pressure. In more than 40 replicated trials, Paul evaluated more than

40 products in 80-plus combinations and systems to make recommendations on controlling nematodes and disease in peanuts. More than 800 visitors from across the United States and nine foreign countries have viewed his research plots and replicated trials. His data provides a cornerstone for control recommendations in every U.S. peanut producing state, particularly regarding Rhizoctonia limb, pod, and peg rot. In just one decade – between 2000 and 2010, the application of his research findings led to more than $14 million in additional farm income in Calhoun County.

Paul's work is peer-reviewed and highly lauded. The Georgia Peanut Education for Excellence program recognized Paul three times as the extension agent with the best overall educational program for peanut production in Georgia. The American Peanut Research and Education Society has repeatedly invited him to present to an international audience. He was nominated for the prestigious Bailey Award four times and was honored with the 2009 D.W. Brooks Award for Excellence in Public Service Extension.

In addition to career accomplishments, Paul also lent his time and expertise to help advance our industry and raise the next generation of agricultural leaders. He served as president and treasurer for the Georgia Association of the County Agricultural Agents and the National Association of County Agricultural Agents. He is recognized as a premier livestock judge, serving more than 400 county, regional, district and state livestock shows in three states. He also led showmanship clinics, where he taught children about life as well as showmanship. Paul also is credited with four state champions, six reserve state champions, and more than 25 division champions at the state swine show.

His passion for people and his personal ministry is evident in his church leadership, which includes teaching Sunday School, chairing a successful $250,000 capital campaign, and in his musical pursuits. The regionally acclaimed Pachitla Creek Pickers perform bluegrass and gospel music at churches and other venues across the southeast.

Paul's impact over four decades has helped farmers succeed agronomically and economically. He's contributed to the cultural well-being of rural communities and agricultural leadership by helping dozens of young people develop the ethics and character needed to lead on farm and in the agricultural industry. Ultimately, his life's passion and commitment helped create strong farms and a robust agricultural community that thrives generationally.

DSA awarded in 1995.

2023
Western Region
Hall of Fame Award

Janet Schmidt

Washington
38 Years - Retired

"Making the Best Better"

When establishing a working title for embodying the work of Janet L. Schmidt one quickly aligns Janet's work with the motto of 4-H, "Making the Best Better." Janet L. Schmidt is a WSU alumnus who received a BS in Animal Sciences in 1979 and a MS in Adult and Continuing Education in 1981. Caring and compassionate, the WSU Extension faculty member is a long-time advocate of 4-H youth and livestock producers in the state of Washington.

Schmidt began her career with WSU Extension in 1984, serving Wahkiakum, Cowlitz, and Clark Counties in positions including: 4-H Agent, Area Livestock Agent, and County Chair. In 1995, she moved to Whitman County and was a 4-H Youth Educator until 2004 when she added County Director and a mentorship with administration of the WSU Extension Program in Whitman County before retiring in 2021.

To support the vision and mission of 4-H youth development and Extension, Schmidt routinely solicits and secures funding for innovative education programs such as 4-H and FFA Youth livestock field days, 4-H youth robotics camps and other STEM programs, and the Pacific Northwest Sheep & Goat Judges School and Show Management Conference. Schmidt's techniques and examinations of the successes of such programs have been published in peer-reviewed journals and Extension publications and presented internationally, nationally, and locally at conferences, forums, and other events. Her expertise in pasture management has been called upon every semester since 2014 as she disseminates her knowledge to students in the Animal Sciences Equine Management course.

Schmidt's devotion to supporting 4-H youth and educating livestock producers in Washington have not gone unnoticed. Her contributions as an individual and as a member of a team resulted in numerous honors and awards from the National Association of 4-H Agents and the National Association of County Agricultural Agents. In addition, she was named Faculty of the Year in 2015 by the WSU College of Agricultural, Human, and Natural Resource Sciences.

Janet has continued to exemplify what it means to be a leader and a mentor through her work with the Washington Extension Agents and Specialist Association (WEASA) and the

National Association of County Agricultural Agents (NACAA). At the state level, she has been a constant presence as an officer and as state chair for many committees throughout the years. Perhaps most importantly, she has been an ever-present mentor for new members, helping them navigate the organization and making sure each officer is primed to fulfill their duties. At the Regional level, Janet has served as the Western Region Vice Director and Director.

In the community, Janet has invested herself heavily in serving her stakeholders well beyond her job responsibilities. She chooses to spend her personal time volunteering on Palouse Empire Fair Board, doing market sales, carcass contests, 4-H leaders, fund raising as well as donating blood. Janet leads by example and because of this Washington State and NACAA are a better place. Thank you for your years of service and for "Making the Best Better!"

DSA Awarded in 1995.

2023 SERVICE TO AMERICAN/WORLD AGRICULTURE AWARD RECIPIENT

Dr. Kenneth M. Quinn
Former U.S. Ambassador to the Kingdom of Cambodia

Kenneth M. Quinn's two careers span 52 years of public service. He is recognized internationally for his success in confronting hunger, enhancing rural development and thwarting terrorism by promoting "Peace through Agriculture."

Quinn was born in the Bronx, NY, and grew up in Dubuque, Iowa. Following college graduation he was inspired to begin a 32 year career (1967 – 1999) with the American Foreign Service dominated by anti-terrorism and humanitarian assignments. His first assignment was village pacification in Vietnam (1967 – 1974). With the war raging, he worked to improve rural roads and infrastructure while ag extension agents were introducing IR-8, the miracle rice varieties developed in the Philippines using breeding techniques credited to Dr. Norman Borlaug. The improved roads and extension assistance resulted in increased ag production and access to ag inputs, markets, medical services and educational opportunities. As the rural economy improved, the appeal of the Viet Cong was reduced. Quinn addressed similar situations throughout his career and successfully applied the important strategies that he learned early in his career to improve lives and livelihoods elsewhere.

Serving along the Cambodian border, Quinn was also involved in life and death decisions earning the Army Air Medal for accompanying helicopter operations in combat situations. He also was first to report the flood of refugees into Vietnam fleeing the Khmer Rouge and the Killing Fields of Cambodia.

Because of his Vietnamese language skills and his knowledge of the war torn area, Quinn served as interpreter for President Gerald Ford in meetings with Senior South Vietnamese officials. He was instrumental in rescuing thousands of Vietnamese refugees in the days immediately before South Vietnam collapsed.

Quinn assisted Iowa Governor Robert Ray from 1975 till the early 1980s -welcoming the Tai Dam from Laos, rescuing the Vietnamese "boat people", and serving as the Executive Director of the Iowa SHARES program which sent lifesaving food and medicine along with volunteer doctors and nurses to sustain those escaping the Cambodian civil war in refugee camps in Thailand.

In the fall of 1980, Quinn hosted a delegation of Chinese Governors that came to Iowa to learn about productive agriculture. The Chinese group was led by Governor Xi Zhongxun, the father of Xi Jinping, the current President of China. Governor Xi became the chief architect of agriculture transformation and the Chinese economic development which followed. In 2012 Quinn hosted a U.S.-China High Level Ag Symposium with then Chinese VP Xi Jinping as keynote speaker.

In the early 1990s Quinn served as Deputy Assistant Secretary in the East Asia Bureau for the State Department where he oversaw development projects emphasizing infrastructure improvement and increased ag productivity in the Philippines, the Middle East and Cambodia. Quinn served as the U.S. Ambassador to Cambodia (1996-1999). As a result of these programs, the Khmer Rouge surrendered in March, 1999, ending the genocidal war which had claimed over 2 million victims out of an original population of 7 million.

Dr. Borlaug and businessman John Ruan, Sr. founded the World Food Prize in 1986 hoping it would become the "Nobel Prize for Food and Agriculture" and that Central Iowa would be seen as the Hunger Fighting Capital of America and the World. Ambassador Quinn served as World Food Prize President (2000 – 2020). Using his international contacts and exceptional communication and organizational skills, the visions of Borlaug and Ruan have been realized.

The $250,000 World Food Prize is awarded annually to individuals who have increased the productivity, quality and distribution of food. From 1987 – 2022, 51 individuals (43 men and 8 women) from 21 countries have been named WFP Laureates. Ambassador Quinn considers the following as significant achievements he initiated during his tenure as WFP President:

The laureate is announced in a ceremony at the State Department in Washington, D.C. each spring. The newest Laureate (s) receive their award in October at the Iowa State Capitol building in a unique ceremony that is televised and webcast live and is said to rival that of the Nobel Peace Prize.

The Dr. Norman E. Borlaug Award for Field Research and Application recognizes achievement in international agriculture and food production by an individual under the age of 40.

The Iowa Hunger Summit highlights efforts of Iowans to alleviate hunger both at home and abroad.

The World Food Prize youth education programs to inspire the next generation of students to be leaders combating hunger. Over 10,000 students from 26 U.S. states and 10 foreign countries participate annually. This has been accomplished through the Global Youth Institute, Borlaug-Ruan International Scholarships, Wallace-Carver USDA Fellowships, the Iowa Youth Institute and Youth Institutes in 23 other states and 2 foreign countries. Details of these programs are available on the World Food Prize website (https://www.worldfoodprize.org/).

The Norman E. Borlaug International Symposium is a three-day conference that focuses on the issues of global food security and nutrition. It annually attracts over 1,000 participants from more than 50 countries and has been referred to as "the premier conference in the world on global agriculture." The Symposium provides a neutral place where citizens from adversarial countries can meet, compare notes, work together to resolve common problems and continue the legacy of Dr. Borlaug.

Quinn initiated a $36 million campaign which transformed the former Des Moines Public Library into the WFP headquarters and Norman Borlaug Hall of Laureates. It is a destination for all to visit in Des Moines.

To honor Dr Borlaug, Quinn initiated the successful campaigns for Dr. Borlaug to receive the Congressional Gold Medal in 2007 and the installation of Borlaug's statue in the US Capitol on March 25, 2014, the centennial of Borlaug's birth.

On August 26th, 2014, Iran held a centennial observance of Dr Borlaug's birth. Ambassador Quinn spoke at the Iranian celebration. Quinn was the first former U.S. Ambassador ever invited to address a conference organized by the Iranian government.

In retirement Ambassador Quinn continues his work in service to US/ World Agriculture as a Foot Soldier in the Green Revolution promoting food for peace.

2023 ABSTRACTS OF THE NATIONAL WINNERS AND FINALISTS COMMUNICATIONS AWARDS CONTEST

AUDIO RECORDING

National Winner

FARM SAFETY PODCAST

David Fourqurean
Calhoun

Team Members: Fourqurean, D[1], Stone, J[*2], Shadrick, V[*3]

[1.] Extension Agent for ANR, Kentucky Association of County Agriculture Agents, Calhoun, Kentucky, 42327
[2.] Extension Agent for ANR, Kentucky Association for County Agriculture Agents, Madisonville, Kentucky, 42431
[3.] Extension Agent for ANR, Kentucky Association for County Agriculture Agents, Dixon, Kentucky, 42409

This submission is a podcast produced to remind producers of the importance of Safety Precautions while preparing for the Spring Season. It was published through the Kentucky Ag Matters Podcast, a show produced by Jay Stone (Hopkins County ANR Agent), David Fourqurean (McLean County ANR Agent), and Vicki Shadrick (Webster County ANR Agent). The entire podcast was 15 minutes and was recorded on February 8th at the Christian County Farm Bureau Office in Hopkinsville, KY. The podcast was hosted on Podbean and shared to Amazon Music/Audible, Apple Podcasts, Google Podcasts, Podbean, Spotify, and Iheart radio. Agriculture, and farming, is known as one of the most dangerous occupations in today's world. Often, we can do everything correctly and still have accidents that can end in either serious injury or death. Topics for this show included basic safety considerations when dealing with Equipment Power Take Off shafts, Grain Bins, Highway Safety with Equipment, and Safe handling of Livestock and Horses. Statistics shared included children's deaths and severe accidents related to farm life, and how many accidents on the farm occur when folks get too comfortable engaging in everyday activities. Listeners were left with the timely tip to all ways pay attention and free yourself from distractions during all farm related activities. Distribution for this podcast averages 283 downloads per month to 23 states and 13 foreign countries.

National Finalists:

PLANTING COVER CROPS WITH A HIGHBOY INTERSEEDER - NEBRASKA CROPWATCH PODCAST

Nate Dorsey
Fremont

Team Members: Dorsey, N[*1], Pekarek, K[*2]
[1.] Fremont, Nebraska, 68025
[2.] Extension Educator, University of Nebraska, Lincoln, Nebraska, 68583

The Nebraska CropWatch Podcast provides the latest research-based information from the University of Nebraska-Lincoln on crop production, pest management, and related agricultural information for Nebraska farmers and agribusinesses. CropWatch Podcasts feature researchers, extension educators, and other experts. In September of 2022, we recorded a special episode featuring a cover crop interseeding project demonstrating new technology being used in Nebraska.The objective of this episode was to bring awareness of the Highboy Cover Crop Interseeding Project (HiCCIP) to farmers and agribusiness, and provide detailed information from project partners on this method of incorporating cover crops into farming operations. The "Planting Cover Crops with a Highboy Interseeder" podcast (episode 49) was recorded via USB Microphone and editing was completed in Audacity. Interviews were conducted at the Lower Platte North Natural Resources District, in a farmer's shop, and in the field during seeding. Pekarek arranged interviewees and provided audio content on the project. Dorsey conducted interviews, narrated, and edited. The podcast has been downloaded 138 times. It is shared on two websites and has been highlighted in a Nebraska Water Column Newsletter, a CropWatch Newsletter, and an NRD newsletter. The episode is hosted on PodBean and was published on September 19, 2022. Episode 49 can be found at https://cropwatchpodcast.podbean.com/e/49-highboy-cover-crop-interseeder-project/. Please consider 0:00-15:00 in the recording for judging.

EXTENSION CALLING

Karen Cox
Extension Assistant Professor / County Agent
West Virginia University
Wheeling

Team Members: Cox, K[*1], Lima, D[*2]

[1.] Extension Assistant Professor / County Agent, WVU Extension, Wheeling, West Virginia, 26003
[2.] Extension Educator, OSU Extension, St. Clairsville, Ohio, 43950

The Extension Calling program is a weekly, 30 minute, radio show that was adapted to a podcast at the end of 2018. The objectives of this project include increasing awareness of Extension as a reliable and helpful resource, improve listener confidence in scientific information, and share timely information on a variety of agricultural and gardening topics. Recognizing the wide distribution of the program across the east coast, listeners are always directed to contact their local Extension resources. The audience of this program includes an estimated 20,000 AM and FM radio listeners (as reported by WWVA and WWOV) and approximately 50 unique podcast listeners around the world. We receive feedback from a broad variety of listeners including farmers, gardeners, educators, and the general public. Many people reach out to us with questions following the shows. One farming listener said we, "provide a lot of good information on a level I can usually understand," a non-farming listener stated, "although I am not 'Mega-Ag' in any way, I can always glean from you what is pertinent to my raised bed/container gardening." All steps of production are completed by the authoring agents. The show is recorded online using ZenCaster, edited using Adobe Audition, and transcripts are produced by Otter.ai. Hosting and distribution are done via Libsyn and shows are pushed out through multiple podcasting apps and social media. Most listeners indicate they enjoy the show while doing chores and driving, times where reading a factsheet is not convenient. This project's unique format allows a marriage between broad radio outreach and targeted podcasting thus engaging a broad range of listeners who may otherwise not know the value of Extension resources. This entry is from is a fun show we did for Halloween titled, "Scary Pumpkin Problems.: Fearful of ghostly pumpkin leaves or outright terrified to watch your cucurbits wilt over night? Listen in to learn how to prevent these, and more, scary pumpkin problems!" It was downloaded 26 times within the first 7 days and a total of 54 times, it aired on both FM and AM radio, October 30th 2022, just before Halloween.

EXTENSION REPORT: TOMATO HORNWORMS

Garrett Hibbs
County Extension Agent
UGA
Gainesville

Team Members: Hibbs, G[*1]

[1.] County Extension Agent, , Gainesville, Georgia, 30501

Garrett records 3-minute educational radio spots which air daily on WGTJ 97.5 FM Radio, with a regional listening audience of 120,000. Recordings are pre-taped in office, ad-lib, and are based on calls received from local citizens. Hall County is an urban county in northeast Georgia with a significant farming and agriculture industry presence. It covers a large geographic area, and has a diverse population of over 204,000 citizens. Media outlets are an effective way to reach a large audience. A study by the University of Nebraska found that radio is the most important instrument in information dissemination because it reaches a large percentage of people, promotes awareness on issues, and is an inexpensive way to distribute information. Since 2020, Garrett has contributed 220 recorded spots to WGTJ, which air multiple days each, several times throughout the day. Garrett also serves as a guest host on a live Saturday morning call-in broadcast for WDUN 102.9 FM Radio, with a national listening audience of 1,500,000. Garrett has fielded questions from across northeast Georgia, and as far away as Massachusetts, Florida, California, and Texas. The submitted radio spot, Tomato Hornworms, aired multiple times on WGTJ from July 25 to July 27, 2022. Of all the tomato pests in northeast Georgia, none have the reputation of damaging a tomato crop quite like the Tomato Hornworm. Garrett received many phone calls about tomato hornworms during the summer of 2022, which prompted the topic for a radio broadcast. This program was both informational for gardeners dealing with the pest, and cautionary for those who had yet to be infected. At the close of the program listeners were encouraged to reach out to UGA Extension Hall County if they need help with this or any gardening issue. Garrett uses timely information targeting home gardening and traditional agriculture as a media blitz, including both radio and news outlets. He has found that approximately 5% of phone and email requests for information he receives are a result of exposure in media outlets. In 2022, from 1,116 phone calls and 1,017 email requests, 107 were a result of media exposure.

Regional Winners

AG TALK

Edwin Lentz
Extension Educator and Professor
The Ohio State University Extension
Findlay

Team Members: Lentz, E[*1]

[1.] Extension Educator and Professor, The Ohio State University Extension, Findlay, Ohio, 45840

Ag Talk programs are aired every weekday on Findlay radio station WFIN. The program's objective is to keep the community informed about the latest issues affecting agriculture including pest alerts and upcoming Extension activities. The station's manager introduces and closes the daily show. Extension Educator, Ed Lentz, provides the topic and content of the program. Ag Talk shows are recorded in advance at the radio station. In addition to WFIN, the recordings are also aired every weekday on two sister stations, WKXA and 106.3 – The Fox. Ag Talk has about 70,000 listeners. For program outcomes, listeners have been informed about the latest agricultural issues, provided summaries and Internet locations of the latest university research, and given dates and times of upcoming Extension programs. Results of the radio programs have included listeners using the information in their farm operations, pest solutions for their yard and gardens, and increased attendance at Extension programs. Programs have also resulted in increased requests for more information via email, telephone, county website, Facebook, or visits to the County Extension Office. The submitted Ag Talk show was on the brown-marmorated stink bug and aired at 6:35 a.m., November 4, 2022, on WFIN. The objective of this program was to inform the public that these insects would be leaving harvested soybean fields and would soon invade homes to overwinter. The goal was to assure the public that they were not harmful and to provide ways to remove them without using insecticides.

NORTHERN PLAINS FORAGE ASSOCIATION- SIOUX NATION AG CENTER PODCAST

Sara Bauder
SDSU Extension Agronomy Field Specialist
SDSU Extension
Tyndall

Team Members: Bauder, S[*1]

[1.] SDSU Extension Agronomy Field Specialist, , Tyndall, South Dakota, 57066-5632

South Dakota ranked first in the nation in alfalfa yield and production acres for 2022 according to Progressive Forage Magazine. As the new SDSU Forage Field Specialist, I saw a need for local forage producers to have a place to network, brainstorm, learn, and promote their industry. As a result, I recruited a board of 10 forage producers and industry partners and we worked together to create the Northern Plains Forage Association. This association is a grassroots forage focused group, with a mission to promote sustainable, quality, profitable forage production. Much like any new group, the association relies on membership dues and sponsorships to provide programming and networking opportunities to those involved in the forage industry in the Northern Plains region. In an effort to promote the association, I interviewed with several media outlets including radio, print newspapers, and podcasters. This submission is an interview recorded over the phone on January 12, 2023 with "The Sioux Nation Ag Center Podcast" team for an episode that was published on January 17, 2023 on their website (https://www.siouxnationag.com/podcasts/new-opportunities-for-northern-plains-forage-growers/). In addition it was published to eight Facebook pages, Instagram, Linkedin, Twitter, and multiple streaming apps (iTunes, Spotify, and several others). The podcast is produced by Jill Funke, a Sioux Nation staff member in their company recording studio in Sioux Falls, SD. The host, Mandy Thomas focused on questions about how the association was founded, what the mission is, and why producers and industry people should be interested in joining. Sioux Nation Ag Center has 3,500 subscribers to their social media accounts, and averages 75 downloads per podcast episode (not including listens).

MARYLAND RISK MANAGEMENT EDUCATION PODCAST

Paul Goeringer
Sr. Faculty Specialist and Extension Legal Specialist
Department of Agricultural & Resource Economics,
University of Maryl
College Park

Team Members: Goeringer, P[*1]

[1.] Sr. Faculty Specialist and Extension Legal Specialist, University of Maryland, College Park, Maryland, 20740

The Maryland Risk Management Education Podcast is an outreach tool I developed in June 2016 to convey information to my clientele through diversified outlets. The goal is to convey legal information to assist those

involved in Maryland agriculture in better understanding legal changes, recent court decisions, or basic legal concepts. During that time, I typically release two episodes per month, either with me interviewing an attorney or another expert on a basic issue impacting Maryland agriculture or personally discussing an issue based on recent court decisions. The typical podcast is less than 10 minutes to cover a topic (interviews are slightly longer) with useful examples. Topics covered from March 2022 to March 2023 include top legal developments in 2022 with Tiffany Lashmet of Texas A&M AgriLife Extension, developing poultry grower class action lawsuits, estate planning issues, and renewable energy zoning decisions. All episodes are recorded in my home office and edited by me for posting. Episodes are published on Libsyn.com and distributed through all the normal podcast streams (Apple Podcasts, Spotify, Stitcher, Amazon, and many others). The podcast is featured on the University of Maryland's faculty podcast page and through the Maryland State Bar Association's On Air Legal Lab. The podcast had over 5,000 unique downloads from March 2022 to March 2023. The podcast is listened to in Maryland, across the U.S., and in portions of Europe and Asia. Clientele feedback is often that they enjoy the short nature of many episodes (many averages less than 10 minutes) and how useful the topics are in their operations. Podcast homepage is https://www.agrisk.umd.edu/podcast. Negligent nutrient application episode file is over 25 MB, but can be found here https://www.agrisk.umd.edu/podcast/episode/e954f3cd/decision-highlights-how-jury-may-handle-claims-of-negligence-in-nutrient-applications.
MSBA On-Air Legal Lab (https://www.msba.org/for-members/legal-lab/)
UMD Podcast Palooza https://today.umd.edu/a-umd-podcast-palooza

BOVINE BANTER- MASTITIS IN FIRST CALF HEIFERS AND STRATEGIES TO PREVENT IT (FT. DR. AMANDA STONE)

Carly Becker
Dairy Extension Educator
Penn State Extension
Conestoga

Team Members: Becker, C[1]

[1.] Dairy Extension Educator, , Lancaster, Pennsylvania, 17603

The Penn State Extension Dairy Team launched the Bovine Banter podcast in November 2020 to reach a broader audience. The goal is to provide an entertaining, educational recording that farmers, industry professionals, academics, and consumers can listen to when harvesting corn silage or driving down the road. This episode was recorded on March 28, 2022 via Zoom and released on April 19, 2022 and has 96 total downloads. In the segment of this episode, Carly Becker interviews Dr. Amanda Stone, an assistant professor and dairy extension specialist from Mississippi State University. They discuss the importance of good heifer management to prevent mastitis in a heifers' first lactation. Bovine Banter has been a successful program, and we have more than 5,000 downloads across the 51 episodes released to date. All episodes are pre-recorded and edited by the Extension Educator conducting the interview, then sent to Penn State University's Marketing Team to publish to Buzzsprout and distribute across streaming platforms (extension.psu.edu, Apple Podcasts, Spotify, Podcast Addict). All episodes are continuously available for listening after the release date. Carly Becker had a hand in developing Bovine Banter and has recorded and edited 12 episodes.

ALABAMA CROPS REPORT PODCAST

Amanda Strayer-Scherer
Assistant Extension Professor
Alabama Cooperative Extension System
AUBURN

Team Members: Strayer-Scherer, A[*1], Kesheimer, K[*2], Graham, S[*3], Rabinowitz, A[*4]

[1.] Assistant Extension Professor and Extension Specialist, Auburn University and Alabama Cooperative Extension System, Auburn, Alabama, 36849
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[3.] Assistant Extension Professor and Extension Specialist, Auburn University and Alabama Cooperative Extension System, Auburn, Alabama, 36849
[4.] Assistant Extension Professor and Extension Specialist, Auburn University and Alabama Cooperative Extension System, Auburn, Alabama, 36849

Extension programming must continuously evolve to effectively address changing stakeholder needs. This was especially evident in 2020 as COVID-19 effectively stopped traditional in-person Extension activities, which are a crucial way to disseminate current information to producers. To ensure we still connected with our growers, we created the Alabama Crops Report Podcast in 2021, hosted by Drs. Graham, Kesheimer, Rabinowitz, and Strayer-Scherer. On each 15-minute episode, the Agronomic Crops Team brings expertise and timely information straight to grower. With the help of ACES Communications Specialist Joshua Jackson, episodes

are released at www.aces.edu and on four podcast platforms: Apple Podcasts, Google Podcasts, Spotify, and Stitcher. Seasons 1 of the podcast average 74 listens per episode and this number grew to 494 listens in Season 2. In the first two seasons, we created 44 episodes that cover a diversity of topics including pest management, carbon credits, soil health, solar technology, markets and economics, mental health, drone technology, climate, and disaster assistance. We chose to highlight Season 2 Episode 13 (https://www.aces.edu/blog/podcast/season-2-episode-13-mental-health-in-agriculture/) on A Healthy You, A Healthy Farm (https://agi.alabama.gov/2022/05/healthyyouhealthyfarm/), a program from the Alabama Department of Agriculture and Industries. This new program focuses on the importance of mental health in agriculture and provides resources and strategies for those in need. These resources are critical, especially in rural agricultural communities, which have limited access to healthcare and mental health services. Further, the stigma surrounding mental health makes candid discussions around this topic difficult. However, this episode had 1,473 listens on www.aces.edu, which was more than 3 times the average listens in Season 2. These numbers indicate the high level of interest in this topic by producers, regardless of the surrounding stigma. And importantly, podcasts provide a way to discuss difficult topics of interest to our growers, and also provide resources to help mental health.

CATTLECAL PODCAST

Brooke Latack
Livestock Advisor
University of California Division of Agriculture and Natural Resources
Holtville

Team Members: Latack, B[*1], Carvalho, P[2]

[1.] Livestock Advisor, , Holtville, California, 92250-9615
[2.] Feedlot Management Specialist, University of California, Holtville, California, 92250

The CattleCal Podcast is a weekly podcast from the University of California Cooperative Extension. Hosts Brooke Latack (UC Cooperative Extension Desert Area Livestock Advisor) and Dr. Pedro Carvalho (Feedlot Management Extension Specialist) explore different areas of the beef industry, providing listeners with information about the career, education, and research of members of the livestock industry, an overview of a research study related to beef cattle production, and an opportunity for listeners to have their questions answered by Dr. Richard Zinn, UC Davis Animal Science professor of over 40 years. The goal of the podcast is to extend current and relevant information to livestock producers, students, and industry professionals in a new and effective way outside of typical extension methods to reach clientele that we may not have reached in past activities. In November 2022, Dan Macon (UC Cooperative Extension Livestock and Natural Resources Advisor) was interviewed to discuss his research related to the use of livestock guardian dogs in managing predator encounters with livestock. Our goal was to highlight the recent and ongoing research related to livestock guardian dogs and the knowledge that currently exists that producers could implement on their operation. Total time of the episode is 24 minutes. The podcast was recorded via zoom and published via Anchor and is available on Spotify, Apple Podcast, and Anchor Podcast. The podcast is promoted by various social media posts and through a monthly newsletter. Overall, the podcast had over 6,000 plays from clientele in 43 countries. The majority of listeners are located in California, Texas, Mexico, and Brazil. 81% of listeners are between the ages of 23-44. The podcast has been extremely effective, reaching beyond what we had imagined. We have several high school, undergraduate, and graduate programs using the podcast episodes as learning tools.

The episode can be found at:
https://open.spotify.com/episode/1KTzNegFatKHQxOztrwQKj?si=rC8KEQ8qQwmOsS3qF3yOtw

State Winners

NORTH CENTRAL REGION

Illinois	Rachel Curry
Kansas	Stacy Campbell
Michigan	Benjamin Phillips
Minnesota	Claire Lacanne
Wisconsin	Katie Wantoch

NORTHEAST REGION

New Jersey	Timothy Waller

SOUTHERN REGION

Arkansas	Chris Grimes
Florida	Cynthia Nazario-Leary
Louisiana	Ashley Edwards
Mississippi	Brady Self
North Carolina	Cody Craddock
Oklahoma	Shannon Mallory
South Carolina	Zachary Snipes
Tennessee	Mitchell Mote
Texas	Elizabeth McMahon
Virginia	Rachel Henley

WESTERN REGION

Utah	Cheyenne Reid

Computer Generated Presentation with Script

National Winner

BACKYARD BIRDS

James Davis
Multi-County Extension Director
UF/IFAS Sumter County Extension
BUSHNELL

Team Members: Davis, J[*1]

[1.] Multi-County Extension Director, UF/IFAS Extension Sumter County , BUSHNELL, Florida, 33513

The beneficial and economic impacts of birding is astounding. Birding alone is a multi-billion-dollar industry. Over 45 million people in the United States are “birders”. In Florida, birding, along with wildlife viewing generate over four billion dollars and creates as many 44,000 jobs. Birders from all over the world flock to popular areas Central Florida areas such as Lake Apopka Wildlife Drive or Circle B Bar Preserve. The objective of the “Backyards Birds” presentation was to provide residents knowledge on common birds found in their area. This presentation was delivered to 33 participants of The Villages Enrichment Academy. This is a series called “Meet Your Local Wildlife” that was designed to deliver quality presentations to affect behavior change. As a result of this presentation, participants reported that they had designed their landscape to attract wildlife and have taken up birding as a hobby. The presentation focuses on common backyard birds, starting with Florida’s state bird the Northern Mockingbird. Slides provide some general information on the species profiled, while the script is more in-depth. There are a total of 46 slides. All photographs belong to the author.

National Finalists

REVERSE OSMOSIS AND NITRATE IN-SERVICE FOR NEBRASKA EXTENSION PROFESSIONALS

Katie Pekarek
Extension Educator-Water Quality
University of Nebraska-Lincoln Extension
Lincoln

Team Members: Pekarek, K[*1], Nagengast, L[2], McCullough, C[3], Schuerman, B[4]

[1.] Extension Educator-Water Quality, , Lincoln, Nebraska, 68583-0996
[2.] Source Water Protection Extension Educator, University of Nebraska, Lincoln, Nebraska, 68583
[3.] Watershed Science Extension Educator, University of Nebraska, Lincoln, Nebraska, 68583
[3.] Extension Associate, University of Nebraska, Lincoln, Nebraska, 68583

This presentation was developed to support the implementation of a reverse osmosis treatment (RO) program being implemented in 2023, following the enactment of Nebraska Legislative Bill 1014. The RO program provides assistance and funding to treat high nitrate drinking water for individuals across the state of Nebraska. This presentation was developed with the purpose of helping local Nebraska Extension professionals, who serve the 93 counties of Nebraska, engage and assist Nebraskans with poor water quality, in using the RO program.

The presentation was prepared with guidance from the entity implementing the RO program, the Nebraska Department of Environment and Energy (NDEE), in PowerPoint. It was delivered to 74 Nebraska Extension professionals via zoom on January 6, six days after the program details were finalized at the NDEE.

Katie Pekarek, statewide Water Quality Extension Educator coordinated the development of the program with three Extension partners working in statewide positions water quality: Laura Nagengast, Source Water Protection Extension Educator; Carla McCullough, Watershed Science Extension Educator; and Becky Schuerman, Domestic Water and Wastewater Management Extension Associate. Pekarek coordinated the four presenters, worked with the NDEE for guidance on the program, presented the introductory content, and answered questions. She created the presentation in PowerPoint and the script to accompany each slide is written in the slide notes within PowerPoint.

Following the presentation, I emailed a follow-up informational package with attendees and all Nebraska Extension professionals (approximately 400 recipients) which includes the recording of the presentation, social media resources, an article for newsletters and publications, a flyer for clients, and slides from the in-service. This information was additionally posted on the water.unl.edu website at https://water.unl.edu/article/nitrate/reverse-osmosis-service-treating-high-nitrate-concentrations-private-wells and an article was published

in the UNL Water Column newsletter. As of March 12, 2023, twenty applications to the RO program have been submitted to the NDEE, noting that Nebraska Extension provided assistance or guidance.
The presentation can be accessed here: https://water.unl.edu/DrinkingWater/20230106%20Reverse%20Osmosis%20In-Service_NCEA.pptx

NO METRICS-NO MILK

Aerica Bjurstrom
Regional Dairy Educator
University of Wisconsin Madison Division of Extension
Luxemburg

Team Members: Bjurstrom, A[*1], Kohlman, T[*2]

[1.] Regional Dairy Educator, , Luxemburg, Wisconsin, 54217
[2.] Regional Dairy Educator, , Fond du Lac, Wisconsin, 54935

With the cost to raise a dairy replacement being more than to purchase one, farmers must be diligent in raising a dairy replacement to enter the milking string at the optimal time and weight to reduce rearing costs and increase productivity. Numerous studies recommend the optimal age at first calving (AFC) is 24 months of age. Any delay past 24 months will add an additional $2.50, or more, a day to the cost of raising replacements as well as require more heifers to meet the herd replacement needs. To reduce rearing expenses and have heifers enter the milking herd sooner, farmers have been working to lower the age at first calving (AFC) to as much as 21 or 22 months. However, without knowing the benchmarks of the herd, farmers may be losing milk production by not raising heifers at the optimal average daily gain. To address the importance of monitoring heifer growth, Extension Dairy Educators Tina Kohlman and Aerica Bjurstrom, developed and presented a PowerPoint presentation for the Badger Dairy Insight webinar series. The presentation explained how first lactation milk production is a function of size, not age, growth goals, managing weights for maturity, and the importance of incorporating a scale in the farm's management practices. Photos were provided by Bjurstrom and graphs utilized were developed by Kohlman and Bjurstrom. The webinar program was held on March 15, 2022, and was attended by approximately 40 people. A recording of the presentation was made available on YouTube after the program and as of March 15, 2023, the video has 1,800 views.

CALVING WORKSHOP/CAPACITACIÓN DEL PARTO

Margaret Quaassdorff
Dairy Management Specialist
CCE NWNY Dairy, Livestock, and Field Crops Team
Batavia

Team Members: Quaassdorff, M[*1], Lutz, K[2]

[1.] Dairy Management Specialist, CCE NWNY Dairy, Livestock, and Field Crops Team, Batavia, New York, 14020
[2.] Bilingual Dairy Management Specialist, CCE NWNY Dairy, Livestock, and Field Crops Team, Canandaigua, New York, 14424

The skills associated with proper calving assistance are difficult to learn without hands-on practice and can be daunting to learn on the job. To address this need, a Calving Workshop was developed providing practical training for both Spanish- and English-speaking dairy farmworkers to increase their knowledge of maternity management, and confidence in assisting in the calving process. This PowerPoint presentation was created as an introduction to the subject matter for New York dairy farmworkers who may be inexperienced in all (or some) aspects of dairy maternity management, and wanted to improve their calving assistance skills critical to animal health and worker safety on the farms where they work. The presentation was created by both authors, Quaassdorff and Lutz, and was presented equally (MQ English/KL Spanish). In April and July of 2022, 56 dairy farmworkers from 12 counties in New York State participated in one of six Calving Workshops. Because an increasing number of farmworkers in our region are Spanish-speakers, the presentation was designed to be bilingual, and given simultaneously to groups of mixed Spanish- and English-speaking participants. This program intended to train farm personnel in the performance objectives of: (1) understanding anatomy and physiology of calving; (2) monitoring close-up cows for signs of labor; (3) assessing normal and abnormal calf position; (4) properly assisting the calving process; (5) properly and safely using chains, calf puller/calf jack; (6) assembling a calving toolkit; and (7) properly caring for the newborn calf and post-partum cow. Following the interactive oral presentation, participants observed a hands-on demonstration, and under the guidance of experienced educators, applied the newly learned concepts using sedated calves and a bovine pelvis. Participants were proud to receive a certificate of completion at the end, and said that they learned, "How to pull a calf and correctly use the 'calf jack'…(a difficult skill and tool that could be dangerous if used incorrectly)", and that "It helped me a lot [in order] to help cows [that are] calving." Evaluations

indicated that most rated the presentation as “excellent”, and attendees’ knowledge of the topics increased after participating in the workshop. https://cornell.box.com/s/px74t5thsiuewb6u5vboius5h614gphe

Regional Winners

BLUEBERRIES - A SWEET ADDITION TO YOUR SMALL FARM

Lee Beers
Extension Educator
Ohio State University
Cortland

Team Members: Beers, L[*1]

[1.] Extension Educator, , Cortland, Ohio, 44410-1455

This presentation was developed as a resource for small farms looking to incorporate blueberries into their farm, or learn more about blueberry production practices. Tailored to small farmers, recommendations may not be relevant to larger commercial operators but will provide tools accessible to small farms. The presentation was delivered at the 2023 Ohio State University Extension Small Farm Conference, March 11, 2023 to an audience of 24 individuals. Feedback was positive from the audience and promoted a lot of discussion about failed blueberry crops. I was the sole author of the presentation with resources drawn from personal experience or other land grant universities.

MARYLAND FOOD VENTURES: SCALING UP SLIDE SET

Neith Little
Extension Educator
University of Maryland Extension
Baltimore

Team Members: Little, N[*1], Dill, S[*2], Henley, S[3]

[1.] Extension Agent, Urban Agriculture, University of Maryland, Baltimore, Maryland, 21215
[2.] Principle Agent, Agriculture and Food Systems, University of Maryland Extension, Easton, Maryland, 21688
[3.] Senior Agent, Family and Consumer Sciences, University of Maryland Extension, Cockeysville, Maryland, 21030

This submission is one slide set from the 13-module online course, Maryland Food Ventures, developed by Dr. Shauna Henley, Neith Little, and Shannon Dill. The Scaling Up slide set was prepared by Neith Little.

Maryland Food Ventures is a program designed to help aspiring value-added food product entrepreneurs learn the basics of food safety and permitting, so that they can launch their venture while managing their financial risk and protecting their customers health. The primary audience of this program is farmers who want to do on-farm processing and home cooks who want to start a cottage food business. With funding from Northeast Extension Risk Management, the team developed the Maryland Food Ventures program using previous work by UMD Ag Marketing Specialist Ginger Myers, who brought the Food for Profit program to Maryland. The Food for Profit program was originally developed by Winnifred McGee of Penn State Extension. So far, 456 students have registered for the online version of the course. Thirty students have completed 100% of the online course and 5 students completed over 75%. These students are much better prepared to launch a successful value-added food product enterprise, while managing risks to protecting their own financial stability and their customers health.

The Scaling Up module is designed to help students understand what actions they will need to take to scale up their food production for market and what steps they will need to take if they outgrow the small scale on-farm permit or cottage food business.

BACKYARD HOP PRODUCTION: A PRIMER FOR HOME GARDENERS

Diane Diffenderfer
Coordinator for Wayne County Master Gardeners and Home Veg Trials
Penn State Extension
Honesdale

Team Members: Diffenderfer, D[*1]

[1.] Coordinator for Wayne County Master Gardeners and Home Veg Trials, PSU Extension, Honesdale, Pennsylvania, 18431

My primary objective in creating the slides, writing the script, selecting from my own photographs and presenting this educational program was to demonstrate to Penn State Extension Master Gardeners and home gardeners that hops are adaptable and can be successfully grown in a home garden. Home gardeners need not invest in creating a hop yard to grow hops. Research has shown an increase in the production of craft beer in Pennsylvania and this trend will likely spark interest in gardeners experimenting with the growing of hops. Hops are versatile given their atypical attributes. Not only are hops a pivotal ingredient in beer, this herbaceous perennial is used in floriculture,

and as an ingredient in many culinary applications such as rubs for vegetables and proteins and even included in fresh salads. Additionally, given their habit, hops grow exceedingly well as vertical climbers. Additionally, hops' dense foliage, interesting leaf shape and texture and the hop cone itself, has led many gardeners to install and grow these bines as living fences. As educators, it is important for Master Gardeners to keep pace with horticultural trends as questions from gardeners will follow the trend. According to post-presentation poll responses to one virtual presentation, attendees self-identifying as specialty crop growers, growers (other) and/or home brewers comprised 214 of the 316 registrants. Attendees reported in the post-presentation that between 23% and 38% of the total attendees might change their behavior based on this presentation.

MOTHER NATURE ATTACKS

Bradley Pousson
Area Livestock Agent
LSU AgCenter
Bell City

Team Members: Pousson, B[1]

[1.] Area Livestock Agent, LSU AgCenter, Lake Charles, Louisiana, 70607

All parts of the gulf coast have dealt with a disaster of some kind. Other areas of the country deal with something different. The presentation was designed to help producers mitigate disasters and what precautions should be taken. The disasters discussed in the presentation are hurricanes and hard freezes. In the past 20 years, Southwest Louisiana has been hit by 4 major named storms with Southeast Louisiana having 3 named storms and feeling the effects of other smaller storms over the years.Another event that is rare for our part of the world are winter storms. In 2021, the winter storm totalled cattle deaths in the hundreds. Predominately brahman influenced cattle are not equipped to handle severe cold for a period of time. This was something very new to producers and tips was discussed with them in this presentation as well. These topics were presented for the Beef Brunch Educational Series.

INTRO TO ENTOMOLOGY

Jordan Voges
CEA-AG/NR
Texas A&M Agrilife Extension
Glen Rose

Team Members: Voges, J[*1]

[1.] CEA-AG/NR, , Glen Rose, Texas, 76042

On November 16, 2022, I hosted an introductory to entomology workshop for youth and adults in Somervell County with a PowerPoint presentation. Twelve Somervell County residents with interest in entomology or horticulture joined us at the Extension office. Participants were encourage to bring any insect collections or things they have found to share and compare with the group. I walked through the benefits of insects, taxonomy and basic insect body parts before diving further into the orders. Throughout the presentation, I engaged the audience by having quick questions and answers related to the slide content as well as a bingo card to keep them attentive with keywords or insects. This presentation will continue to be a building block with various groups at the local schools, 4-H groups, gardening clubs, and Master Gardeners.

FIREFIGHTING EQUIPMENT TO CONSIDER FOR THE FARM AND RANCH

Jacob Powell
Assistant Professor (Practice)
OSU Extension Service
Moro

Team Members: Powell, J[*1]

[1.] Assistant Professor (Practice), OSU Extension Service, Moro, Oregon, 97039

This presentation is part of an online course, Agricultural Wildfire Behavior and Suppression (https://beav.es/ibX), created by extension agent Jacob Powell in August 2022 and managed by Oregon State University Professional and Continuing Education program. The audience for this presentation is crop and livestock producers, along with rural residents living in fire prone areas. After several large and severe wildfires across croplands and rangelands across Oregon, Washington, and California there is increased interest by farmers and ranchers to increase their wildfire preparedness to protect their property and crops. Jacob Powell created this presentation providing an overview of firefighting

equipment that farmers and ranchers can use to put out wildfires burning on their property in crops, pastures, and rangelands. It is easy for farmers to be overwhelmed by all the different options for fire equipment that can be purchased. This presentation focuses on the pros and cons of different types of firefighting equipment to help provide clarity on what will work best in different agricultural operations. In addition, the objective of the presentation is to help farmers and ranchers understand the limitations and capacity of fire equipment that first responders may bring to assist with wildfires burning on their property. In addition, firefighting agencies have different acronyms and typing systems for equipment that this presentation explains. This presentation has also been given to in person and virtual audiences during February 2023, reaching 30 individuals. The presentation can be accessed here: https://oregonstate.box.com/s/wnpbqwy86t7c0a28oystzlbhrcpa8vu5

State Winners

NORTH CENTRAL REGION

Illinois	Chris Enroth
Kansas	Sandra Wick
Minnesota	Heather Dufault

NORTHEAST REGION

New Jersey	Timothy Waller

SOUTHERN REGION

Arkansas	Cory Tyler
Georgia	Brooklyne Wassel
Mississippi	Heather Jennings
North Carolina	Cody Craddock
Oklahoma	Shannon Mallory
South Carolina	Alana West
Tennessee	Taylor Reeder

Personal Column

National Winner

HOUSTON CHRONICLE WEEKLY GARDEN COLUMN

Brandi Keller
Houston

The Houston Chronicle is one of the largest newspapers in the United States. Between subscribers and those that can access the articles, there is a potential reach of 850,000. The weekly gardening column started as a question-and-answer format in response to Winter Storm Uri in 2021. The first official weekly garden column started May 4, 2021 and has continued since then. The Saturday column is written to help guide the public on gardening, landscaping, and other horticultural topics. I incorporate seasonal guidance, annuals, perennials, woody ornamentals, upcoming events, soil testing, yard maintenance, water conservation, and public questions. Even though ornamental, we receive many questions throughout the year on growing wildflowers. This was an appreciation piece compared to my fall wildflower-planting article. The Houston Astros garden topic was in direct response to the World Series win, capitalizing on local excitement and cool season flowers. Two article links: Getting lost in the bounty of wildflowers was published on April 23, 2022. https://www.houstonchronicle.com/lifestyle/home-garden/article/GARDEN-BRANDI-0423-17119910.php and Planting an Astros garden was published on November 12, 2022. https://www.houstonchronicle.com/lifestyle/home-garden/article/Celebrate-Houston-s-World-Series-win-with-an-17574331.php#photo-23149261.

National Finalists:

SOW AND GROW WITH SARA

Sara Bauder
SDSU Extension Agronomy Field Specialist
SDSU Extension
Tyndall

In June 2020, I began writing a bi-weekly Extension column entitled “Sow and Grow with Sara.” This printed column extends the reach of SDSU Extension Agronomy educational content, and allows me to personally connect with growers across South Dakota. In addition, the column fast-tracks updated agronomy content directly to agriculture producers whose primary source of news comes from print publications. It is published every other Friday, by 3pm, and runs 700-1,000 words in length. In an effort to expand content reach into areas without local SDSU extension agronomists, the column is disseminated statewide and written to reflect a wide range of growing conditions and commodities. Throughout the growing season, articles include production-management related content for multiple commodities (row crops, small grains, and range/forage) as well as up-to-date pest alerts for growers; upcoming agronomy Extension events and reminders are often listed as well. Over the winter months, the focus shifts towards planning for the next growing season, safety topics, and big-picture paradigm shifts in agriculture production practices. I write the column, attach a photo, and personally email it to the newsprint publication editor list-serve; on occasion, a guest author assists me with writing or provides photographs to accompany the column. “Sow and Grow with Sara” is

regularly printed in over 30 newspapers and reaches over 90,000 households in more than 30 states. The two attached entries are entitled “Dealing with Storm Damage and Checking Stored Grains” and “2022 Climate Summary.” They were released for publication May 20, 2022, and January 27, 2023, respectively. Although my role recently switched from Agronomy Field Specialist to Forage Field Specialist (in June 2022), I continue to cover general agronomy topics in this column to better serve the agriculture producers of South Dakota.

GARDENING ADVICE EVERYONE CAN DIG INTO

Cynthia Nazario-Leary
Environmental Horticulture Agent
UF/IFAS Extension Alachua County
Newberry

The UF/IFAS Environmental Horticulture and Agriculture & Natural Resources Extension Agents for both Marion and Alachua counties, 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, covering both landscape and edible gardening topics. Articles address general gardening tips, landscape advice, such as Florida-Friendly LandscapingTM practices; and timely or seasonal concerns for plants, such as protecting plants from freezing temperatures or what to plant for a particular season. On August 21, 2022, I wrote an article on how certain weeds can be indicators of soil and environmental conditions. On March 5, 2023, I authored another article providing tips for fertilizing your landscape appropriately. In all my articles, my aim 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 your informative article in today’s newspaper, I have a couple of questions regarding trees,” “Very helpful information – I was not aware of the County fertilizer ordinances,” and “Great article – clear, thoughtful, engaging.”

HAY BALES

Michael Trammell
Ag Educator/Multi-County Agronomist
Shawnee

The purpose of this personal column is to increase the information available to agricultural producers in Pottawatomie County Oklahoma. This information is pertinent to the individual profitability and sustainability of their agricultural operations. This column accomplishes this goal by identifying and covering topics that affect production practices, addresses possible short comings in their day-to-day practices, and introduces corrective measures to ensure their maximum probability and sustainability of their farming or livestock operation. In order to achieve these goals, I cover a variety of topics in the bi-monthly column. Topics have ranged from efficient cow/calf production, forage management concepts to herd health concerns. I utilize research-based information in each article to support sound production and management principles. Two articles printed under my Hay Bales column, covering topics of importance with my Pottawatomie County producers, are attached for your consideration. The first article was originally published on September 23, 2022, and was titled ‘Sorting Cows for More Efficient Winter Supplemental Feeding’ which was an important concern since hay supplies were short due to drought conditions through the summer and supplemental feed costs were high. This article presented three feeding scenarios to the producer that could improve their supplemental feeding efficiency. The second article was published on January 17, 2023, and was titled ‘Seed Tag Information’ which was developed around several questions I received regarding purchasing seed. The article outlines the information listed on seed tags that are relevant when purchasing to ensure a successful crop or forage planting by the end user. To date, the Shawnee News Star has published a total of forty-nine articles under my Hay Bales column. The Shawnee News Star newspaper has approximately 6,000 subscribers.

Regional Winners

ON THE FARM AND IN THE GARDEN

Beth Scheckelhoff
Extension Educator
The Ohio State University
Ottawa

These two articles were solely authored by Beth Scheckelhoff and submitted for publication in the Putnam

County Sentinel and Delphos Herald newspapers. Each article was published as the weekly extension article titled “On the Farm and In the Garden”. These articles are intended to provide insight and science-based information on current happenings in home gardens and farm fields in Putnam County throughout the year. The article “Poppies signal Memorial Day” was published on May 25, 2022. The article “Bees versus Yellowjackets” was published on October 12, 2022. The Putnam County Sentinel is a regional newspaper with a printed circulation of 3,800 copies and an online presence of 10,120 users. The Delphos Herald is also a regional newspaper with a circulations of 1,800 copies and an online presence of 47,370 users.

DIGITAL AND SOCIAL MARKETING BYTES

Sarah Cornelisse
Sr. Extension Associate
Penn State Extension
University Park

Digital and Social Marketing Bytes is a column I was invited to author for Aquaculture Magazine on digital communications, technology, and social media; a topic area they felt was becoming more critical in the aquaculture sector yet not adequately covered in their publication. My goal is to share information on topics of relevance for successful online and social media marketing. Improve Digital Marketing Using Web and Social Analytics was published in Issue 48-2 (April-May 2022). The purpose of this article was to share the types of online and social media analytic data available and discuss how that data can be used to improve marketing effectiveness. The article A/B Testing to Improve Online Marketing was published in Issue 48-6 (December 2023 – January 2024) and linked to via Facebook post on February 24, 2023. This article was intended to showcase a method that can be utilized to enhance online marketing content and improve resonance with the target audience. My writing style for these articles is more formal as other articles in the magazine are largely written in an academic style. I compose articles in MS Word for submission to the editorial coordinator and I am sent a digital tear sheet (PDF file) of articles as they appear in the print magazine. Some graphics and images are developed and/or provided by me, while others are added by the editorial team. The column is translated and republished in the Spanish language version, Panorama Acuícola Magazine. Aquaculture Magazine reports to have greater than 5000 subscribers in over 100 countries. As well as appearing in print and digital versions of the publication, column articles are shared on Aquaculture Magazine’s Facebook, Twitter, and Linkedin accounts. Aquaculture Magazine’s Facebook page has over 33,900 likes and 35,500 followers, its Twitter account has over 4,000 followers, and its Linkedin account has over 16,000 followers.

FROM THE EXTENSION OFFICE MONTHLY COLUMN

Darrin Parmenter
COUNTY EXTENSION DIRECTOR
CSU EXTENSION
DURANGO

La Plata County Extension in Colorado has written a weekly column for The Durango Herald (readership is approximately 8,000 people plus 1,000-2,000 online readers) for over 20 years. I, Darrin Parmenter, have been writing for The Durango Herald since 2007 covering a variety of topics with a focus on horticulture, agriculture, and community development and engagement. Attached are two of those personal articles: “Like elements of soil, we are all interconnected” (published June 4, 2022) and “For every season, there is a converse” (published January 1, 2023).

State Winners

NORTH CENTRAL REGION	
Illinois	Chris Enroth
Kansas	Anthony Reardon
Minnesota	Brad Carlson
North Dakota	Angie Johnson
Wisconsin	Tina Kohlman
NORTHEAST REGION	
Maryland	Paul Goeringer
West Virginia	James Barrett
SOUTHERN REGION	
Alabama	Anthony Harris
Arkansas	Jeffrey Works
Georgia	Kimberly Post
Kentucky	Amanda Sears
Louisiana	Mary Ferguson
Mississippi	James Shannon
South Carolina	Paul Thompson
Tennessee	Bill Ward

Feature Story

National Winner

T'WAS THE DAY AFTER CHRISTMAS: THE END OF CHRISTMAS TREE SEASON IS JUST THE BEGINNING

Jim Hamilton
County Extension Director
NC COOPERATIVE EXTENSION
BOONE

Team Members: Hamilton, J[*1]

[1.] County Extension Director, , BOONE, North Carolina, 28607

During November and December, millions of Christmas trees are harvested and sold in box stores, retail lots, and on the farm across the United States. However, many consumers are unaware of the years-long process it takes to get that tree from seedling, to the farm, to the living room. To reach consumer & tourist audiences, the article, through narrative and storytelling, describes the many steps in the journey of our Christmas trees and about the growers who produce them. It appeared in the regional magazine, Carolina Mountain Life, in the magazine's Winter 2022/2023 issue, which has a circulation of 25,000 copies per issue and is distributed throughout North Carolina's High Country and neighboring regions including southwest Virginia & northeast Tennessee. The article also appears in the online version of the magazine at https://issuu.com/carolinamountainlife/docs/carolinamountainlife-winter2022-2023/s/17625694

National Finalists:

INTENTIONAL PLANNING IMPROVES BUYER DECISION-MAKING

Jonathan LaPorte
Farm Business Management Educator
Michigan State University Extension
Cassopolis

Team Members: LaPorte, J[*1]

[1.] Farm Business Management Educator, Michigan State University Extension, Cassopolis, Michigan, 49031

Progressive Dairy Magazine requested a feature story introducing the concept of creating an input purchasing plan to farm managers. The creation of an input purchasing plan offers guidance to farm producers on when to purchase vital inputs needed for their operations as they navigate significantly volatile markets. Guidance is based on borrowed concepts routinely seen in grain marketing, where farm managers are encouraged to be intentional and pro-active about selling decisions. For an input purchasing plan, intentional and pro-active buying decisions are the focal point. Decision factors include availability of on-farm storage, quantities of inputs needed, and product supply or availability of alternative options. The overall goal of developing a purchasing plan is to help farm managers prioritize and maximize their farm's available cash when considering their buying opportunities. The content included examples of inputs common to dairy farms, especially those that raise their own feed. Figures 1 and 2 shown in the final print copy were created by the author. Progressive Dairy Magazine has a digital and print version of their publication. The digital version is sent to over 3,000 subscribers, while the print version is mailed to over 20,000+ recipients. Both versions were published on February 7th, 2023.

THE UNWANTED INVADERS - AN INVASIVE SPECIES UPDATE

Amy Stone
Extension Educator
Ohio State University
Toledo

Team Members: Stone, A[*1]

[1.] Extension Educator, Ohio State University Extension, Lucas County, Toledo, Ohio, 43615

This feature story appeared in the February 2023 issue of The Landsculptor, a publication of the Michigan Green Industry Association (MGIA). The Landsculptor is distributed monthly to over 3,700 green industry professionals. In addition to the regular distribution to its membership, copies of the issue were made available to attendees at their 36th Annual Trade Show & Convention held in Novi, Michigan on February 28 and March 1, 2023. The purpose of the feature story described, promoted and recapped an event, specifically the educational session the author was invited to present during the educational portion of the MGIA convention that 143 participants attended. The educational objectives included introducing the topic of invasive species, and explaining the information shared in the story and the educational session would be beneficial, relevant, informative, and able to be put to immediate use for green industry professionals. Nine invasive species were highlighted in the feature story with a brief introduction, with the actual presentation digging deeper on each pest. The text of the

feature story was submitted to the MGIA editor, along with a table that included both the common and scientific names of each invasive species.

FAIRY RINGS DEMYSTIFIED

Bonnie Wells
Extension Agent II, Commercial Horticulture
University of Florida
Cocoa

Team Members: Wells, B[*1]

[1.] Commercial Horticulture Agent, University of Florida-IFAS, Cocoa, Florida, 32926

Fairy rings are areas of abnormal circular growth in turfgrasses caused by mushroom-producing fungi. Fairy rings have been of interest since ancient times due to their mysterious growth pattern and seemingly overnight appearance. These fungal phenomena mainly occur on lawns and golf courses and negatively alter the soil's chemical properties and moisture content. Recently, golf course superintendents and landscape turf managers have added fairy rings to one of the diseases most treated with fungicides. This feature aimed to engage turfgrass maintenance professionals with integrated pest management (IPM) information and outline sustainable strategies to manage fairy rings. I researched the topic using refereed journals, trade journals, and University of Florida EDIS documents while writing the article using Microsoft Word. The article was published as a Focus on Fungi in the Florida Turf Digest, Summer Issue (Vol. 40, No. 4, pages 14-17) on September 1, 2022. Florida Turf Digest has a print circulation of 3,400 per issue nationwide, with six issues per year. The issue is also published online: https://bit.ly/focusonfungi. In addition, I posted a photo and link to the article on Twitter as part of the popular turf maintenance professional's #FriskyFairyRingFriday social media campaign on September 16, 2022, where it has had an additional 1,770 impressions and 60 engagements: https://bit.ly/friskyfr.

Regional Winners

ALL ANTIBIOTICS WILL BE PRESCRIPTION-ONLY IN 2023

Sandra Stuttgen
Agriculture Educator
University of Wisconsin Madison Division of Extension
MEDFORD

Team Members: Stuttgen, S[*1]

[1.] Agriculture Educator, , MEDFORD, Wisconsin, 54451

I wrote "VCPR - now more important than ever" for the Wisconsin Agriculturist Magazine (Farm Progress magazine group). First published online (August 4, 2022) as "Are you ready? All antibiotics will be prescription-only in 2023," the article was published in their September 2022 print edition as "All prescriptions will be prescription-only in 2023." This article informs producers of the change from over-the-counter to prescription antibiotic availability effective June 2023. To protect antibiotic effectiveness and maintain veterinary antimicrobial stewardship across the US, previously available over-the-counter antibiotics will require veterinarian prescriptions. As livestock veterinarians are in short supply in some areas of Wisconsin, it was with urgency that I encouraged producers to develop their veterinary-client-patient-relationship (VCPR) that will enable their access to prescriptions. The print magazine has a subscription base of 24,000 subscribers and the editor estimates that 1,000 people read the online article. In addition, 2,000 to 3,000 people are likely to have read my article on the other Farm Progress websites, including the Dakota Farmer, Nebraska Farmer, Michigan Farmer, Ohio Farmer, Missouri Ruralist, and The Farmer (Minnesota). AgWeb [Farm Journal online news group] posted Rhonda Brooks' December 14, 2022, Drovers Magazine article, "If you 'doctor' livestock, a new rule will determine how or if you can buy antibiotics" that quotes my original article. Rhonda's article had 10,514 page views from the AgWeb and 2,449 from the Drovers websites. I discussed my article's content with AgriTalk radio host Chip Flory on December 12, 2022. AgriTalk has 100 affiliates across 20 states and their podcast has several thousand downloads. The Wisconsin Cattlemen's Association December 2022 CattleTrails Newsletter shared my article with 182 individuals, farms, and industry sponsors. The article was posted online at Wisconsin Division of Extension Livestock and from Sept 27, 2022 (first traffic) to Feb 26, 2023, it has had 7,934 pageviews. My article was handed out to 284 beef producers who attended Wisconsin Cow-Calf and Cattle Feeders Workshops that were held September – December 2022 and February 2023, respectfully.

RESPECTING ROOTS AND GROWING FOR THE FUTURE WITH THE MASHANTUCKET PEQUOT TRIBAL NATION

Stacey Stearns
Educational Program Administrator
University of Connecticut
Storrs

Team Members: Stearns, S[*1]

[1.] Educational Program Administrator, , Storrs, Connecticut, 06269-4134

UConn Extension received a USDA Federally Recognized Tribes Extension Program (FRTEP) grant to work with Mashantucket Pequot Tribal Nation (MPTN) on their agricultural, health, and youth development goals. Our overall goal is to increase the institutional capacity of MPTN to meet their own food production needs. The objective of this article was to show USDA (the grant funder) the work completed to date and promote MPTN's work to a larger audience to build awareness and capacity for their farm stand and other local agricultural initiatives. A secondary goal was to help Tribal members and leaders celebrate the amazing work they've accomplished over the past six years, supported by UConn Extension and many others.
We filmed a video with MPTN on August 1, 2022, and the article was written after that site visit to coincide with the end of one grant cycle and the beginning of the next. The article was released on September 15, 2022 to provide a project update (https://today.uconn.edu/2022/09/respecting-roots-and-growing-for-the-future-with-the-mashantucket-pequot-tribal-nation/) and promoted through University Communications channels, including on social media.

An accompanying video was released on November 9, 2022 (the day after the elections because it included our Congressman) on Extension's YouTube channel (https://youtu.be/syzosAS9bLc). It has 138 views and 1,700 impressions. Those viewers have spent 4.7 hours watching the video since it was released.

The article was re-posted by USDA-NIFA (https://content.govdelivery.com/accounts/USDANIFA/bulletins/32e369e) and then re-posted by NIFA again on November 8th: https://www.nifa.usda.gov/about-nifa/impacts/respecting-roots-growing-future-mashantucket-pequot-tribal-nation. NewsBreak and Reddit also reposted it.
The post on the UConn Facebook page had 14 likes and two shares, while the Extension post had 21 likes and two shares. The UConn tweet had five retweets and six likes. Separate tweets by those outside UConn with the article had four retweets and 13 likes. The LinkedIn post had 61 reactions. USDA posted the article on their Facebook page with 43 reactions, one comment, and five shares.
MPTN is pleased with the article and video and their qualitative feedback serves as an indicator that we met our goals and objectives. The communications projects allow us to elevate the voices of MPTN and further strengthen our relationship and service to them.

RU READY TO FARM?

William Hlubik
County Agent 1, Professor
Rutgers Cooperative Extension
North Brunswick

Team Members: Hlubik, W[1], Pearsall , B[*2], Eberly, L[3], Schilling , B[4]

[1.] County Agent 1, Professor, , North Brunswick, New Jersey, 08902
[2.] Senior Program Coordinator, member, North Brunswick, New Jersey, 08902
[3.] Program Assistant/Videographer , non-member, North Brunswick, New Jersey, 08902
[4.] Director of Rutgers Cooperative Extension , non-member, New Brunswick, New Jersey, 08901
This article on the Rutgers Beginner Farmer Training Program was written for Gardener News by members William Hlubik and Program Coordinator Brendon Pearsall and Program Assistant/Videographer Linnéa Eberly of Rutgers Cooperative Extension of Middlesex County, New Jersey. The article was published in the November 2022 issue, appearing on page 6, and was intended to give an overview of the program for readers who might be looking for a place to start their farming journey, and also to highlight the program's important work and outreach. The article especially highlights the excellent networking and community-building opportunities available through the program. The Gardener News is distributed throughout the state through print copies at all Cooperative Extension offices as well as online throughout the tri-state area. https://issuu.com/gardenernews/docs/gn_november_2022_issuu?fr=sMDU0NTM1NzIxNzA

WATER-WISE LANDSCAPE TIPS FOR THE GEORGIA OPERATOR

Martin Wunderly
Extension Water Agent
University of Georgia
Watkinsville

Team Members: Wunderly, M[*1]

[1.] Extension Water Agent, University of Georgia Extension, Watkinsville, Georgia, 30677

Water use is a vital part of landscape maintenance during the growing season and water utilities can help inform land managers about water conservation measures to reduce pressures on the resource. This article was published in the Georgia Operator magazine for municipal and public utility water providers under the Georgia Water-Wise Council news. This educational piece can be used by resource managers to educate customers about techniques for saving water in the landscape. A list of water-saving methods is divided into immediate actions for quick onset drought conditions and long-term landscape plans for sustainable water resource protection and future drought. The content and educational purpose of this article can be applied nationally by other Extension services that communicate with municipal water providers. This article was published in the "Georgia Operator", reaching over 4000 Georgia Association of Water Professionals members and 300 utility and corporate organizations. Much of the audience included municipal administrators responsible for delivering water conservation education campaigns to their customers and end users. Including the landscape water management tips from this article in water company education campaigns will vastly multiply the reach and impact of this publication, leading to great effects in water resource conservation actions across the state of Georgia.

State Winners

NORTH CENTRAL REGION

Kansas	Sandra Wick
Minnesota	Emily Krekelberg
Nebraska	Glennis McClure
South Dakota	Patrick Wagner

NORTHEAST REGION

Pennsylvania	Samantha Gehrett

SOUTHERN REGION

Arkansas	Kyle Sanders
Louisiana	Heather Kirk-Ballard
Mississippi	James Shannon
Oklahoma	Shannon Mallory
Puerto Rico	Sofía Macchiavelli Girón
South Carolina	Nicole Correa
Tennessee	Seth Whitehouse
Texas	Whitney Ingram

Newsletter

National Winner

SOUTH CAROLINA 4-H HONEY BEE PROJECT

Mallory Maher
4-H Extension Agent
Clemson Extension
Walhalla

Team Members: Maher, M[*1], Eidt, S[2]

[1.] 4-H Extension Agent, , Walhalla, South Carolina, 29691
[2.] Fairfield County 4-H Agent, Clemson Extension , Winnsboro, South Carolina, 29180

The South Carolina 4-H Honey Bee Project is an independent-study project that engages youth (ages 5-18 years) in the active role of beekeeping, learning the basics of entomology and gaining an appreciation for the role of pollinators in our world. Youth receive a record book and project-related educational materials with registration. Mallory Maher, Oconee County 4-H Agent, and Stephanie Eidt, Fairfield County 4-H Agent, both with Clemson Extension/South Carolina 4-H, serve as the project coordinators for the Honey Bee Project. Youth involved in the project set goals and plan activities to achieve those outcomes, actively maintain a hive and record their experiences in a record book, and learn valuable life skills with the help of an experienced mentor. Project participants receive a monthly newsletter prepared and written by Mallory Maher and Stephanie Eidt. The newsletter was designed using the online graphic design program, Canva and distributed electronically through MailChimp. Fifty-seven participants received a monthly newsletter for the project from April 2022 until August 2022. 100% of participants (n=16) who completed the survey agreed or strongly agreed that the project helped them learn techniques for managing honey bees, made them more appreciative of honey bees, and made them better stewards of the environment.

National Finalists:

THE OUTSIDER- A NEWSLETTER INVITING PEOPLE INTO HORTICULTURE

Emily Swihart
Milan

Team Members: Swihart, E[*1]

[1.] Horticulture Educator, University of Illinois, Milan, Illinois, 61264

The Outsider Newsletter is a monthly publication designed for the public as an easy-to-access, single-subject horticultural resource for readers already enthusiastic about the outdoors and those that have yet to fully embrace being an outsider.

Each issue explores a seasonally appropriate topic in a way that informs and invites readers to act. Monthly content is intentionally varied with seasonal, timely topics making horticulture accessible and extending an invitation to try something new. Article content has included container gardening, landscaping for birds, pruning shade trees, native plant cultivars, and more. The two articles submitted for review address watering during summer months and plant propagation. Each publication includes a call-to-action section that invites readers "to be more of an Outsider" with resources, events, and activity recommendations.

Monthly distribution occurs through our marketing contact list, a subscribers list, and is posted on social media. Each article is sent to over 3,600 people. The newsletter is available as a pdf and as a blog post on the Illinois Extension webpage. Articles have been used as presentation supplements and at in-person events. Through the newsletter, local television stations have extended invitations to appear on shows, further extending the reach of Illinois Extension and fulfilling our mission.
All Outsider articles are available at: https://extension.illinois.edu/hmrs/outsider-newsletter

CROPS, COWS, AND CRITTERS FROM CORNELL COOPERATIVE EXTENSION'S SOUTHWEST NEW YORK DAIRY, LIVESTOCK, AND FIELD CROPS PROGRAM

Katelyn Walley-Stoll
Extension Specialist
Cornell University, Southwest New York Dairy, Livestock, and Field Crops Program
Cattaraugus

Team Members: Walley-Stoll, K[*1], Barkley, A[*2], Lage, C[*3], Miller, K[*4], Bourne, K[5]

[1.] Farm Business Management Specialist, Cornell University, Cattaraugus, New York, 14719
[2.] Livestock and Beginning Farms Specialist, Cornell University, East Aurora, New York, 14052
[3.] Dairy Management Specialist, Cornell University, Bath, New York, 14810
[4.] Field Crops and Forage Specialist, Cornell University, Jamestown, New York, 14701
[5.] Administrative Assistant, Cornell University, Belmont, New York, 14813

Crops, Cows, and Critters is an engaging and educational monthly newsletter shared with over 750 farms and households in Southwest New York. What makes it unique is a dedication to using plain language and creating the feel of a magazine. Topics are selected a week before print, so there's an opportunity for timely and responsive outreach. Recognizing that farmers receive way too many emails every day, this printed newsletter holds tight to offering low cost and/or free paper mailings on a needs basis. There is also an electronic version that's shared via email as requested. To keep costs low, layout and printing is done in-house and the team works to obtain advertisement spots from local agribusinesses. Crops, Cows, and Critters is used to share upcoming events, original articles, fact sheets, infographics, and quick reads. The primary audience is dairy, livestock, and field crops producers of all shapes and sizes in Allegany, Cattaraugus, Chautauqua, Erie, and Steuben Counties. As the greatest source of flattery, there are often farm visits that take place at a kitchen table - with a copy of the latest "CCC" right on top of the mail pile (dog-eared, of course).

Regional Winners

GRAPEVINE HORTICULTURAL NEWSLETTER

Calla Edwards
El Dorado

Team Members: Edwards, C[*1]

[1.] Horticulture Extension Agent, K-STATE Research and Extension, El Dorado, Kansas, 67042

Through the Grapevine newsletter I do my best to provide area gardeners and horticultural enthusiasts with timely lawn, gardening and other horticultural information. Most of the topics discussed throughout the article are based on questions or issues that are currently being seen across

the county. The Grapevine is a weekly newsletter that is sent out to all the Master Gardeners in Butler County along with a listserv of other gardening enthusiasts across the state of Kansas. The newsletter is distributed through multiple channels including paper copies, emailed PDF's, our website and Facebook. The Grapevine currently is directly sent to 181 people with over 4,000 reading it via websites and Facebook posts.

GRIGGS COUNTY AGRICULTURE NEWSLETTER

Jeff Stachler
ANR Agent
NDSU Extension
Cooperstown

Team Members: Stachler, J[*1]

[1.] ANR Agent, NDSU Extension, Cooperstown, North Dakota, 58425

I prepare the weekly Griggs County Agriculture Newsletter. This newsletter is prepared to provide the latest information for Griggs County and the surrounding area. The newsletter is prepared for and sent to farmers, ranchers, agronomists, agency personnel, extension colleagues, and friends in an e-mail as a pdf attachment. The newsletter is currently being sent to 181 people. The newsletter started out providing some weather information and current crop conditions and one or more pertinent agronomic articles. The newsletter is still mostly about agronomics, but it now has an expanded weather section, a government agency update section, and latest crop marketing information section. During the season I include several pictures of each crop showing crop progress, conditions, and issues to look for. I write most of the newsletter, but during the growing season I usually put in the most pertinent NDSU Crop and Pest Report articles and articles from other sources at other times of the year. In this entry I included my July 15, 2022 Griggs County Agriculture Newsletter and the most recent March 10, 2023 Griggs County Agriculture Newsletter. I have received many complements about the newsletter and it is being used by most subscribers.

BALTIMORE COUNTY EXTENSION NEWSLETTER- 'AG INSIGHT'

Erika Crowl
Agent Associate, Agriculture
University of Maryland Extension
Cockeysville

Team Members: Crowl, E[*1]

[1.] Agent Associate, Agriculture, University of Maryland Extension, Cockeysville, Maryland, 21030

The Baltimore County 'Ag Insight' is a monthly newsletter geared towards our agricultural clientele in the County. The newsletter is distributed to 725 subscribers via email and standard mailing. It is also accessible by visiting our Extension webpage or our Facebook page. This newsletter serves as a place for producers, beginning farmers, and community members to find information on upcoming programs, the latest finds in research, and available resources.

DAIRY DIGEST NEWSLETTER

Samantha Gehrett
Dairy Business Management Educator
Penn State Extension
Carlisle

Team Members: Gehrett, S[*1], Yost, C[*2], Holden, L[3], Perkins, T[4], Yutzy, A[*5], Barragan, A[6], Beck, T[7], Becker, C*[8], Fenton, G*[9], Fread, E[10], Hovingh, E[11], Ishler, V[12], Lunak, M*[13], McFarland, D[14], Roland, D[*15], Rosemond, R[*16], Springer, H[17], Tyson, J[18], Vansaun, R[19], Williams, J[*20]

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[2.] Dairy Educator, Penn State Extension, Huntingdon, Pennsylvania, 16652
[3.] Assoc Prof Dairy Science, Penn State University, University Park, Pennsylvania, 16802
[4.] Office Assistant, Penn State University , University Park, Pennsylvania, 16802
[5.] Assistant Director of Programs-Animal Systems, Penn State Extension, University Park, Pennsylvania, 16802
[6.] Assistant Research Professor, Penn State University , University Park, Pennsylvania, 16802
[7.] Dairy Educator, Penn State Extension, York, Pennsylvania, 17402
[8.] Dairy Educator, Penn State Extension, Lancaster, Pennsylvania, 17601
[9.] Dairy Educator, Penn State Extension, Mercer, Pennsylvania, 16137

[10.] Dairy Educator, Penn State Extension, mifflinburg, Pennsylvania, 17844
[11.] Resident Director and Clinical Professor, Penn State, University Park, Pennsylvania, 16802
[12.] Extension Associate, Penn State University, University Park, Pennsylvania, 16802
[13.] Extension Educator, Penn State Extension, Towanda, Pennsylvania, 18848
[14.] Extension Educator, Penn State Extension, York, Pennsylvania, 17402
[15.] Dairy Extension Educator, Penn State Extension, Chambersburg, Pennsylvania, 17202
[16.] Dairy Educator, Penn State Extension, Leesport, Pennsylvania, 19533
[17.] Assistant Research Professor, Penn State University, University Park, Pennsylvania, 16802
[18.] Extension Educator, Penn State Extension, Lewistown, Pennsylvania, 17044
[19.] Professor Veterinary Science, Penn State University, University Park, Pennsylvania, 16802
[20.] Extension Educator, Penn State Extension, Wellsboro, Pennsylvania, 16901

Pennsylvania ranks 7th nationally in total milk production, with nearly 520,000 cows producing more than 10.6 billion pounds of milk annually. According to the Pennsylvania Department of Agriculture, the industry supports 52,000 jobs and contributes $14.7 billion to the state's economy. The state has the second largest number of dairy farms nationally, with more dairy farms than every other state except Wisconsin. And yet, the number of Pennsylvania dairy farms is declining due to challenging market conditions. Implementing best management practices and modernization are vital for sustainable dairy production and profitability. Keeping Pennsylvania dairy producers informed about the ever-changing industry demands and needs has become a critical component of the Penn State Extension Dairy Team. To reach producers with relevant topics, the Penn State Extension dairy team created a monthly newsletter titled "Dairy Digest." "Dairy Digest" aims to provide dairy producers with timely, research-based, and unbiased information about the various topics of dairy production and business management. It comes out electronically monthly to promote the dairy teams' news articles, scientific papers, resources, courses, and upcoming events. The dairy team members consisting of Dr. Adrian Barragan, Amber Yutzy, Carly Becker, Cassie Yost, Dan McFarland, Daniella Roland, Emily Fread, Dr. Ernest Hovingh, Dr. Ginger Fenton, Dr. Hayley Springer, J.Craig Williams, John Tyson, Lisa Holden, Michal Lunak, Rainey Rosemond, Dr. Robert Van Saun, Samantha Gehrett, Tammy Perkins, Tim Beck, and Virginia Ishler all contribute timely articles. The Penn State Extension marketing team, Courtney Swartwood and Hillary Clark design and sends the monthly newsletter. Each newsletter, 12 in total for the year, is reviewed and proofread before sending out to 6,504 individual emails per month.

GNO GARDENING

Joe Willis
Extension Agent - Horticulture
LSU AgCenter
New Orleans

Team Members: Willis, J[*1], Timmerman, A[2], Dunaway, C[3], Afton, W[*4]

[1.] Extension Agent - Horticulture, LSU AgCenter, New Orleans, Louisiana, 70124
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[3.] Extension Agent - Horticulture, LSU AgCenter, New Orleans, Louisiana, 70124
[4.] Extension Agent - Horticulture, LSU AgCenter, Covington, Louisiana, 70433

GNO Gardening is a free monthly newsletter emailed to subscribers at the beginning of each month and posted on the GNO Gardening webpage (GNO Gardening (lsuagcenter.com). It is written by ANR Horticulture Extension Agents serving the Greater New Orleans area as well as state extension specialists. This includes 10 parishes and over 1.3 million residents. Each monthly edition is prepared to address horticulture in this area at this time. The regular monthly article sections are: "What's Bugging You" (plant pests), "Plant Disease of the Month", "Weed of the Month", "Look at Me" (what plant is particularly attractive this month). Every edition includes: a vegetable planting guide for that month, "In the Kitchen with Austin" a recipe that uses what is in season, monthly checklist and garden tips, lawn care do's and don't's, location and times for Farmer's Markets in the area, local independent garden centers location and time, and contact information for agents. There are usually additional articles of special interest on various topics. The cover is always an original photo by one of the contributors.

The newsletter is emailed monthly to our 32,000 subscribers, all LSU AgCenter horticulture personnel, published on Facebook, and uploaded to the GNO Gardening webpage. Based on subscribers, Facebook shares, and webpage hits, the newsletter reaches over 60,000 individuals monthly.

REVISTA SEA

Anibal Ruiz-Lugo
Assistant Dean of Extension
Cooperative Extension
Boqueron

Team Members: Ruiz-Lugo, A[*1], Estrada, F[2]

[1.] Agricultural Extension Agent, , Boqueron, Puerto Rico, 00622
[2.] Graphic Artist, , Mayaguez, Puerto Rico, 00681

Revista SEA is a newsletter created in 2015 as a concern of the Agricultural Agent of Lajas (municipality in southwestern Puerto Rico) with the idea of publishing the work done in extension at the different local offices of our region.

Puerto Rico is a small island 100 miles long by 35 miles wide that possesses great diversity. For example, of the 12 orders of soils on the planet, we have 10 in the island. In addition, our geography and winds cause a variety of microclimates that give way to diverse ecosystems suitable for a wide variety of agricultural production. The people who participated in local extension programs often, only had access to the information relevant to projects and initiatives available in their local area. This concern led me to initially work on a recurring newsletter that would provide information at a regional level on the agricultural and educational diversity that we worked on extension programs. The project was well received from the beginning and by the third edition we already included information and collaborations from all over the island, and later on we had international collaborations too (USA, Chile, Uruguay).

The objective of Revista SEA is to publish and highlight the impact and amplitude of the non-formal education work of Extension in Puerto Rico through success stories, activity reviews and outcomes, technical sheets, research data, articles and any other relevant information of interest to farmers, ranchers, communities, youth and the general public. We take care of the vocabulary we use, so that it could be understood easily by everyone. Revista SEA is published every three month (4 editions per year) and distributed in digital format through the website and social networks of the Agricultural Extension Service, University of Puerto Rico. Also, the local offices distribute it through the mailing lists of the participants of the Extension programs and in the University, and through email to all employees. In addition, we share the material with some colleagues in the United States for the benefit of spanish-speaking people. For this nomination we submitted volumes 2-2022 & 3-2022 of Revista SEA.

CE NEWSLETTER - THE EXTENSION CONNECTION

Oli Bachie
San Diego & Imperial County Director & Agronomy & Weed Management advisor for Imperial, San Diego & Riverside counties
Holtville

Team Members: Bachie, O[*1]

[1.] San Diego County Director, University of California, Holtville, California, 92123

The University of California Cooperative Extension (UCCE) San Diego advisors and community education specialists (CES) conduct applied research and extension education programs to address the high priority programs, crop productivities and solve local farming problems. The outcomes of these research findings and extension work need to reach to our clientele, farm industries and stakeholders through various means, including local newsletter publications. Accordingly, we envisioned the need for a local UCCE newsletter that could address local farms, research, and extension in agriculture, social settings and beyond. We were very excited to launch this newsletter, (the first of its kind) named the Extension Connection (EC). EC is published quarterly and may cover agronomic crops and weed management, small farms and farm economics, horticulture, viticulture, tree crops, pest management, agricultural land conservation, natural ecosystems, climate and climate smart agriculture, youth development, community nutrition and home gardening issues. Whether it is the farm owner, farm manager, pest control advisor (PCA), teacher, volunteer, youth - there is some information for everyone in this newsletter or in future issues, which readers may find useful or interesting. We currently have 247 subscribers. We send the newsletter to several advisor clientele lists through our constant Contact. We send the newsletter to roughly 2700 people every time we publish. The clientele lists we send to are a good mix of our stakeholders, the County, other governmental agencies, collaborators, growers, land managers, nurseries, and gardeners.

My role in the newsletter I applied: As a county director I was the initiator for the establishment of the extension newsletter (the first of its kind for San Diego). I also provide introduction / message from the county director for all issues. Furthermore, I contribute articles as an author in the area of agronomy and weed management.

MID COLUMBIA FARMERS NEWSLETTER

Jacob Powell
Assistant Professor (Practice)
OSU Extension Service
Moro

Team Members: Powell, J[*1]

[1.] Assistant Professor (Practice), , Moro, Oregon, 97039

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 editing and mailing support.

DUCHESNE COUNTY 4-H NEWSLETTER

Katelyn Barsnick
Duchesne

Team Members: Barsnick, K[*1], Miles, P[2], Moat, C[3]

[1.] Extension Assistant Professor, Utah State University, Duchesne, Utah, 84021
[2.] 4-H Program Coordinator, Utah State University, Duchesne, Utah, 84021
[3.] 4-H Program Coordinator, Utah State University, Duchesne, Utah, 84021

The Duchesne County 4-H Newsletter is a monthly publication that is distributed to the Duchesne County Community via email, social media, and hard copy (by request). This includes a list of 4-H families, previous event participants and general mailing list contacts. The purpose of the newsletter is to inform community members of upcoming Extension events in the areas of 4-H, Health and Wellness, and Agriculture. The newsletter also serves as a way to showcase the previous months activities and events through photos, quotes and featured articles. The newsletter is designed via Canva software and distributed as a PDF to 315 email contacts, shared on Facebook with over 1,400 followers and distributed hard copy to 10 families. Paige Miles gathers the information on the various community events from the respective event planners and compiles the document. Katelyn Barsnick (NACAA Member) and Cassie Moat serve as editors/ reviewers of the information. All three team members participate in the distribution of the newsletter through their own contact lists.

State Winners

NORTH CENTRAL REGION

Minnesota	Abby Schuft
Nebraska	Erin Laborie
Ohio	Andrew Holden
South Dakota	Kristine Lang
Wisconsin	Jackie Mccarville

NORTHEAST REGION

Connecticut	Jennifer Cushman
New Jersey	Timothy Waller

SOUTHERN REGION

Alabama	Lee Ann Clark
Arkansas	Rachel Bearden
Florida	Ajia Paolillo
Georgia	Cale Cloud
Kentucky	Kristin Hildabrand
Mississippi	Eddie Smith
North Carolina	Leslie Rose
Oklahoma	Tayler Denman
Tennessee	Seth Whitehouse
Texas	Shane McLellan
Virginia	Stephen Pottorff

WESTERN REGION

Idaho	Colette DePhelps

Educational Video Recordings

National Winner

SPLIT-APPLYING NITROGEN FOR CORN: 3 TIPS FOR SIDEDRESS APPLICATIONS

Brad Carlson
Extension Professor
University of Minnesota Extension
Mankato

Team Members: Carlson, B[1]

[1.] Extension Professor, University of Minnesota Extension, Mankato, Minnesota, 56001

The University of Minnesota Extension Nutrient Management team engages in comprehensive communications offerings including educational videos. This video discusses sidedressing nitrogen fertilizer for corn, a practice that has increased greatly in popularity in Minnesota over the last decade. Because this is a practice that is relatively new to many farmers it was decided that a video should be produced discussing some of the tips and nuance regarding applying in-season N. Extension Educator Brad Carlson wrote the script for this video to cover the most commonly asked questions about sidedressing. Brad narrated the content, with the video being shot at the University of Minnesota Southern Research and Outreach Center in Waseca, MN. Additionally, Brad arranged for the filming of much of the B roll that is used as background for the video. The video was filmed and edited by a private contractor during the summer of 2022. It was posted to the Nutrient Management blog and YouTube on March 7, 2023. The internal web link is: https://blog-crop-news.extension.umn.edu/2023/03/split-applying-nitrogen-for-corn-three.html The YouTube link is: https://www.youtube.com/watch?v=KhEmnHn89fc As this submission is being prepared just two days after the video was posted, however the YouTube video has had 144 views already.

National Finalists:

FIVE MINUTE FARM FOCUS - SUMMER COW COMFORT

Aerica Bjurstrom
Regional Dairy Educator
University of Wisconsin Madison Division of Extension
Luxemburg

Team Members: Bjurstrom, A[*1]

[1.] Regional Dairy Educator, , Luxemburg, Wisconsin, 54217

Dairy is a 45.6-billion-dollar industry in Wisconsin. Farmers have fine-tuned their management practices to provide the best herd health and production environment. Farm tours are an excellent way to learn more about what other farmers are doing to improve specific aspects of their operations. Due to the COVID-19 pandemic, many farmers were not allowing people to tour their facilities. Rather than touring farms, Aerica Bjurstrom, Regional Dairy Educator, brought the farm to the people by developing and producing the Five Minute Farm Focus series of videos. The videos were developed to focus on one specific farm management practice that improves the health and well-being of the dairy herd. Featured farms/farmers were selected based on the educator's previous knowledge of the farm and the farm's success in that practice. The videos are kept to approximately five minutes, to be to-the-point, informative, and educational. Each video follows the same format: a farm introduction, practice introduction, benefits, drawbacks, and a "take back to the barn" message. Some videos may include additional segments based on the interviewee's answers to the questions asked by Bjurstrom. The target audience of the videos is dairy farmers and agribusiness professionals; however, non-agriculture audiences have also reported learning from the videos. All storyboarding, interview questions, production, editing, videography, and still photography were done by Bjurstrom, except credited photos provided by the host farms. Media was recorded on iPhone, iPad, and a DJI unmanned aerial vehicle when appropriate for the story. Media was edited on Adobe Premiere Rush, closed-captioned on Otter.ai, and published on YouTube. Ten videos have been published since April 2021 with nearly 26,000 views overall, shared on Facebook, featured on the local agriculture television news report, and in four Hoard's Dairyman articles. The video submission "Summer Cow Comfort" was released in July 2022. As of March 15, 2023, it has 238 views. The video can be found here: https://www.youtube.com/watch?v=DNuVo4xN7cw

BEEKEEPING IN FLORIDA: THE TOOLS ALL APIARISTS MUST OWN

Luis Rodriguez
Agriculture Extension Agent (Small Farms &; Pesticide Education)
UF/IFAS Extension
Lakeland

Team Members: Rodriguez, L[*1], Bosques, J[*2]

[1.] Agriculture Extension Agent (Small Farms &; Pesticide Education), , Lakeland, Florida, 33809
[2.] Agriculture Agent & CED, UF/IFAS Extension Hardee County, Wauchula, Florida, 33873

Situation: Beekeeping is of high interest in Florida. Many aspiring beekeepers have little knowledge about what equipment is needed to manage beehives. Beginners or aspiring apiculturists need help most of the time to make good decisions in their apiaries. Easy-to-access educational videos could be used by aspiring beekeepers to help them learn more about important topics essential for their apiaries. At the same time, having videos available could help agricultural agents teach program participants about beekeeping by using them as educational tools in workshops and other events. Moreover, approximately 30% of the population in Florida is Hispanic, creating an additional need to provide this type of content in a language they can understand. Methods: Two educational videos were created and posted on social media, in both English and Spanish, called “Beekeeping in Florida: Beekeeping Tools” to provide information about essential instruments all apiarists should have in their toolbox. The videos depict how to use each implement and include written descriptions. The videos were also used as a teaching tool in beekeeping workshops. Results: Participants (n = 24) reported an increased understanding (100%) of the appropriate use of each implement after watching the video. Furthermore, the English educational recording has reached approximately 2.5 views per day for a total of 120 views and 2.4 hours of watch time (The Spanish Version has similar numbers with 108 views and 2.3 hours of watch time). Conclusion: UF/IFAS agents have the resources to develop accessible educational content. The use of educational videos can help agents during workshops and other events to provide easy-to-understand information about important topics relevant to the lecture. Moreover, beginner beekeepers often need to improve their knowledge to manage their bees, and simple and accessible videos such as these, help them make better decisions for their apiaries.

Link to video: https://www.youtube.com/watch?v=W2_6PcIyHLs

THANK A FARMER- NATIONAL AGRICULTURE DAY

Matthew Stevens
County Extension Director
NC State University
Greenville

Team Members: Stevens, M[*1], Waters, M[*2]

[1.] County Extension Director, NC Cooperative Extension- Pitt County, Greenville, North Carolina, 27856
[2.] Agriculture Agent, NC Cooperative Extension- Nash County, Nashville, North Carolina, 27858

North Carolina Cooperative Extension- Nash County staff created a video titled “Thank a Farmer” in recognition of National Agriculture Day on March 22, 2022. The agriculture agent team members worked collaboratively on the script, delivery of the material, and production of the video. The video is a partial spoof of the 1989 movie Field of Dreams, in which a farmer repeatedly hears a voice saying “If you build it, he will come,” which ultimately leads to him building a baseball stadium in the middle of his corn field. Late in the movie, a pivotal character gives a passionate speech about how “the one constant in all of our lives is baseball.” In the Thank a Farmer video, Extension staff members repeatedly hear the whispered phrase “If you eat it, thank a farmer” as they sit down to enjoy a meal or a snack. The voice is eventually revealed to be coming from an agriculture agent who then delivers a passionate speech about how “the one constant in all of our lives is agriculture.” The lighthearted and humorous beginning of the video is meant to engage the viewer and draw them in, before the more serious educational message is delivered in the video’s second half. The intent of the video was to raise awareness of agriculture and to educate viewers on the diversity of agricultural production, ultimately showing that all of the food we eat can be traced back to the farmers who produced that food. On National Agriculture Day, the video was shared on multiple platforms, including the Nash County Cooperative Extension email list, Facebook page, and YouTube. Among those three platforms, there were a total of 3,012 unique views. Additionally, the video was re-shared by many different individuals and organizations on Facebook, both on National Agriculture Day and again later in the year on Thanksgiving, a holiday centered around food. The video has also played regularly on televisions in the lobby of the Nash Agriculture Center outside of the Extension office, and at the Nash County Farmers Market. The video can be viewed online at https://youtu.be/28F5NbCRuBU

Regional Winners

FOLIAR SAMPLING FOR FRUIT CROPS

Patrick Byers
Commercial Horticulture Field Specialist
UNIVERSITY OF MISSOURI EXTENSION
Marshfield

Team Members: Byers, P[*1]

[1.] Commercial Horticulture Field Specialist, University of Missouri Extension, Marshfield, Missouri, 65706

The field footage for the video "Foliar Sampling for Fruit Crops" was shot in 2020 and used in a fruit report for our online commercial horticulture newsletter. Though "Foliar Sampling for Fruit Crops" used the same field footage, the current video was completely reformatted and edited in 2023 for the Missouri Blueberry School. The use of foliar testing among fruit growers to validate a nutrient management program and to diagnose nutritional problems is not widespread in Missouri, and the purpose of this video is to promote greater use of this valuable diagnostic tool. The shortage and high cost of fertilizers in the past two years has intensified the need for fruit producers to make most efficient use of this expensive and necessary production input. Foliar testing provides real-time information on actual nutrient content in plant parts, and this information can help growers anticipate future issues and diagnose present problems. The video includes an overview of the importance of foliar testing, the timing of sample collection, the process of collecting and drying a sample, and how to interpret the foliar test report. The video is a new production for the 2023 growing season, and as such there are limited data on usage as of present. We used the video at the 2023 Missouri Blueberry School in February (53 attendees), and the video was posted on the Webster County Missouri Extension YouTube channel at https://youtu.be/3rvEKGSkVSo where it has received 25 views to date. We plan to use the video during beginning farmer programming, and during workshops at our Fruit Production Training Farm in Newton County.

SEAWEED IS ON THE MENU WITH CONNECTICUT'S SUGAR KELP INDUSTRY

Stacey Stearns
Educational Program Administrator
University of Connecticut
Storrs

Team Members: Stearns, S[*1], Concepcion, A[2], Zaritheny, M[3]

[1.] Educational Program Administrator, University of Connecticut, Storrs, Connecticut, 06269-4134
[2.] Associate Extension Educator in Marine Aquaculture, University of Connecticut, Groton, Connecticut, 06340
[3.] Cinematographer & Filmmaker, Mike Zaritheny Productions, LLC, Mansfield, Connecticut, 06268

A team from UConn Extension and Connecticut Sea Grant are using innovative research and community outreach to help make seaweed, a novel food, more accessible for consumers and more profitable for producers.

Anoushka Concepcion, associate extension educator, and her Sea Grant colleagues wanted to help shellfish farmers find ways to diversify their crops. Along with other UConn researchers, they used their knowledge of the seaweed life cycle to make sugar kelp farming possible. The interest and potential for the new industry caught on. Through this crop diversification, the producers are not only growing a versatile, environmentally friendly product, they are minimizing their financial risks and improving economic viability.

"Part of our job with Extension is adapting to the emerging needs of our stakeholders," says Concepcion. "We're making sure public health officials and farmers have the information they need about what successful seaweed farming looks like in Connecticut."

There are regulatory requirements to address before a new food product can be mass produced. The Connecticut's Bureau of Aquaculture needed science-based information on food safety with sugar kelp and partnered with Sea Grant to secure federal to identify any potential seaweed food safety hazards. Concepcion led this project, and it resulted in the nation's first publication on seaweed food safety hazards. The publication is referenced internationally as a model.

Research and extension outreach are figuring out how to increase the shelf-life of sugar kelp because of Connecticut's short growing season. A longer shelf-life will provide access to new markets and help farmers extend their season. This may help increase consumer demand and product access.

Connecticut is now a national leader in sugar kelp farming and industry growth. Concepcion is trying to inform multiple audiences about the barriers, including preservation and distribution, that exist for the industry. The industry is still small and facing some challenges, but we're working with them to get sugar kelp on the menu in more homes and restaurants. This video was part of the project to introduce sugar kelp and seaweeds to our consumer audiences while reinforcing messages to aquaculture producers.

ALTERNATIVE FENCING METHOD

Colt Knight
State Livestock Specialist
University of Maine Cooperative Extension
Orono

Team Members: Knight, C[1]

[1.] State Livestock Specialist, University of Maine, Orono, Maine, 04473

On August 26, 2022 the video Alternative Fencing Method was published on YouTube(569 views) and subsequently shared multiple times on social media platforms like Facebook(>500 views) and submitted as an entry to the NACAA Facebook Group for the second #epicextensionvideobattle2022 to promote video production to fellow extension agents. However, the main objective of this video was to share an alternative fencing solution with livestock producers. The video focuses on a t-post only fencing system that saves producers time, money, and effort by using t-post corner braces, t-post end of line braces, t-post gate brackets, and t-post inline posts. The video begins by highlighting why and how traditional wooden H-braces are used in conventional fence construction. The video then reviews the construction of a t-post only high-tensile electric fence with the pros and cons discussed throughout. Next, the video walks the viewers through how to layout, estimate costs, and calculate the area of a new fence by using free GIS software like Google Earth Pro. Finally, I compare the cost of a traditional wood post high tensile electric fence($1685.96) with the alternative t-post only fence($1103.59) for a .49 acre lot. After the video was published, I received a lot of interest about the fence from producers. A similar fence was built at a University of Maine Experiment station for the pig herd to serve as a demonstration for producers to view in public and to gather long term data on fence durability. Two field days were held, one at the location of the video, and one at the Experiment station location to allow producers to tour the alternative fence site in person and ask questions. A total of 58 individuals attended those fields days with the majority holding the opinion this fence could save them time and money in the future. The video was filmed in 4K (Galaxy s21 Ultra cell phone camera), produced, and edited (Camtasia 2022) by Colt Knight. A conscious choice was made to use a cellphone to highlight the ease of shooting video and capture the social media style of videography. Alternative Fencing Method - YouTube

RU READY TO FARM: GETTING ROOTED IN THE GARDEN STATE

William Hlubik
County Agent 1, Professor
Rutgers Cooperative Extension
North Brunswick

Team Members: Hlubik, W[*1], Eberly, L[2], Pearsall, B[*3], Melendez , M[4], Besancon, T[5]

[1.] County Agent 1, Professor, member, North Brunswick, New Jersey, 08902
[2.] Program Assistant/Videographer, Non-member, North Brunswick, New Jersey, 08902
[3.] Senior Program Coordinator , member, North Brunswick, New Jersey, 08902
[4.] Mercer County Agricultural Agent , non-member, Trenton, New Jersey, 08601
[5.] Associate Extension Specialist Weed Science , non-member, Chatsworth, New Jersey, 08019

This is a film edited by Program Assistant Videographer Linnéa Eberly using Adobe Premiere Pro. The video was distributed to over 50 program students for review of the information and to document the talk for those who were unable to attend in person. The video will also be used for future program participants. The purpose of the Weed Walk was to increase students' understanding of common weeds typically found in cultivated and non-cultivated sites. Students who could attend in person were guided through identification and organic management strategies of various weeds at the Rutgers Specialty Crop Research and Extension Center farm. The attached video is a 15-minute sample segment of the 2-hour educational Weed Walk held on September 28, 2022 at the Rutgers Specialty Crop Research and Extension Center in Cream Ridge, NJ. This event was led by Mercer County Agriculture Agent Meredith Melendez and Extension Weed Specialist Thierry Besancon, winner of the 2023 Outstanding Educator Award from the Northeastern Weed Science Society. The event was organized by Middlesex County Agricultural Agent William Hlubik and Beginner Farmer Program Coordinator Brendon Pearsall. It was filmed by Linnéa Eberly and Brendon Pearsall using the Sony

PXW-X70 Camcorder and Panasonic GH5 camera. William Hlubik and Brendon Pearsall were executive producers and directors for the video. https://www.youtube.com/watch?v=Xye2fws9n8Y

OYSTER PRODUCTION IN VIRGINIA: GROWING OYSTER SEED

Michael Parrish
Senior Extension Agent, Crop and Soil Sciences
Virginia Cooperative Extension
Dinwiddie

Team Members: Parrish, M[*1], Long, F[*2]

[1.] Senior Extension Agent, Crop and Soil Sciences, Virginia Cooperative Extension, Dinwiddie, Virginia, 23841-0399
[2] Agriculture Extension Agent, Virginia Cooperative Extension, Saluda, Virginia, 23419

The Growing Oyster Seed video explains the basics of oyster seed production for commercial oyster farms along the Atlantic Seaboard. It is intended to explain how oyster seed is locally produced and why oysters are so important to Virginia's coastal ecosystem and the Chesapeake Bay. The video was filmed with assistance from the staff at Oyster Seed Holdings Company on Gwynn's Island in Virginia and the local Agriculture Extension Agent from Mathews County, Virginia. The project required several visits to the site to capture all of the important steps for producing quality oyster seed such as the brood stock reproduction process, growing and feeding algae, and the metamorphosis of oyster larvae into oyster seed. During the production of the video, the Virginia Institute of Marine Science and Virginia Seafood Agriculture Research Extension Center provided feedback on the video and two images of oysters. This video was posted on the Desktop Farm Day Google Site on 12/16/2022 for educators and other visitors to the site to learn about Virginia Aquaculture. The video was also posted on the Dinwiddie, Mathews and Middlesex Counties Extension Facebook Pages. Oyster Seed Holdings has also shared the video on a blog and their Facebook page. The equipment used to capture the footage included a Canon XA15 HD Camera, a DJI Mavic Mini drone, and a GoPro Hero portable camera. The editing software was Adobe Premier Elements 2020.
YouTube link: https://youtu.be/T3rXgzep-NY
Desktop Farm Day https://sites.google.com/vt.edu/desktop-farm-day/aquaculture

State Winners

NORTH CENTRAL REGION

Illinois	Ken Johnson
Iowa	Adam Sisson
Kansas	Sandra Wick
Michigan	Jonathan LaPorte
Nebraska	Katie Pekarek
Ohio	Rob Leeds
South Dakota	Jaelyn Whaley

NORTHEAST REGION

Maryland	Drew Schiavone
Pennsylvania	Gregory Martin

SOUTHERN REGION

Alabama	M. Landon Marks
Georgia	Holly Anderson
Louisiana	Sara Shields
Oklahoma	Jennifer Patterson
South Carolina	Tancey Belken
Tennessee	Seth Whitehouse
Texas	Brandi Keller

WESTERN REGION

Utah	Cheyenne Reid

Fact Sheet

National Winner

PREVENTING OVER-FERTILIZATION IN GARDENS

Natalie Hoidal
Extension Educator
University of Minnesota Extension
Farmington

Team Members: Hoidal, N[*1], Reiter, M[2]

[1.] Extension Educator, University of Minnesota Extension, Farmington, Minnesota, 55024-8087
[2.] Former Extension Educator, University of Minnesota Extension, Farmington, Minnesota, 55024-8087

While many Extension programs focus on reducing excessive nutrient use in agriculture, there has been less attention to the over-fertilization of home landscapes. In 2022 University of Minnesota Extension vegetable crop and turfgrass educators Natalie Hoidal and Maggie Reiter analyzed the results of 137,845 soil tests from the University of Minnesota Soil Testing Laboratory. We found that the median phosphorus concentration in

home landscapes was over 2.5x as high as the median phosphorus concentration in agricultural fields, and about 3x above the threshold for what the University of Minnesota considers to be sufficient for growing vegetables and healthy lawns. This fact sheet was developed by statewide educator Natalie Hoidal for two field days: the West Central Research and Outreach Center's annual Hort Night on 7/28/2022, which was attended by approximately 300 people, and a pilot soil health workshop for Dakota County Master Gardeners, which was attended by 22 people. At each event, the fact sheet was handed out as part of a hands-on demonstration on soil health practices for gardeners. The goals of the fact sheet are to prompt gardeners to test their soil, to reduce the use of too much phosphorus in home landscapes and to encourage gardeners to use alternative soil health practices in their gardens like cover crops. The fact sheet was reviewed by Christy Marsden (University of Minnesota Extension Master Gardener Education Manager), Carl Rosen (University of Minnesota Nutrient Management Specialist), and Chip Small (University of St. Thomas professor). Beyond these field days, it was shared as a blog post in the University of Yard and Garden newsletter, where it reached 1096 people, and it is being incorporated into a train-the-trainer program for Master Gardeners about soil health and nutrient management. Following the Dakota County Master Gardener event, the coordinator shared: "Tuesday night was amazing! So many people of contacted me to say how much they appreciated the information you shared. We loved the handouts with your explanations, the question and answer time, shared cover crop seeds… The night was an absolute joy!"

National Finalists:

URINARY CALCULI IN MALE GOATS AND SHEEP

Maegan Perdue
Agent Associate
Snow Hill

Team Members: Perdue, M[*1], Moyle, J[*2], Braxton, K[3]

[1.] Agent Associate, University of Maryland Extension, Snow Hill, Maryland, 21863
[2.] Senior Extension Specialist, Poultry, University of Maryland Extension, Salisbury, Maryland, 21801
[3.] Associate Professor, University of Maryland Eastern Shore, Princess Anne, Maryland, 21853

Interest in keeping sheep and goats as pets has increased in recent years. Miniature breed wethers are common. Their smaller sizes as well as lower price tags compared to females make them a viable option to many seeking pets. Many small ruminant pet owners and novice small ruminant producers are unaware of the dangers of urinary calculi. Urinary calculi development is caused by inappropriate feeding. Castration at young ages can make wethers more prone to urinary blockages. "Urinary Calculi in Male Goats and Sheep" was written to educate small ruminant pet owners and novice producers on how to recognize and prevent urinary calculi. Successful treatment of urinary calculi can depend on early recognition of the problem. It is essential that males at high risk for urinary calculi are fed properly. The intended audience is prospective and current small ruminant pet owners as well as small ruminant producers. This factsheet has been distributed through the UME Backyard Farming Facebook page which has 985 followers. It was published in October 2022 on the University of Maryland Extension website. Approximately 100 printed copies have been distributed at outreach events in three Maryland counties. Maegan Perdue was the lead author for this factsheet and took all of the photographs that were used. She also submitted the factsheet for peer review and made the editorial corrections. Content was contributed by Dr. Kimberly Braxton and Dr. Jonathan Moyle.

SITE SELECTION CONSIDERATIONS FOR NEW AND EXPANDING FARMS

William Errickson
Agriculture and Natural Resources Agent
Rutgers Cooperative Extension
Freehold

Team Members: Errickson, W[*1], Hlubik, W[*2], Pearsall, B[*3], Errickson, L[4]

[1.] Agriculture and Natural Resources Agent, Rutgers Cooperative Extension, Freehold, New Jersey, 07728
[2.] Agriculture and Natural Resources Agent, Rutgers Cooperative Extension, North Brunswick, New Jersey, 08902
[3.] Senior Program Coordinator, Rutgers Cooperative Extension, North Brunswick, New Jersey, 08902
[4.] Director of Rutgers Gardens and Campus Stewardship, Rutgers University, North Brunswick, New Jersey, 08902

Before starting any new farming endeavor, it is important to conduct a site analysis to take inventory of the physical characteristics and resources that exist on the land. This fact sheet was developed to help beginner farmers and experienced growers from a broad range of commodity groups identify the strengths and weaknesses of a specific parcel of land under consideration for commercial agricultural production. This fact sheet was originally published in June 2022 and has received 1,989 views in

the NJAES website since that time. William Errickson, the primary author was responsible for 60% of the concept and 60% of the writing for this document.

MARKET ANIMAL FEED EFFICIENCY: A TOOL FOR EVALUATING FEED CONVERSION

Cody Zesiger
Extension Assistant Professor
Utah State University
Ogden

Team Members: Zesiger, C[*1], Hadfield, J[*2], Hadfield, J[*3], Dallin, J[*4]

[1.] Extension Assistant Professor, Utah State University, Ogden, Utah, 84404
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[3.] Extension Assistant Professor, Utah State University, Nephi, Utah, 84648
[4.] Extension Associate Professor, Utah State University, South Jordan, Utah, 84095

The market animal feed efficiency calculator is designed to help youth livestock producers become more profitable and improve market animal feed efficiency. Due to the competitive nature of livestock shows, it is common for participants to spend a significant amount of money on products that allegedly provide a competitive advantage for better placement in market shows. The tool allows the user to test the efficacy of ration changes by measuring feed intake, average daily gain, and feed component costs. Using the information from the tool, young producers can make informed decisions about the feeds used in their rations and how it affects their cost of production. A PDF format of the factsheet is stored in a USU digital publication repository, and an HTML format can be found at https://extension.usu.edu/4H-Livestock-Calculator. The web version received more than 7,000 hits in 2022 and hardcopies of the factsheet have been used at several junior livestock educational events in Utah. All authors contributed to the publication by compiling information from existing literature, writing, and formatting.

Regional Winners

MISSISSIPPI NORTH CENTRAL WATERSHED FACTSHEET

Rachel Curry
Extension Watershed Outreach Associate
University of Illinois Extension
Galva

Team Members: Curry, R[*1]

[1.] Extension Watershed Outreach Associate, , Galva, Illinois, 61434

The Illinois Nutrient Loss Reduction Strategy (NLRS) outlined four watersheds as priorities within the state. The watersheds are areas to focus on for conservation practice adoption to reduce nutrient loss from the state to reach its goals. The identified watersheds as either nitrogen or phosphorus priority. One of the nitrogen-priority watersheds has been the focus of a watershed characterization effort done in conjunction with Illinois Extension, Mercer County Soil and Water Conservation District, Illinois Farm Bureau, and Northwater Consulting and supported by county Farm Bureaus, Soil and Water Conservation Districts, and United States Department of Agriculture - Natural Resource Conservation Service offices. The goal of the effort is to create a watershed characterization of the Mississippi North Central Watershed and identify sub-watersheds for future watershed planning efforts. The watershed characterization and sub-watershed plans can be used to leverage federal and state cost-share programs to fund conservation practice implementation. Through the watershed characterization effort, multiple stakeholder meetings have been held. Through those meetings, a request was made for materials that could be easily distributed to provide information regarding ongoing efforts. Rachel Curry worked in conjunction with the Illinois Farm Bureau to create the factsheet in response to this need for information. The audience for this resource was farmers and landowners within the Mississippi North Central Watershed. The goal was to provide basic information on watersheds, NLRS, watershed planning, Section 319 grants, what has been done within the watershed, and future efforts. This document has been provided to all county Farm Bureaus and Soil and Water Conservation District offices within the Mississippi North Central Watershed and was shared with approximately 60 participants at watershed stakeholder meetings held in February 2023.

MULTISPECIES GRAZING: BENEFITS OF SHEEP INTEGRATION ON RANGELANDS

Jaelyn Whaley
Sturgis

Team Members: Whaley, J[*1], Bachler, J[2]

[1.] Extension Sheep Field Specialist, South Dakota State University, Rapid City, South Dakota, 57785
[2.] Agriculture Instructor, Williston State College, Williston, North Dakota, 58801

Written collaboratively by sheep and range field specialists, this fact sheet is written for beef producers interested in adding sheep to their rangeland. This fact sheet highlights the ecological and economical sustainability of incorporating sheep into beef grazing systems. Diversifying with small ruminants increases return per acre and improves cashflow while enhancing ecosystem diversity and pasture utilization. Preliminary considerations of multispecies grazing are also discussed. On SDSU's extension website, the abstract has been viewed 179 times and the full fact sheet has been downloaded 68 times. This fact sheet has also been printed and distributed to 82 participants of extension programs.

PLANTING A GRASS RIPARIAN BUFFER WITH HAY PRODUCTION POTENTIAL

Leanna Duppstadt
Extension Educator – Field and Forage Crops
Penn State Extension
Pennsylvania
Bedford County
Team Members: Duppstadt, L[*1]

[1.] Extension Educator - Field and Forage Crops, Penn State Extension , Bedford, Pennsylvania, 15522

Riparian buffers are a key element in protecting our waterways by absorbing nutrients and reducing the amount of sediment that moves into our surface waters. This can be especially important near productive agricultural land that has frequent nutrient inputs and may utilize tillage. However, farmers are often reluctant to implement a "typical" riparian buffer with trees/shrubs for reasons of cost, tree shading and leaf litter in neighboring fields. A Pennsylvania county conservation district implemented a Streamside Grass Buffer Program in 2022 funded through the Conservation Excellence Grant (CEG). It boasted a win/win scenario that allowed the farmer to harvest for hay or haylage. However, the program details tended to be rather vague in terms of best suited species, mowing heights, etc. This prompted the writing of "Planting a Grass Riparian Buffer with Hay Production Potential". The goal was to provide farmers with a more comprehensive list of potential species that would do well near water, weed control options and harvest and maintenance instructions. These criteria were altered from the usual harvest and maintenance instructions for a typical hay field because the area needed to serve first and foremost as a riparian buffer and secondarily as a potential hay production area. Weed management considerations needed to include methods that were well suited near bodies of water that wouldn't have a negative impact on aquatic life. Leanna Duppstadt, a multi-county Field and Forage Crops educator at Penn State wrote the article to serve as a reference to farmers who may be interested in planting a riparian buffer but are hesitant to plant trees or shrubs and also concerned about losing profitable farming ground. The article was published in Penn State Field Crop News, https://extension.psu.edu/planting-a-grass-riparian-buffer-with-hay-production-potential, targeting an audience with an interest in agronomic crops and forages. Currently, the fact sheet has had 236 unique views on the Penn State Extension website and has reached 235 people on the Penn State Field and Forage Crops Facebook page with 12 post engagements.

THE FUNGUS GNATS: A TINY NUISANCE OF HOUSEPLANTS

James Morgan
University of Georgia
Statesboro

Team Members: Morgan, J[*1]

[1.] County Extension Coordinator, , Albany, Georgia, 31701-2545

ABSTRACT

The Fungus Gnats: A Tiny Nuisance of Houseplants fact sheet was created in response to numerous calls and visits from clients about tiny black gnats near the soil surface of their houseplants or flying around in their homes or office. After learning that they were actually fungus gnats, I began to research this topic and see what the possible control measures were for dealing with this nuisance pest. This led me to write this fact sheet on fungus gnats. During my research, I discovered that there was not a UGA Cooperative Extension numbered fact sheet or publication on fungus gnats. As part of the Center for Urban Ag Writing Team, I submitted this fact sheet through our publication process, and it was approved in the fall of 2021. This fact sheet is intended for homeowners to identify and properly control fungus gnats.
This fact sheet was distributed to 645 homeowners through bulk and electronic mail. It was also distributed

to over 8,000 Facebook users and 47 Blog subscribers. A variation of this fact sheet was published in the National Initiative for Consumer Horticulture e-Magazine which has 1393 subscribers.

CUT FLOWER POST-HARVEST SOLUTIONS REFERENCE - FACT SHEET

Alexis Sheffield
CEA for Horticulture
University of Kentucky
Danville

Team Members: Sheffield, A[*1], Knight, J[2]

[1.] CEA for Horticulture, University of Kentucky , Danville, Kentucky, 40422
[2.] Senior Extension Associate, Horticulture, University of Kentucky, Lexington, Kentucky, 40506

This fact sheet is meant to be a quick reference guide for cut-flower growers on post-harvest treatments for the most popular cutting varities for KY producers. Every species of flower can have a different post-harvest treatment which can be overwhelming for new growers, this fact sheet was meant to be something that could be posted around a cooler or harvest station to make post treatments quick and accurate. It is available online, for free, through the Center for Crop Diversification at UK and has been used by the agent at in person (+30 given out) and online events (+100).

CONTROL OF TWO SPOTTED SPIDER MITE IN ORGANIC PRODUCTION SYSTEMS

Morgan Menaker
Horticulture Extension Agent
NC State University
Concord

Team Members: Menaker, M[*1]

[1.] Horticulture Extension Agent, , Concord, North Carolina, 28027

The purpose of this fact sheet was to inform the Farmers in Training (FITs) at the Elma C. Lomax Research and Education Farm about the Two Spotted Spider Mite during their June monthly meeting. This pest was particularly problematic this year as Cabarrus County experienced severe drought and record-high temperatures. Multiple farms in the County experienced outbreaks on crops ranging from strawberries to tomatoes. The fact sheet was distributed via print at the monthly meeting to 20 attendees. The Cabarrus County Horticulture Agent facilitated a thirty-minute discussion about the pest's lifecycle, the damage they cause, methods for scouting, and options for cultural, mechanical, biological, and biochemical control. The FITs found it helpful, relevant, and relatable. They showed appreciation for the fact that it was tailored to their Certified USDA Organic production system.

BE ON THE LOOKOUT: ALFOMBRILLA

Ashley Hall
Area Associate Agent, Agriculture and Natural Resources
University of Arizona Cooperative Extension
Globe
Team Members: Hall, A[*1]

[1.] Area Associate Agent, Agriculture and Natural Resources, University of Arizona Cooperative Extension , Globe, Arizona, 85501

The Arizona Livestock Incident Response Team (ALIRT) is a team of rural large animal Veterinarians, the AZ Department of Agriculture State Veterinarian and Assistant State Veterinarian, Department of Agriculture Livestock Office, and University of Arizona Cooperative Extension Agents and Specialists. The goal of this team is to assist Arizona livestock producers in determining the cause of large-scale, unknown livestock deaths as well as share timely and pertinent information with each other to be spread to producers through various local and statewide outlets. This information typically includes factsheets, referred to as an ALIRT BOLO (Be on the Lookout for) of recent disease outbreaks (West Nile virus, equine infectious anemia, etc.) or other issues that may impact animals. The BOLO factsheet includes information about the kind/class of livestock impacted, plant distribution, photos for identification, animal symptoms, animal treatment options, and other background information on the plant. The fact sheet is not peer revived because the goal is to quickly disseminate information to producers that may be impacted so they are aware of the potential issue and can take action if needed. In late summer of 2022, Ms. Hall was contacted by a producer in Gila County about a new and rare toxic plant issue he was currently experiencing at his other property in New Mexico. In order to quickly inform other producers in the County about the potential for this new plant to be spreading into Arizona, a BOLO about the plant was created. The BOLO was promptly shared among the ALIRT team, numerous listservs, and social media accounts.

ALFALFA WEEVIL INSECTICIDE EFFICACY GRADES - 2023

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

Team Members: Rethwisch, M[*1]

[1.] Farm Advisor - Crop Production and Entomology, University of California Cooperative Extension - Riverside County, Blythe, California, 92225

Alfalfa is the most widely planted and also most valuable crop in southeastern California, with over 200,000 acres in production in just Riverside and Imperial Counties. The alfalfa weevil is a major alfalfa pest and its control is of high interest to alfalfa producers, pest control advisors and other entities involved/reliant upon alfalfa. The past five years have seen many changes in available alfalfa insecticides with some being withdrawn from the market, and others declining rapidly in efficacy due to the development of insecticide resistance to several widely used products. This fact sheet was developed from field experiments conducted by the author in the Palo Verde Valley over the past five years, with the purpose of providing the most current research results on alfalfa weevil control in a summarized and easily understood form for utilization by alfalfa producers and pest control advisors. This fact sheet was distributed locally via our e-mail list to local growers, PCAs, and other agricultural entities (165 individuals/businesses). In addition, it has also been requested and distributed by two neighboring Cooperative Extension county offices (Imperial, California, 499 on e-mail list) and La Paz, Arizona (39 on e-mail list). This fact sheet was made further available on three University of California websites: Imperial County Agricultural Briefs (https://ceimperial.ucanr.edu/newsletters/Ag_Briefs95855.pdf), Riverside County Crop Production and Entomology (https://ucanr.edu/sites/CE_Riverside/files/381279.pdf), and the University of California Alfalfa & Forage News (https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=56391).

State Winners

NORTH CENTRAL REGION

Iowa	Adam Sisson
Kansas	Sandra Wick
Michigan	Jonathan LaPorte
Nebraska	Nicole Stoner
North Dakota	Travis Hoffman
Ohio	Rachel Cochran
Wisconsin	Tina Kohlman

NORTHEAST REGION

Maine	Colt Knight

SOUTHERN REGION

Alabama	David Russell
Florida	Kalyn Waters
Mississippi	Jeffrey Wilson
South Carolina	Susan Lunt
Tennessee	Virginia Sykes
Texas	Rebecca Coward

Publication

National Winner

PEST FRIENDS BOARD GAME

Grant Loomis
Extension Educator
University of Idaho
Hailey

Team Members: Loomis, G[*1], Thomas, J[*2]

[1.] Extension Educator, , Hailey, Idaho, 83333
[2.] Extension Educator, University of Idaho Extension, Rupert, Idaho, 83350

The pest friends board game is an educational board game curriculum which focuses on teaching farmers, agricultural professionals and future pest managers the principles of integrated pest management (IPM). The game simulates a growing season of a fictitious crop. Players use limited actions and resources to carry out IPM practices like scouting, modifying habitat, using pesticides or researching potential pests. Each action can affect the crop yield and the insects living in the field. The player's score is determined by their remaining money and crop health at the end. The final rulebook for the game shown here was written by Thomas and Loomis. These two educators initially came up with the concept after researching IPM and game-based learning. They then created a simple prototype which they used for playtesting. After multiple revisions and testing they created the final version of the game. The team applied for and received a grant to increase production and hire a professional artist. Much of the graphic design such as the tiles and action cards was developed by Thomas. These two made final decisions on graphic layout. The mechanics of the game were created by Thomas and Loomis. The game is produced using the Game Crafter, a print on demand service. Young or new farmers find the game particularly helpful to understand how each of their actions can have an effect on insects and the crop. Currently, the game is being used in Idaho

with Master Gardeners, for high school ag classes and for pesticide recertification classes. It is also being used to train future agricultural professionals and pest managers as part of higher education coursework. It is being used in such a manner at the at multiple Universities in Idaho, Texas and California. 25 copies of the game have been distributed to educators in multiple states. Based on collaborator reports, the game has been played with over 500 individuals. 350 additional copies are in print and will be distributed in April 2023. More than 100 of these copies have been spoken for by extension professionals in multiple states.

National Finalists:

A GUIDE TO GROWING STAPLE VEGETABLES FROM AROUND THE WORLD IN MINNESOTA

Natalie Hoidal
Extension Educator
University of Minnesota Extension
Farmington

Team Members: Hoidal, N[*1], Jordan, C[2], Barbosa Oliveira, J[3], Dhore, N[4], Pagliari, P[5], Rosen, C[6], Plant Breeding Center, V[7]

[1.] Extension Educator, University of Minnesota Extension, Farmington, Minnesota, 55024-8087
[2.] Intern (former), Grossman Lab, University of Minnesota, St. Paul, Minnesota, 55108
[3.] Graduate Student, Pagliari Lab, University of Minnesota, St. Paul, Minnesota, 55108
[4.] Executive Director, Somali American Farmers Association, St. Paul, Minnesota, 55108
[5.] Associate Professor and Extension Specialist, University of Minnesota, Lamberton, Minnesota, 56152
[6.] Professor and Department Head, Soil, Water, and Climate, University of Minnesota, St. Paul, Minnesota, 55108
[7.] Student Group, University of Minnesota, St. Paul, Minnesota, 55108

Research-based information about planting practices, nutrient management and pest management allows growers to reduce risk and make informed decisions. However, research-based recommendations in the Midwest are tailored to crops grown by European descendents. Immigrant farmers are among the fastest growing farmer populations in Minnesota. While many immigrant farmers have vast farming knowledge and experience, their traditional crops perform differently in the Upper Midwest where the growing season is short, summer days are long, and new insects and diseases are present. Growers also struggle to find seed, and often transport seed illegally. This publication features basic growing guides for eleven staple vegetables from around the world that are grown by immigrant farmers and gardeners in Minnesota, and a discussion of how to legally access seed. This guide emerged from technical assistance questions from immigrant farmers that our Extension team was unable to answer due to a lack of information. We received a grant from the Minnesota Department of Agriculture to establish recommendations for these crops. Camryn Jordan, an intern in Dr. Julie Grossman's lab developed a prototype fact sheet using Canva. The lead author Natalie Hoidal adapted it and expanded it to include 11 crops, and added content from UMN trials and observations from community gardens. Co-authors reviewed the guide and provided additional content; they included University of Minnesota researchers, graduate students and farmer collaborators. All authors are listed on the first page. Photos were taken by graduate student Jessica Barbosa Oliveira unless otherwise cited. The design uses best practices for accessibility for English Language Learners. The UMN Extension communications team reviewed the PDF for accessibility, and Weaving Cultures LLC provided translation into Spanish and Swahili. The guide was first distributed at the Emerging Farmers Conference on November 12, 2022 as part of a session titled "Growing culturally relevant crops in Minnesota", facilitated by Natalie Hoidal. We shared 150 copies in English, 50 in Spanish, and 50 in Swahili. It was uploaded to the UMN Extension website on March 6, 2023 and has been shared with partner organizations working with immigrant farmers. https://drive.google.com/file/d/1HDtXkpHDCsMjYc6s6lgJR-iF_2tbh_pS/view

HAY FEEDING MANAGEMENT STRATEGIES AS COST-CONTROL MEASURES ON HORSE FARMS GUIDE B-721

Jason Turner
Extension Horse Specialist
NMSU
Las Cruces

Team Members: Turner, J[*1], Martinez, D[2], Waggoner, J[3]
[1.] Extension Horse Specialist, NMSU CES, Las Cruces, New Mexico, 88003
[2.] County Agricultural Agent, NMSU CES, Abiquiu, New Mexico, 87510
[3.] Extension Specialist, K-State Extension, Garden City, Kansas, 67846

Periods of drought have become more frequent in recent years throughout the West. In this situation, owners often look to improve efficiency in their hay feeding practices for their equine operation. Therefore, the horse specialist, the Rio Arriba County Ag Agent, and an Extension Specialist colleague from Kansas State University wrote a fact sheet,

Hay Feeding Management Strategies as Cost-control Measures on Horse Farms Guide B-721. This publication compiled the most current and relevant information on the subject with the purpose of educating horse owners on methods to minimize hay waste and nutrient loss in different equine management scenarios. The fact sheet was published by the New Mexico State University Cooperative Extension Service at the end of January 2023. Due to the short interval between publication and this award submission deadline, the distribution statistics for the online publication were not available. The publication is available at the following URL: https://pubs.nmsu.edu/_b/B721.pdf

PUBLICATION: WINTER VEGETABLE PRODUCTION ON SMALL FARMS AND GARDENS WEST OF THE CASCADES

Brooke Edmunds
Commmunity Horticulture Faculty
Oregon State University
Salem

Team Members: Edmunds, B[*1], Stoven, H[2], Noordijk, H[*3,] Andrews, N[4], Selman, L[5], Streit, K[6], Bell, N[7], Binning, V[8]
[1.] Association Professor (Practice) Commmunity Horticulture, Salem, Oregon, 97301
[2.] Associate Professor (Practice) Community Horticulture and Small Farms, Oregon State University Extension, McMinnville, Oregon,
[3.]Oregon State University Extension, Aurora, Oregon,
[4] Organic Vegetable Extension Specialist, Oregon State University Extension
[5.] Department of Horticulture, Oregon State University
[6.] Senior Instructor Family and Community Health, Oregon State University Extension, Oregon
[7.] Professor (Practice) -Retired, Oregon State University Extension
[8.] Agricultural Programs Coordinator, Previously with Oregon State University Extension

'Winter Vegetable Production on Small Farms and Gardens West of the Cascades' brought together a diverse team of eight OSU Extension experts. This 50-page publication has five chapters, full-color photos, and an extensive list of additional resources. The target audience is both small farmers and home gardeners. The publication covers all of the growing information to be successful. This includes specific details from seed sources, pest and field management, and even culinary and health benefit descriptions for over thirty types of winter vegetables (alliums, heading brassicas, leafy greens, legumes, and root crops.) Since its publication in June 2022, it has been downloaded 3,119 times and brought 1,146 new users to the Extension website. The team also collaborated to promote the publication. First, a companion series for gardeners highlighting a different winter vegetable from the publication was developed for a social media campaign. The five-week series in the summer of 2022 had a total reach of over 38,000 on Facebook and Instagram. Second, other team members developed the Eat Winter Vegetables website (https://www.eatwintervegetables.com/). This site provides small farmers and farmer's market managers with companion marketing information, including recipes and educational videos. Third, the publication was promoted to growers in OSU Extension's Oregon Small Farm News in the summer of 2022. Fourth, the publication was highlighted at an interactive display in the Farm & Garden Building at the Oregon State Fair that reached over 4,000 adults and youth. Fifth, it was shared with over 800 participants at the Oregon Small Farms Conference and Small Farm School events. Each team member contributed their specific expertise to the development, writing, production, and promotion of this publication.
This publication can be viewed online at: https://catalog.extension.oregonstate.edu/pnw548 (press the PDF button)

Regional Winners

HYDROPONICS FOR BEGINNERS: LEAFY GREENS AND HERBS

Donna Aufdenberg
Field Specialist in HORTICULTURE
Cape Girardeau County
Jackson

Team Members: Aufdenberg, D[*1], Cabrera-Garcia, J[2]

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The demand for knowledge of hydroponic growing methods has been increasing in the last several years. Growing hydroponically can be an alternative to growing specialty horticulture crops such as lettuce greens compared to traditional growing methods. In 2022, there were 23 events and workshops that took place in Southeast Missouri with various topics related to hydroponic production. Topics include introduction to hydroponic crop production focusing on different types of hydroponic systems, growing and managing hydroponics crops, and understanding pH and EC in nutrient solutions. Since many workshops are continuing to be offered, it is important that hydroponic information be offered in a publication to guide enthusiasts through

the process of growing lettuce greens. The target audience includes high school students, hobbyists, secondary education ag teachers, and commercial growers. In 2022, over 300 guides were given out at workshops. I wrote the publication Hydroponic for Beginners: Leafy Greens and Herbs based on presentations Juan Cabrera created so we have a guide for gardeners and beginning hydroponic growers to refer to as they began. The publication covers the basic hydroponic units for starting leafy greens and herbs, the desired hydroponic environment, growing options, how to mix nutrient solutions, how to start plants and how to check pH and EC. The publication was printed locally and distributed to participants in hydroponic workshops conducted between in 2022. Many workshop participants reported using the publication frequently after training while starting their hydroponic systems. Once participant responded, "Thank you for the guide. It has helped me to remember all that was talked about in class."

ENCOUNTERING ERIOPHYID MITES ON CONEFLOWER AND OTHER ORNAMENTALS

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The publication "Encountering Eriophyid Mites on Coneflower and Other Ornamentals" was developed by Agriculture and Natural Resources Extension Educator Beth Scheckelhoff as an e-GRO (Electronic Grower Resources Online) Alert targeted to green industry producers including greenhouse, nursery, and garden center growers, employees, and managers. The topic was chosen following discussions with fellow extension educators on the cause of coneflower abnormalities. Eriophyid mite damage on coneflower and other plants has been incorrectly attributed to plant pathogens and other insect pests. Furthermore, providing industry professionals with accurate cultural and chemical control measures is necessary for sound, successful pest management, A synopsis and link to the publication was emailed via Constant Contact to the e-GRO subscription list consisting of approximately 5,811 individuals in July 2022. The publication can be found here: e-gro.org/pdf/2022-11-31.pdf

The publication was solely authored by Beth Scheckelhoff, Ohio State University's Agriculture and Natural Resources Educator located in Putnam County, Ohio. All images except for Image 4 and Image 5 were taken by Beth Scheckelhoff.

86TH ANNUAL HARTFORD COUNTY 4-H FAIR PREMIUM BOOK

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This publication is designed to provide 4-H members, their parents/guardians, and 4-H volunteers with information about the annual Hartford County 4-H Fair and is a means for advertising for those that sponsor the annual fair. The book outlines opportunities for the 200+ youth who participate in the annual Hartford County 4-H Fair as well as the rules & regulations, fair schedule, and departments for the annual Hartford County 4-H Fair. In addition, the sponsor names and family messages are also published as a means to publicly recognize those individual and businesses that support the fair. Throughout the year, the book edits are discussed by the Hartford County 4-H Fair Association at their monthly meetings. Then, 4-H members go out during the sponsorship campaign and seek sponsorship support from businesses, family, and friends. Over 2,000 sponsors received advertising/sponsorship credit in the premium book. Camera ready artwork is then added to the book when the book is compiled in Word and Adobe. A review the of the book draft is conducted by the county extension educator and Fair volunteers. In 2022, approximately 300 books were printed by a third-party printer, for distribution, at a cost of $5,050.60. Some copies of the book were sent to university administrators, and each 4-H county location, in Connecticut, was provided with a copy of the premium book. The primary audience for the premium book is the 983 members, parents/guardians, and volunteers in Hartford County 4-H households. Therefore, the book is uploaded to the Hartford County 4-H website as well as the Hartford County 4-H Fair website. Additionally, a Hartford County 4-H newsletter email is sent to the active membership mailing list (983 subscribers, 50.3% open rate and 10.4% clicks) with a link to the online premium book. The premium book was designated as the first place premium book in the Connecticut Association of Fairs Premium Book Contest for 2022. Jen Cushman serves as editor of the book and coordinates distribution.

WEB SOIL SURVEY: A USEFUL TOOL TO UNDERSTAND THE NATURAL SOIL PROPERTIES OF YOUR FARM FIELD

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The Web Soil Survey (WSS) is a web-based soil survey developed and operated by the USDA—NRCS (Natural Resources Conservation Services). It provides information about the inherent characteristics of the native soil types (or series) at a specific location. The web-based platform offers easy access to the largest natural resource information system in the world and can be a very valuable resource for commercial growers from various commodity groups. However, the website can initially be challenging to navigate for users who are unfamiliar with its interface. This publication was developed to assist growers with a step-by-step tutorial on how to navigate and effectively utilize the Web Soil Survey, thus providing them with access to important information about the soils on the farms. This publication was originally published in August 2022 and has received 712 views on the NJAES website since that time. Approximately 150 additional printed copies of this document have been distributed at agricultural events including the NJ Christmas Tree Growers Association Summer Meeting, the NJ Nursery and Landscape Association Total Pro Expo, and the NJ Landscape Contractors Association Meadowlands Expo. William Errickson, the primary author, was responsible for 40% of the concept and 40% of the writing for this document.

HERD HEALTH MANAGEMENT

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The Herd Health Management publication was developed as a printable publication and as a website article for meat goat producers enrolled in the 2023 Meat Goat Home Study Course. The objective of the article is to introduce meat goat producers to herd health management practices that seek to maintain health in a herd. The purpose of the publication is to provide an overview of management practices that affect herd health. The publication discusses basic herd health practices, the veterinary feed directive, vaccination practices and how to prevent certain diseases with vaccination, how to prevent disease through biosecurity measures, and gives an overview of common potential health concerns for meat goats. Entrant wrote the publication, took, or secured permission to use, photos, designed printed publication and uploaded online version. Both printed and online versions are available to Meat Goat Home Study Course participants. There are currently 61 participants from across the United States and Canada enrolled in the 2023 course.

THE ECONOMIC CONTRIBUTIONS OF THE FLORIDA BEEKEEPING INDUSTRY

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Florida currently has over 5,000 registered beekeepers who manage over 800,000 colonies, including many from across the nation that overwinter their colonies in the state. These colonies produce honey and contribute to increased crop production through pollination services. The purpose of this study was to evaluate the economic contributions of the Florida beekeeping industry for the year 2020. Such a study had not been completed since 1999. This project was sponsored by the Florida State Beekeepers Association. Data for this project were collected via a beekeeper survey that received a 25.8% response rate (1,206 beekeepers). The report offers data and insights related to Florida beekeeper experience, number of colonies managed, employment, products and pollination services, revenue, operating expenses, investments, colony losses, threats to Florida beekeeping and more. The report was created to increase public awareness of the economic contributions of the beekeeping industry and to help inform government decision-making related to beekeeping in Florida and across the country. Fact sheets, infographics, postcards and QR codes were shared, which all referenced or linked to the 52-page report. The full report can be found at: https://fred.ifas.ufl.edu/media/fredifasufledu/economic-impact-analysis/FRE_Economic_Contributions_Apiculture_Report_2020_WEB.pdf . The Apiculture State Specialized Program Extension Agent collaborated with faculty and staff in the Food and Resource Economics Department, the Florida Department of Agriculture and Consumer Services, the School of Forest, Fisheries, and Geomatics Sciences, and the North Florida Research and Education Center in Suwannee Valley to recruit and survey over 4,000 Florida registered beekeepers. The agent took part in bi-monthly meetings to help with survey development and distribution, data analysis, and contributed to writing, reviewing, and working with beekeepers to secure photos for the report. Once the content and photos were complete, UF/IFAS communications designed the final report. The report was published in October 2022 and presented to the 75 attendees at the Florida State Beekeepers Association annual meeting. The information from this report has also been shared to 300 participants at the UF/IFAS Bee College workshop, over 150,000 individuals who visit the Florida State Fair, and 550 participants nationally at the American Beekeeping Federation Conference in January 2023.

MAINTAINING A CLEAN WATER TROUGH FOR CATTLE

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Water is one of the most important parts of cattle diets and research shows that water quality can be associated with voluntary water intake and health performance. Unrestricted water access and clean water improves feed intake and average daily weight gains, increases milk production, and decreases illness and disease. Drinking water quality for livestock can vary by location and local conditions. Farms are limited in the availability of water sources, but there are water management methods that can help provide better quality water for animal health and production. To keep drinking water supplies clean and consistently available for cattle, farmers should consider water sources, wildlife exclusion, water access and location, and cleaning. This publication provides guidance on trough maintenance for cattle drinking water supply to help improve animal health and production. It is available on the University of Georgia Extension publication library to all producers. This publication was written by Martin Wunderly, Raymond Fitzpatrick, Robyn Stewart, and Shanna Reynolds, and it was edited by Pedro Fontes. https://secure.caes.uga.edu/extension/publications/files/pdf/C%201264_1.PDF

LOW STRESS CATTLE HANDLING

Jennifer Ligon
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Through in-person Low Stress Cattle Handling workshops and online video views in 2022, and using an 88% success rate obtained from evaluation data, it is estimated that Virginia producers implementing these techniques will realize an increased profit of over $765,000. A complimentary Low Stress Cattle Handling publication was provided and with the popularity of 443 page views online, it can be estimated to realize an additional $678,600 in premiums when these publication viewers implement these techniques. Virginia boasts over 2 million head of cattle, generating $679 million with only $0.15/dollar going back to the farmer, according to the Virginia Department of Agriculture and Consumer Services. United States Department of Agriculture data shows beef producers are experiencing plummeting profit margins, receiving a mere 36.8% share in retail value in 2021. As profit margins fall, producers struggle to improve marketability and profitability. Simultaneously, consumers demand safe, wholesome, and humanely-handled labels. The Beef Quality Assurance (BQA) Certification Program was designed to correct management issues that affect the food-grade quality of meat products while increasing the marketability of live and packaged products. Low-stress cattle handling has been a focus of the BQA program that can meet these goals while satisfying consumer preference. The agent conducted research verifying the benefits of Low-stress cattle handling, developed demonstrational YouTube videos in English and Spanish, and authored an Extension publication on the subject. In 2022, she was invited to speak on and demonstrate low stress cattle handling techniques across the state of Virginia, reaching over 500 clients, including all-women, youth, and other underserved audiences. The publication has been handed out at the author's events, as well as the National Cattlemen's Beef Association Stockmanship and Stewardship clinic in Blacksburg, VA, the Virginia Forage and Grassland Council annual meetings, other agent events pertaining to BQA and cattle handling, and the 2023 Annual Canadian Beef Industry Convention. The publication is unique to the Extension library and contains important information on research, reasons, and techniques for low stress cattle handling. It proves to be a highly sought-after publication providing instructional diagrams to assist clientele with implementing this zero-input, profit increasing, marketable solution.

State Winners

NORTH CENTRAL REGION

Kansas	Terry Griffin
Michigan	Jonathan LaPorte
Nebraska	Glennis McClure
Wisconsin	Jerry Clark

NORTHEAST REGION

Maryland	Haley Sater

SOUTHERN REGION

Alabama	Kelly Palmer
Kentucky	Keenan Bishop
Louisiana	David Moseley
Mississippi	Brady Self
Puerto Rico	Sofía Macchiavelli Girón
South Carolina	Charly Greenthaler
Tennessee	Virginia Sykes

WESTERN REGION

Arizona	Betsy Greene
Utah	Cody Zesiger

Website/Online Content

National Winner

GOOD GROWING BLOG

Chris Enroth
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U of I Extension Unit 10
Macomb

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The Good Growing blog is a weekly blog produced by University of Illinois Horticulture Educators Chris Enroth,

Ken Johnson, and Emily Swihart. The blog covers a wide range of horticultural topics, from fruits and vegetables to flowers, trees, invasive species, pollinators, pest management, and more, "Keeping you (and your garden) growing with good ideas." Each author is responsible for writing, posting, and formatting their blog posts. The blog is part of the University of Illinois Extension webpage, which utilizes Drupal. The blog was started in 2015 and has grown to be the most viewed University of Illinois Extension blog. From March 15, 2022, to March 8, 2023, the blog received over 290,000 views.
Link to the Good Growing Blog - go.Illinois.edu/GoodGrowing

National Finalist:

PLANTS AND PESTS WITH NICOLE

Nicole Stoner
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Plants and Pests, from Aphids to Zinnias, is a blog from Nicole Stoner. It has a new article posted on it nearly every other week through the year and in the spring and summer is used even more often as a way to incorporate Nicole's radio show. It showcases the Questions and Answers from the show, Yard and Garden Live. Using the blog was a first step in more accessibility to the listeners of her live, call-in radio show. This way people could refer back to the blog for the answers to questions they heard on the show and others could read through it when they couldn't listen live. The blog also features a Horticulture timing calendar to help people with what to do in the landscapes for correct timing. In 2022, the blog was viewed 3,654 times by 2,876 visitors and had 21 likes. The blog can be found at https://plantsandpests.wordpress.com/

UW MADISON EXTENSION DAIRY PROGRAM FB LINKS UNIVERSITY RESOURCES TO INDUSTRY

Tina Kohlman
Regional Dairy Educator
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Online social media content has become the go-to source for news and announcements. Farmers frequently rely on easily accessible content via mobile device or computer without the hassle of opening attachments or long, verbose emails. The UW-Madison Extension Dairy Program has utilized Facebook's social media platform to disseminate information to individuals in a concise manner. The Facebook page consists of shared posts from popular press written by, or about extension colleagues, educational videos, research-based articles from the University of Wisconsin and other agriculture universities, and other relevant content that can be shared via a web link. Regional Extension Dairy Educators, Tina Kohlman and Aerica Bjurstrom developed and manage the page and post content and graphics, with additional posts (directed by Kohlman or Bjurstrom) done by Erin Dahle, program assistant, Extension Kewaunee County. Content focuses on reaching dairy producers, agribusiness professionals, and in some cases, the general public with the intent to educate on general dairy operation practices. The platform also promotes events with the use of videos and Facebook events promoting not only the meeting and/or event, but also individual speakers. The page averages a reach of 5,200 people the past 90 days on 78 posts. The social media page has grown to over 1,000 "likes" with 1,270 "followers" as of March 14, 2023. The page can be viewed at https://www.facebook.com/UWExtensionDairyProgram

FARMING BASICS MOBILE APP

Eric Schavey
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https://www.aces.edu/blog/topics/ipm-farming/farming-basics-mobile-app/

The Farming Basics Mobile App Version 2 was updated from the previous version released in November 2019. Version 2 was released in June of 2022. This application is a free download for iOS and Android users and provides quick references for the most common fruits and vegetables produced in Alabama and the southeastern United States. The application provides pictures of common insects, diseases, and weeds that affect different fruit and vegetable crops. The Farming Basics Mobile app also provides recommendations for the control of these pests including both organic and conventional options. In addition, the application allows for push notifications to notify user of upcoming events and timely information. I was the project lead for Version 2 and was assisted by a panel of colleagues that covered all areas of development. This team was comprised of an entomology specialist, web design and IT specialists, regional extension agents, and program leaders that provided content and feedback during the development of this application. Our team designed this application with a holistic approach targeting the agricultural community. Extension Agents, Farmers Cooperative Managers, Homeowners, and Vocational Agricultural Educators have all found this application to be beneficial in their day-to-day duties. Version 1 of the app launched in November of 2019 and through June of 2022 was downloaded 3200 times on iOS and 1100 for Android, totaling 4300 downloads. Since the release of Version 2 on June 27, 2022 there have been more than 2100 new downloads, and usage numbers have shown a 1000% growth since the V2 launch. Extension surveys have also indicated that 38% of program participants use the Farming Basics Mobile App. The application allows clientele to provide direct feedback along with contact information for their local Extension Agents. The application also provides links to the Beginning Farmer Program, fertilizer and irrigation calculators, ACES.edu, Southeastern Vegetable Grower Handbook, Commercial Horticulture Facebook and YouTube channels along with links to crop enterprise budgets. The Farming Basics Mobile App is a high tech tool in your agricultural toolbox that allows you to properly identify pests and contact your local Extension Agents wherever you are.

Regional Winners

UCONN 4-H WEBSITE REDESIGN AND VOLUNTEER RESOURCES

Stacey Stearns
Educational Program Administrator
University of Connecticut
Storrs

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The 4-H website (https://s.uconn.edu/4-H) was redesigned, with specific attention on the volunteer resources to support onboarding and retention. We need more 4-H volunteers, as many counties have youth waiting lists. Our intention was to educate the target audiences of current and prospective volunteers about UConn 4-H, the opportunities available, and 4-H's impacts.

We also wanted to encourage current 4-H volunteers

to explore new program areas and curriculum beyond those they already use. Prospective volunteers received a friendly and informative introduction to the program that clarified expectations and resources, and it showed them the array of educational materials available through UConn 4-H.

The 4-H Volunteer section of the website has two primary areas, becoming a volunteer (https://4-h.extension.uconn.edu/becoming-a-volunteer/), and training and resources (https://4-h.extension.uconn.edu/training-and-resources/). We added an intake form that allows a prospective volunteer to submit their contact information and is automatically emailed to our team members. The training and resources page provides volunteers with step-by-step instructions for ZSuite enrollment, chaperoning, health forms, and others. Fact sheets offer on-demand resources on additional topics.

There were 14,046 sessions on the UConn 4-H website in 2022 with 10,122 users. Of these, 49.97% were located in Connecticut. New York and Massachusetts had the next highest numbers. The top ten also included Virginia, Texas, California, North Carolina, Georgia, Florida, and Pennsylvania.

These 10,122 website users had 30,784 page views, an average of 2.19 website page views/session. The average duration is 01:49 minutes; comparable to our other websites. In 2021, there were 7,339 sessions and 5,200 users total; so our efforts helped double the number of users. The volunteer pages had 956 page views. The number of 4-H volunteers increased from 1,925 in 2021 to 2,847 at the end of 2022.

MARYLAND POULTRY

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The purpose of the University of Maryland Extension Maryland Poultry website is to keep commercial poultry growers as well as backyard flock owners up to date on upcoming events and provide educational materials to keep their flocks productive and healthy. Educational materials related to poultry such as factsheets, publications, workshops and webinar recordings and upcoming events information can be accessed on the site. Visitors can also access contact information for poultry educators. Content is provided by Jonathan Moyle, Jennifer Rhodes and Maegan Perdue to Sheila Oscar who publishes it to the website. The website averages over 1,100 visits per month. https://extension.umd.edu/programs/agriculture-food-systems/program-areas/animal-science/maryland-poultry

RU READY TO FARM

Brendon Pearsall
Senior Program Coordinator
Rutgers Cooperative Extension
Hightstown

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[6.] Farm Coach, Rutgers Gardens, North Brunswick, New Jersey, 08902
[7.] Web Developer, Rutgers SEBS, North Brunswick , New Jersey

The Rutgers Beginner Farmer Training Program website rubeginnerfarmer.rutgers.edu is a resource for course information, media links, and important links for beginner farmers. The website provides an overview of the program and program personnel, and an informational session recording that explains the program in detail. The Resources tab links to a bulletin prepared by the program team and contains links to a wide range of organizations and resources that can help beginner farmers. The information is easily accessible not just for program participants but also for anyone looking for information on the program or general farming guidance. It is a valuable resource for beginner and experienced farmers

alike as they plan and/or establish a farm operation. The website also links to the program Instagram and Facebook pages and includes an "in the media" page that highlights the articles, videos, and radio interviews in which the program is featured. A link to the program's donation page allows supporters to donate to the program through the Rutgers Foundation. In the past year, the site attracted 4,504 visitors, with 87.4% being new visitors and 12.6% returning visitors. Brendon Pearsall, member and program coordinator, of Rutgers Cooperative Extension of Middlesex County NJ, is the designer and manager of the website.

PRECISION POULTRY FARMING

Lilong Chai
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UGA
Athens

Team Members: Chai, L[*1]

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A new website/ blog "precision poultry farming" was initied by Dr. Lilong Chai (Engineering Specialist in the Department of Poutlry Science at UGA) with the support of UGA Integrative Precision Agriculture (https://iipa.uga.edu/). The website of Precision Poultry Farming (https://site.caes.uga.edu/precisionpoultry/) has published 7 articles on different topics of applied research related to poultry production:
Thermal Imaging and Smart Cooling for Laying Hens in Commercial Cage-Free Houses (Jul 22, 2022; Author: Lilong Chai).
Robots for Precision Poultry and Egg Production (Auguest 24, 2022; Author: Lilong Chai).
A Precision Method for Tracking Cage-free Hens on the Floor (Sep 29, 2022; Author: Lilong Chai).
Solar Powering Systems for Climate Smart Poultry Production in Georgia (October 24, 2022; Author: Lilong Chai).
Tracking Broiler Chickens at Different Ages with Deep Learning (December 12, 2022; Author: Lilong Chai).
Monitoring Cage-free Hens' Pecking with Deep Learning (January 9, 2023; Author: Lilong Chai).
Controlling Ammonia Emissions in Poultry Houses (Feburary 21, 2023; Author: Lilong Chai).
The website/blog provides information of precision poultry farming for general public on precision management of poultry farming, the number agricultural sector in Georgia.

SOUTH CAROLINA GROWER WEBSITE/BLOG

Justin Ballew
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The South Carolina Grower provides current fruit, vegetable, and other specialty crop news from around South Carolina. News from the the field is shared in the form of a "Weekly Field Update" that includes information from each of the four regions of the state about recent weather conditions, current crop stages, whats being planted or harvested, and any relevant pest issues. A fun "Question of the Week" post is also made weekly to test reader's knowledge. The site also includes a schedule of fruit and vegetable related events, important grower resources, research updates, and links to the "The SC Grower Exchange" podcast, which is also managed by fruit and vegetable agents. The site was created in 2019 and has grown to over 450 subscribers. It has grown significantly each year, receiving nearly 4,000 views in the first year, 12,000 in 2020, 17,000 in 2021, and 30,000 in 2022. The site is a team effort with six Extension Agents and numerous Extension Specialists and Researchers contributing content regularly.

HIGHLY PATHOGENIC AVIAN INFLUENZA SOCIAL MEDIA GRAPHICS

Ashley Wright
Livestock Area Associate Agent
The University of Arizona
Vail

Team Members: Wright, A[*1]

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In 2022, a severe strain of Highly Pathogenic Avian Influenza (HPAI) swept across the United States, and social media filled a need to get information to broader audiences. Arizona has a significant population of hobby chicken keepers, many of them urban. The past 5-10 years have seen a trend towards cities relaxing restrictions on chicken keeping on small lots. For example, Tucson now allows up to 24 hens on lots under 16,000 square feet (1/3 acre). This push towards urban agriculture has been embraced, and created a large group of stakeholders in need of education as many have no other livestock experience. In June, the HPAI was detected in AZ for the first time, and multiple requests from concerned Arizona chicken keepers piled in. Many had no connection with other livestock programs to know where to go for science-based information, and were distrustful of the Department of Ag after hearing of flocks being depopulated. With one large social media group (Tucson CLUCKS – 5,032 members) as well as a number of other outlets, web and social media content was determined to be the best way to connect this group with important information on HPAI and Cooperative Extension. To share this information an article outlining steps producers should take was created and posted on the UArizona Cooperative Extension website (https://extension.arizona.edu/highly-pathogenic-avian-influenza-detected-arizona) and from that article, a series of 5 social media graphics was created (https://www.facebook.com/UArizonaExtensionBackyardPoultry/posts/pfbid02xcJtrgS7bFSvf3SE4DNinWRvFCUNviRZMMeXLv9zteUihgSyTihWcnYRzGVoy9v1l).

These social media graphics delivered the most important pieces of information in a clear, easy to follow format with links to the more in-depth article provided in the description. The post itself reached 2,088 people organically and generated 82 clicks from the original share. Additionally, it was shared in the Tucson CLUCKS group reaching many of its members and was shared 22 times to other locations/groups on Facebook. In the future, using social media graphics that are easy to share and visually impactful to deliver the action items with links to a more in-depth article may generate interest, increase knowledge, and extend the reach of extension products beyond the typical rural/agricultural audience.

BEEF CATTLE HERD HEALTH

Tracy Schohr
Livestock and Natural Resources Advisor
University of California
Quincy

Team Members: Schohr, T[*1]

[1.] Livestock and Natural Resources Advisor , University of California Cooperative Extension , Quincy, California, 95971

UC Cooperative Extension in collaboration with UC Davis Veterinary Medicine offers free online webinars. The sessions cover topics important to cattle health and management and include lots of visuals. Webinars are held live and participants have the opportunity to ask clarification questions on topics presented or with personal ranch questions or scenarios. This site includes future cattle health webinars, recordings of past webinars, and follow up resources. https://ucanr.edu/sites/Rangelands/CattleHealth/

In 2022, there was a 6-week online educational series for cattle producers covering cattle health topics. The live evening sessions drew 443 attendees. To provide maximum reach from the 2022 webinar series, Schohr created a website with resouces and expanded her personal skillset learning video editing to offer a professional recording of all the sessions online, that have been viewed over 441 times. The webinar series received extensive, positive clientele feedback on the value, one Butte County rancher commented “Honestly, this was world class information and presentation. I will never be able to thank you enough!”

The webinars were cohosted by University of California Cooperative Extension advisors Tracy Schohr, Grace Woodmansee, Rebecca Ozeran and specialist Dr. Gabriele Maier.

KANAB FARMER'S MARKER SOCIAL MEDIA PROGRAM

Victoria Xiong
Extension Assistant Prof.
Utah State University
Kanab

Team Members: Xiong, V[1]

[1.] Extension Assistant Prof., , Kanab, Utah, 84741

Instagram:https://www.instagram.com/kanabfarmersmarket/
Before the county agent took over the Kanab Farmer's Market (KFM) in August 2021, the farmer's market was dying and barely had any online promotion.
In May 2022, the KFM issued a brand new logo with its Instagram account linked to the existing Facebook account, which the county agent manages to promote the 2022 season. For the 2022 season, there was a total of 18 vendors, which tripled the number of vendors in 2021. During the season, the highest watched Reel reached 11,800 accounts and was viewed over 12,000 times. The account interacted with vendors' accounts over 60 times during the season.

State Winners

NORTH CENTRAL REGION

Kansas	Terry Griffin
Michigan	Benjamin Phillips
Ohio	Rachel Cochran
South Dakota	Kristine Lang

SOUTHERN REGION

Florida	Amir Rezazadeh
Kentucky	Rebecca Konopka
Louisiana	Ashley Edwards
Mississippi	Heather Jennings
North Carolina	Steve Pettis
Oklahoma	Julia Laughlin
Tennessee	Evangelon James
Texas	Shaniqua Davis
Virginia	Kirsten Conrad

Learning Module/Notebook

National Winner

AGRICULTURAL TOURISM LEARNING MODULE HELPS PRODUCERS MAKE DECISIONS

Melissa Fery
Small Farms Extension Agent
Oregon State University
Eugene

Team Members: Fery, M[*1], Comerford, A[2], Moran, T[3], Chaney, D[4]

[1.] Small Farms Extension Agent, Oregon State University, Eugene, Oregon, 97402
[2.] Agritourism Program Coordinator, Oregon State University, Salem, 97301
[3.] Small Farms Program Coordinator, Oregon State University, Corvallis, Oregon, 97330
[4.] Instructional Editor, DEC Education Services, Corvallis, Oregon, 97330

Producers' interest in adding an agricultural tourism component to their farm or ranch business is increasing. As there was not a comprehensive training where producers could obtain information on operating an agritourism business and hosting the public on their property, we developed an online learning module entitled "Developing a Successful Agricultural Tourism Business" which launched in March 2022. This was also a way to assist producers in other parts of the state that did not have Extension faculty working on this topic. The self-paced module guides participants through topics like assessing risks, reducing liability, understanding regulations and permitting, determining marketing strategies and providing high-quality customer service. Throughout the module, producers are encouraged to develop an action plan to guide their next steps in the exploration and development of agritourism activities when applied to their operation. We wrote original text and supporting downloadable factsheets to cover important information. Photographs and images are placed throughout for visual learning. We created six videos describing various types of agritourism and signage options and recorded and edited five farmer interviews to share how agritourism works for their operations and challenges they encountered. Additionally, two stakeholders provided expertise content through video, and we supplied links to other resources to provide more information. Registration is continuously open, and participants have access to the materials for one year to accommodate different production seasons. Since its launch, the course has been accessed by 155

participants across Oregon and nearby states. So far, the course evaluation has been completed by 35% of the participants. Data shows that 100% agreed or strongly agreed that the course helped them improve their understanding of agricultural tourism and how it relates to their farm. As a result, 33 producers plan to add an agritourism activity to their business while others have identified that agritourism is not an option for them. Over seventy-five percent of respondents indicated at least one action they intend to take. The module can be accessed at https://beav.es/wYh. A separate link that avoids registering will be emailed to the state chair who will forward it to the regional chair if selected.

National Finalists:

ARTIFICIAL INSEMINATION PROGRAM

Heather Schlesser
DAIRY AGENT
UW-Madison Division of Extension
Wausau

Team Members: Schlesser, H[*1], Stuttgen, S[*2]

[1.] Dairy Agent, Wausau, Wisconsin, 54403
[2.] Agriculture Educator, , Medford, Wisconsin, 54451

The purpose of this training is to expose beef and dairy producers to artificial insemination techniques so they can increase their knowledge and understanding of AI, resulting in more pregnancies from producers' breeding their cattle. Due to COVID, the format changed from a two-day hands-on workshop for small groups (less than 20) to a hybrid program of two virtual sessions followed by two in-person hands-on practice days. A Student Manual that included PowerPoint slides with space for notes, and supplementary articles and materials was created to assist the hybrid format. Heather Schlesser compiled the materials into one manual, assembled, printed, and bound the manual. Schlesser created PowerPoint presentations and articles as indicated in the student manual. Sandra Stuttgen created the Pregnancy Detection PowerPoint presentation and articles relating to pregnancy detection and beef heifer weight and age at first breeding. Ryan Sterry, UW-Madison created the article on the AM/PM rule. Pre and post-test questions, and survey questions, were created by Schlesser and Stuttgen. The instructor manual which includes presenter notes for the PowerPoint presentations, was created in 2022 with Heather Schlesser adding the notes for her presentations and Sandy Stuttgen adding the notes for her presentations. The student manual was mailed or hand delivered to 185 participants. To earn a completion, certificate participants demonstrated sufficient skill in handling semen and breeding cattle. Participants were also asked to take an eleven-question quiz at the start and end of class to demonstrate their change in knowledge. Quiz questions focused on female anatomy and physiology, signs of heat, tools for heat detection, reason and methods for pregnancy detection, and questions on synchronization protocols. The average change in pre-quiz and post-quiz scores was 26%. To determine the long-term impact of our program, we surveyed participants from the 2015 – Sept 2021 classes (N = 144; n= 12). Results indicated one respondent decreased the number of bulls on their farm by one animal saving them $1,445. Participants bred 3,760 animals, saving them $100,242 in breeding fees.

STARTING A VALUE-ADDED DAIRY FOODS BUSINESS: PENNSYLVANIA

Sarah Cornelisse
Sr. Extension Associate
Penn State Extension
University Park

Team Members: Cornelisse, S[*1], Fenton, G[*2], Kaylegian, K[3], Goodling, R[4]

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[2.] Sr. Extension Educator, Pennsylvania State University, Mercer, Pennsylvania, 16137
[3.] Associate Research Professor, Pennsylvania State University, University Park, Pennsylvania, 16802
[4.] Agricultural Business Consultant, Horizon Farm Credit, Lewisburg, Pennsylvania, 17837

Dairy farmer interest in on-farm processing continues to grow in Pennsylvania motivated by desires to improve the financial sustainability of the dairy, create business opportunities for future generations, and concern about commodity milk prices. Nationally, USDA has recognized the growth in this industry through its dairy business innovation initiative funding. Over nine sections, Starting a Value-Added Dairy Foods Business: Pennsylvania students learn about multiple facets of starting a dairy foods processing business including farm-level production and financial factors, introductory level product manufacture steps and equipment needs, resource identification, marketing, financial analysis tools, and state and federal regulations. Each section includes "check your learning" questions and a quiz to ensure learning objectives are met. Students receive a certificate of completion upon successful course completion. The course was written by a team of four current and former extension personnel. I initiated the development of the

course, recruited the curriculum team, guided course structure, and wrote sections 1 (Value-Added Dairy), 4-9 (Dairy Product Marketing, Product Pricing, Resource Planning, Financial Planning Tools, Federal Regulations, Pennsylvania Regulations) and the conclusion. Section 7 offers two Excel spreadsheet tools that I developed. Additionally, I reviewed all course content, "check your learning" and quiz questions, compiled and/or developed course handouts and resources, recorded the videos in the course, and liaised with the digital education team who had the role of putting content into the online learning management system (LMS) platform. Two additional versions of the course have been published; a version for the states of North Carolina, Tennessee, and Kentucky in which the section on state regulations is customized to those three states, and a national version that does not include a section on any individual state's regulations. The course is available at https://extension.psu.edu/starting-a-value-added-dairy-foods-business-pennsylvania. To access the course, select the "Register Yourself" option. You will need to sign in or create an account. You can view the materials for free by using the code OLC-1035-REVIEW. If you have any problems accessing the materials, you can contact the person who submitted the entry at sar243@psu.edu or by phone at 814-404-2417.

Regional Winners

PEST SCOUTING GUIDE – SCOUTING WITH GROWING DEGREE-DAYS

Timothy Waller
Agriculture & Natural Resources County Agent III
Rutgers
Millville

Team Members: Waller, T[*1], Errickson, W[*2]

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The Rutgers Plant and Pest Advisory (PPA) online alert platform hosts numerous commodity specific editions including two for ornamentals, the Landscape, Ornamental, Nursery and Turf (LONT) Edition (920 subscribers) and a new Christmas Tree Edition (131). In efforts to promote more sustainable IPM two online guides were developed, "Nursery and Landscape Pest Scouting – Scouting with Growing Degree-days" and "Conifer Pest Scouting – Scouting with Growing Degree-days". These guides can be viewed electronically or printed thus allowing flexible options for IPM managers. The two guides utilize pest growing degree-day (GDD) ranges (compiled from multiple university's resources), how to obtain GDD, and contact information. The first guides were posted in 2022, and contained pests listed by favored host plant, common name, scientific/Latin name, GDD minimum, GDD maximum, target pest stage, and references to the source material, all viewed in a single table. The second version (2023) now includes pest "Group" type for sorting ease. This document is viewed as three separate tables to assist in rapid location of desired content. Additionally, the cover page of both guides contain two QR codes, one linking to the online version (from a printed copy) and another that links to a reporting system where users can note GDD diversion from the stated range, leave comments, and upload photographs of pests and hosts which collectively will increased the value of future versions. The overarching goal of this project was to get IPM information into the hands of those on both sides of the digital divide, as 200 paper copies have been delivered (with QR codes linking to online format) and many more via online means. 2023 Nursery and Landscape Pest Scouting Guide (PSG) here: https://go.rutgers.edu/iz41f8pr.

ALABAMA PRIVATE WELL PROGRAM ONLINE COURSE - "OWNING A PRIVATE WELL IN ALABAMA"

Jessica N. Curl
Auburn

Team Members: Curl, J[*1]

[1.] Outreach Administrator, Alabama Cooperative Extension System, Auburn, Alabama, 36849

The "Owning a Private Well in Alabama" online canvas course was released in 2022, completing a "trifecta" of resources offered by the Alabama Private Well Program. The online course mirrors the "Owning a Private Well in Alabama" handbook, also released in 2022 by the same author. The online course presents information covered in the handbook in an interactive and easy-to-interpret format. The course consists of seven modules and covers the following topics: aquifers of Alabama, considerations for owning a well, well yield and water rights in Alabama, water quality, testing well water, treating well water, and protecting wells. The course also features innovative ways of presenting information to the user, including "hot spot" maps where participants can click on a portion of a well diagram and learn more about the system, descriptive videos, self-progressing powerpoints, and more. The course is presented in such a manner so that it may be used by the public, agency partners, and researchers across the state that are interested in learning more about private well systems, allowing it to reach a diverse

audience. The author compiled all of the information presented in the course and proposed ways of presenting the information, and Extension IT built the course based on these recommendations. The online course can be seen at https://aces.catalog.auburn.edu/courses/owning-a-private-well .

TRAINING TRAINERS TO TEACH HYDROPONICS

Hannah Wooten
Commercial Horticulture
UF/IFAS
Orlando

Team Members: Wooten, H[1]

[1.] Commercial Horticulture, , Orlando, Florida, 32812

Florida ranks second in the United States for vegetable production, and the second largest industry in Florida is agriculture. Florida's climate is ideal for specialty crop production and is desirable for urban development. Labor and land are costly inputs for agricultural production. Despite abundant rains, water resources are managed for growing populations forcing efficient use across industries. Hydroponic food production has the potential to produce similar yields as traditional agriculture using significantly less water, land, and labor. Equipping urban audiences with knowledge and tools to successfully grow food hydroponically provides new options for feeding the growing urban population in non-traditional growing environments. I developed Set it and Forget it Hydroponics and taught 27 workshops to Central Floridians since 2017 (n=1,642). To supplement practice adoption, I made a popular YouTube video entitled Hannah Wooten Hydroponic Lettuce (https://www.youtube.com/watch?v=GQey35Tt24I) receiving over 608,000 views. Workshop demand exceeded supply, so I developed a train the trainer hydroponics workshop and learning module. The trained trainers included (n=100) teachers, Master Gardener Volunteers, and Food and Nutrition Program staff. The lessons included constructing a hydroponics kit in class plus additional materials, and Google Drive (https://drive.google.com/drive/folders/1QzP3JXHsAnsjEzhvSaWDD1ptWf-NJRNl?usp=sharing) access to a PowerPoint and handout. The resources were ready for classroom deployment which resulted in the greatest successes. Regular workshop participants completing post-event evaluations (n= 642) report 100% knowledge gain about hydroponic production and 95% intend to grow their own food hydroponically using hydroponic kits built in class. Annual Qualtrics evaluations of the "trained trainers" in hydroponics (n=21) indicate 76% incorporated hydroponics into lessons resulting in at least 1,924 hydroponic systems built and used for teaching in urban classrooms. Comparing the outcomes, if 95% of the 1,642 regular class participants made hydroponics systems as indicated, that results in 1,560 new hydroponic systems (less than 1 per participant), compared to "trained trainers" resulting in 91 hydroponic systems built per trainer (91 per participant). Hydroponics is an excellent adaptable production method for urban audiences in non-traditional growing environments. Training trainers and providing ready-to-use learning modules is an efficient use of Extension Agents' time and resources because the capacity is expanded exponentially.

TENNESSEE EXTENSION MASTER GARDENER INTERN TRAINING PROGRAM

Evangelon James
Extension Agent
University of Tennessee
Cleveland

Team Members: Bumgarner, N[*1], Stefanski, J[*2], Duncan , A[*3], Rose, M[*4]

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[2.] Extension Agent II, University of Tennessee , , Tennessee,
[3.] Extension Specialist I, University of Tennessee , ,
[4.] Extension Agent III, University of Tennessee , ,

Extension Master Gardener (EMG) intern training is a crucial foundation for horticulture volunteers and a key building block for county horticulture outreach. With new generations of potential volunteers, intern training curriculum and resources need to be flexible to reach new audiences while remaining robust and research-based to provide a solid training. In Tennessee, our EMG training program can be delivered in two formats designed to provide the same foundational curriculum. The most flexible options provides County Coordinators of the Tennessee Extension Master Gardener Intern Training Program the opportunity to deliver this program asynchronously using the provided training website. This website houses all the course material that interns will need. Each unit begins with reading from the Master Gardener textbook, a pre-lecture video module, and a self-paced activity. These activities prime the learner for the main lecture by covering key vocabulary and helping the learner to connect to the topic. The learner will then watch the lecture online and take a quiz to check their knowledge. After their online work is completed, the interns will meet to participate in a hands-on activity with their agent. The unit to be judged is the plant disease unit. The pre-lecture module was filmed by Anna Duncan and features both Justin Stefanski and Evangelon James with

lecture content provided by Dr. Alan Windham. The self-paced activities and overall course design were developed by Dr. Natalie Bumgarner and Anna Duncan. https://sites.google.com/utk.edu/2023asynchtemgintern/week-9-plant-diseases

VGS 5 TUTORIALS - A LEARNING MODULE VIDEO SERIES

Ashley Hall
Area Associate Agent, Agriculture and Natural Resources
University of Arizona Cooperative Extension
Globe

Team Members: Hall, A[1], Perry , C[2]

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[2.] Data Scientist Manager III, University of Arizona School of Natural Resources and the Environment, Tucson , Arizona, 85721

VGS is a free software application designed for recording and managing ecosystem data. The application provides: 1) a data repository for organizing and managing data, photos, documents, positional coordinates, and other information associated with an unlimited number of study locations, 2) electronic tools for recording data in the field (using tablets), and 3) reports for summary and presentation of data results. Data forms are available for a variety of vegetation quantitative and qualitative sampling methods and can be designed for specific needs. VGS started as a grassroots program designed at the University of Arizona (UA) by Dr. Del Despain and used by UA Cooperative Extension (CE). VGS' use within CE System has expanded to Utah State, Texas A&M, University of Nebraska, and University of Idaho Agents and Specialists with programs focusing on natural resource and rangeland management. Outside of CE, rangeland management professionals on 61 National Forests, 6 Bureau of Land Management Field Offices, Natural Resource Conservation Service in 4 states, private ranches, consulting firms and foundations also use the program. New users are provided program training; however, some elements are often forgotten after the training has ended. As the number of users increased, many expressed the need for a quick way to troubleshoot basic program components. Due to user needs and widespread use, 23 learning module tutorials were created for the current VGS version. The tutorials are separated into succinct videos that cover topics users may need assistance with. For ease of use, videos include screen recordings that users can follow along with on their tablet as they troubleshoot the issue. All aspects of the tutorials including scripts, voice and screen recordings, and editing was completed by Ms. Hall and Mr. Perry using Camtasia. Each video takes approximately a day to produce. The learning modules are distributed to users through the VGS YouTube channel (https://www.youtube.com/playlist?list=PLuKzAJ6lXB5DFrJN83Q7O5otooY4Z51JS) and VGS website (https://vgs.arizona.edu/). The tutorials are organized in a playlist based on order the user will encounter the topic but are also relevant if viewed independently. They were posted to YouTube August 2022 and cumulatively have 550 views as of January 2023.

ONLINE 4-H LIVESTOCK PORTFOLIO/RESUME INTERACTIVE COURSE

Ashley Longmore
Extension Assistant Professor
Utah State University
Brigham City

Team Members: Longmore, A[*1], Reid, C[*2], Barsnick, K[*3]

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[2.] Extension Assistant Professor, Utah State University, Vernal, Utah, 84078
[3.] Extension Assistant Professor, Utah State University, Roosevelt, Utah, 84066

We believe that providing consistent and easily accessible learning material to youth involved in raising livestock will allow them to provide improved livestock management, improve their productivity and ultimately have a greater understanding of their projects. It is important for youth involved in raising a 4H livestock project to understand the financial, ethical and business side of their project. We want them to plan and set goals for their projects just as if they were running a business. We want to teach them these sets of skills and help them set, develop, and review their project goals.

Our goal is to provide a better understanding of the process involved in building a portfolio or curriculum vitae that they can expand upon each year. Youth will learn how to document their hard work and successes and build a meaningful resume that they can use to apply for jobs and/or college. These learning opportunities need to be available to all youth across the state of Utah. We have developed a interactive online course, free of charge that takes youth through the process of developing a resume and cover letter. We have just launched it as of 3/7/23 and are in the process of advertising and sharing the link with youth throughout Utah.

This is the link to the online course: https://rawcdn.githack.com/usuextweb/weber-4h-portfolio/09a2ca31c86864c9e121cc2f023f3df2c652164e/index.html#/

State Winners

SOUTHERN REGION

Arkansas	Andrew Sayger
Georgia	Blake Carter
Mississippi	Jeffrey Wilson
North Carolina	Sara Drake
South Carolina	Alana West

WESTERN REGION

Colorado	Jenny Beiermann
Idaho	Jennifer Jensen

Published Photo

National Winner

THE STRUTTING TOM

James Davis
Multi-County Extension Director
UF/IFAS Sumter County Extension
BUSHNELL

The photo was taken February 21, 2023, alongside a road in Sumter County, Florida. Equipment used was a Nikon D500 with a NIKKOR 200-500 mm lens. Photographic info: 1/1000 sec: ISO 800: f/6.3 at 500mm. Size: 3117 x 3258. This picture was used in print and presentations multiple times. 1.) The UF/IFAS Extension Hernando County Newsletter. Target audience are advisory committee members, homeowners, landscape professionals, youth, and volunteers. Title: "The Strutting Tom". The newsletter was delivered to 40 residents. Date published 3/14/23 2.) Facebook post as a part of the Wildlife and Invasive Species Education™ group. Total reach was 443 people, 457 post impressions, 30 post engagements with two shares and 11 likes. Date published 3/3/23. https://www.facebook.com/WISEsumter and https://www.facebook.com/HernandoExt. 3.) The picture was also posted on the Florida Birds and Wildlife Facebook group. This group has over 45,000 members. The picture was uploaded on 2/27/23 and received 105 likes. 4.) The virtual Wildlife and Invasive Species Education™ webinar series on 3/10/23. Presentation titled: Common Birds Found in Central Florida V. Picture is on slide 33. This picture was used for identification and biological information to 16 participants. 5.) The picture was used in the Wildlife and Invasive Species Education™ monthly e-newsletter. The title of the article was "The Wild Turkey". This newsletter has 269 subscribers. Link: https://mailchi.mp/971ee486185d/wise-monthly-newsletter-8748638?e=5b124cb8e0
The premise of this picture was to demonstrate and capture the appearance and behavior of a male Wild Turkey during the mating season in full strut. Body feathers fluffed out and tail feathers fully fanned. The beard protruding from the chest. The head turning a bright blue and the caruncles a vibrant red. This picture illustrates the magnificence of the Wild Turkey courtship.

National Finalists:

COLORADO POTATO BEETLE LARVA

Patrick Wagner
Entomology Field Specialist
SDSU Extension
Rapid City

The photo was taken during a visit to a producer's farm in Pennington County, South Dakota. It was published on July 18, 2022 in an article that I wrote for the SDSU Extension website: https://extension.sdstate.edu/what-eating-leaves-my-potato-plants. The estimated outreach for this article was 30,865 unique individuals. The primary audience was the gardening community, including anyone growing potatoes in South Dakota during the 2022 growing season. Colorado potato beetles are a major pest of potatoes and other members of the nightshade family (e.g., tomatoes, peppers, and eggplants). Larvae and adults cause injury by feeding on the leaves of host plants. Late-stage larvae, like the one photographed, are responsible for the vast majority of plant defoliation. The purpose of the published photo and article was to raise awareness of Colorado potato beetles and how to identify and effectively manage an infestation.

SOYBEAN HARVEST IN HARFORD COUNTY, MD

Andrew Kness
Agriculture Agent
University of Maryland Extension
Street

Corn, soybeans, and wheat are the major agronomic crops grown in Maryland representing over 1.1 million acres of cropland and valued at over $565 million (USDA NASS 2017). These crops represent the single largest commodity group for Harford County, accounting for over 43% of agricultural sales and approximately 38,000 acres annually,

of which, corn and soybeans are the two top commodities. Farmers growing agronomic crops seek education and resources to keep their operations and the industry sustainable and viable. As part of this need, University of Maryland Extension (UME) county agriculture agent, offers an annual Mid-Winter Agronomy Meeting. This meeting traditionally draws between 70-110 local farmers and agriculture professionals seeking the latest research updates and regulatory certifications. In order to advertise the meeting, Extension curculates flyers in a series of newsletters, e-mail lists, and physical postings. To help market the program, an image of a combine harvesting soybeans in Harford County, MD was used as the header image for the promotional flyer. This image depicts a "typical" October harvest scene in the peidmont of Maryland. This photo helped promote the program to the farming audience, and in 2023, 87 farmers and agriculture professionals attended the meeting.

CHRONICLING SPECIALTY CROP MARKETING IN TENNESSEE: GARLIC

Rachel Painter
Extension Specialist
United States
Manchester

As part of a larger effort to provide education on production and marketing of specialty crops, I took a photo of garlic on a site visit with a producer in Clarkrange, Tennessee. The photo was published twice, including in a producer profile publication and as part of marketing efforts to promote garlic workshops offered across the state. The photo was published by the University of Tennessee Marketing and Communications department as part of the news release promoting the garlic workshops for current and potential garlic producers to attend. The photo and story were highlighted as a top news story by the department, meaning the story was featured by many news outlets and received high engagement by media channels across the state, including Morning Ag Clips, the Johnson City Patch, and WCRK News Radio. The photo and news story were also posted on the University of Tennessee Institute of Agriculture social media outlets, including Facebook, and shared by many program partners on the platform including the Tennessee Fruit and Vegetable Association, Tennessee Department of Agriculture, among others. The promotional efforts of the photo and story resulted in high registration numbers for the workshops in each location. The printed producer profile publication, which included the same photo zoomed in and placed at the top of the page behind the title, were provided at the workshops for participants. The caption for the news release stated, "The workshops will focus on producing and marketing garlic and microgreens for commercial growers interested in specialty vegetable crops. Photo of garlic from Galena Garlic, a producer in Fentress County. Image by R. Painter, courtesy UTIA." The published photo can be found at the following locations: https://cpa.tennessee.edu/wp-content/uploads/sites/106/2023/01/CPA413-web.pdf and https://utianews.tennessee.edu/specialty-vegetable-crops-workshops-scheduled-for-march-2023/.

Regional Winners

WASP EMERGING FROM OLD CONEFLOWER FLOWER STALK

Ken Johnson
Horticulture Educator
University of Illinois Extension, Calhoun/Cass/Greene/Morgan/Scott unit
Jacksonville

In early spring, many gardeners are anxious to get out into their gardens to get them cleaned up in anticipation of the upcoming growing season. However, if landscapes are cleaned up too soon and thoroughly, it can negatively impact pollinators and other beneficial insect pollinators. Because of this, people often ask when is it okay to begin garden cleanup. To help address this question, the author wrote an article on when it's safe to begin garden cleanup, how it should be done, the benefits of delaying cleanup, and why some debris should be left behind. This image was used to demonstrate why it is important to leave old flower stalks in the landscape, so cavity-nesting bees and wasps can utilize them. The image shows a small wasp emerging from an old coneflower stalk that it has excavated to create a nest. The photo was published on the Good Growing Blog on March 2, 2023, and in the Jacksonville Journal-Courier on March 11, 2023. As of March 14, 2023, the blog post has been viewed 731 times. The Jacksonville Journal-Courier has a circulation of around 20,000.
Blog link: https://extension.illinois.edu/blogs/good-growing/2023-03-02-when-should-i-start-cleaning-my-garden
Jacksonville Journal-Courier link: https://www.myjournalcourier.com/news/article/cleaning-garden-17814223.php

PRODUCE FOOD SAFETY AND LIVESTOCK

Patrick Byers
Commercial Horticulture Field Specialist
University of Missouri Extension
Marshfield

The photo "Produce Food Safety and Livestock" was taken on a farm near Springfield, Missouri, on October 29, 2022, during an on-farm produce food safety workshop jointly sponsored by University of Missouri Extension and Missouri Farmers Union. The photo was taken with an IPhone 12, using the standard Dual 12MP camera system with a ƒ/1.6 aperture. The subject of the photo gave permission to use his image. This impactful photo illustrates the tension caused by produce food safety issues faced by diversified specialty crop/livestock farms. Though not shown in the photo, a high tunnel and produce fields are adjacent to the hog pen. The photo also shows close contact between the farmer and the hogs, and a hog pen that is in need of maintenance. The Food Safety Modernization Act Produce Safety Rule (PSR) requires farmers to address food safety issues related to livestock. The risk of contamination caused by direct contact between livestock and produce, by unintentional movement of manure into produce areas, and cross contamination of clothing and persons through contact with livestock is a daily concern for this conscientious farmer. However, the realities of a small-scale peri-urban farm can complicate the situation, particularly when considering buffer zones when growing space is already at a premium, and separation of produce and animal jobs when one farmer must accomplish both and time is at a premium. The farmer's discussion at this point during the workshop was heartfelt and thought-provoking, and participants responded with shared experiences that benefited all. With permission, I have used this photo in produce food safety trainings for farmers and community garden leaders that have reached over 100 participants. I am also using this photo with "Domestic Animals and the PSR", the first in a series of one-page produce food safety resources for specialty crop farmers. The photo caption used is "Domestic animals and produce can present challenges on a specialty crop farm".

PERSONIFIED - FARM BUSINESS MANAGEMENT, LIVESTOCK, FIELD CROPS, AND DAIRY IN SWNY

Katelyn Walley-Stoll
Extension Specialist
Cornell University, Southwest New York Dairy, Livestock, and Field Crops Program
Cattaraugus

How do you explain what topics the 4-woman SWNYDLFC team from Cornell Cooperative Extension covers? Well, a picture is worth a thousand words. Struggling to visually represent the diversity of content the SWNYDLFC program specialisizes in, the team came together to execute Katelyn Walley-Stoll's creative design for a "show, don't tell" opportunity. This photo was taken using a tripod, local farm animals, and a whole big pile of paperwork (with the help of some last minute ear corn picking adventures!). The caption that was published with the picture: Cornell Cooperative Extension's Southwest New York Dairy, Livestock, and Field Crops Team is comprised of (L to R) Katelyn Walley-Stoll, Amy Barkley, Katelyn Miller, and Camila Lage. Here they stand with their representative topic areas, ready to provide low-cost, research-based resources to farmers in our region. The photo was used in several publications, websites, and press releases and was taken on October 6th, 2022. Particularly, it was the cover photo for the program's annual report, available here: https://nydairyadmin.cce.cornell.edu/pdf/impact_ny/pdf193_pdf.pdf

PLANTING GREEN ON THE COVER OF THE MARCH/APRIL 2022 ISSUE OF AGRONOMY JOURNAL

Heidi Reed
Field & Forage Crops Educator
Penn State University
York

This scene shows a close up of planting soybeans green, or planting into a standing, living cover crop. In this novel practice, the cover crop is terminated shortly after soybean planting, compared to the standard practice of killing the cover crop two weeks prior to planting. The research objective of the project captured in the photo was to see if there is an optimum combination of cereal rye seeding rate and nitrogen fertilizer rate to pair with planting soybeans green. The photo was captured with the built-in camera of an LGE Nexus 5X phone by Heidi Reed. The photo was chosen to be the cover image of Volume 144, Issue 2 of Agronomy Journal, published first by John Wiley & Sons, Ltd. on April 17, 2022. The target audience of agronomy and crop science researchers, with at least 16,636 views through the publisher's online library. The caption

accompanying photo was as follows: “On the cover: Tractor driving through standing rye and planting soybeans green at the Russel E. Larson Agricultural Research Center in Rock Springs, PA, USA (1 May 2017). See the article, “Does winter cereal rye seeding rate, termination time, and N rate impact no-till soybean?” by Reed and Karsten. Photo Credit: Heidi Reed, Pennsylvania State University.”

2022 BEN HILL PEANUT VARIETY TRIAL HARVEST

Holly Anderson
County Extension Agent
University of Georgia
Fitzgerald

Published to Facebook on October 7th, 2022 to the UGA Extension - Ben Hill County Ag and Natural Resources page. Caption “Today we dug the 2022 Ben Hill Peanut Variety trial. Weather conditions this year were less than desirable. It is going to be interesting to see how the different varieties held up to tough conditions.”
The photo shows a producer from Ben Hill County Georgia walking in a peanut field behind a tractor. The tractor driver is operating a peanut inverter and is digging peanuts in the 2022 Ben Hill Peanut Variety Trial. It is important to go behind the digger and make sure everything is set properly so the yields are maximized. Having a digger not calibrated and set properly can cause peanuts to be left in the dirt or fall off the vines. These peanuts are not harvestable and can reduce yields.
https://www.facebook.com/UGA-Extension-Ben-Hill-County-Ag-and-Natural-Resources-102184881470768/photos/651866396502611

“SPEAKING THE HORSE’S LANGUAGE”: A NAVAJO FATHER AND DAUGHTER LEARN HORSE BEHAVIOR MODIFICATION AT A COOPERATIVE EXTENSION TRIBAL WORKSHOP

Betsy Greene
Extension Horse Specialist
University of Arizona
Tucson

Horses are extremely culturally significant for many Arizona tribes and important to livestock operations, especially ranches. The author brought in Dr. Angelo Telatin to teach tribal ranchers, youth, and community members about “Speaking the Horse’s Language” to recognize and utilize the horse’s natural instincts and behaviors to improve their training techniques to become more effective handlers and riders in hands-on workshops on the San Carlos Apache, Navajo, and Hopi reservations in June, 2022. This photo was taken at the 2nd workshop held on the Navajo Nation. Angelo was giving the youth instruction on how to reward the desired pony behavior while her father (on the grey horse) looked on and listened. The caption was “Dr. Angelo Telatin works with a young rider at the workshop held in Window Rock, Arizona” and accompanied the Feature Story of the School of Animal and Comparative Biomedical Sciences newsletter (Fall 2022), which informs readers of current happenings in extension, teaching, and research. UArizona faculty are asked to submit electronic articles/photos of impactful programs. The newsletter is available free online, pushed through social media, and directly distributed electronically to 1,739 ACBS alumni, stakeholders, and friends. The impact of keeping extension’s funders/supporters/etc. aware of high-quality programming occurring across the state is immeasurable for maintaining a public face of University of Arizona Cooperative Extension programs. The author created/organized workshops with help of tribal extension agents and she took the photo.

FLEA BEETLE FEEDING INJURY ON SEEDLING SUGAR BEET LEAVES

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

The low desert area of southeastern California is noted for its year round growing conditions and variety of crops. The year round growing conditions also mean that insects are pests all year round. One such insect pest is the pale striped flea beetle (Systena blanda). I took this photograph with a Canon G7X camera captured 2 different species of flea beetles on seedling sugar beet leaves with the larger, more damaging and conspicuous pale striped flea beetle on the right and a dark colored smaller flea beetle on the left side of the photograph. This was challenging as the flea beetles often jump away when they notice someone or something getting near to the plant, and capturing two species is even more difficult. The photograph was used to illustrate feeding damage from pale striped flea beetles in an article I wrote entitled “Insecticide efficacy comparison for pale striped flea beetles in alfalfa” as it was a better photograph than those available showing feeding damage by this insect on alfalfa. The article was developed to help alfalfa producers and pest control advisors with control of pale striped flea beetles in alfalfa as alfalfa is the major crop in Imperial County, with approximately 150,000 acres. The article and photograph were published in the November 2022 issue of the University of California Imperial County Cooperative Extension Ag Briefs [25(10): 138-141]. There are 499 on the mailing list for this newsletter and it is also available at the following website address: https://ceimperial.ucanr.edu/newsletters/Ag_

Briefs95366.pdf (article and picture begins on page 138 of this issue).

2022 OREGON WHEAT HARVEST OUTLOOK PHOTO

Jacob Powell
Assistant Professor (Practice)
OSU Extension Service
Moro

The submitted photo was taken of soft white winter wheat in Wasco County in north central Oregon in May 2022. The wheat harvest in Oregon in 2022 was one of the best on record with most producers cutting a crop that was well above average, many cutting yields 130% of average. This photo indicates the great harvest that would start within another month of this photo being taken once the crop reached full maturity. The large wheat heads and green flag leaves indicate a great high yielding and high-quality crop. In past years stripe rust has been a major disease impacting wheat production in the region and the vibrant green leaves indicate a healthy wheat plant in this photo. The photo was used by a local online newspaper, Columbia Community Connection, in an article titled Gorge Wheat Harvest 2022 Forecast published on June 16th 2022 after interviewing extension agent Powell (photographer of the submitted photo) on the outlook for the 2022 wheat crop. The caption with the photo is, "A close up look of wheat in Wasco County. Photo was taken May 2022." It has been viewed over 1,200 times. The audience for this article and photo were mainly the general public in the community and those involved in the wheat industry. The article can be viewed online here: https://columbiacommunityconnection.com/the-dalles/gorge-wheat-harvest-forecast-for-2022 and the photo can be accessed here: https://oregonstate.box.com/s/elbo09fmc8an265i7hazzugiiu32c2eh

State Winners

NORTH CENTRAL REGION

Iowa	Carter Oliver
Kansas	Jeanne Falk-Jones
Ohio	Beth Scheckelhoff

NORTHEAST REGION

Connecticut	Jennifer Cushman
New Jersey	Belinda Chester
West Virginia	Jody Carpenter

SOUTHERN REGION

Arkansas	Nicole Nichols
Mississippi	Heather Jennings
North Carolina	Margaret Ross
Oklahoma	Shannon Mallory
Puerto Rico	Wesley Velazquez
South Carolina	Terasa Lott
Texas	Brandi Keller
Virginia	Rebecca Roberts

Event Promotional Package

National Winner

THE FARMERS' SHARE A BREAKFAST FOR DINNER EVENT

Lindie Huffman
ANR Agent
University of Kentucky
Falmouth

Team Members: Huffman, L[*1]

[1.] ANR Agent, University of Kentucky, Falmouth, Kentucky, 41040

It is estimated that farmers and ranchers receive a mere 14.3* cents of every food dollar that consumers spend. According to the USDA, off-farm costs, including marketing, processing, wholesaling, distribution, and retailing, account for more than 80 cents of every food dollar spent in the United States. While America still produces one of the cheapest and safest food supplies, consumers and farmers are feeling the effects of inflation. The 2017 USDA AG Census shows an average net farm income of -$1,400 for the 919 farms in Pendleton County. PCFM had 33 vendors in the 2021 market season, the average market sales per vendor over a 27-week season were $2,971. With a personal mission of "keeping farmers farming and keeping families fed," Lindie Huffman, Pendleton County ANR Extension Agent, developed an agricultural awareness program inspired by statistics from the National Farmers Union (NFU). The breakfast-for-dinner event "The Farmers' Share" was hosted on a Tuesday Night Market at the Pendleton County Farmers' Market during National Farmers' Market Week. Partnering with a local food truck to plan the menu and provide the "breakfast," #lindiecountyagent secured a $750 Kentucky Proud grant, gathered ingredients from eight local farms to provide a full breakfast at "The Farmers' Share" price of 0.52 cents. Patrons could purchase this rib-sticking meal of two eggs, fried potatoes, biscuits and gravy, sausage, bacon, milk, honey, butter, jam, and maple syrup. ALL 65 meals were sold. The program's purpose was to bring awareness to general consumers on the true cost of shopping on a large scale and the value of shopping local, while also bringing up Tuesday night market attendance. The program

marketing package was developed and distributed by Lindie via flyers to local businesses, Facebook Events, and Facebook Live, with a social media reach of 3,293. Each shopper received a brochure developed by Lindie that shared the importance of shopping locally and awareness of the small profit margins each farm family faces, so they would think a little differently as consumers on their next trip to the grocery store. Participants were shocked by the price and impressed by the meal quality.

National Finalists:

ONLINE FRUIT PRUNING SCHOOL

Gary Gao
Professor and Extension Specialist
Ohio State University South Centers
Piketon

Team Members: Gao, G[1], Sherman, B[2], Slaughter, R[3], Robertson, B[4]

[1.] Professor and Extension Specialist, , Piketon, Ohio, 45661
[2.] Program Assistant, The Ohio State University, Piketon, Ohio, 45661
[3.] Research Assistant, The Ohio State University, Piketon, Ohio, 45661
[4.] Event Senior Coordinator, The Ohio State University, Piketon, Ohio, 45661

Proper pruning techniques of fruit trees, bushes and vines are difficult to teach in person and can be even more challenging to teach virtually. We have held pruning workshops in person at OSU South Centers over the years. Our average attendance at South Centers has been hovering around 30. Due to COVID-19 restrictions, we learned how to deliver many of our educational programs virtually through Zoom. Our first successful attempt was a fruit production series delivered via Zoom. The workshop drew 180 attendees. We used a combination of PowerPoint presentations and live Q&A. The program was well received. Our team of fruit extension specialist, research assistant, program assistant, and information technologist decided to challenge ourselves to deliver an Online Fruit Pruning Workshop via Zoom. We recorded 10 videos at several commercial farms and our research center. We also took hundreds of photos. The fruit specialist was able to prepare seven easy-to-follow PowerPoint presentations with excellent photos and clear illustrations. Our program assistant and event senior coordinator designed the flyer with content and photo provided by the fruit specialist and the research assistant. Our Facebook, several Listservs, and press releases reached more than 5,000 thousand people. We also spent $20 on a Facebook ad to further boost our reach. We are happy to report that our Online Fruit Pruning Schools with Live Q&A drew 618 registrants, and 380 live attendees in 2023! The program format was a PowerPoint presentation by the fruit specialist, live Q&A by the research assistant, video queuing and playing the program assistant or the research assistant or the IT specialist, and door prize drawings by the event coordinator. Our program drew folks all over Ohio and a few from Missouri and Nebraska. Several folks from Pakistan attended our program too. In 2023, we answered more than 200 hundred questions live. We received a lot of positive comments. Our attendees were gardeners, master gardeners and beginning farmers. Our workshops were recorded live, edited, and uploaded to YouTube for future viewings. We strongly believe that our promotional package helped us draw this record crowd!

SO YOU WANT TO OWN FARMLAND IN MARYLAND

Paul Goeringer
Sr. Faculty Specialist and Extension Legal Specialist
Department of Agricultural & Resource Economics, University of Maryl
College Park

Team Members: Kotraiah, M[1], Thilmany, E[2], Zimmerman, R[3], Goeringer, P[*4]

[1.] Faculty Assistant, University of Maryland, College Park, Maryland, 20742
[2.] Faculty Specliast , University of Maryland, College Park, Maryland, 20742
[3.] Coordinator, University of Maryland, College Park, Maryland, 20742
[4.] Sr. Faculty Specialist and Extension Legal Specialist, University of Maryland, College Park, Maryland, 20742-5535

Early 2023 saw Extension Specialist Paul Goeringer taking on a new program and teaching during Extension traditional county/regional agronomy meetings. This new program, So You Want to Own Farmland in Maryland: Basic Legal Issues for All Landowners was held in two locations in Maryland to determine impact. The workshops covered negligence, landowner liability, livestock liability, fencing law issues, right-to-farm law issues, agricultural leasing issues, and estate planning. The content was based upon common legal questions that Paul often gets asked in his role as Extension Legal Specialist. At the same time, the work of Elizabeth Thilmany, a Faculty Specialist working on GIS and solar issues work was added in to highlight the impact of solar development on agricultural land in Maryland. This is another common question that is often asked by landowners. The workshops were held in

Boonesboro, MD, and Wye Mills, MD, and averaged 30 attendees per site. Promotional materials for this event included a first press release announcing the programs, then a second press release for the individual locations for county agricultural educators to use in local media and the Morning Ag Clips daily email for the DelMarVa region. At the same time, a flyer and social media image were created to push the program out through email listservs (such as county Farm Bureau listservs) and on social media pages for the University of Maryland Extension and the Agriculture Law Education Initiative. Feedback has been positive, with 82 percent of attendees finding the event increased their knowledge. All attendees marked that they would recommend the workshop to a friend. Since hosting the workshops, the group is considering adding in additional locations later in 2023 based on demand. The Northeast Extension Risk Management Education Center funding funded the workshops.

PLANNING A SUCCESSFUL TROPICAL FRUIT GROVE

Jessica Ryals
Agriculture & Sustainable Food Systems Agent
UF/IFAS Extension Collier County
Naples

Team Members: Ryals, J[*1], Wasielewski, J[*2]

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[2.] Commercial Tropical Fruit Extension Agent, UF/IFAS Extension Miami-Dade County , Homestead, Florida, 33030

South Florida encompasses 9.3 million people and tropical fruit production is a viable industry for local, national, and international distribution. According to the latest trends, the U.S. is the 9th largest exporter and the 1st largest importer of tropical fruits in the world. Miami-Dade and Collier County Extension Agents collaborated to develop the "Successfully Planning a Tropical Fruit Grove" workshop to engage growers in an online webinar and provide attendees with the foundation for domestic production to meet growing demand. The agents used multiple EDIS peer-reviewed publications to merge topics that fell under (1) site selection/grove maintenance (2) economic considerations of commercial grove production and (3) included case studies of successful groves in their respective counties. Agents used the outreach materials to communicate what topics attendees would learn such as using tropical fruit commodity budgets, understanding whole and direct markets, land management and choosing the right crop. To accomplish this, the agents created a video, a blog, and a flyer to be distributed in a virtual format. The video had 350 views on YouTube and 7,600 impressions on multiple social media sites. A blog post was created and flyers were displayed at two county offices and three feedstores. An email announcement with promotional materials was also sent to 2,800 producers and community members. Promotion efforts resulted in 84 workshop enrollments. Program evaluations from a Qualtrics survey showed 100% of participants increased their knowledge in grove design and business plans; and 98% increased their skills in at least one recommended practice. Promotional pieces were successful in increasing program attendance, which resulted in increased knowledge and skill gain, and promoted UF/IFAS Extension Tropical Fruit program initiatives.

Regional Winners

NORTHERN PLAINS FORAGE ASSOCIATION INFORMATIONAL MEETING

Sara Bauder
SDSU Extension Agronomy Field Specialist
SDSU Extension
Tyndall

Team Members: Bauder, S[*1]

[1.] SDSU Extension Agronomy Field Specialist, , Tyndall, South Dakota, 57066-5632

South Dakota ranked first in the nation in alfalfa yield and production acres in 2022 according to Progressive Forage Magazine. As the new SDSU Forage Field Specialist, I saw a need for local forage producers to have a place to network, brainstorm, learn, and promote their industry. As a result, I recruited a board of 10 forage producers and industry partners who worked together to create the Northern Plains Forage Association. The mission statement of the association is to 'promote sustainable, quality, profitable forage production'. The group is currently in its infancy, but growing rapidly. In an effort to get information out to anyone interested in learning more about the association, we worked tirelessly to promote our programs and events at a state-wide and regional level this year. This winter, we were able to host our first official information meeting on January 26 at 2:30pm in Sioux Falls, SD (during a popular local farm show). Our goal was to spread the word about the association, collect contact information from forage producers and industry partners, and sign up any immediately interested members. In an effort to attract as many people as possible we promoted the meeting through email, the SDSU Extension website, Facebook, news releases, my personal news print column, radio interviews/PSAs, posted flyers, and signs/announcements during the farm show. As a result, we hosted 55 people

for our 1-hour informational session/kick-off event. We collected contact information from 33 attendees, and signed up seven members that day with many more in the following weeks. I created the original flyer and social media graphic using Canva. Radio interviews were set up and recorded over the phone. In addition, I wrote a news column featuring the event and provided base content for the news release published by SDSU Education Technology staff. I have included the event flyer, Facebook paid advertisement (reaching 2,638 people), and recorded radio interview with the SDSU Extension radio network which airs on ten radio stations covering every acre of South Dakota (58,780 listeners).

MIDWEST MANURE SUMMIT PROMOTIONAL PACKAGE

Aerica Bjurstrom
Regional Dairy Educator
University of Wisconsin Madison Division of Extension
Luxemburg

Team Members: Bjurstrom, A[*1], Kohlman, T[*2]

[1.] Regional Dairy Educator, , Luxemburg, Wisconsin, 54217
[2.] Regional Dairy Educator, , Fond du Lac, Wisconsin, 54935

Dairying is paramount to the success of agriculture in Wisconsin. Wisconsin's nearly 6,500 dairy operations housing 1.28 million dairy cows produce 30.73 billion pounds of milk annually. Manure produced from these cows is a valuable asset to the farm, providing crop fertilizer, energy from methane digesters, and dried solids for bedding. The Midwest Manure Summit has been held biannually since 2009, focusing on supporting and strengthening the Midwest dairy industry through awareness, understanding, and adoption of innovative manure-handling processes. The Summit aims to provide innovation, research, and solutions to producers in handling and storing manure economically and sustainably. As part of the promotion for the Midwest Manure Summit, Extension Dairy Educators Tina Kohlman and Aerica Bjurstrom developed and promoted the meeting through print, social, and digital media. Three of the several promotional methods used for the meeting were a video created by Bjurstrom posted on social media. A printed flyer created by Kohlman was mailed to 550 past Summit attendees and dairy, beef, and swine operators in Wisconsin. A Facebook advertising campaign created by Kohlman and support staff Erin Dahle, highlighting each speaker and sponsor from late January to late February (the month before the meeting) with registration and location information on the Midwest Manure Summit. All relevant businesses and speakers were tagged in the posts for sharing. The Facebook page can be viewed at https://www.facebook.com/UWExtensionDairyProgram and the submission is attached. A video created and edited by Bjurstrom with original video she recorded at local farms. The video had 5,317 impressions (and was shared 18 times) on Facebook and 194 views on YouTube. The video can be viewed here: https://youtu.be/5ihjUymddhI The meeting, held on February 28 in Green Bay, WI had 119 paid registrants. Registrants responding to how they heard about the meeting reported direct mailing 18, email or e-correspondence 31, personal invite 23, Extension newsletter 16, Facebook 19, news media 13, and Publication (Newspaper, Press Release) 6. Respondents had the choice to check more than one option.

HARRISON COUNTY 4-H AND FFA LIVESTOCK SHOW AND SALE

Jennifer Friend
Extension Instructor
West Virginia University Extension Service
Clarksburg

Team Members: 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 marketed $17,100 in market animal projects that will go toward future projects, education, and other uses. To increase buyer interest and allow them to include the sale in their budgets, a postcard was developed, printed, and sent to 134 local businesses and individuals in early spring. The postcard was also included in exhibitor packets to increase recruitment. Late Summer, a buyer packet was developed, printed, and mailed to the same 134 local businesses inviting them to the sale. Three weeks prior to the sale, a flyer with the five youth marketing animals pictured was developed for the youth to take to local businesses and visit with them about the sale. At least six businesses were visited by youth exhibitors and four of those business were sponsors and/or buyers. The efforts made to promote the first 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.

SOUTHEAST VIRGINIA HOKIE BUGFEST PROMOTIONAL PACKAGE

Andrea Davis
Extension Agent
Virginia Cooperative Extension
Virginia Beach

Team Members: Davis, A[*1], Callahan, G[*2], Pittman, E[*3], Andruczyk, M[*4], Wyskiewicz, C[*5], Preisser, L[*6], Clark, N[*7]

[1.] Extension Agent, , Virginia Beach, Virginia, 23456
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[3.] Extension Agent, , Suffolk, Virginia, 23439
[4.] Extension Agent, , Chesapeake, Virginia, 23322
[5.] Extension Agent, , Portsmouth, Virginia, 23701
[6.] Extension Agent, , Isle of Wight, Virginia, 23397
[7.] Extension Agent, , Southampton, Virginia, 23837

Across the state of Virginia, a need has developed for youth programs in entomological topics like insect collecting, insect identification, insect biology, and understanding and appreciation of insects and related arthropods. Along with this need comes the opportunity to educate youth on pest management practices and pesticide safety and in turn will provide them tools necessary to make sound pest management decisions as they transition into their young adult lives. Proper pest management decisions provide environmental protection and safeguard human health, which ultimately benefits the citizens of Virginia. The Emerging Pests and Pesticide Management Program Team created Hokie BugFest on the campus of Virginia Tech in the southwest portion of the state to address these issues. This event however was not accessible to communities on the southeastern part of the state. Therefore, agents associated with this team but located in the southeast corner of the state developed the Southeast Virginia Hokie BugFest to meet the needs of their area in this engaging format. The event focused mainly on insect identification, insect biology, insect-plant relationships, and understanding and appreciation of insects and related arthropods of Southeast Virginia. Because this is a multi-city event, widespread advertising to reach across the region was needed. To ensure good coverage, a flyer, website, and TV interview were used. A flyer displaying logistical information, activities and a QR code linked to the event website was created by the agents and distributed by their seven Extension offices, multiple agency partners, and event vendors as well as being posted on social media. A website (https://sites.google.com/vt.edu/southeast-hokie-bugfest/home), available through a QR code and searchable on Google, was developed showcasing the previous year's event and providing real time updates for the current event. The website became crucial when weather forced a postponement of the outdoor event. After contacting a local news station, an interview (https://www.13newsnow.com/article/entertainment/events/hokie-bugfest-activities-contest-celebrating-creepy-crawlies/291-ac97cd1f-07ff-4ca5-a86d-b82306178f36) was scheduled the week before the event to boost awareness of the event and its new date. On event day twenty-five booths offering insect-related learning experiences interacted with 255 youth and adults. This was a 155% increase in attendance from the previous year's inaugural event.

DAIRY ADVISOR

Daniela Bruno
Dairy Advisor
University of California Coop. Ext.
Fresno

Team Members: Bruno, D[*1], Lage, C[*2], Endres, M[3], Marques, T[4], Lima, F[5]

[1.] Dairy Advisor, University of California Cooperative Extension, Fresno, California, 93710
[2.] Dairy Management Specialist, Cornell University, Bath, New York, 14810
[3.] Professor, University of Minnesota, Saint Paul, Minnesota, 55108
[4.] Post-doctoral researcher, UC Davis, Davis, California, 95616
[5.] Assistant Professor, UC Davis, DVIS, California, 95616

In 2019 a research project evaluating risks and opportunities of automatic milking robots for large herds was funded by the California Dairy Research Foundation. The proposal included field days as an outreach strategy to share the research findings with California dairy producers. Attracting dairy producers to field days has been a challenge in California for many years as there has been an increase in online options. Furthermore, the Covid-19 pandemic restrictions increased these online options, including virtual tours. However, we are firm believers of in-person interactions. Therefore, in October 2022, when it was acceptable to have gatherings, and taking advantage of people wanting to go out of their homes, we hosted field days at two facilities. The sites were selected for being centrally located to allow attendees from different parts of the state to join. The two-day event was open to dairy producers and allied industry and included a presentation from the research team and dairy owners, a tour of the facilities and lunch. The tour was a special part of the program because it gave dairymen interested in the technology the opportunity to see the facilities and ask questions directly to the owners, learning about their

struggles and challenges of the implementation process. The flyer with the invitation was sent by e-mail to over 500 people and the event was also advertised in two allied industry newsletters (Western Dairy United and California Dairy Quality Assurance program). To supplement this, a brochure with dairy information was distributed each day of the event. Registration was free and approximately 60 dairy producers and dairy industry representatives attended the event on both days. California Dairy Magazine was present on both days and interviewed some team members and attendees. The program was well evaluated by attendants and the team received many compliments after the event. Dr. Daniela Bruno, a Cooperative Extension Dairy Advisor, was the main planner and organizer of the event. Dr. Thaisa Marques designed the flyer and brochure, and Drs. Camila Lage, Marcia Endres and Fabio Lima edited it. The whole project team assisted on the tour and data presentation.
Interview: https://californiadairymagazine.com/2022/11/02/automated-milking-systems-support-california-dairies-amidst-labor-challenges/

State Winners

NORTH CENTRAL REGION

Illinois	Sarah Vogel
Kansas	Anthony Reardon
Minnesota	Claire Lacanne
Nebraska	Erin Laborie
North Dakota	Renae Gress

NORTHEAST REGION

New Jersey	Brendon Pearsall

SOUTHERN REGION

Alabama	D. Matthew Webb
Arkansas	Allison Howell
Georgia	Robyn Stewart
Mississippi	Eddie Smith
North Carolina	Leslie Rose
Oklahoma	Carla Smith
South Carolina	Ryan Bean
Tennessee	Rachel Painter
Texas	Shannon Dietz

Bound Book/eBook

National Winner

A BEGINNER'S FIELD GUIDE TO IDENTIFYING BEES

Lisa Mason
Horticulture Extension Specialist
Colorado State University
Centennial

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Bees are crucial pollinators for sustainability in natural, agricultural, and urban ecosystems. Colorado is home to 946 bee species (Scott et al., 2011) and is the seventh fastest growing state (U.S. Census Bureau, 2018). Given that native bee populations are declining worldwide, more effort is needed to increase public awareness and generate engagement to help mitigate bee populations' decline (National Research Council, 2007).

A Beginner's Field Guide to Identifying Bees was developed to bridge the gap between scientific research and the public's growing interest in learning more about bees. While bees are difficult to identify, the reader will learn more about identification characteristics for specific bee genera, biology and life cycles, and unique facts to help foster an appreciation for bees in their own landscape and community. This book has 113 images and covers 43 bee genera. Appendices include taxonomy, bee nest examples, and habitat information.

The intended audience for this book is anyone interested in learning more about bees visiting flowers in their own landscape. The book is also a complementary resource for community scientists participating in the Native Bee Watch Community Science Program, a program run through Colorado State University Extension. The pocket-sized book can easily be used in the field, lab, at home in the flower garden, or at a Master Gardener help desk.

First author and Extension Horticulture Specialist Lisa Mason took the lead at writing the content. The bee genera included in the field guide was based on research (Mason and Arathi, 2019; O'Brien and Arathi, 2018; O'Brien and Arathi, 2019; Scott et al., 2011). Mason also designed and completed the layout in Adobe InDesign, took many of the photographs, and solicited additional photographs.

The book is free and available to download on the CSU Extension website at NativeBeeWatch.org, and 500 copies have been printed and spiral bound. The direct link to the book can be found here: https://arapahoe.extension.colostate.edu/wp-content/uploads/sites/10/2022/03/BeginnerBeeFieldGuide_11March2022_LowRez.pdf

National Finalists:

STATE SPECIALIST, AG SAFETY AND HEALTH

Shelly Dee Jepsen
Professor and State Specialist, Ag Safety and Health
Ohio State University Extension
Columbus

Team Members: Jepsen, S[*1], Lang, F[2], Steel, A[3], Wright, J[4], Young, S[5], Carrell, T[6]

[1.] Professor and State Specialist, Ag Safety and Health, The Ohio State University, Columbus, Ohio, 43210
[2.] Graduate Teaching Assistant, The Ohio State University, Wooster, Ohio, 44691
[3.] Graphic Designer, The Ohio State University, Columbus, Ohio, 43210
[4.] Assistant Director, OSU Publishing, The Ohio State University, Columbus, Ohio, 43210
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An author team of OSU Extension educators and communications/designers created a new 4-H lawnmower project book titled: Ready, Set, Mow! The intended audience is 4-H youth with an interest in lawncare, small engines, and machinery. The expected youth age range is 8- to 18-year-olds, and their project helpers, who come from various levels of experience with mowing. The purpose is to fill the gap of available resources to educate youth on the safe operation of lawnmowers. A review of youth injuries reported 212,258 children under the age of 18 received emergency treatment for lawnmower-related injuries, which equates to an annual average rate of 11.9 injuries per 100,000 U.S. children. Knowing the 4-H organization reaches youth across the country, this book focuses on three areas: (1) safety, (2) operation, and (3) maintenance. Activities for each area use the 4-H experiential learning model to engage youth to learn new skills and increase their knowledge on a variety of mower styles (push, riding, and zero-turn). The 52-page project book was written in spring of 2022, and pilot tested over the summer months with 4-H Extension educators and volunteer leaders from Ohio State and Purdue University. Following critiques and tweaks, the book went into production and was made available March 1, 2023 for Ohio youth enrolled in the 4-H program year. Demand has exceeded the original print order of 500 copies and is currently being replenished with another 1,000 copies. The full-color, 53-page book is priced at $12.50, and is available at https://extensionpubs.osu.edu/ready-set-mow/. As a primary author, Jepsen's role included outlining and writing the chapters based on recommended safety topics important for young operators. She also provided input to activities for youth's age and stage of development, and worked closely with the graduate student (Forrest Lang) who has 15 years of machinery and landscape industry experience. Jepsen worked beside graphic designers to find appropriate photos/graphics that conveyed safe practices, as well as created excitement for learning. Ready, Set, Mow! is for 4-H youth of all ages and meets the content standards of national 4-H books. Now this is teaching youth a practical life skill.

PLANTS FOR EARLY DETECTION AND RAPID RESPONSE IN THE EAST CENTRAL FLORIDA COOPERATIVE INVASIVE SPECIES MANAGEMENT AREA: BREVARD, VOLUSIA, FLAGLER AND PUTNAM COUNTIES

Bonnie Wells
Extension Agent II, Commercial Horticulture
University of Florida
Cocoa

Team Members: Wells, B[*1]

[1.] Commercial Horticulture Agent, UF/IFAS Extension, Cocoa, Florida, 32926

Plants for Early Detection and Rapid Response in the ECF CISMA: Brevard, Volusia, Flagler and Putnam Counties is a new reference guide published for the vegetation management industry in the East Central Florida (ECF) Cooperative Invasive Species Management Area (CISMA). The reference guide benefits our native ecosystems by facilitating early detection and rapid response in managing crucial invasive plant species that threaten the lands and waters of ECF. This comprehensive photographic guide features identification characteristics, including

arrangement, growth form, flower, and fruit, as well as University of Florida/IFAS (UF/IFAS) management recommendations, when available, for each species. The content was written by UF/IFAS Extension Brevard County commercial horticulture agent Bonnie Wells and Florida Wildlife Commission biologists Kris Campbell and Carl Greene and designed by UF/IFAS Communications. One-hundred and fifty guides were printed and distributed among vegetation land managers in the ECF CISMA. Printing of the guide was competitively grant-funded by the Florida Invasive Species Management Council. This shared resource helps vegetation management personnel accurately and efficiently identify and manage critical invasive species in the region, thereby limiting the threat of these species on public and private lands and waters in Florida and beyond.

MANAGING THE FAMILY FOREST IN MISSISSIPPI

Brady Self
Associate Extension Professor
Grenada

Team Members: Self, B[*1], Bailey, A[*2], Measells, M[3], Auel, J[4], Rohnke, A[5], Kushla, J[6]

[1.] Associate Extension Professor, Grenada, Mississippi, 38901
[2.] Extension Associate III, Mississippi State University, , Mississippi
[3.] Project Leader, Mississippi Development Authority, , Mississippi
[4.] Mississippi Forestry Association, , Mississippi,
[5.] Extension Specialist I, MSU Extension, Mississippi
[1.] Florida

Managing the Family Forest in Mississippi is a manual developed to provide forest landowners with a comprehensive list of forest management subject areas. These areas ranging from creation of management plans to silviculture to corrective actions for forest pests are intended to provide background information on the need for each topic and steps for practical implementation of them. Four hundred copies were printed for districubution by Mississippi State University Extension Agriculture Communications and the book has Print on Demand status in their system. A version of this book was written 20 years ago, was outdated, and was removed from accesibility status. Each author was tasked with writing one or more chapters covering assigned topics in the new version as a finished product. The publication can be found at the following URL: https://extension.msstate.edu/sites/default/files/publications/publications/P2470_ManagingFamilyForest_web.pdf

Regional Winners

THE BOOK OF HAZARDOUS PLANTS & BUGS

Anthony Reardon
Horticulture - Small Farms Extension Agent
United States
Olathe

Team Members: Reardon, A[*1]

[1.] District Extension Agent, Horticulture, KACAA, Garden City, Kansas, 67846

The Book of Hazardous Plants & Bugs is a children's book that was constructed using the online graphic design program Canva and its free-use images. This resource was used to bring a horticultural element to the Scott City, Ks "Safe Kids Day," where children go to various booths and learn about safety factors in their everyday lives. The book entails various poisonous plants, sharp plants, dangerous bugs, and disease-causing insects, tackling both plant life and entomology as children learn simplified reasons and methods to stay safe in nature. It was compiled in a printable form so that (3) spiral-bound books can be constructed per (1) 9-sheet-pile of front/back/color printed 8.5x11 cardstock. Fifty-one books were constructed for Safe Kids Day, 45 of which were distributed to visitors of the Extension booth. A supplemental standing trifold with the book's pages and images accompanied the booth. The book was compiled, written, edited, and designed in house by myself. The event was held in May of 2022.

PESTS AND PARASITES OF HORSES

Erika Machthinger
University Park

Team Members: Machtinger, E[*1], Geden, C[2], Weeks, E[3], Lacher, E[4]

[1.] Assistant Professor, Pennsylvania State University , University Park, Pennsylvania, 16802
[2.] Research Entomologist, USDA, ARS, Gainesville, Florida, 32608
[3.] Assistant Research Scientist (Courtesy Faculty), University of Florida, Gainesville, Florida, 32611
[4.] Veterinarian, Springhill Equine , Newberry, Florida, 32669

Many pests and parasites affect horses, mules, and donkeys. The pests range from flies to ticks, to parasitic worms. This is the first time a resource is available for equine enthusiasts to learn about pest identification, ecology, and management. This book covers the major

pests of horses in the United States and Canada, Europe, Australia, and New Zealand, along with the veterinary conditions and recommended care associated with these pests. Detailed photographs help to identify species and perform management tasks. The book shows practical, science-based control methods, and includes a glossary for reference, as well as a brief introduction to basic entomology. It includes a sample integrated pest management plan that readers can personalize for pest control. This book will be a useful resource for horse riders, trainers, owners, caretakers, and general equine enthusiasts, students in animal sciences, veterinary sciences, parasitology, horse care courses, or horse training programs.

INVASIVE PLANTS OF NORTHWEST ARKANSAS: A FIELD MANAGEMENT GUIDE

Colin Massey
County Agent II-Horticulture
University of Arkansas Division of Agriculture Cooperative Extension
Fayettville

Team Members: Massey, C[*1], Forbis, J[2], Formica, S[3], Jones, K[4], Witsell, T[5]

[1.] County Agent II-Horticulture, , Fayettville, Arkansas, 72704
[2.] Watershed Specialist, Watershed Conservations Resource Center, Fayetteville, Arkansas, 72701
[3.] Executive Director, Watershed Conservation Resource Center, Fayetteville, Arkansas, 72701
[4.] Volunteer Coordinator, City of Fayetteville Parks and Recreation, Fayetteville, Arkansas, 72701
[5.] Chief of Research and Inventory, Arkansas Natural Heritage Commission, Little Rock, Arkansas, 72201

In 2013, the City of Fayetteville passed an ordinance on the use of invasive plant species prohibited for use in new developments. Numerous organizations and agencies were already involved in suppression of invasive plant species. The Watershed Conservation Resource Center (WCRC) has been conducting streambank restoration in Northwest Arkansas for eighteen years, with significant work re-establishing native vegetation. WCRC initially received funding through a 2016 grant through the USDA NRCS and an EPA Wetland Program Development grant awarded to the City of Fayetteville. WCRC enlisted the U of A Cooperative Extension Service and City of Fayetteville Parks and Recreation Department on drafting this guide because of their invasive species management activities and expertise. Authored by Colin Massey and Kristina Jones, with contributions from local experts Jordan Forbis and Sandi Formica, Invasive Plants of Northwest Arkansas: A Field Management Guide, is a water-resistant, ring-bound field guide created to assist landowners and land managers concerned with invasive plant species' threat to natural areas, ecological function of forest, soils, and waterways, and wildlife habitat. It is designed to help land stewards identify and slow the spread of invasive plants in natural spaces, raise awareness, and promote native plants in Northwest Arkansas. Designed to be used in the field, the ring-binding allows new species to be added as more invasive plants become prevalent. First printed in 2021, the guide featured twenty invasive plants of concern along with photographs contributed by Colin Massey unless otherwise noted. Species profiles also included plant history, distribution, ecological impact, identification, and control methods. In 2022, it was revised and updated with five additional species. The book includes management strategies, safety, control methods, and re-establishing native vegetation. Additionally, six one-day invasive species workshops were offered to land managers and residents to educate those stakeholders on management strategies. 170 guides were provided to workshop participants, with more workshop planned. The book was reviewed by Theo Witsell of the Arkansas Natural Heritage Comission. Graphic design was by Greg Moore of Doxa/Vantage (CA) and initial printing was funded by Beaver Water District.

State Winners

NORTH CENTRAL REGION

Iowa	Adam Sisson
Michigan	Benjamin Phillips

SOUTHERN REGION

Alabama	Jessica N. Curl
Oklahoma	Michael Trammell
South Carolina	Liliane Severino da Silva
Texas	Andrew Lewis

WESTERN REGION

Arizona	Betsy Greene

PRESENTATIONS

2023 NACAA

108th
Annual Meeting
and
Professional Improvement Conference

Des Moines, Iowa

4-H AND YOUTH PROGRAMMING PRESENTATIONS

GEORGIA'S TOP HAND STOCKMANSHIP AND STEWARTSHIP

Paula Burke
Agricultural & Natural Resources Agent
University of Georgia
Carrollton

Burke, P. *1

[1] Agricultural and Natural Resources Agent, University, Carrollton, GA 30117

Students have limited opportunities to learn hands-on beef cattle handling and management in Georgia to better prepare them as potential employees or on the family farm. The Top Hand Stockmanship and Stewardship contest seeks to inspire, educate, and equip Georgia's high school students with the skills, knowledge, and confidence to handle cattle. To prepare students for the contest, tutorial videos were produced and made available online; coaches took students to local farms to learn and practice their skills, and BQA certification was required by students to participate. Starting with the contest idea in Carroll County by the local cattlemen association in 2021, the program expanded to a Regional and State competition in 2022 with 33 youth participating and will continue in 2023.

FARM SAFETY STARTS WITH YOUTH! IMPLEMENTING TRACTOR SAFETY CERTIFICATION STATEWIDE IN NORTH DAKOTA

Angie Johnson
NDSU Extension Farm & Ranch Safety Coordinator
North Dakota State University
Fargo

Authors: Angie Johnson[1.], Renae Gress[2.], Lacy Christopher[3.], Lindsay Overmyer[4.], Craig Askim[5.]
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[5.] Craig Askim ANR Extension agent, NDSU Extension, North Dakota, 58523

Developing safety habits in the workforce starts at a young age with positive adult role models. Agriculture had the leading number of occupational fatalities across industries for youth age 17 and younger from 2011-2020. It is estimated that about 33 children are injured in agriculture-related incidents every day. By utilizing evidence-based farm/ranch safety training techniques, youth and their families (or employer) are taught how to safely communicate, troubleshoot problems, work with others and operate equipment – all of which are skillsets to prepare the next generation of workers with lifelong safety skills that are transferrable to any career path chosen by youth, to prevent tragic injuries or fatalities from taking place.
Objectives: The Tractor and Machine Certification Program, known as "Farm Safety Camp" for 14–15-year-old youth in North Dakota, was a multifaceted project led by the state farm and ranch safety coordinator and Extension agents to address the needs of:

- 14-15-year-old North Dakota youth to become certified to operate tractors and farm machinery for an employer or their own operation in an all hands-on, overnight camp event, meeting the Hazardous Occupation Order in Agriculture (HOOA) requirements.
- 2) Parents, guardians, and employers of 14-15-year-old youth on farm operations to become stronger positive role models of safety, communicate effectively with youth employees, and properly identify farm tasks that are appropriate for their youth employee's physical and mental abilities.

Methods: We accomplished our objectives by creating three, statewide "Farm Safety Camps". These camps took place in three unique regions of North Dakota, covering the east, central, and western portions of the state. Over 30 county-based Extension agents lead hands-on training. Agents taught campers how to drive different tractors, utilize hand-signals to communicate, conduct pre-operation checks/maintenance of equipment, hook-up a PTO shaft, connect hydraulic hoses, read plot maps, put farm emergency plans together, practice roadway safety, understand farm stress, and properly handle sheep by herding them into a corral as a team. Community collaborators also participated in our camps, providing ATV certification (ND Parks and Recreation), "Stop the Bleed" training (Sanford Health), Electrical line safety (local electric cooperatives), fire safety (local fire departments), and "No Zone", a semi-truck and trailer safety demonstration to showcase the blind spots when driving a semi or sharing the road with a semi (ND Motor Carriers Assn.).
Results/Impact:
In our 2022 farm safety camp offerings, 27 youth successfully passed the written exam and driving exam to receive official Dept. of Labor HOOA certificate to work

on a farm operation, other than their family's farm. We increased student knowledge over 24%. In a follow-up survey to youth, 100% of participants gained confidence in asking questions to parent/employer when they did not know how to conduct a task on the farm and speaking up to their parent or employer when they felt unsafe about a task and 85% of parents stated they will now ask their child to practice a task they provide them first, before allowing the child to do it on their own. When asked if camp participants would "tell a friend about farm safety camp", over 71% of participants said they would 'highly recommend' telling their friend to attend this camp. Our team implemented a "Parent Leadership in Action" program, where participants taught their parents communication skills, how to assign appropriate tasks on the farm, and the importance of role modeling safety. Once parent shared, "The parent portion at the end of camp, I believe, was an integral component to success for the participants and their families. Kiddos at this age aren't always very communicative. Even though they may have learned and retained lots at camp, if the parents aren't aware of what they learned to be able to reinforce and become part of the process, the connection won't be as strong. It was really important for us as parents to get a rundown of what was all covered during Tractor Safety Camp first hand from instructors and participants. Perhaps some kiddos could be "Tractor Safety Camp" Ambassadors" and help with future Safety Camps or Workshops? And finally, I LOVE that you are adding/ talking about mental health. The more we talk about it and normalize it, the more people will be willing to talk about it. It is so important and thank you for having the courage to be an advocate! My son wants to come back to camp next year!". The success of this program can be replicated to other states who are looking to implement or strengthen thier tractor certification program for 14-15 year-old youth and their families.

CONNECTING SHOW LIFE TO REAL LIFE: IMPROVING YOUTH LIVESTOCK PROJECTS THROUGH ADDITIONAL LIVESTOCK INDUSTRY EDUCATION

Mark Mauldin
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University of Florida
Chipley

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[2.] Julie P. Dillard County Extension Director & 4-H Agent , UF/IFAS Extension Washington County, Florida, 32428
Situation: The connection between youth livestock projects and the livestock industry is not always as strong as it should be. To address this situation and increase the amount of technical, industry-based information youth learn during a project, agents have made a series of changes to the Washington County Youth Fair (WCYF). Procedure: The initial step in the process was to implement the collection of carcass data via ultrasound. Utilizing ultrasound allowed data to be collected regardless of where/when market animals were processed. This allowed for wider participation in the beef and pork carcass contests. Contest results are shared during a stand-alone event which is used as an opportunity to educate youth and parents about the livestock industry. The second major step in the process was the creation of the Champion of Champions (CofC) program. This program added three classes and an assessment to the line-up of events associated with the WCYF. CofC is based on the accumulation of points from event attendance, show success, record book, and CofC assessment. The CofC classes cover livestock industry topics. The points system is set so assessment score is crucial in determining the CofC winner. Results: During the last two WCYF cycles carcass data has been collected on 41 animals and 19 youth have been through the CofC program. While participation in these programs has yet to reach desired levels, assessment results and feedback from youth and parents indicates that learning is taking place. Additionally, local agricultural groups appreciate the increased industry focus and have provided approximately $2500 in financial support for the two programs. Conclusions: With an incremental increase in Agent effort, youth are now receiving a more complete educational experience. They are learning valuable life skills associated with being a showman and the foundational knowledge they need to effectively understand and communicate about the industries they represent.

CAREER AGSPERIENCE: UNLOCK THE SECRETS IN HELPING YOUTH PREPARE FOR A SUCCESSFUL CAREER

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Career AGsperience is an agriculture career literacy program designed to increase participants' knowledge base related to agriculture careers and preparation for careers in animal science, environmental science, agri-business and leadership, and agriculture science and technology. The Career AGsperience team has developed a curriculum with six lessons related to agriculture careers, career planning, resume development, internship acquisition, interviewing skills, and business etiquette. The curriculum includes supplemental materials and assessment tools for virtual and in-person programming. The program strives to increase the number of youth pursuing post-secondary degrees and careers in agriculture-related fields. Additionally, the program is supported with a website page and YouTube channel with career and supplementary learning videos. The target audience for this program is middle and high school students.

Youth participants who completed the post-survey strongly agreed or somewhat agreed to several statements:

- 100% better understand how science is involved in agriculture
- 100% know more about agriculture related career opportunities
- 100% are interested in learning more about agriculture related careers
- 100% are interested in pursuing an agriculture related career
- 80% better understand how agriculture affects them
- 80% better understand why agriculture related careers are important
- 80% feel better prepared for pursuing their future educational/career aspirations

In addition, 100% plan to go to college or seek other vocational training after high school. Therefore, the Career AGsperience program is meeting the needs in the area of career and skill development and helping youth plan for their future endeavors in agri-science-related careers. Session participants will learn how to access and successfully replicate the Career AGsperience programing locally and learn strategies for conducting programming in a virtual and/or in-person format. Participants will receive access to the curriculum, supplementary materials and evaluation tools the team has developed.

TACKLING DYSTOCIA WITH YOUTH SHEEP AND GOAT PRODUCERS

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Delaware

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[2.] Rob Leeds Extension Educator ANR, Ohio State University, Ohio, 43015
[3.] Kate Hornyak Program Coordinator , Ohio State University , Ohio, 43015

Every year production units in the livestock industry did not meet their full potential. Dystocia targets all livestock producers, especially new and unexperienced farmers. Sheep 4-H projects in Ohio continue to be steady to slightly increasing. The topic of dystocia is literally life and death, this can be fearful, stressful and concerning to the most experienced members of the sheep and goat community but specifically to the newer herdsman. To tackle this issue, a set of birthing simulators have been created and used for over 5 years to help current and potential future sheep and goat farmers practice handling dystocias. The nature of dystocia in sheep and goats requires smaller and more nimble hands, sometimes this is passed down to youth that have hands that meet those requirements. Participants will have their turn at tackling different dystocias at the simulators after they have heard a brief presentation of the most common dystocia reasons. This presentation also explains a normal presentation of birth. The simulators can be set up for multiple different malpresentations including breech, head back, and tangled twins. The evaluations for the simulators are very positive. 98% of participants felt more prepared to handle a dystocia, 95% had and increased confidence on when to intervene with a dystocia, 97% are more confident in diagnosing and solving malpresentations, and 98% are more likely to have a successful birthing season after attending the session. Participants are also referred to a video created with the simulators. The video has 195.3 educational hours recorded. A shepherd noted that he took his iPad to the barn during a dystocia to watch and guide him while trying to handle the dystocia himself. https://www.youtube.com/watch?v=qsEZB4kOg34

MAKING 4-H ACTIVITIES SUCCESSFUL IN ARKANSAS

Kyle Sanders
CEA - Agriculture
University of Arkansas Syst. Div. of Agri. Ext. Serv.
Lonoke

Authors: Kyle Sanders[1.]

[1.] Kyle Sanders CEA - Agriculture, University of Arkansas, Arkansas, 72086

4-H youth activities are important components of the Extension program in Lonoke County, Arkansas. 4-H members can be involved in many activities ranging from local club activities to activities at the state and national level. Our goal in Lonoke County is to make the "best better." During 2022 the activities surrounding day camps were taken to the next level as the agents banned together to offer day camp activities that would cultivate interest from members and parents alike. Hunter Safety was offered as one of the educational components for the day camp along with kayaking, craft making, fishing and various other activities. As a staff we rebuilt an aging fishing pier that would accommodate 10 to 12 fishermen. The pier had been rendered unusable because of the decayed lumber. Extension staff rebuilt the pier to bring it back to a usable condition, allowing for many hours of fun and safe fishing. Shooting Sports is an activity that 4-Hers can take part in. The members have the chance to learn about firearms from the safety standpoint while also getting the "hands-on" instruction and safe use of firearms. The members gain knowledge of BB guns, learn how to shoot clay targets, and even try their hands at muzzleloading. Kayaking is a popular activity for the day campers. The attendees are taught how to maneuver the kayaks so the kayaks can be used to the benefit of the campers. Kayak competitions are held to bring the activity full circle and recognize those that excel at this activity. Each agent takes part in the day-camp overseeing different activities. The cloverbuds even get in on the action, as they learn fishing basics starting with safety to the use of rod and reels. Of course, no fishing activity is complete with "wetting a hook." All the attendees use what they are taught and then we "go fishing." All children go home with t-shirts, crafts and memories they talk about for years to come and at the end of the day they learn something in the process.

MUSTANG CAMP - PROMOTING LASTING CHANGE THROUGH UTAH 4-H

Jessie Hadfield
Utah State University
Nephi
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[3.] Steve Price Extension Associate Professor - Carbon County Ag and Natural Resources Faculty, Co-PI, Utah, 84501

Many youth in western states are not familiar with wild horses and burros (WHB) and, therefore, have not formed opinions regarding their management. The maximum appropriate management level (AML) in Utah is approximately 1,956 while current populations are approaching 6,000. Current WHB populations are negatively impacting horse herd health, rangelands, and other wildlife/livestock throughout the West beyond Utah. The unique cultural symbolism surrounding WHBs makes management very challenging. Educating the public on the controversial topics of WHB, range management, and the role healthy herds have on healthy lands is crucial for implementing effective management solutions. Providing youth with educational opportunities outside of the classroom is an effective way of cultivating personal interest and conservation stewardship. In 2021 and 2022, Utah 4-H hosted three Mustang Camps as a potential solution to improve WHB awareness. These two-day camps provided hands-on, cross-disciplinary experiences to youth formerly unfamiliar with WHB and the unique impact they have on our public and private lands. Youth from 12 of the 29 counties in Utah were represented. Participants included 55 youth from a diversity of cultural backgrounds and 4-H project areas and 15 adult attendees including industry professionals, Bureau of Land Management employees, private land owners, and wild horse advocates. Survey data indicates that 100% of surveyed participants indicated an increase in knowledge or understanding of WHBs and range management. A majority of surveyed participants indicated they had changed their view about some aspect regarding WHBs and range management and were more open to adjusting current management strategies. Mustang Camp serves as a successful model which could be adopted by other programs. States facing WHB conflicts or other contentious environmental issues may find our model helpful in educating youth and helping to cultivate informed opinions for future policy makers throughout the nation.

BROILER CHICK PROJECT - PARTNERING 4-H LEARNING WITH LOCAL FOOD BANKS

Maya Rowe
Mason City

Authors: Maya Rowe[1.], Sarah DeBour[2.]

[1.] Maya Rowe County Youth Coordinator, Iowa State Extension and Outreach-Cerro Gordo County, Iowa, 50401-5405
[2.] Sarah DeBour County Director, Iowa State Extension and

Outreach-Cerro Gordo County, Iowa, 50401-5405According to the Iowa Department of Education, Bureau of Information and Analysis, 60.4% of Mason City youth receive free/reduced lunch. The Cerro Gordo County 4-H Broiler Chick Program teaches youth about the development of food and the poultry industry. The ISU Extension and Outreach Office Cerro Gordo County partnered with Hawkeye Harvest Food Bank, Clear Lake/ Ventura Food Pantry, and Mason City Community Kitchen. Through the Broiler Chick Project, youth learned about raising poultry to market weight and where food comes from. The project is open to any 4-H or Clover Kid member and half the costs are covered for all participants. This allows members of underrepresented groups to attend and feel included. After the first year of this program, we saw an increase in the number of participants in the poultry project. From summer of 2021 to summer of 2022, we saw a 67% increase in participant numbers. The project generated 355 pounds of meat donated to our three food bank partners, which equals 1,420 servings of fresh poultry for those in need. Each food pantry was given Spend Smart. Eat Smart. recipe cards, along with contact information for our local nutrition educator. ISU Extension and Outreach intends on continuing the Broiler Chick Program in the future, with the desire to educate all Cerro Gordo County 4-H youth about food security and the poultry industry in Iowa.

SOMETIMES, ALWAYS, NEVER - THE IMPORTANCE OF TEACHING YOUTH ABOUT PEST LOCATION

Genevieve Christ
Extension Educator
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Integrated Pest Management (IPM) is an essential tool in any pest management program in any situation. Proper identification is key to a successful IPM program. Pest location is an important factor tied directly to pest identification. Teaching youth about pests, IPM, and pest location is essential for building a pest management foundation. This foundation will help the youth think critically about pest control as they transition into adulthood. Additionally introducing these concepts to youth, will also reinforce proper pest management practices with the whole family. Sometimes, Always, Never is a lesson that was created to teach youth about the importance of location when determining if an organism is a pest. Organisms such as poison ivy and ticks are considered always a pest because no matter their location, they can cause harm. While organisms like butterflies and bats native to Pennsylvania are never a pest because their benefits outweigh any potential harm. Finally, organisms like dandelions, mice, and deer are sometimes a pest since their location can determine if they are causing harm. By using a variety of insects, animals, and plants the educator and the participants discuss if an organism should be classified as Sometimes, Always, or Never a Pest. The educator shares information about the biology and function of these organism to help explain why a pest is classified in a certain way. Participants are encouraged to think critically about pests and challenge the opinions of others in a respectful manner. Participants of this program have shown an increased understanding of why location is important in determining if an organism is a pest. They also have gained knowledge on the benefits of organisms such as spiders, snakes, bats, and bees. These organisms are frequently considered pests. The educator presented this program to multiple elementary school classrooms and at Earth Day Along the Susquehanna, a full day event attended by students from across Luzerne County.

TRAINING TRAINERS TO TEACH HYDROPONICS

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Florida ranks second in the United States for vegetable production, and the second largest industry in Florida is agriculture. Florida's climate is ideal for specialty crop production and is desirable for urban development. Labor and land are costly inputs for agricultural production. Despite abundant rains, water resources are managed for growing populations forcing efficient use across industries. Hydroponic food production has the potential to produce similar yields as traditional agriculture using significantly less water, land, and labor. Equipping urban audiences with knowledge and tools to successfully grow food hydroponically provides new options for feeding the growing urban population in non-traditional growing environments. I developed Set it and Forget it Hydroponics and I Ate My Homework: Hydroponics in Schools workshops to train trainers to bring simple, affordable, and successful hydroponic methods into the classroom. I taught train-the-trainer hydroponics workshops to Master Gardener Volunteers, Food and Nutrition Program staff, and teachers since 2019 (n = 100). I created a learning module shared via Google Drive with supplemental Methods and Materials handouts, critical thinking activities, and a popular YouTube video entitled Hannah Wooten Hydroponic Lettuce (https://www.youtube.com/watch?v=GQey35Tt24I) receiving over 608,000 views. The lessons included constructing a hydroponics kit in class plus additional materials, and Google Drive access to a PowerPoint and handouts. The resources were ready for classroom deployment which resulted in the greatest successes. Annual Qualtrics evaluations of the "trained trainers" in hydroponics (n=21) indicate 76% incorporated hydroponics into lessons resulting in at least 1,924 hydroponic systems built and used for teaching in urban classrooms. Comparing the outcomes, teaching a regular class participant yields approximately one hydroponic kit per participant, while trained trainers result in 91 hydroponic kits built per participant. Hydroponic gardening proves to be an excellent adaptable production method, especially for urban audiences in non-traditional growing environments like classrooms. Training trainers is an efficient use of Extension Agent time and resources because the capacity is expanded exponentially to community leaders who already maintain expertise, authority, and access to many learners that otherwise may not interact with Extension. Providing well-developed learning modules for trained trainers assists with adoption of new methods.

AG AWARENESS FOR THE YOUTH OF WHITE COUNTY

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For over twenty years, the White County Cooperative Extension Service, in cooperation with the White County Fair Association, hosts a free "Kid's Day" at the fair, 8:00 a.m. to Noon on Friday of fair week. All elementary, middle school, home school students and childcare providers were invited to participate. Master Gardener volunteers and White County Farm Bureau Women's Committee members assist with the event. Participants tour the following exhibits: Goat/Sheep barn, cattle/swine barn, ponies and miniature horse barn, Shetland pony barn, poultry and rabbit barn, and the Petting Zoo. Additionally, the Fair Board offers entertainment or an educational workshop for the children. Last years was Jon Bucher, The Magic Guy who performed at 9am, 10am and 11am in the Entertainment Tent. The Searcy Fire Department had a fire truck that the kids were allowed to get in while the firemen taught fire safety techniques including the importance of an emergency escape plan. The White County Farm Bureau Women's committee manned a special educational station – The Dairy Cow. Students were provided an opportunity to "milk" the cow while learning about dairy foods and the dairy industry in our state. The Fair Association provides coloring sheets and stickers for each child. We had 1121 attendees this year and over 31,000 participants over the lifetime of the event. Since its introduction in 2000, all activities, educational stations and volunteers were coordinated by the agent.
Additionally, the Prairie and White County Cooperative Extension Service agents hosted an "Ag Explore: Ag Career Bootcamp" educational program in June 2021 and 2022. This program was created to bring awareness about the diverse career opportunities in agriculture in Arkansas. The students learned throughout the 3-day program that consisted of 8, on-farm tour stops, focused on the following topics: Horticulture, Row Crop, and Livestock

technological careers. Agent assisted with the horticulture track both years. There were a total of 72 participants of youth and adults over the 3 days of learning. Based on an end-of-tour survey, 93% of the students increased their basic understanding of careers available in row crops, horticulture, and livestock.

STEER POOL: PROVIDING AN REAL WORLD LIVESTOCK EXPERIENCE

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For over 60 years the Hartford Independent Fair Steer Pool program has provided a way for youth to become involved in beef production. Unlike a "traditional" market steer project in Ohio, cattle productivity, beef quality, and real-world economics are the focus of this program. Each fall, students select a steer sourced from a group of commercially raised Angus based cattle. From selection day through the fair in August, students have a series of benchmarks to complete and farm visits to ensure proper records are being kept and that the cattle are on track to be harvested. During this time, educational meetings are conducted on topics such as calf selection and nutrition and feeding fundamentals. Students compete in record book, live evaluation, rate of gain, and carcass value competitions. Each student sells their steer based on market value of the carcass at the time of evaluation. The grid system pricing provides students with the opportunity to observe the effects of selection, nutrition, and care on the final carcass value of their project. Since 2017, 83% of the steers in the competition have graded Choice, and 10% have graded Prime with an average Yield Grade of 3.39. Carcass evaluation of Jr. Fair livestock projects in Ohio is fairly common, as nearly half of the county fairs in the state have some form of carcass merit contest. However, from an education standpoint the design of the Steer Pool program allows for a more in depth understanding of the beef industry from live animal evaluation to nutrition and feeding, all the way through a basic understanding of meat quality and factors that determine carcass value. Using the Steer Pool as a model, other county programs could capitalize on a long standing approach to improve the youth project learning experience.

HANDS-ON WITH HONEY BEES: FORGING OUR NEXT GENERATION OF BEEKEEPERS, SCIENTISTS, AND LEADERS

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Background: Pollination services provided by apiculture operations are essential to the economic viability of our nation's agriculture. Western honey bees, used by beekeepers, improve the yields of many commodities such as almonds, berries, nuts, and other crops. Teaching youth about the importance of keeping bees and associated careers in agriculture can help youth discover paths otherwise unknown in their quest to become productive members of society. Objective: An interactive beekeeping workshop at the UF/IFAS Extension Honey Research and Extension Laboratory was planned, conducted, and evaluated by UF/IFAS Extension agents to increase knowledge and awareness of the honey bee importance in agriculture. Activities were designed for youth 14 – 18 years of age. Methods: This workshop focused on increasing knowledge and awareness through interactive demonstrations, hands-on learning, and formal education. Topics covered included bee biology and behavior, beekeeping implements, honey production, pests and diseases, bees in agriculture, and career opportunities. Youth were taught about safety and were exposed to a live hive inspection. Results: Surveyed participants (n=10) reported increased knowledge including performing a hive inspection (46%), bee biology and behavior (50%), the use of beekeeping equipment (40%), apicultural pests and diseases (68%), and careers opportunities in beekeeping (100%). Moreover, youth stated that they

intended to implement what they learned in their lives and future projects (100%). Conclusion: Utilizing hands-on activities in beekeeping helps youth explore career options in agriculture and increases knowledge and awareness about the importance of these creatures. These unique experiences help youth in choosing good decisions that could benefit agriculture and their own life experiences.

AGRICULTURAL ECONOMICS & COMMUNITY DEVELOPMENT PRESENTATIONS

CUSTOMER SERVICE PLANS ARE VITAL FOR DIRECT FARM MARKETERS & AGRITOURISM FARMS

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Customer Service is an integral part of business success for all direct farm marketers and agritourism farms across the country and around the world. Customer service begins with the farm management team. It must be learned and implemented by every staff member at the farm. Through analyzing customer service literature and gaining additional insight relating to the positioning of business for success using customer service, a framework was developed to help farm direct marketers and agritourism farms with their customer service plans. This process starts with preparing best practices for customer service focused on the farm's values and brand. This preparedness includes training and implementation at all levels of the farm business. The second step is the actions of responding to issues with customer satisfaction in every aspect of the business from staff members to direct interaction with customers. This includes delegation and authority on common issues. Third is active recovery from challenges with customer service to uphold the farm's integrity, brand, and image. Finally, improvement is the final stage of the customer service plans. Farms work on continuous improvement, learning from challenges on a regular basis to continue the commitment to awesome customer service. This presentation will share the new model for customer service implementation on farms, teaching materials to be used in programming, as well as success stories from piloting the program on Ohio farms and research from implementation.

TAX PLANNING FOR PRODUCERS RECEIVING LOAN SERVICING ASSISTANCE PAYMENTS

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On August 16, 2022, President Biden signed the Inflation Reduction Act (Public Law 117-169). The Inflation Reduction Act provides relief for distressed borrowers for specific Farm Service Agency (FSA) direct and guaranteed loans. Financially distressed producers began receiving loan servicing assistance payments in 2022. Initially, these payments were not debt forgiveness but rather ad hoc taxable payments. On April 6, 2023, FSA announced that its position had reversed for FSA direct loans. Corrected Form 1099-Gs (Certain Government Payments) were issued to payment recipients removing the taxable payment and those individuals also received a 1099-C (Cancellation of Debt). These modifications will not affect borrowers with FSA-guaranteed loans. Producers receiving debt forgiveness will likely need to amend their 2022 Federal Income Tax Return. Some recipients may be able to exclude the cancellation of debt income depending upon a wide range of variables. Forthcoming workshops will help producers develop a strategy for dealing with FSA's recent move to report payments as cancellation of debt. The author developed and delivered a presentation to multiple producer organizations whose membership received loan servicing assistance payments. The results of the workshops allowed producers receiving Loan Servicing Assistance Payments to take steps to help mitigate the increased tax liability resulting from the assistance payments.

FARM ACCOUNTING WITH QUICKEN: GOING BEYOND THE BASICS

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Quicken is a commonly available personal accounting software that uses the single entry, cash accounting method. Quicken has flexibility to be used for farms and ranches that maintain a cash basis accounting system for tax management and decision making. Quicken can easily record income and expense transactions using a flexible chart of accounts, but it can do more. Farmers have asked "Can Quicken do…" about a variety of specific functions and needs on the farm. Examples include: tracking income and expenses to an enterprise, tracking performance of specific farms or production buildings, tracking expenses in one tax reporting year when the income earned is in the following tax reporting year, tracking pre-paid expenses, and separating family living expenses. Quicken can also be used to collect information for partial budgeting used to evaluate decision making options in the business. The software features in Quicken that makes it possible to go beyond the basics are tags and the memo line. Tags used in combination with categories and subcategories can provide farm managers necessary information to run accurate reports with accrual information and yet maintain the cash basis accounting needs for annual income tax filing. The memo line can provide a place to record data that can be summarized quickly on reports. Extension professionals working with agricultural producers and/or teaching farm recordkeeping systems can benefit from learning the flexibility of Quicken to help farmers and ranchers maximize their financial records.

EQUIPPING AND EMPOWERING EXTENSION STAFF AND INDUSTRY PROFESSIONALS TO ASSIST VIRGINIA AGRIBUSINESSES TO SUCCESSFULLY TRANSFER FARM WEALTH TO THE NEXT GENERATION

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Transferring existing farm wealth to the next generation comes with unique challenges. Sobering statistics highlight that intergenerational farm-wealth transfer needs additional extension programming focus; specifically for professionals working in this area that have not historically been reached. Family farms and forests make up the majority acreage across Virginia with older generations holding the majority of ownership and management responsibility. Approximately 91% of these agribusinesses are owned by one producer's household and/or extended family. Effective extension programming in farm and forestland transition helps ensure national economic security and quality of life. This work specifically targets professionals working in this area to increase collaboration and effective transitions. Agribusiness Management & Economics (AME) program team leadership worked to plan and conduct a 2.5 day training by the International Farm Transition Network (IFTN) held in Virginia March of 2022. This training focused on family dynamics, the coordinator/facilitator role, and process for working through farm transition with families. This opportunity trained 23 professionals including VCE staff (16), Virginia Farm Bureau, Farm Credit, a local land trust, and NC Farm Link coordinator. The trainers said, "this was the most engaged group we've had, and your energy around this subject has given (them) some ideas for additional training and other improvements." Following this training a summit for the newly formed Virginia Farm Succession Professionals Network was held in June of 2022 with over 60 interested individuals. This network is the first effort of its kind in Virginia focused on bringing professionals with various expertise (ex. attorney, accountant, governmental agencies, lending, land trust, etc.) together to focus on farm and forest transition. There were 85% of interested respondents wanting the network to increase connections with other professionals as well as increase the number of successful farm transitions with farmers/landowners. Over 71% were interested in collaborative marketing of resources available to farmers/landowners related to

farm transition. The network will focus on professional development and opportunities to collaborate on programs/work with clients. More work will come in 2023 bringing the network and professionals together to hone skills and expand impact throughout the agricultural community.

TUESDAY MARKET: AN INTEGRATED MANAGEMENT APPROACH LEVERAGES A SMALL FARMERS MARKET FOR SYNERGISTIC COMMUNITY BENEFITS

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Beginning farmers who wish to engage in direct-to-consumer sales may need scale-appropriate opportunities to increase their product volume, and develop sales and marketing skills. A small mid-week farmers market in Moscow, ID, the Tuesday Market has been identified as an important community asset. With support from a citizen advisory committee and utilizing UI Extension paid staff, interns and volunteer help, UI Extension adopted the coordination of the Tuesday Market. Coordinating activities have included recruiting and managing vendors and musicians, posting on social media, placing signs and posters around town, setting up tables and chairs and running the market. The market has also regularly hosted a youth activity with the help of AmeriCorps Service Members, interns and the local high school environmental club. The market has increased profits for farmers, functions as a fresh food access point as well as a small business incubator, provides hands-on learning opportunities for small farmers, other vendors and for student interns who help run the market. Three beginning farmer vendors in 2021 were U.S. Military Veterans. Interns helped collect sales data and count customers at the market. Over a four-year period, beginning 2018, the market expanded in terms of dollars spent (from $2,741 to $16,936 per season), increased the number of customers (from 45 to 58 average) and increased the number of weekly vendors (from 9 to 12). In a 2021 customer survey all respondents expressed gratitude for the opportunity to safely socialize outside. In 2022, the market was awarded a $250,000 United States Department of Agriculture (USDA) – Agricultural Marketing Service (AMS) grant to fund new marketing activities for the Tuesday Market including advertising, value-added food research and training, and development of an online farmers market. The goal of the grant is to increase the number of customers and profits for farmers.

BUILDING RELATIONSHIPS WITH THE HO CHUNK NATION THROUGH AGRICULTURAL RESEARCH AND PROGRAMMING

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A partnership and relationship was cultivated between University of Wisconsin-Madison county and state extension faculty and staff and the tribal Ho Chunk Nation Department of Natural Resources. Initial efforts were directed towards establishing community gardens in the Tomah area and helping evaluate opportunities for agricultural production by the Ho Chunk Nation on their land. The relationship was built over time culminating in an on-farm research project and extension educational program. Industrial hemp fiber production was the focus of the on-farm research implemented on the tribal lands. The research project involved replicated variety and soil fertility plots of industrial hemp at the Ho Chunk Nation's Whirling Thunder Farm. Industrial Hemp fits well into the values of the Ho Chunk Nation as they desire to manage their lands organically and ultimately to reduce the footprint agriculture leaves on their land. The research led to their potential to use the fiber for products to replace oil-based plastics used in their facilities. Planning, implementing, analysis, and reporting were all shared in this partnership. University of Wisconsin-Madison extension educators and specialists worked with Ho Chunk Nation tribal members led by the Department of Natural Resources Executive Secretary. An outcome of this trusted relationship is a long-range strategic plan to help the Ho Chunk Nation transition their farmland to uses that better meet tribal needs and values. This was facilitated by UW-Madison Extension for the newly formed Ho Chunk Nation Department of Agriculture. The plan includes the needs of individual communities and beginning steps for multiple enterprises. The presentation will share how the relationships and projects have grown and evolved over time along with accomplishments.

EVALUATION OF FARM TOURS AS AN EFFECTIVE TEACHING OPPORTUNITY

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Educational farm tours offer learning opportunities that cannot be duplicated in a classroom setting[1]. Annually, the National Association of County Agricultural Agents (NACAA) hosts a conference with both multi-day pre-conference farm tours and various day-long commodity tours for Extension professionals. The objectives are to increase Extension Agents' agricultural awareness and appreciation of the production region of focus and to contribute to an understanding of a global agricultural system. A byproduct of the objective is utilizing survey results as a tour training tool. A group of UF/IFAS Extension Agents developed an Institutional Review Board (IRB) approved survey (#202201589) for the 2022 NACAA AMPIC in West Palm Beach, Florida to quantify participants' experiences and learning gains. The tours included diverse forms of agriculture from beef cattle operations to ornamental horticulture. Tours used a range of teaching methods including demonstrations, discussion, and immersion in operations. The Qualtrics survey was given to 479 participants and received 140 consenting responses. 66% indicated an increase in their knowledge on the appropriate commodity, systems, and technology, 75% indicated an increase in knowledge of ecosystem services, 64% indicated an increase in workforce and career diversity, and 68% indicated an increase in knowledge of Florida agriculture policy and economic contributions. Participants were also asked to rank their perception of agriculture; results indicated an overall increase in agricultural appreciation. There is a direct impact of appreciation and knowledge gain of Florida's agriculture. Increasing agricultural agents' knowledge of Florida's diverse agriculture, operators, and workers contributes to participants' understanding of the global economy. While educating Extension Agents about the entire American agricultural system that supports a global food system is a direct benefit, an indirect benefit surfaced in the form of a useful data set on how to deliver impactful farm tours. Finally, the output, an IRB approved farm tour survey, can be utilized to evaluate the impact of Extension farm tours, and thus, the impact of Extension on society. These results could be used as a train-the-trainer tool to educate future Extension employees in conducting farm tours. The results indicate utilizing tours as educational tools for Extension agents is effective.

[1] https://archives.joe.org/joe/2020february/iw3.php

IDENTIFYING FARM MANAGEMENT NEEDS OF WI'S BEGINNING COMMODITY AND SPECIALTY CROP FARMERS

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Wisconsin farmers are experiencing prolonged farm stress due to challenges from variability of markets, prices of inputs, and new technologies and practices affecting both crop yield and quality. This stress has contributed to beginning commodity and specialty crop farmers re-evaluating their financial situation and business plans. A UW Extension funded-project worked with key industry stakeholders using focus group methodology to gather the important needs and relevant information of these audiences. The project team sought to learn from focus group participants such things as current use of risk management programs, market outlook data, marketing decisions, planning and use of crop insurance, the level of financial management education, and their ability to employ skills in effective insurance and marketing decisions. This session will share the planning process efforts developed along with the results from these focus groups and key industry stakeholder support. The results from these discussions will be utilized in future UW Extension outreach programming, such as a year-long farm management webinar series with Wisconsin Cranberry growers. In addition, future curriculum, Farm Pulse: Grain Marketing and Crop Insurance, will be developed with educational materials, creation of videos for use as stand-alone content, and to be included in a

Canvas (LMS) course. The hybrid online course delivery will use numerous interactive teaching activities for farmers to apply grain marketing and price risk management principles and crop insurance decisions to a case farm and their own farm information with interacting with peers at in-person Extension meetings.

A TEAM APPROACH TO ADDRESSING FARMER MENTAL HEALTH AND FARM AND RURAL STRESS

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The responsibilities of operating and managing a farm, including weather, legal issues, financial constraints, and uncertain input and commodity prices are stressful and can result in mental health concerns for farmers. To address mental health issues in Ohio's farming population, Ohio State University Extension assembled a team of county-based Educators and state specialists. This interdisciplinary team has secured grant funding to develop resources, curriculum, and hire the first-ever Extension Field Specialist in Behavioral Health. Our team accomplishments include teaching Mental Health First Aid (MHFA) to farmers and agribusinesses, development of farm stress kits distributed to farmers and agri-businesses, and delivering programs, through an agreement with The Ohio State University College of Social Work, to licensed mental health providers in Ohio who seek professional development continuing education units (CEUs) and "Farm Stress" certification. More than one thousand professionals have completed at least one of the three modules in the "Farm Stress Certified" training program. This presentation will describe the history and development of the team, resources developed, grant funding secured, our relationship with the College of Social Work, the impact of educational programming, and tips for Extension professionals interested in developing a similar program.

FARMERS MARKETS: MORE THAN CORN AND TOMATOES - USING THE SEVEN CAPITALS FRAMEWORK FOR MARKET GROWTH & SUCCESS

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Farmers' Markets are more than merely a place to peddle produce. These community gathering spaces are a place to celebrate innovation, creativity, and ingenuity. The Pendleton County Farmers' Market is a rural market located in Northern Kentucky with a county population of 14,000. As a limited food access county, residents drive more than 25 miles to chain grocery stores outside of the county. The local Farmers' Market (PCFM) has operated since the late 1980s but has seen tremendous growth over the last decade under the leadership of #lindiecountyagent. With a focus on cultivating a family atmosphere for both customers and vendors alike, the market has blossomed into a thriving center for food access, agricultural awareness, and community. Growing from three vendors in 2012 to thirty-four vendors in 2022, while also establishing permanent roots with an 89% grant-funded permanent market pavilion, the market is thriving with community as its core value. This rural market is special and considered a leader in creative placemaking through community engagement events. Let's talk about impacts and outcomes through innovative extension programming utilizing the Seven Capitals Community Framework as a guide to measuring market success, growing local markets, and creating place and space for people to gather. All while "keeping farmers farming and keeping families fed," the personal mission of Lindie Huffman, Pendleton County ANR Extension Agent.

AGRICULTURAL ISSUES PRESENTATIONS

COSHOCTON COUNTY FALL FOLIAGE AND FARM TOUR – OVER 50 YEARS OF AG AWARENESS THROUGH COMMUNITY COLLABORATION

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For over 50 years, a partnership of OSU Extension, the U.S.D.A. Farm Service Agency of Coshocton County, and the Coshocton Soil and Water Conservation District has offered the Coshocton County Fall Foliage and Farm Tour attracting over 1,500 individuals annually. The goal of this drive-it-yourself tour is to educate attendees about agriculture and to allow attendees to view the splendor of the fall foliage along the winding back roads of this east-central Ohio Appalachian county. This two-day tour is held in October and over 20% of attendees are from outside of Coshocton County. On average it annually attracts attendees from one-third of Ohio's 88 counties as well as at least 5 other states. Coshocton County encompasses 567 square miles of land over 22 townships and has 1,191 farm operations. The tour highlights a different section of the county each year, featuring 4 to 5 townships with a driving loop of approximately 50 miles. Each year the tour highlights major sectors of the agricultural industry including beef, dairy, small-ruminant livestock, equine, grape and wine, and row, forage, and horticulture crops. Additionally, the tour highlights some of the historical landmarks of the townships highlighted. Evaluations results over the past five years indicate that over 95% of the attendees learned something new about Coshocton County's agriculture industry. This presentation will share details on details on how Extension Educators can develop community partnerships to offer a similar agricultural awareness tour. We will provide our tips for developing a drive-it-yourself tour, working with farm family hosts, marketing, sharing leadership between agricultural agencies, and how to mitigate risks

IMPACT OF COPPER SULFATE FOOTBATH USE ON MANURE, SOIL, AND FORAGE COPPER CONCENTRATIONS – EASTERN WISCONSIN

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Footbaths are important to prevent animal lameness and maintain hoof health on dairy farms. According to a 2015 survey conducted by eastern Wisconsin Agriculture Educators of 45 eastern Wisconsin dairy farms, 75 percent of the farms utilized footbaths to promote hoof health, animal productivity, and longevity. The same project determined copper sulfate was the region's most used footbath disinfectant due to its relatively low cost per animal treated and effectiveness in reducing the incidence and severity of hoof lesions. Farmers typically dispose of used footbath solution in the farm's manure handling system, which is ultimately applied to crop fields. Dairy nutritionists note increasing copper concentrations within locally grown and fed forages, with many forages exceeding a dairy cow's nutritional need for copper. Excessive copper levels may lead to copper toxicity in dairy cattle livers, forages, and soil. When bioavailable and found in high concentrations within the soil, copper becomes toxic to plants and soil microbial communities, potentially resulting in increased economic and environmental concerns resulting from diminished crop productivity. A research project was conducted in 12 leading Wisconsin dairy counties in 2022 and completed in 2023 to determine if plant material, manure, and soil were excessive in copper levels in various soil types. Aerica Bjurstrom, the project's primary investigator, collected soil, manure, and alfalfa plant material samples, with additional samples collected by six extension educators from 20 dairies ranging in herd size from 190 cows to 4,500. Bjurstrom also collected fresh liver samples from 25 Holstein cows from one of the participating farms. A farm management survey was distributed to all participating farms to capture a snapshot of footbath management, crop management practices, and manure management practices. The presentation will discuss the findings from the project, and the impact copper has on a dairy farm. The presentation will also discuss the future implications of excessive copper levels on plant, soil, and animal health.

EXPANDING WILDFIRE PREPAREDNESS TO FARMERS AND RANCHERS

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Wildfires are burning more acres and more frequently across cropland and rangelands in the United States than in the past due to a changing climate, increasing invasive annual grasses, and changing farming practices that leave more residue on the soil surface to reduce erosion. As a result of these recent and continued unprecedented fires in the agricultural community there is increased interest and need for disaster preparedness for the farming community that traditional urban disaster preparedness strategies do not adequately address. Wildfires in agriculture areas are often over looked as fire preparedness and prevention is more of a focus in the more populated wildland urban interface and forested ecosystems. To address these issues extension agent Jacob Powell developed wildfire preparedness training specifically designed for the agricultural community, primarily farmers and ranchers in the western United States. The extension programming is designed to help both producers and rural landowners better understand wildfire risks in agricultural areas, how to develop emergency wildfire plans, improve wildfire prevention steps in farm equipment, create defensible space, and wildfire suppression safety and tactics if they are needed to engage wildfires while waiting for additional support from professional agencies. This presentation will cover the unique challenges that wildfires pose in agricultural areas, along with other educational material and information for other extension faculty to help their communities better prepare for wildfires. Applied research completed by Powell and others on wildfire behavior in fuels commonly found in western agricultural areas will also be briefly covered. Powell has developed two online classes in 2022 that will also be discussed, Agricultural Wildfire Behavior and Suppression (https://beav.es/ibX) and Wildfire Preparedness for Agriculture (https://beav.es/w7b). Powell's extension programming has featured webinars, in person classes, and on demand online classes that have reached nearly 1,000 farmers, ranchers, and rural residents. In terms of impact it is estimated that the training has saved nearly $2 million dollars of potential wildfire damages over the last two years.

POWHATAN COUNTY'S LAND PARCELIZATION THROUGH VIRGINIA COOPERATIVE EXTENSION'S COMMUNITY LEARNING THROUGH DATA DRIVEN DISCOVERY (CLD3)

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Powhatan County has experienced a continual increase in land fragmentation and loss of land from agriculture and forestry. This change is largely due to increased development pressure. COVID helped expose the effects of not having a local food supply and how land fragmentation and development affect local food viability. Land fragmentation directly affects our constituents and is shaping how the county will look in the future. What value is agriculture to Powhatan County as compared to commercial and residential? How has land fragmentation affected the agricultural economics/viability in the county? A loss of rural character to suburban character is the opposite of what Powhatan residents continue to voice. The agriculture Extension agents in Powhatan and Goochland Counties submitted applications for the VCE Community Learning through Data Driven Discovery (CLD3) project for the 10 week summer program. The stakeholder collaborators included the Powhatan County Farm Bureau board, Planning/Zoning, Economic Development, Commissioner of Revenue and GIS staff. Powhatan collaborators supplied feedback over the course of the project and resources for the students and faculty to utilize. The group hoped the project would give recommendations that could be covered by county ordinances (what the county can do to support agriculture, forestry and conserving open spaces); identify those areas and draft/incorporate into recommendations for the county's comprehensive plan as well as zoning and subdivision ordinances; and show a differentiation in the "green" rural areas in the county (ex. Statewide important farm soils, wildlife corridors, etc.) on GIS map. The findings have been very informative to see trends over time and a one stop shop to see all the resources available related to land use. In November one of the students and faculty presented findings to the Powhatan County Planning Commission (PC) via zoom. The members were very thankful for the amazing work that was done on this project and they were happy to hear that this tool can be updated over time. Further research on the cost of services of different land use types will assist in educating local elected officials on the value of agriculture, forested and open land.

HELPING SMALL RURAL COUNTIES IN UTAH PARTICIPATE IN THE DEVELOPMENT OF FEDERAL LAND MANAGEMENT POLICY

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Many counties in the west have large percentages of federally owned land within their boundaries. How these lands are managed can have significant impacts on the local economies of these counties. Federal land management agencies are required to seek input from local county governments when establishing or changing significant land management policies. Although the intent of the legislation which created these requirements was to ensure local government input on how federal public lands within their boundaries are managed, the end result has been a process which limits local government involvement to those counties which have the knowledge and resources to monitor and respond to ongoing policy creation and adaptation. This has created a situation where many small counties who have an interest in being involved in the development of public land management policy have been precluded from doing so simply because they don't have the knowledge and resources to do so. In southern Utah's Piute and Wayne Counties, Extension recognized the need for increased understanding of the federal land management policy process and has played a crucial role in educating local county governments. Although Extension recognized the need for increased understanding, there were no Extension personnel who specialized in this area. Addressing the need required local Extension personnel to educate themselves by spending many long hours researching legislation, policy and management practices in order to provide accurate information to local government officials. This increased awareness by local government officials has increased their ability to have meaningful impacts on the development of public land management policy. The recognition of the need for local county officials to be involved in federal land management policy was the result of extreme conflict between local government officials and the federal government. Many of the issues surrounding the conflict were rooted in misinformation about federal legislation and policy surrounding federal land grazing permits and their administration. As understanding has increased, participation in the public land management policy creation process has increased and conflict has decreased.

AGRONOMY & PEST MANAGEMENT PRESENTATIONS

LABORATORY SOIL FERTILITY RECOMMENDATIONS AND COST COMPARISON IN SEVIER COUNTY, UTAH

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Adequate soil fertility is needed by agronomic crops to maximum yield and economic potential. Lack of one or more soil nutrients will reduce crop yield and farm income. Applying excessive fertilizer and needless soil amendments increases environmental degradation potential and reduces farm profitability. Periodic soil testing is needed to ascertain soil nutrient levels, establish fertility trends, and acquire essential analytical information necessary to make good soil fertility decisions. Growers, crop consultants, and extension agents rely on accredited private and university laboratories for soil analysis. However, laboratory recommendations and associated fertilizer cost per acre can vary significantly. Private laboratories typically take a soil building approach, whereas universities use a sufficiency approach. No-cost soil sampling and analytical services are frequently provided by commercial soil fertility services using private accredited soil analytical laboratories. Sales based incentivized recommendations can be excessive. Ongoing fertilizer supply chain issues have significantly increased fertilizer prices, further reducing farm profitability. The Utah State University (USU) Extension Agronomic Crops Team is conducting a statewide, three year, on-farm research study with 12 cooperators. In this study soil fertility recommendations and costs are being evaluated. Soil samples from candidate research fields were analyzed by three accredited private laboratories and two accredited university laboratories. Using a standard replicated research plot design, macro and micro fertilizers were applied at respective laboratory recommendation rates for five experimental treatments

and a control. Plots were harvested using cooperator field scale equipment. Alfalfa yield response and quality were measured by weighting 10' of the windrow, sampling forage, oven drying samples and analyzing for quality. In the Sevier County trial, the yield in tons per acre for 2021 and 2022 respectively for private lab recommendation #1 was 4.32 (2021) and 6.57 (2022), #2 was 4.49 and 6.62, #3 was 4.84 and 6.45, #4 Utah State University (USU) was 4.36 and 5.79, #5 University of Idaho (UOI) was 4.46 and 6.42, and the control was 4.33 and 5.83 respectively. The cost per acre of the respective treatments from private lab #1 was $251 (2021) and $440 (2022), #2 was $157 and $248, #3 was $784 and $1,035, #4 USU $74 and $191, and #5 UOI $177 and $434. Yield difference between some of the treatments were observed but they were not often statistically significant. The unfertilized control did yield lower than the other treatments, indicating that fertilizer did increase alfalfa yield. There was no statistically significant difference in quality between treatments. The results from a separate replicated soil amendment study showed no significant difference in yield to applications of sulfur and gypsum.

THE MINT PEST ALERT – A DECISION SUPPORT TOOL FOR MINT PRODUCERS

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Mint root borers, variegated cutworms and loopers are the most challenging pests for mint producers in Oregon. When the narrow spectrum insecticide Coragen (chlorantraniliprole) was registered for use on mint, research indicated that with optimal application timing, good control of these pests could be achieved with a single application of Coragen. Since 2014, the mint pest alert program has provided region-specific insect development information to help mint growers optimize the application timing of Coragen and other products. Each year, pest development was estimated using degree-day models that were run for five weather stations across three mint-growing regions in the state. In-field pest monitoring of 2-5 fields per region was used to verify the model predictions and estimate overall pest pressure. In-field monitoring included pheromone baited traps and weekly scouting. Pest development, pest abundance, and treatment recommendation information was shared with growers and field agronomists through an email newsletter. Supporting information about pest biology and integrated pest management was also included as appropriate. In 2019, a centralized website was developed that included general information about mint pests, as well as an archive of past newsletters. A survey was sent to newsletter recipients to evaluate the effectiveness of the program at the end of each growing season. Survey respondents have consistently reported that the program increased their knowledge of insect development and the use of Coragen by an average of 1 point on a 5-point scale. When asked to select specific ways in which the program has impacted their businesses, most respondents reported multiple benefits. An improvement in pest control was the most commonly reported benefit (55%), closely followed by a reduction in pesticide application frequency (45%). Respondents also reported that the newsletter increased their likelihood of using or recommending Coragen (36%), saved scouting time (27%), and decreased use of broad-spectrum insecticides (18%). In 2022, respondents reported that the financial impact of the newsletter was approximately $28 per acre, a value of approximately $453,000 in pest control savings across mint production acres statewide.

DEVELOPING A VARIETY ASSESSMENT PROGRAM FOR FLORIDA RICE PRODUCERS

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Rice in Florida is produced on ~27,000 acres of land in rotation with sugarcane, and acts as an effective crop for Best Management Practices (BMPs) in the Everglades Agricultural Area (EAA). Because Florida's rice acreage is relatively low, the state lacks a dedicated rice breeding program and is dependent on varieties acquired from other rice-producing states. Thus, the primary objective of this program is to test new rice varieties by using on-farm yield performance trials in order to determine which varieties are most compatible under South Florida's climate. From 2016 to 2022, a total of 16 on-farm, small-plot variety performance trials have been conducted to assess yield, grain quality, and disease susceptibility among 25 varieties. Within each trial, rice varieties were randomly

assigned to small-plots measuring 20-ft by 8-ft (6 rows) over four replications. Rice was grown under standard commercial practices, and plots were harvested after ~115 days to determine yield and quality. Results from these trials indicate an 11.1% increase in yield when comparing medium-grain variety 'Titan' with 'Jupiter'. This increase in yield equates to roughly $1.19 more per hundred weight (cwt), equivalent to an additional $60 per acre in crop value. The 4.7% increase in yield when comparing long-grain variety 'Diamond' with 'Rex' is equivalent to approximately $0.48 per cwt, or $24 per acre in crop value. In addition, over 5,500 acres of 'LaKast' are being replaced by the newly recommended long-grain variety 'Jewel', which yields 5.1% greater, equating to an additional $36 per acre. By replacing acres of 'LaKast' with 'Jewel', the rice industry has increased monetary gains by approximately $198,000 ($36 x 5,500 acres). Finally, high-yielding hybrid rice varieties are being adopted by Florida growers for the first time in the industry's history as a result of this program, with over 700 acres of hybrid rice planted in 2022. The adoption of new rice varieties from this program will continue to ensure that rice remains a profitable rotational crop in South Florida.

SOIL HEALTH AND NEMATODE RESPONSE TO INTEGRATING SUDAN GRASS ROTATION AND REDUCED-RISK NEMATICIDES ON CARROT IN SOUTHERN DESERT VALLEYS OF CALIFORNIA

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In southern desert valleys of California, carrot (Daucus carota) and Sudan grass (Sorghum × drummondii) are economically important crops. Planting and harvesting dates of these crops naturally permit to grow in rotation. As a rotation crop, Sudan grass can reduce common nematode parasites of carrots through non-host, allelopathy, and soil health improvement. Cultivation of Sudan grass and incorporation of its residues, after cutting hay, enriches the soil with nutrients and adds organic matter to stimulate bacterial and fungal activity in the soil. Because soil health is a function of microbial activity, changes in soil health conditions can be reflected on the demographic shift in microbivorous nematodes such as bacterial, fungal, omnivorous, and predatory nematodes. Integrating reduced-risk nematicides with selective mode of action could suppress nematode pests that survive preceeding crop rotation. A field trial was conducted at the end of Sudan grass crop in Fall of 2022 to examine the soil health and nematode response to integrating Sudan grass rotation and reduced-risk nematicide treatments. Sudan grass residue was incorporated after cutting hay. Two weeks after seeding carrot, Salibro™ (fluazaindolizine) and Velum® One (fluopyram) nematicides were applied at 31.0- and 13.6 fl oz/ac, respectively, on 60-inch seed beds using an SRS Sprayer. An untreated control treatment was included and each treatment was replicated 4 times in a randomized complete block design. For nematode assays, soil samples were collected before nematicide treatment and at monthly intervals thereafter. Abundance of plant-parasitic nematodes was low to start with at the end of Sudan grass and remained low thereafter, an indication of the benefit of Sudan grass rotation. Improvement of soil health conditions by Sudan grass or as a non-host crop could have antagonized parasitic nematodes. Velum nematicide treatment negatively impacted soil health as reflected on the abundance of beneficial nematodes. Salibro treatment, however, had no impact on these beneficial nematodes. The effect of Velum was non-discriminatory on both beneficial and parasitic nematodes. This suggests that soil health benefits of Sudan grass can be compromised by Velum. In contrast, integrating Sudan grass with Salibro is a promising option.

SOYBEAN YIELDS FOLLOWING COVER CROPS AND FALL-APPLIED P & K

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Mississippi producers spent over $254 million on fertilizer in 2017 and costs continue to rise. The cost of inorganic fertilizers makes improving nutrient efficiency in row crops a top priority in 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. One study conducted across Mississippi determined soybean yields could be increased 8 to 10 bushels/acre with the addition of P2O5 or K2O when nutrient values were determined insufficient by the soil

testing lab. This factorial arranged, randomized block designed study was to determine if cover crop systems would improve nutrient availability and soybean yield and 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. In 2021 and 2022, fall-applied P2O5 fertilizer increased soybean yield in no-cover and radish treatments while yields decreased in cereal rye. In 2021, fall-applied K2O increased yield in crimson clover only, whereas in 2022, fall-applied K2O increased soybean yields in all cover crop treatments. Cereal grains are believed to be beneficial to soybean production however, it may take multiple years for benefits to be realized. Further study is needed to quantify years of cover cropping before yields increase. Additional study is also needed to determine if soil moisture differences between years may be the main cause of year effect on soybean yield.

ON-FARM EVALUATION OF FLUTRIAFOL AT-PLANT CORN FUNGICIDE

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Northern corn leaf blight, gray leaf spot, and tar spot caused an estimated loss of over $100 per acre for Ohio corn producers in 2021. These significant losses prompted grower interest in the use of flutriafol at-plant corn fungicides in part to their systemic nature and ability to be planter-applied. On-farm research is an opportunity for producers to evaluate products or practices and generate individualized data. In 2022, Ohio State University Extension developed an on-farm research protocol to determine yield response to an at-plant soil application of flutriafol (Xyway® LFR®) fungicide with or without a supplemental foliar fungicide application. This presentation will summarize nine on-farm trials conducted during the 2022 growing season that measured the effect of treatments on final stand, yield, and disease severity. Information from these trials will be used to improve corn disease management recommendations for Ohio producers, and overall is an example of how extension professionals can engage producers via on-farm research efforts.

SOYBEAN OMISSION TRIAL - THE EFFECT OF CROP INPUTS ON YIELD

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The soybean omissions trial was comprised of two systems, high yield system (HYS) and a standard system (SS). The high yield system is those set of management practices which seeks to maximize yield. The standard practice system is comprised of practices which are more typical of growers with a resonable yield goal. Variety, seeding rate, row spacing, seed treatments, fertility and fungicides were factors evaluated. The treatment design compared the two systems then one practice as a treatment from the standard system was placed into the high yield system likewise one practice from the high yield system was placed into the standard system.. Five years of data indicate that lack of seed treatment and wide row spacing reduced high yield system soybean yields. However, an increase in planting population increased yields. Fungicides also increased yields. The standard systems had an increase with seed treatment, narrow row spacing and fungicide application. Early planting date had a slight increase in yield with earlier date of planting. Variety yields varied from year to year. There was a slight decrease in yield from phosphorus and potassium application.

GROWING CORN PROFITS THROUGH COOPERATIVE RESEARCH IN ARKANSAS

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The Arkansas Row Crop Verification Program is an interdisciplinary effort among growers, county Extension agents, Extension specialists, and Division of Agriculture researchers. It is an on-farm demonstration of all the research-based practices and technologies recommended to maximize the production and profitability of row crops in Arkansas. The overall goal is to verify that management according to Division of Agriculture recommendations can result in increased profitability compared to standard producer practices. Some other goals of the program are to establish an economic database, demonstrate that high yields can be constantly achieved economically, promote timeliness in management decisions and provide training and assistance to new county agents. For two years, agent has been working with Moery Farms in Lonoke County. In 2021, the corn verification was an 81-acre field and the Hybrid Armor 5550 was planted. In 2022 we planted Hybrid Dekalb 65-95 VT2PRO on a 44-acre field. The crop was planted on April 29, 2022 on 30" row spacings and it emerged on May 6, with a plant population of 34,450 to 36,000. The crop was irrigated five times during the growing season using an 8" electric well. Recommendations were made for herbicides and fungicides during the growing season based on IPM principles. A telemetry unit was installed in the field soon after the crop was planted. Moisture sensors were set at 6-12-18 and 30 inches to monitor moisture from both irrigation and rainfall during the growing season. Weekly visits were made to the field to monitor growth levels, disease issues and days to maturity. The plants grew to a height of 86" at maturity. The crop yielded 188 bushels/acre and was harvested with a Case 2388 combine with a 20' header. Through this program the cooperator learned his yields would have been better if he had followed the Extension recommendations on his first watering rather than depending on rainfall in the forecast. It was estimated that he had a reduction of 50 bushels/acre because of the missed timing of one irrigation. The grower also experienced a 5% loss due to mechanical damage when applying pesticide. The Arkansas Row Crop Verification Program is an interdisciplinary effort among growers, county Extension agents, Extension specialists, and Division of Agriculture researchers. It is an on-farm demonstration of all the research-based practices and technologies recommended to maximize the production and profitability of row crops in Arkansas. The overall goal is to verify that management according to Division of Agriculture recommendations can result in increased profitability compared to standard producer practices. Some other goals of the program are to establish an economic database, demonstrate that high yields can be constantly achieved economically, promote timeliness in management decisions and provide training and assistance to new county agents. For two years, agent has been working with Moery Farms in Lonoke County. In 2021, the corn verification was an 81-acre field and Hybrid Armor 5550 was planted. In 2022 we planted Hybrid Dekalb 65-95 VT2PRO on a 44-acre field. The crop was planted on April 29, 2022 on 30" row spacings and it emerged on May 6, with a plant population of 34,450 to 36,000. The crop was irrigated five times during the growing season using an 8" electric well. Recommendations were made for herbicides and fungicides during the growing season based on IPM principles. A telemetry unit was installed in the field soon after the crop was planted. Moisture sensors were set at 6-12-18 and 30 inches to monitor moisture from both irrigation and rainfall during the growing season. Weekly visits were made to the field to monitor growth levels, disease issues and days to maturity. The plants grew to a height of 86" at maturity. The crop yielded 188 bushels/acre and was harvested with a Case 2388 combine with a 20' header. Through this program the cooperator learned his yields would have been better if he had followed the Extension recommendations on his first watering rather than depending on rainfall in the forecast. It was estimated that he had a reduction of 50 bushels/acre because of the missed timing of one irrigation. The grower also experienced a 5% loss due to mechanical damage when applying pesticide.

A MOBILE DRIFT RISK ADVISOR FOR OKLAHOMA PRODUCERS

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The potential for herbicide drift occurs with every application, especially when using highly volatile products.

To be good stewards of the environment and to stay in compliance with herbicide labels, drift reduction should be a primary concern and research has shown that temperature inversions play an important role in the determination of herbicide drift. Herbicide labels now clearly prohibit application during a temperature inversion; however, there often exists confusion in the determination of temperature inversion existence. To assist Oklahomans with this process, the Oklahoma Mesonet has a new mobile friendly tool, The Drift Risk Advisor, which utilizes the 120 Mesonet towers across the state to get the weather information necessary for herbicide applications with limited drift. Each Mesonet tower contains temperature sensors at 1.5 and 9 meters, which reports on the temperature inversion between these two heights. The Drift Risk Advisor allows users to display current weather conditions, including inversion data, wind speed, temperature, humidity, and solar radiation every 5 minutes or, hourly forecast obtained by the National Weather Service up to eighty-four-hours future. Additionally, the tool quickly provides access to past Mesonet weather data necessary for pesticide record keeping. Since development, The Drift Risk Advisor has been demonstrated to commercial and private pesticide applicators across the state during multiple farm show and commodity association events. Adaptation of The Drift Risk Advisor is possible by other Mesonet capable states to potentially reduce off target herbicide drift significantly.

ON-FARM ROOT-KNOT NEMATODE TRIALS 2021-2022

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As with many other pests in row crop fields, it is very important for producers to protect their cotton crop from root-knot nematodes. The Effingham and Screven Extension Agents worked with a producer to complete a cotton variety trial which led to further research on the impact of nematode resistant cotton varieties. Agents were able to rank cotton varieties in a moderate nematode infestation and share this data with the producer and the cotton industry at a national conference. This has led to greater yield potential for the producer and others who have received data from this research. The results from this trial revealed some very impactful data. Root gall ratings showed the RK nematode resistant variety Phytogen 400 had the lowest root gall rating and both resistant varieties Phytogen 400 and Phytogen Px5C45 had the lowest nematode soil counts. To further explain the outcome of this trial, both RK nematode resistant varieties out yielded all other varieties by at least 50.6 lbs. Resistant varieties averaged a gross return to farm of $1,048.20 while non-resistant varieties returned an average of $857.52. From seeing the advantage of planting RN resistant varieties in the trial field in 2020, the producer planted 160 acres of nematode resistant cotton in 2021 which according to the research will return an increased revenue of $30,508.80 in his operation alone. This data has been shared with the producer, at county production meetings, with agents across the State of Georgia and was presented at a national meeting of the cotton industry at the Beltwide Cotton Conference. Utilizing this data 3,000 acres of RK infested cotton would have an impact of increased farm income of $572,040 in similar operating conditions.

ANIMAL SCIENCE ACCEPTED PRESENTATIONS

45 YEARS OF SUCCESSFUL RANGE LIVESTOCK EDUCATION

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Initiated in 1978 as a result of range conflict, the AZ/UT Range Livestock Workshop and Tour serves cattle producers in over four Utah and two Arizona counties. University of Arizona and Utah State University Extension Services are key partners with Bureau of Land Management, Natural Resource Conservation Service,

Conservation Districts, Forest Service, Animal/Plant Health Inspection Services, Farm Bureau, AZ/UT Cattlemen's Associations, AZ Department of Agriculture, corporate sponsors, and local ranchers in addressing current production, environmental, and economic issues through a free two-day workshop and one-day tour. Topics are selected by evaluations from producers who graze cattle on the Arizona Strip, an area of over 7,800 square miles that lies between the Grand Canyon and the northern Arizona border in Mohave and Coconino Counties. Participation in the three-day event peaked in 2019 at 425 and climbed to almost pre-Covid-19 levels with 419 participants in 2022. The cost per participant, which includes lunch, breaks and door prizes, is between $30 and $40 and is funded completely by industry, conservation district, and ranch sponsors. Approximately 40% of participants are ranchers, and those surveyed in 2022 produce over 5,800 head of cattle. Summary results from post-Covid-19 evaluations include an overall workshop rating of 4.3/5 and tour rating of 4.6/5 with a 50% increase in knowledge from workshop topics. Impact surveys indicate ranchers have implemented workshop topics to increase profitability through rotational grazing, livestock handling, animal health and genetics, drought mitigation, animal nutrition, direct marketing, and camera use.

IMPACTS OF THE MAINE PASTURED PIG PROGRAM

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In Spring 2019, the University of Maine Cooperative Extension was awarded a Maine Food and Agriculture Center grant to create a research/demonstration herd of pigs called the Maine Pastured Pig Project. A small group of registered Berkshire pigs was established at the J. F. Witter Teaching and Research Center adjacent to the University of Maine campus in Orono, ME. Because most research and production data were gathered from large-scale confinement swine operations, this herd was going to serve as a means to gather insight and production data on a typical small-scale/backyard/pasture operation in the New England area. Insights gathered from this project served as a springboard for 41 educational seminars, 13 educational videos (>7000 views), and 3 fact sheets (>3000 views), 4 collaborations with Maine media outlets, invitations to speak in 3 other states on raising pastured pigs, co-authoring a research grant with Maine Department of Agriculture, Conservation, and forestry, and a course offered to undergraduates at the University of Maine, AVS 267 – Swine Production. Educational events/seminars included introductory to advanced swine information, meat processing education, and youth events to over 750 individuals. The project helped secure $35,270 in funding. Participants of swine programs reported an overall score of 4.88/5 for knowledge gained, 4.75/5 for Usefulness of Information, and 4.98/5 for Quality of Presentations. Roughly, 75% of participants in swine programs and webinars reported an increase of confidence in ability to keep pigs; 63% agreed to adopt one new practice to improve their herds heath; 50% intended to implement at least one new practice they learned to improve animal productivity; and 30% responded they will have a source of meat or income for the families now.

FORAGE UTILIZATION AND COW PERFORMANCE WHILE GRAZING CORN RESIDUE IN NEBRASKA

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Winter grazing corn residue by spring calving cows can be an effective and economical strategy, yet cattle producers often report variable cow performance measured by body condition score. The amount of corn residue available for grazing is assumed to be positively correlated with grain yield. The principal residue components available for grazing are the husks and leaves which are loosely spread on the ground following grain harvest. This means they can be susceptible to wind loss, in addition to consumption.

On-farm data was collected from 8 herds across Nebraska during the winter of 2021-2022. Grain yield of fields used for residue grazing ranged from 153 to 200 bushels per acre across 24 grazed fields. Based on the reported yields and stocking rates, it was found that these producers were not as aggressive as the recommended 1.2 animal unit months (AUM) for each 100 bushels per acre of harvested grain. They stocked 10 to 87% of this suggested carrying capacity and on average used 50% of the carrying capacity. Cows grazed for an average of 30 days (range 14 to 120) per field at an average stocking rate of 1.3 animal units per acre (range 0.25 to 2.6) resulting in an average of 1.1 AUM/ac grazed. At the start of grazing, corn residue in these fields averaged 4.8 tons per acre (range from 2.4 to 7.1) with 82% ground cover. At the end of grazing, there was 2.8 tons of corn residue per acre (range of 1.4 to 4.2) and 59% ground cover. This corresponds to a mean disappearance (intake plus weather loss and trampling) of 2.1 tons of corn residue per acre or 43% of the total corn residue. Previous research has shown that cattle consume the higher energy residue parts first. Although husks are 3.5% crude protein (CP), they have the greatest energy of the corn residue components with 60% in vitro dry matter digestibility (IVDMD). When grazed, cattle first seek remaining grain followed by husks and leaves with minimal intake of cobs and stalks. Initial and ending husk amounts were used to calculate a mean husk disappearance of 69%. This indicates much greater husk disappearance as a portion of the total residue. Monitoring visual change of husk presence or absence could be a good measure of diet quality and a potential indicator of when to move herds to new fields. Across 8 cow herds grazing 24 corn residue fields, there was no change in cow body condition score. However, the mild winter likely had a major influence on cow response. Additional data will be collected and summarized to develop adaptive grazing management strategies that maintain cow body condition when grazing corn residue.

TACKLING DYSTOCIA WITH SHEEP AND GOAT PRODUCERS

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Every year production units in the livestock industry did not meet their full potential. Dystocia targets all livestock producers, especially new and unexperienced farmers. The sheep and goat industry in Ohio has seen a climb in hobby farmers. This sector is hungry for information and hands on activities. The topic of dystocia is literally life and death, this can be fearful, stressful and concerning to the most experienced members of the sheep and goat community but specifically to the newer herdsman. To tackle this issue, a set of birthing simulators have been created and used for over 5 years to help current and potential future sheep and goat farmers practice handling dystocias. Participants will have their turn at tackling different dystocias at the simulators after they have heard a brief presentation of the most common dystocia reasons. This presentation also explains a normal presentation of birth. The simulators can be set up for multiple different malpresentations including breech, head back, and tangled twins. The evaluations for the simulators are very positive. 98% of participants felt more prepared to handle a dystocia, 95% had and increased confidence on when to intervene with a dystocia, 97% are more confident in diagnosing and solving malpresentations, and 98% are more likely to have a successful birthing season after attending the session. Participants are also referred to a video created with the simulators. The video has 195.3 educational hours recorded. A shepherd noted that he took his iPad to the barn during a dystocia to watch and guide him while trying to handle the dystocia himself. https://www.youtube.com/watch?v=qsEZB4kOg34

BEEF CATTLE REPRODUCTION WORKSHOPS UTILIZE MULTI STATE PARTNERSHIPS TO IMPROVE EFFICIENCY IN FLORIDA HERDS

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Extension has historically been called upon to relay the latest information to beef cattle producers to positively affect the bottom line of their operations. An

area of concern to the cow/calf producers of Florida is reproductive management. A regional group of livestock agents, University specialists from Florida and Georgia, and industry representatives answered the call for action to provide producers hands on knowledge and experience in utilizing chute side techniques for pregnancy diagnosis and improving the reproductive management of the beef herds in North Florida. A three-day workshop was held biannually in 2022 which combined classroom and chute side learning. The objective of these programs was for producers to gain knowledge in beef cattle reproduction and based on this knowledge; adopt practices that will increase ranch profits, specifically manage the herd for reproductive success and utilize palpation for pregnancy detection. Educational topics taught are reproduction basics, reproductive tract anatomy, reproductive health, expected progeny differences (EPD's), breeding season management, using palpation to determine pregnancy, and bull selection and management. 32 beef producers participated in the 2022 workshops. Based on the pre & posttests an overall knowledge gain of 40% was achieved. Post program surveys (n=24) indicated 46% of respondents would implement a controlled breeding season, 67% will adopt palpation for pregnancy diagnosis on their operation, and 33% indicated adoption of heat synchronization protocols for artificial insemination. As a result of these workshops, approximately 4,500 head of beef cattle were represented, saving $5 per head in palpation fees, saving these producers collectively, $22,500/year. Using a pregnancy detection method can allow producers to identify an open cow and make culling decisions instead of spending an average of $750 to carry an open cow for the rest of the year.

EMPOWERING WOMEN PRODUCERS USING LIVESTOCK BOOT CAMPS

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According to the 2017 Census of Ag there are 46,267 beef cattle operations in Oklahoma. Of those 26,523 (57.3%) have female operators and 17,539 (37.9%) are principally operated by females. Yet female attendance at OSU Cow/Calf Boot Camps and other extension programs have averaged less than 10%. At the same time other extension programs such as Annie's Project and Women in Agriculture conferences have had tremendous success empowering women agricultural producers to become better business operators. The OSU Cattlewomen's Boot Camp is a project that combines elements of two successful programs, Annie's Project and the Oklahoma Livestock Boot Camps. Using teaching models from the boot camps and Annie's Project, the program creates an informative and engaging learning experience for female producers covering various methods on how to manage the production, financial, and market risks when operating a beef cow/calf operation. Forty-six female producers attended the camp in June 2022. Topics covered at the camp include cattle handling, general herd management practices such as ID, ear tagging, and castration, cow body condition scoring, heifer and bull selection, calving season management, reproduction, parasite control, farm business planning, budgeting, farm financial statements, record keeping, record keeping systems, nutrition, forage systems, forage analysis and testing, cattle health and vaccinations, marketing, beef quality assurance certification and estate planning or succession planning. Pre and post-tests scores showed an increase in knowledge gained of 24.4% with the largest increase coming in the areas of risk management and parasite management. Self-evaluation from participants indicated an increase of knowledge of 74.3% with the largest increase coming in forage production and herd nutrition. When asked about perceived adoption of practices taught during the camp, the average adoption rate was 73.5%. The perceived value of the camp to their operation ranged from $100 to $3,000 with an overall total value of $23,635.

BEEF COW SIZE AND RECORD KEEPING PROJECT

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Missouri ranks number three in number of beef cows in the United States with close to 1.9 million beef cows. A pilot project is designed to demonstrate the positive impact using production records can have on commercial cow/calf operations in northwest Missouri with a special emphasis on calf weight at weaning as a percent of cow weight. Information generated during this project is being used to create deliverables for a statewide program educating cow/calf producers on the importance of individual cow and calf weights, especially when management decisions need to occur in a timely fashion. Specifically, cows that are larger with higher maintenance requirements (Lalman et al., 2018), do not necessarily wean calves that are heavier. To investigate this, we collected data over a three-year period from three spring calving beef operations located in northwest Missouri representing over 400 breeding age beef females. Cow weights, body condition scores, docility scores, and pregnancy status, were recorded each time, cows went through the chute. Calf weights were recorded in late spring and at weaning time. Additionally, calf weight as percent of cow weight was calculated for each cow/calf pair. Over the three-year period cow weights ranged from 750 lbs. to 1865 lbs., calf weights ranged from 228 lbs. to 758 lbs., and calf weight as percent of cow weight ranged from 15.9% to 71.3%. With the continued conversion of grazing and forage ground to cropland, optimizing cow efficiency is important to commercial cow/calf operations and we suggest cow/calf producers consider percentage of cow weight weaned when making management decisions. Adoption, of these practices will increase productivity contributing to the overall goal of doubling the economic impact of agriculture in Missouri by 2030.

IT'S A WORMY DEAL: INTERNAL PARASITE STRATEGIES FOR SHEEP AND GOAT PRODUCERS

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The It's a Wormy Deal: Internal Parasite Strategies for Small Ruminants workshop was designed to help small ruminant producers with issues related to internal parasites. The objective of the workshop is to teach sheep and goat producers strategies to better manage internal parasites within a flock or herd. The purpose of the workshop is to explain internal parasite life cycles, strategies to prevent internal parasite infection, and to certify producers to use FAMACHA techniques to assess the need to treat with anthelmintics. As a result of the demand for these workshops new locations are chosen each year throughout the state of Pennsylvania. Seven workshops have been held from 2020 through 2022 with 149 participants attending and earning their FAMACHA certification. Post evaluations indicated that 99% of participants learned something new, 97% learned a moderate to significant amount, and 80% planned to make changes to their operation. Follow up evaluations conducted at least 6 months after the It's a Wormy Deal FAMACHA workshops indicated that 83% of respondents (N=25) made one or more changes to their management practices to improve animal performance and increase profitability. The follow up evaluation also indicated 89% changed FAMACHA techniques, 74% changed their grazing management practices, 63% changed their record keeping practices, 61% changed their choice of deworming products, 42% changed practices toward feeder and watering system cleanliness, and 39% changed fecal egg counting procedures. In addition, 88% indicated they decreased deworming treatments by an average of 8 treatments per year. Assuming 75% of these treatments were lambs at a cost of $0.63 per treatment and 25% of treatments were mature ewes at $1.26, this equates to a savings of $8.82 per farm and a total savings of $921.22 across all participants. The average number of ewes on participants' farms was 25 and they produced an average of 35 lambs per year.

SUCCESS OF BRIDGING THE COMMUNICATION GAP BETWEEN EXTENSION, INDUSTRY PARTNERS, AND STATE AGENCIES DURING A DISEASE OUTBREAK

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Efficient response to a reportable disease outbreak requires partnership between responding regulatory agencies and the industry facing the disease event. Regulatory officials are responsible for disease control and industry members are subject matter experts of day-to-day functions. Extension is responsible to support regulators and industry by bridging communication gaps. This presentation will share how lessons learned during Minnesota's 2014/2015 highly pathogenic avian influenza (HPAI) outbreak affected response of the 2022

HPAI outbreak. This example can be translated to animal industries around the U.S. to optimize preparedness and minimize the impact of a disease outbreak.
Four key lessons were learned, rectified, and then implemented during recent outbreaks. First, Extension's role is to support responding agencies. Second, develop relationships prior to an emergency. While this seems to be an intrinsic component of Extension, it is critical to build this bridge proactively. Third, build a library of materials for reportable and foreign animal diseases for your state, relying on Extension's expertise in developing research-based and peer-reviewed content. Finally, develop a unified communications plan to quickly disseminate information. As a result of lessons learned in 2015, state responding agencies heavily relied on University of Minnesota (UMN) Extension during the 2022 HPAI event. Significant gaps in HPAI communication to secondary audiences which tend to be Extension users were identified. Through multiple avenues of relationship building, trust was established to build and distribute co-branded resources. For example, 20 infographics were created and distributed on specific topics for diverse audiences. Notably, one graphic created for backyard flock owners was printed and distributed to 200 licensed retailers of live chicks, which many reproduced and distributed with sale transaction. The electronic version of the same had an initial reach of 4,713 on the UMN Poultry Facebook page and continued to circulate on social media platforms to immeasurable reach. The lessons previously learned in Minnesota have improved HPAI response during the 2022 HPAI disease event. We hope these lessons and actions taken will be useful to your local industry which can expedite response and spread situational awareness to the numerous audiences that can be affected.

THE RELATIONSHIP BETWEEN HEIFER MANAGEMENT STYLE AND PROFITABILITY

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In an ongoing USDA NIFA funded research project, members of Penn State Extension are collecting heifer growth, management, and financial data from 20 organic and 20 conventional dairies in Pennsylvania. Researchers are tracking heifer growth by collecting hip height and body weight at four different time points, birth, weaning, pre-breeding, and freshening. Body condition scores were recorded at the pre-breeding and freshening time points. Heifer management questions assessing the specific age range are asked to the farmers at each of the four measuring time points and ranked. How the farmer answers the questions are ranked as a high risk, moderate risk, or low risk practice. Degree of risk is also determined based on researcher observations regarding current management practices. Whole farm financial analyses are completed on each of the 40 farms to separate out the heifer enterprise from the dairy enterprise to determine the cost to raise a healthy heifer from birth to first calving. More than 500 heifers have been measured across all the farms and many different heifer management practices have been observed that have influenced heifer growth. One of the project's goals is to calculate the cost to produce heifers and explore how management practices and heifer growth impact dairy profitability. Farm financial data and heifer growth data has been summarized for 2021. Data analysis for 2022 is in progress. The 2021 dairy and heifer cost of production for conventional farms ranged from $14.77 to $25.92 per day. The cost of production (COP) to raise a heifer from birth to first calving ranged from $1,489 to $3,789, with the average at $2,235. Dairy and heifer COP for organic farms ranged from $22.69 to $37.81 per day. The heifer COP for organic farms ranged from $1,082 to $4,384 with the average at $2,149. Feed cost per day was a big contributor to the difference in heifer cost per day. With the data collected from this project, the researchers will share improved management strategies relating to heifer nutrition, housing, and health programs that can address the problems that contribute to a higher heifer COP.

SERVING THE RESEARCH AND EXTENSION NEEDS OF GROWING CATTLE SYSTEMS IN NEBRASKA

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Stocker-yearling cattle can complement a cow-calf operation by providing flexibility in a grazing system. This segment can be a profit center for producers as well as provide an avenue into the beef business for beginning ranchers. To address the needs of this often-underserved audience, a program planning team was established consisting of beef focused educators and extension beef specialists. In addition, a stocker-yearling advisory board consisting of producers, consultants, and veterinarians was established to provide input on educational efforts and future research needs. Utilizing insight from the advisory board, the program planning team designed an annual statewide educational program for producers consisting of a classroom component and a tour of a prominent stocker-yearling operation. The inaugural program was held in 2019 followed by programs in 2021 and 2022. These programs were held at three different locations across western Nebraska. The advisory board met with the program planning team prior to the Stocker-Yearling Program and Tour each year. An average of 47 producers, veterinarians and consultants attended one or more of the programs. Post-meeting evaluations indicated that the total value of the program averaged $34,277 per operation. Over 85% of the participants indicted they were likely to make business or management changes on their operation. Many of the indicated changes occur from information shared at the ranch tour.

DART ARMY RESERVE TRAINING

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The purpose of this program was to provide hands on training for US Army Reserve Civil Affairs Unit. The OSU Extension Disaster Assistance Response Team (DART) was contacted because CPT Jesse MacKenzie, DVM with the 486th Civil Affairs Battalion based in Sapulpa was looking for training focused on large animal handling for her battalion. The Civil Affairs Unit's function is to engage and partner with communities around the world to increase stability, enable local government, and improve the quality of life for civilians. Our focus for this training was to provide them the knowledge of identifying animals, animal behavior, safety for handlers and animals, animal welfare and biosecurity of foreign animal diseases. This was done through lecture and hands on activities. The biosecurity talk emphasized the risk of bringing foreign diseases back to the US as well as their own animals. The unit learned about the appearance and behavior of sick animals so they could properly identify potential dangers. Reservists were broken into small groups and had the opportunity to gather and move groups of animals (cattle and horses), separate animals into pens, and halter and handle a horse. Safety and fundamentals were emphasized at every stage. All 19 attendees were asked to rank their ability to identify animals, understand of animal welfare issues, and comfortability of handling and moving animals. There was 100% increase in all areas evaluated. Many stated the ability to interact with live animals with paramount to their learning. One Lt. Col. stated that we provided another tool in their tool belt to complete their mission. A version of this program has been adapted to first responders and emergency management volunteers. This was a basic knowledge training but could be adapted to more intricate lessons with a multitude hands-on activities. Our handout can be shared with any group for basic animal information. The Oklahoma DART team has the ability to be very mobile and can provide this training across the state.

GROWTH PERFORMANCE AND CARCASS CHARACTERISTICS OF BEEF X DAIRY CROSSBRED CATTLE IN THE FEEDLOT: A RESEARCH AND EXTENSION CAMPAIGN

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The Imperial Valley of California houses approximately 400,000 head of cattle on feed, of which the majority are purebred Holstein steers originating from dairy farms in California. Although most of the cattle on feed in California are purebred Holsteins, a recent survey of California dairies revealed that 80% of the respondents are using beef semen in more than 30% of their cows. However, research

investigating nutrition and management strategies to feed beef-on-dairy crossbred steers has been limited. Therefore, a research project and outreach campaign were developed to address this gap in knowledge to help producers understand the growth performance of beef-on-dairy crossbred steers. Eighty purebred Holstein and 80 Angus-Holstein steers were used to evaluate the effects of breed on growth performance and carcass characteristics. Cattle were fed a steam-flaked corn-based diet for 329 days. Body weight and feed intake data were collected every 28 days. Carcass characteristics data were collected at the end of the study. Average daily gain of both breeds was similar throughout the study. Dry matter intake was 4.5% less for crossbred steers (P<0.01), leading to an increased feed efficiency (P<0.01) for crossbred steers compared to the Holstein steers. Holsteins steers decreased kidney pelvic heart fat percentage, backfat thickness, ribeye area, marbling score, and yield grade compared to the crossbred steers (P<0.01). Holsteins steers tended (P=0.07) to have a 2.4% decrease in hot carcass weight compared to crossbred steers. Results from this study were disseminated through the monthly CattleCal Newsletter, presentations, and individual conversations. In order to maximize outreach of the limited data available, the CattleCal Podcast was used to present existing reviews and studies performed within the last few years related to dairy-beef crossbred cattle. This included discussions with extension professionals currently researching crossbred dairy-beef from Penn State University, Michigan State University, and University of Kentucky along with six episodes dedicated to research articles discussing crossbred cattle. This research data and outreach will be critical as producers make management decisions related to using crossbred cattle in their operations. Through 2023, further research will be aimed at identifying differences between Holstein-Angus versus Holstein-Charolais calf-fed steers.

TWENTY-TWO YEARS AND 42 ARTIFICIAL INSEMINATION CLASSES: KEYS TO A SUCCESSFUL AI PROGRAM

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Selecting high quality genetics is an important part of beef and dairy operations. Purchasing genetically superior bulls can be quite expensive. Artificial insemination (ai) provides access to superior genetics without the expense of purchasing and owning the animal. Proper training is essential to becoming proficient and successful in artificially inseminating cattle. Working with extension colleagues in southern Idaho and SE Oregon as well as with area AI company representatives, we developed program that has thrived over 22 years and 42 classes, including several internationally. Domestically, participants have come from idaho and every surrounding state. Ai trainings have also been taught in spanish. Pre-test post-test comparisons from the last 2 years have demonstrated an increase in ai-related knowledge of 22%. Even more importantly, all but one participant have successfully completed the skills test required at the completion of the program. This presentation will highlight several keys to the success of our program including instructional methods, program content, important partnerships, and positive outcomes.

EARLY CAREER DEVELOPMENT PRESENTATIONS

LESSONS LEARNED FROM MANAGING GRANTS

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An Extension Educator's programming at times involves grants for research and/or teaching. The process of writing the proposal, then managing awarded grants can be daunting. During the proposal writing process, objectives that are practical and relevant to clientele and the funding agency must be clearly defined. Also, a budget for items such as the educator's time, materials, and travel needs to be developed. Once a grant has been awarded, in addition to actually doing the research and/or teaching, the educator needs to ensure all objectives are met as well as keep track of expenses. By presenting lessons learned during the grant process from proposal to completion, early career educators will be better equipped in their own program development. Both successful and unsuccessful strategies will be offered, along with tips for defining objectives, developing a budget, balancing the grant workload along with all other duties, and providing results.

MARKETING STRATEGIES FOR EXTENSION PROGRAMS: REACHING NEW AUDIENCES AND MAKING AN IMPACT

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It's no secret that we all wear many hats in our Extension work. Researcher, academic professional, farm advisor, technical expert, events coordinator, writer, presenter, and even making the coffee. One skillset that is often overlooked in Extension programs is developing an effective marketing strategy. Have you ever truly thought through how to best advertise the program you've created? We agonize over getting the right venue, speakers, handouts, and making sure we don't conflict with the local sale barn, then we just default to the same methods for marketing: post the flyers, put an ad in the newspaper, and email those we have contacts for. This may reach our "tried and true" producers but might be limiting our ability to expand to new audiences – who may be exactly the people who need us most but don't even know we are a resource! From hosting a workshop, to looking for applied research collaborators, to communicating extremely important information on an emerging issue, if the necessary information doesn't reach the audience that needs it, the program won't be able to effectively create impact.

The goal of this presentation is to help you think through and develop a flexible marketing strategy that fits your specific programs and audiences. By working through a set of key steps, you'll be able to identify your audience/potential audience, decide how they are best reached, and determine which types of marketing products you should create to reach them. You'll then be able to create a template market strategy for your programs that can be easily adapted to new programs and efforts. By setting these processes up on the front end, we can make sure we effectively cover all the appropriate marketing bases each time we run an event or program in a systematic way that reduces labor and time to complete. We'll also discuss evaluating your marketing strategy (it's simple, I promise!) so you can see which efforts are paying off, which need to be tweaked, and which might not be worth the time or money.

EXPERIENCES AND LESSONS IN GROWING AN IMPACTFUL, LOCAL ON-FARM RESEARCH PROGRAM IN SOUTH CENTRAL NEBRASKA

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The statewide Nebraska On-Farm Research Network (NOFRN) encourages partnerships between Extension faculty, producers, agronomists, industry, and natural resource agencies to conduct scientifically sound on-farm research trials and share research-based information while facilitating co-discovery and technology transfer. The network is facilitated by relationships between local Extension Educators, area farmers, and ag professionals. The objective of this presentation is to highlight steps taken and lessons learned as a new Extension Educator growing a locally dynamic on-farm research presence over 6 years in south central Nebraska as part of the NOFRN. Information about the NOFRN was shared through trainings and media outlets resulting in two producers conducting five studies in 2017. Since then, the program has grown across the region by 200% through producer/industry/university partner participation (n=63), on-farm research trials (n=66), virtual (n=10) and in-person (n=1) field days, research meetings (n=3), and an increase in peer-reviewed publications (n=8) and outreach efforts. Much of this growth is due to producer involvement through protocol design, field work, data collection, and results interpretation. The success in building the on-farm research program in south central Nebraska is due to producer innovation, independent crop consultant interaction, and building trust with local clientele. The NOFRN has allowed local educators to develop skill sets (i.e., collect biomass sampling, crop emergence data, develop videos, estimate weed population densities), build relationships with others (producers (n=31), industry representatives (n=8), students (n=15), and university specialists (n=9)), engage commodity board for funding opportunities, partner with industry professionals, and

acquire leadership roles (i.e., co-PI for NOFRN). In the south central NOFRN group, 67% of surveyed participants said conducting on-farm research was very important for their operation success while 100% said having statistical analysis and working with their local Extension Educator was extremely important in conducting on-farm research. One trial impacted 80 white corn growers in the region representing 11 million bushels and 49,000 acres with a total cost savings of $1,078,000 by not having to apply the product tested in future growing seasons. Findings from the south central NOFRN studies were presented at professional meetings (n=8) and grants were successfully funded (n=3) to expand these efforts.

FARMER-TO-FARMER – WHAT'S THE 411

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The John Ogonowski and Doug Bereuter Farmer-to-Farmer Program (F2F), is funded by the U.S. Agency for International Development (USAID), and provides technical assistance to farmers and other agricultural related groups in developing countries. While the program is funded by USAID, it is implemented by several different organizations that recruit individuals with experience in agriculture to volunteer for assignments that support development in the targeted areas. Its main objectives are to increase agricultural sector productivity and profitability, to improve conservation and sustainable use of environmental and natural resources, to expand agricultural sector access to financial services and to strengthen agricultural sector institutions. As an extension agent, you possess many of the skills required to be a successful volunteer. Assignments can be either in-person or virtual and usually last for two to three weeks. While most volunteers use annual leave, many universities see the value in the F2F program and allow agents to go as part of their professional development. The benefits of participating in a F2F assignment include a better understanding of challenges faced by developing communities, learning to present educational materials to those with limited literacy and varying education levels, adapting to challenging situations and learning to use "what's on hand," working with individuals who have access to limited resources, learning how to work with other cultures and climates, and experience working with audiences who may not speak English, or English might be second language. The benefits of working on a F2F assignment far outweigh the time commitment, while helping you become a better extension agent. The teaching and communication skills learned during a F2F assignment help us better serve our clients.

IMPROVE YOUR WRITING SKILLS FOR PEER-REVIEWED PUBLICATIONS

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Increasingly, Extension faculty and staff are asked to publish articles in peer-reviewed journals as part of the tenure and promotion process. This can present a hurdle for many aspiring authors who are unsure about their writing abilities and/or the submission and review process. In this presentation, we will address both of these concerns with tips for better writing and an explanation of the peer-review process as it pertains to the Journal of NACAA. After attending this presentation, participants should

- know the components of a peer-reviewed manuscript;
- understand best writing practices;
- be able to use the NACAA online system to submit and manage their manuscripts; and
- be comfortable with the peer-review process.

HORTICULTURE & TURFGRASS ACCEPTED PRESENTATIONS

RENOVATED COOPERATION OF "FARM TO TABLE' PROGRAM IN KANE COUNTY

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Kane county sits on the southern border of Utah. The top three economic revenues are tourism, services, and agriculture. Some international points of interest in Kane County are Lake Powell, Zion National Park, Bryce Canyon National Park, and Grand Canyon-north rim. With a population of just over 7,500, Kane county serves over 23,000 nationwide and international tourists on average before the COVID-19 pandemic. During the pandemic, local restaurants and resorts realized the importance of being self-sufficient in primary produces and supplies, surviving challenging situations with few tourists, and serving the local community better. Starting in January 2022, the Kane County agriculture agent renovated the initial "Farm to Table" program that two restaurants: The Wild Thyme Café and the Zion Mountain Ranch, adopted. The renovation started with soil and water tests for the on-site raised beds, established garden, and hydroponic system then moved on with seasonal production planning. Trained Master Gardeners were assigned to give small workshops for the facility employees before the gardening season, following onsite scouting and helping during the production season. With professional help and guidance, the growing season overcame the obstacles, including nationwide tomato root rot and production decline, pest prevention and control in the very early stage, and irregular summer rain/drought periods. The end-of-season impacts showed that 1) The Wild Thyme Café achieved the self-sufficient goal of 75% tomatoes, 90% of chili pepper & cucumbers, and 100% of herbs & eatable flowers; 2) the Zion Mountain Ranch achieved the self-sufficient goal of 50% tomato, 75% chili pepper & small fruits, 100% pumpkin and winter squashes, and 100% beef and bison meat; 3) The Wild Thyme Café saved more than $1800 per week on purchasing the produces, while the Zion Mountain Ranch saved over $2500 during the harvest season; 4) the fresh production gardens and facilities attract at least 20% tourists while encouraging 50% local customers to visit the restaurants.

FRUIT TREE PRUNING CLINICS – TWENTY YEARS OF PROGRAMMING

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Fruit tree pruning is one of the most consistent programming topics for new and beginning farmers as well as backyard gardeners. After conducting and teaching fruit tree pruning clinics for 23 years in two counties, much has been learned about interest in fruit production at many levels. The two counties are 180 miles apart, one being a rural county in Southeast Ohio with a population of around 60,000 and the other is an urban county in Northeast Ohio with a population of more than 226,000. The clinics continue to be successful and expand each year. Over 1,000 participants completing these clinics and offerings have expanded to urban audiences as urban orchards and food forests become viable options for food production. Each presentation begins with an overview of tools and pruning of a new tree. Participants are welcomed into the orchard to watch experts prune and to try pruning with their own hands. Partnerships have been made with orchard owners to co-teach the clinics, and with organizations in the urban center to start urban orchards as part of community revitalization and engagement programming. Evaluation data has been collected for nearly every pruning clinic, including before and after ratings by participants on their confidence in their pruning abilities. The 2022 evaluations show an overall improvement of 3.66, based on a 10-point scale. This presentation will share the success of the program over the past 23 years, including changes made to keep clinics up to date, and the results of evaluation of participants and partners through the years.

DEVELOPING WATER-WISE LANDSCAPE DESIGN EDUCATION

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Water is an essential resource for human life and communities. Ongoing drought, population growth, and dire future climate predictions have made the need for water conservation more pressing. A landscape design process provides an opportunity for participants to strategically assess the location, value, and water use of landscape elements before they are installed. However, without guidance, many homeowners default to the traditional and often water-squandering landscape forms they see around them. Extension has excellent resources explaining individual components of water-efficient landscapes, but education guiding homeowners as they create a cohesive plan for implementing water-conserving practices is an unfilled programming area.

Our objective was to provide the guidance homeowners needed to create their own water-wise landscape whether this meant adapting an existing landscape or designing something new. We first developed a curriculum focused on water-wise landscape principles. Then, in early spring we presented a course using a combination of online and in-person instruction.

The initial online course and workbook provided students with a foundational understanding of water-wise landscape design principles and required student action through a series of assignments. These assignments directed participants through the steps to analyze and understand their own sites and helped them to develop a vision and list of goals for their landscapes. This effort culminated in a two-day in-person workshop where participants worked with Extension faculty to create a design concept and use water-wise design principles such as—efficient irrigation, proper plant selection, soil amendments, grading, and on-site water harvesting, to develop a functional schematic plan for their own property.

Participants reacted favorably to the course. Pre and post surveys showed an increase in knowledge of the importance of water conservation and strategies for conserving water in their own landscapes. Participants also reported strong intentions to utilize the information they learned to create their own water-wise landscapes.

EMBRACING PAST TECHNOLOGIES – THE USE OF CORRESPONDENCE COURSES TO FULFILL PESTICIDE TRAINING NEEDS

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The Environmental Protection Agency requires anyone applying pesticides to a property not owned or rented by the applicator or intends to purchase and/or apply restricted-use pesticides to become a certified applicator. Once certification is acquired, applicators must obtain update training to maintain their status. Penn State Extension has provided much of this recertification training, mostly through face-to-face meetings, workshops, and conferences. With the COVID pandemic and resulting state limitations on in-person gatherings, Extension had to pivot and provide much of this material through virtual formats. While this worked well for many pesticide license holders, a virtual format posed problems for those who did not feel comfortable participating in video conferences, lacked sufficient bandwidth to participate, or have strong beliefs that prohibited the use of this form of content delivery. The need for correspondence courses (workbooks) was determined as a way for certified applicators to obtain their credits without internet connectivity. A group of extension educators and specialists from across teams created nine workbooks; tomato, pumpkin, soybean, and forage diseases, fumigation, pesticide recordkeeping, pollinators and pesticides, adjuvants and pesticides, and pesticide spill protocol. When in-person presentations were curtailed (2021), 3,269 workbooks were sold. But even after in-person classes resumed in 2022, over 1,620 workbooks were sent out as this learning method remained popular. Returned quizzes, part of the requirement to receive license credits, had a 97.2% passing rate (for those that fail, another quiz is mailed to allow them another attempt to pass and gain their credits). Evaluations were part of the workbook to try and measure changes in participants' perceived levels of knowledge and confidence. Using Likert-style questions (typically ranging from 1 to 4), the statistical analysis of the data indicated a significant increase in knowledge and confidence levels after completing the workbooks. Both the Pennsylvania Department of Agriculture and pesticide applicators have expressed their excitement to have the correspondence courses as another option to get needed credits and keep the workbooks as a source of information on pesticide safety and crop diseases.

MAKING GADSDEN COUNTY BEAUTIFUL ONE LANDSCAPE COLLABORATION EFFORT AT A TIME

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Situation: Since Hurricane Michael, Gadsden County has struggled with repairs to local government buildings. The County has been making efforts to get building remodeled or rehabilitated to a point they can be used again. Many of these repairs are done through FEMA funds. Little to no money is left over to address landscaping needs for the buildings.

Objectives: To address the need to improve landscaping, the Gadsden County Administrator and Gadsden County Facilities Director solicited help from the Gadsden County Master Gardeners. The county asked the master gardeners to assist in landscape planning and planting of the landscape plants. The first building the master gardeners were asked to assist with was the Massey Building in Chattahoochee, FL. Master Gardeners made plans for the landscaping, and assisted with the implementation of the landscaping at the Massey building.

Methods: Four of the Gadsden County Master Gardeners work through site visits and the local Extension office to create a landscape plan. From the success of the first project at the Massey building, more remodel sites are being discussed for the master gardener involvement. Conclusion: The Massey building was complete in 2022, and in the spring of 2022 landscape plants were planted at the building. The work on the master gardeners part saved the county lots of money by not having to pay someone to create the plans and execute the planting. The work the master gardeners did afforded them more interest from the county to implement this at other county building, as they are remodeled.

Value of Session for NACAA AM/PIC Attendees: Working with counties to provide services that help imrpove the community are a essential part of Extension. This session will help members understand the value of this work in their communties they serve. This project also built policial calpitol with community leaders that has correlated in

direct support increase in county budget and community engagement in the local Extension program. This program aslo helped educate county employees on best practices for landscape care, which results in lower costs for the county, by way of not having to hire contractors. The hope of this session is for participants to see how they can collaborate with their communtiies for projects that can help them not only reach their objective as aducators but also build community and polical support to strengthen their local Extension programs.

PROMOTING COMMUNITY POLLINATOR PLANTINGS

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Pollinators and pollinator plantings are becoming a priority across the country. To address increased interest in pollinators and promote pollinator habitat in the community, the 2022 Feliciana Parishes Master Gardener class planned and implemented the “Feliciana Wild and Wonderful” project.This project was multifaceted; class participants planted pollinator patches around their local communities, distributed flower seeds, and created educational materials to teach the community how to plant their own pollinator patches. The pollinator plantings were a low maintenance way to create interest, promote pollinator habitat, and beautify the communities. As a result of this project, 8 pollinator patches were planted in two parishes and over 500 people received seeds for their own pollinator patches and education on planting and maintaining them.

HYDROPONIC EDUCATION IN SOUTHEAST MISSOURI

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Hydroponic growing methods can be a sustainable alternative over traditional growing methods of specialty horticultural crops. The purpose of this educational programming was to educate students, hobbyists, secondary education ag teachers, and growers about sustainable hydroponic farming through a combination of lecture, demonstration, printed guide sheets, recorded video interviews, and hands-on activities. During 2022, there were 23 events that took place with various topics related to hydroponic production. These included introduction to hydroponic crop production focusing on different types of hydroponic systems, growing, and managing hydroponics crops, understanding pH and EC in nutrient solutions, monitoring and managing diseases, pests and environmental stresses, and career opportunities in hydroponics. In addition to the educational events, numerous PowerPoint presentations, resource guides, schematic drawings and a video was created aide participants with hydroponic growing. In schools, 54 students gained experience operating and growing in three different hydroponic units (NFT, Dutch Bucket, and aeroponics). They grew lettuce, kale, basil and tomatoes through a crop cycle. At one-day events, 396 students learned about hydroponics and watched demonstrations. During workshops, 127 adult learners experienced active hydroponic systems and through lecture and hand-on experiences, learned how to operate the systems. In the evaluations, all participants indicated a knowledge increase. All participants reported an increase in knowledge of hydroponics. All three teachers in the schools continued to teach hydroponics after the program sessions ended. Four students pursued horticulture in college and are considering hydroponics. 37 students tried hydroponics at home after the programs. Four of the high school purchased hydroponic supplies online before the one of the educational events was over.

MANAGING URBAN SOILS AND GROWING MEDIA FOR FOOD PRODUCTION

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In needs assessments, urban soil management consistently ranks highly as topic on which urban farmers want training

and guidance. Urban growers encounter unique soil conditions, including extremely compacted and degraded anthrosols. As a result, many urban growers choose to grow in imported soils or in non-soil growing media such as compost. This is borne up in practice by farmers who request technical assistance on soil and growing media issues and organizations which request guest lectures on urban soils. This presentation will report on technical management recommendations and Extension program delivery methods from Maryland's Urban Agriculture Extension Program, which has responded to these needs by developing and teaching research-based material on four topics areas: (1) introduction to soil science, (2) soil contamination risk assessment and management, (3) managing salinity and pH in high tunnels, and (4) managing man-made growing media. Since 2016, this urban soil management program has offered 32 events, with 1,036 participants, and 24 class hrs.

DEVELOPING BEST MANAGEMENT PRACTICES FOR NATIVE PLANT NURSERIES AND LANDSCAPES

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Incorporating native plants into the ornamental landscape has emerged as a growing market trend as homeowners and businesses are becoming increasingly educated about the important ecosystem services that are provided by native species. As such, there are also a growing number of native plant nurseries and landscape professionals that are propagating native species to meet this growing demand. However, the successful production and care of native plants requires best management practices that are specific to the species that are being grown. In response to this need from the green industry, Rutgers Cooperative Extension has developed replicable, applied programming focused on supporting growers who are currently producing or have an interest in producing native plants. This program involved disseminating a state-wide native plant needs assessment survey that had responses from 60 nursery and landscape professionals and helped to guide future resource development based on the most important topics identified by these stakeholders. Since the program's inception in September 2021, there have been 14 presentations to a total of 705 green industry professionals related to commercial native plant production and management. Additionally, a day-long program was developed and delivered focusing on native species replacements for invasives, soil fertility and site conditions for native plants, integrated pest management (IPM) for native species, disease management for native species, and native plant propagation. Three companion presentations were also delivered to 376 home gardeners and Rutgers Master Gardeners in an effort to build market demand and focus on native species that are currently available from local growers. Field trials have begun to evaluate native grasses, native azaleas, and deer resistant native flowering shrubs for their potential adoption or increased use in the trade. Two field tours with a total of 100 participants were hosted in 2022. Program evaluation surveys were distributed following each event and participants indicated knowledge gain in best management practices for native plants, a high likelihood of incorporating the information that they learned in the program, and an indication that they will plant additional acres of native species. Future directions of this program based on feedback from commercial horticulture professionals will emphasize native plant replacements for invasive species, deer resistance of native plants, and evaluations of new native plant cultivars.

HOW TO HANDLE COMMONPLACE ROOT DISEASES – AN AGENTS GUIDE

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Generating successful root pathogen recommendations is difficult. Therefore, the purpose of this educational session is to help horticulture agents be more effective when targeting diseases caused by common root rotting pathogens. The specific topics of discussion were first identified through research surrounding Phytophthora and other root diseases associated with conifers, Christmas trees, and a multitude of commercial nursery crops. These common factors have led to many industry seminars regarding cultural practices and sanitation techniques,

pathogen identification, and management techniques as well as Oomycete specific chemical recommendations. In addition to chemical efficacy trials and regular diagnostic sessions, a series of factsheets focused on individual root diseases is underway for multiple commodity groups. Whether the agent is receiving calls about nursery crops, homeowner landscapes, established tree plantations, or comestible crops, the topic of devastating root disease will eventually be in the spotlight. Proper recommendations and management techniques are hinged upon understanding the differences in the key root rotting pathogens. For an agent to be proficient in root disease prevention, suppression, and management one must be able to identify, at least to a practical level, the most common root diseases including Phytophthora, Pythium, Rhizoctonia, Fusarium, Sclerotium, Thielaviopsis / Berkeleyomyces and others, as well as understanding the crops most often infected by these different pathogens. How these pathogens spread through an ecosystem or crop, become established or persistent, how cultural practices can either cure or exacerbate root issues, and the abiotic and biotic factors associated with overall plant decline are important metrics that should be considered prior to delivering any root disease recommendation. Additionally, a working understanding of disease specific chemistries must be understood, as chemical recommendations vary from one stakeholder group or pathogen to the next and should be carefully weighed against the entire spray regime to avoid possible phytotoxic combinations. Specific examples, photographs, and animations will greatly aid in educating Extension professionals on root diseases common to, and generally comparable across, horticulture.

THE USE OF MOISTURE SENSORS IN PECANS

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High quality pecans require water from either rainfall or irrigation. Most places rely on a combination of the two. In Arkansas, irrigation is supplemental due to the abundance of rainfall. However, considering mature pecan trees can require as much as 2000 gallons of water per week during the growing season, the timing and quantity of irrigation is important for the crop.

Agent has been conducting research at three pecan orchards (Bevis, Feland and Bransford) to determine need and timeliness of irrigation scheduling. Soil moisture sensors were installed at 6,12,18 and 30 inches to monitor the uptake of water in the soil profile. The depth of importance for daily moisture is at the 12-to-15-inch area of the soil. The feeder roots are at this depth and run horizontally to draw in needed moisture. Each set of sensors have a telemetry unit which monitors and records the readings and makes them accessible by smart phone and an app to the agent and grower. Readings were taken weekly. Agent was able to help the growers know when the orchard needed to be irrigated by determining the amount of water in the soil profile and how fast the trees were using the water. In drought conditions such as the summers of 2021 and 2022 it became apparent that irrigation scheduling was vital to producing an adequate crop load. Feedback from cooperators was extremely favorable, since “seeing is believing” and they had access to the app and could monitor tree stress in the orchard. Bob Bevis realized the need for ample water and the timeliness of each irrigation event for his orchard because of this demo. He now has plans to build a reservoir to use as a source of water, especially in drought years. He realized he cannot depend on well water alone to supply the needs of his expanding orchard.

OBSERVATIONS IN TREATING NON-BEARING PECANS WITH PHOSPHITE

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Phosphites, a reduced form of phosphate, are used as a fungicide and are very effective at controlling pecan leaf scab. Highly scab susceptible varieties require a season long fungicide spray program to reduce the effects of pecan scab (Fusicladium effusum). With significant increases in pecan planting in Georgia, no research has shown when to begin a fungicide spray program for non-bearing trees or whether pecans should benefit. Additionally, phosphite has shown both positive and negative response in different crops but not pecan. This three-year study was conducted in Laurens County, Georgia to determine if phosphite use translated into a disease or horticultural benefit for pecan trees. This test was conducted on 3-year-old ‘Caddo’, a medium scab

susceptible variety in Laurens County, GA and 4-year-old 'Byrd', a high scab susceptible variety in Bleckley County, GA. Four treatments of differing rates and intervals of K-Phite 7LP were replicated four times. Tree growth, scab control and leaf nutrient samples were compared among treatments. Leaf analysis showed no inteference with nutrient uptake by phosphite. Disease ratings presented a precise date to which fungicide sprays should begin based on scab susceptibality pecan cultivars. Lastly, leaf tissue samples showed translocation of phosphite in pecan trees.

PROHORT: PROGRAMMING FOR GREEN INDUSTRY PROFESSIONALS

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The ProHort: Lawn and Landscape Update is presented annually to Green Industry Professionals in the State of Nebraska. It was developed as a way to educate green industry professionals on updated best practices at a lower cost point than some of the larger conferences available to them. Many of the people we see at our programs are groundskeepers and parks crews who don't have the time or resources to attend the larger, longer conferences. This one-day program is designed to update the participants on the important and emerging issues we see most in our line of work.

In 2022, 195 Green Industry Professionals attended one of the programs that were replicated at 5 different locations across the state of Nebraska. From the Evaluation (N=122), 62% are returning participants from past ProHort programs. These participants have learned a lot of useful information over the years, including positively identifying plant problems before treating with pesticides, such as identifying tree diseases or weed pests (93%). This program has proven to be effective at educating a group of Green industry professionals who may otherwise be missed by larger, more intimidating and costly conferences and is a good way to connect with those members of our community and build relationships with them so that they see Extension as a trusted source of knowledge and information.

GROWING MISSOURI COMMERCIAL HORTICULTURE WITH ONLINE COURSES

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The singular goal for Agriculture and Environment Extension at the University of Missouri is to double the value of Missouri agriculture by 2030 while sustaining the state's natural resources. To help meet this goal, horticulture specialists formed a self-directed work group in 2020 to provide a variety of educational webinar series for commercial specialty crop producers and beginning farmers. Completed series include commercial fruit production in 2020, commercial vegetable production in 2021, business planning for specialty crop production in 2022, and protected specialty crop production in 2023. Webinar series were live Zoom presentations with recordings and resources made available to class participants. Over the four series, we have offered 65 webinars that reached 247 participants. Sessions were taught by MU Extension specialists or experts on the class topic. Session evaluations helped us collect feedback from the participants, evaluate the quality of the classes, identify needs, and observe expectations and perceptions of the participants. Evaluation results showed the majority of participants are going apply the information learned to their current production practices or expand into commercial specialty crop production, helping us meet our goal of doubling the value of Missouri agriculture. Long term impact evaluations are planned. These commercial horticulture series can easily be replicated in other states. We are working on asynchronous training with the recordings from each series to provide another opportunity for clients to learn. The recordings are also available internally as professional development

opportunities for extension specialists.

GEORGIA HERITAGE APPLE ORCHARD: HISTORY, HORTICULTURE, AND COMMUNITY

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Georgia was once a hub for apple (Malus x domestica) production in the late 1800s. Approximately 1,600 known varieties originated or were grown in the Southern US. The early 1900s brought a sharp decline in apple diversity, spurred by industrialization, shifting demographics, marketing campaigns, and prohibition. We are currently left with only around 400 Southern-adapted varieties, many of which have only a few trees remaining, leaving them vulnerable to extinction. UGA Extension Agents teamed with UGA History professor Dr. Stephen Mihm on a USDA Specialty Crop Block Grant: “Lost and Found: Resurrecting Extinct Apple Cultivars.” The group established the Georgia Heritage Apple Orchard with the goal of creating a genetic repository, thereby preserving and resurrecting adapted apple varieties once common in the southern United States. As a community outreach component, apple grafting classes were offered to increase awareness for the Heritage Orchard. Through media outreach about the project, citizens have come forward to offer their heritage varieties for preservation, including some varieties previously thought to be extinct, such as “Family” and “August Tart.” To date, the project team has successfully planted three copies of 100 different varieties at the orchard located on the Georgia Mountain Research and Education Center in Blairsville. Community interest in this project has also spurred the cooperative establishment of several new heritage variety apple orchards throughout North Georgia.

SPECIALTY CROP IPM DEMO IN WHITE COUNTY

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Extension specialists and county agents monitored for Squash Vine Borer (Melittia cucurbitae), and Tomato Fruitworm Moth (Helicoverpa zea) in 2022. An interactive map of Arkansas was on the state website that showed the locations of the various insect trapping efforts. When a location is clicked, the map populates with insect trap data for that region to help indicate pest presence or absence. In White County, I monitored two locations. I installed two traps at each location: one for Tomato Fruitworm and another to detect Squash Vine Borer moth flight. I made weekly visits to monitor trap counts and to scout the field for eggs as well. This helped us determine arrival of squash vine borer and develop a sense of tomato fruitworm (corn ear worm) pressure in tomatoes and sweet corn. The goal was to utilize scouting-based thresholds to determine insecticide use.

Squash vine borers are moths that lay eggs near the base of squash vines. When the larvae enter a stem, little can be done. Chemical control is possible only if an insecticide is present when young larvae hatch from the egg prior to entering the plant. This is the reason we scout and trap the moths to assist us in predicting the timing and need for the insecticide.

Tomato fruitworm generally lays its eggs on the tops of leaves or other plant structures near the top of plants. Fruitworm eggs take about 3-4 days to hatch before 1st instar larvae will begin to feed on small amounts of leaf material and move inward towards the center of plants. These larvae generally feed on minimal amounts of leaf material before they molt to their 3rd instar and move to flowers and fruit. Finding eggs is relatively easy compared to looking for larvae or feeding damage on plants. Larvae are near impossible to find after they hatch and before they start feeding on large amounts of leaf material or reproductive parts in their 3rd instar. Begin scouting weekly for eggs once plants begin to take off all the way through harvest. Fruit samples should also be checked for escaped worms.

APHID ATTACK: MAKING INTEGRATED PEST MANAGEMENT EDUCATION ENGAGING AND EFFECTIVE

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Integrated Pest Management (IPM) is a key part of environmental horticulture programming, with a focus on increasing effectiveness of pest control methods while decreasing negative environmental impacts. However, the concepts related to this process may be difficult to understand by youth and adult audiences. To address these issues, the "Aphid Attack" game was developed. Objectives: Increase knowledge and implementation of IPM practices through an innovative, game-based curriculum. Methods: "Aphid Attack" is a dice-based board game where players work to control the number of pests on their plant game boards at a reasonable level using a variety of methods including broad-spectrum pesticides, selective pesticides, cultural controls, and predatory insects. Each turn, dice are rolled to show how many aphids will be added to the player's plant and they have the choice of either using a control or waiting. Each player has to keep their number of aphids under a set threshold and selectively choose controls to protect predatory insects which eat aphids each turn and keep pest pressure low. Results: Since its development in 2021, this game has been utilized to teach both adult and youth participants. In total, the game has been used as part of three workshops, reaching 22 adults and 7 youth participants. From these implementations, 100% of participants showed knowledge gain related to IPM. Participants also shared that the game was more effective than lecture-based instruction in teaching IPM principles. Impacts: 100% of adults shared an intent to implement IPM principles in their home and 100% of youth participants shared they would talk to their parents about IPM practices and encourage them to use them at home.

COMBINING FIELD RESEARCH AND EDUCATION TO GROW THE LAVENDER INDUSTRY IN MISSOURI

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Field studies are being conducted by specialists with University of Missouri Extension to determine a set of standardized growing practices for lavender in Missouri. This research is the result of an increase in demand for state-specific guidelines which are currently unavailable. Lavender (Lavandula spp.) has increased in popularity for its appeal in the home landscape, value-added products, and agritourism. As a result of the project, we were able to determine the best cultivars for Missouri growers based on winter hardiness, drought tolerance and disease management. Results of this project are being disseminated via real-time, in-field workshops and field days. Four workshops took place in 2021 and 2022 with 484 in attendance and with many indicating they would add lavender to an existing operation or expand current production. As a result of attending the workshop in northeast Missouri and working with the horticulture specialist there, the Titus Creek Flower farm south of Kirksville planted 400 lavender plants in the fall of 2022, and are planning to plant 400 more in spring 2023, for a total of 800 plants. The workshops took place in three different geographical areas of Missouri. These workshops included a formal presentation, essential oil distillation demonstrations, and a walk through the research field to continue discussions. An official guide sheet will result from field data collections at the conclusion of the project. Attendees of Extension programs often prefer the mixture of classroom and in-field learning. This popular approach to learning could easily be replicated with other types of research.

ASSESSING THE EFFECTIVENESS OF MULTI-STATE GREEN INDUSTRY TRAININGS

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Green industry professionals face challenges in obtaining the necessary training to learn new methods and technologies and get the required credits to maintain their pesticide licenses and arborist certification. As a response to this need, a program was developed called the Southeastern Green Industry Update that has been held via Zoom Conferencing. He has partnered with agents and specialists in North Carolina, South Carolina, and Florida to offer recertification programs to audiences in all four states providing the necessary credits for their license in each state as well as ISA certified Arborist Continuing Education Units. In the fall of 2021 Tennessee and Alabama were included. The agendas consisted of multiple speakers who gave presentations on diverse topics. Five programs have been held since the Fall of 2020, with a total of 365 participants. In a post-class evaluation by Qualtrics, 95% of participants indicated that the program would help them use pesticide in a safer, more efficient manner, 70% said they would make changes in the way they handle pesticides and control landscape and turf pests, and 70% said they would save money based upon the knowledge gained at the programs. One participant commented, “We have been making changes to stay ahead of problems; many are the ones discussed in the presentations,” “Thank you for your support of the industry. Your programs are a great source of affordable credit hours,” and “I found the program helpful in increasing my understanding of a multitude of pest control practices that I will utilize.”

CREATING A RESILIENT LANDSCAPE WITH ARBORIST WOOD CHIP MULCH

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The current trajectory of climate change suggests that summer temperatures will rise, and drought conditions worsen, in many parts of the world. A well-chosen mulch can reduce soil water loss in gardens and landscapes and preserve landscape plant health. Not all mulches are created equal, however, and some mulches can damage both soil and plant health. Poor mulch choices include

- sheet mulches, such as cardboard, newspaper, landscape fabric, and plastic
- hydrophobic mulches, including many bark mulches, nutshells, and pine needles
- synthetic mulches like rubber mulch

This presentation will review the scientific literature on arborist wood chip mulch – arguably the most beneficial landscape mulch available to homeowners. However, many misconceptions about arborist chip mulches exist, including:

- negative impacts on soil chemistry, including nitrogen levels and pH
- plant pathogens on diseased wood
- flammability
- attractiveness to pests

We will present the science-based evidence supporting the use of wood chip mulches, including

- improved soil health
- sustainable addition of plant nutrients
- support of roots and mycorrhizae
- weed suppression
- enhanced plant establishment and survival

The information in this presentation will provide extension agents and Master Gardeners with practical, science-based information to assist them in advising home gardeners and other clients in improving the resiliency of their landscapes.

LEADERSHIP AND ADMINISTRATIVE SKILLS ACCEPTED PRESENTATIONS

PROGRAMMATIC BACKFILL – A SUCCESFUL ADMINISTRATIVE PLAN?

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In 2018, Ohio State University underwent an administrative restructuring known as DesignEXT with the stated goal of "flattening the organization". To accomplish this goal administrative duties previously held by five Regional Directors would be distributed among 24 new Area Leaders. These newly created positions were to allow for professional growth among current Extension Educators by offering an opportunity for supervision responsibilities while also maintaining programmatic responsibilities within their home county. The split roles were intended to have a 50% administrative and 50% programmatic responsibilities. To compensate for any loss in local programming, $25,000 was provided to each Area Leader for the purpose of hiring programmatic support. The funding and hiring programmatic support processes are colloquially called backfill. Options presented included hiring term part-time staff, temporary staff for busy periods, contracting with neighboring county staff, and sub-contracting with community partners. Each Area Leader approached hiring backfill differently to suit the program needs of the county. Early challenges with the backfill approach included identifying the best backfill option, and increased workload during the lag time from when an Educator stepped into the Area Leader position until backfill was hired. As these experienced Educators were moved into admirative roles finding, training, and retaining high performing individuals as backfill also become a critical challenge for the organization. Challenges were widespread but there were some positives, including the opportunity to identify, hire, and train new individuals to become Educators. However, this led to additional challenges if Area Leaders desired to return to full time programming. Giving up the Area Leader position resulted in the loss of backfill support dollars that were funding the county staff member. Anecdotally, this loss of backfill funding is a motivator for current Area Leaders to maintain their administrative roles as they seek to support their staff. To investigate the effectiveness of the backfill process, we will be conducting surveys and interviews with current and former Area Leaders, and current and former OSU Extension Administrative Cabinet members. This presentation will highlight the backfill strategies used, effectiveness of the process, its effect on the County programming, and stated goals of DesignEXT.

COMING BACK TO THE WORLD OF EXTENSION, PERSPECTIVES ON SURVIVING AS AN EXPERIENCED "NEW" AGENT

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For varying reasons, Extension Agents sometimes find themselves leaving Extension for careers in other private or public sectors. However, every year positions are being filled with former agents who have chosen to come back to work in Extension. While these hires may seem adventageous to Extension Programs, these hires are not new hires, but also not fully seasoned agents to operate in new extension environmets they are not familar with, as Extension progrms change year to year. Setting these "retreaded" agents up for success takes a different approach to help them be successful and persist in their enployement the second time around. This could be agents coming to work in Extension in the state they were in or in another state altogether. Surviving coming back to work in Extension can be a difficult time. An agent may find things have drastically changed since they left or may be in another state with a whole new set of policies and procedures. Many times, the agent is looked at as experienced, meaning they may not get the full support a "new agent" would get. Setting up for success as an experienced agent being hired on is not the same as setting up a first time Extension agent for success. This session is intended to be a discussion of perspectives and thoughts from two UF/IFAS Extension agents who came back to serve Extension in Florida. These agents have been able to navigate the on boarding and norming time to

UF/IFAS Extension, however, they had to do a lot of work on their own. Understanding the pitfalls and hurdles for these types of agents, can afford NACAA members the chance to learn to better mentor and assist these agents as they are reintroduced to the world of Extension. Through experiences and lessons learned, these agents will share important ideas for returning agents to help them survive their first year(s) back working in Extension. The session will also give thoughts and perspectives for directors, mentors, and other agents in how to support returning Extension agents.

REOPENING A COUNTY EXTENSION OFFICE AFTER A 45-YEAR "BREAK."

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The Lake County (Colorado) Extension office closed in 1977 due to economic hardships expereinced there. Utilizing a community needs assessment approach to determining unmet needs in the community and developing the partnership between Colorado State University Extension and Lake County Board of Commissioners, the Lake County Extension office reopened in August, 2022 with a new faculty member and new programmatic focus. The systematic approach, background research, tools used and pain points will be shared to inform other leaders about the importance of continually checking in with clientele, county partners and University leadership to insure programs meet needs. This may be able to be replicated in other counties that do not have active extension programs join the extension fraternity.

ASSESSING NEEDS AND COMMUNICATING ACROSS CULTURES

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In 2022-2023 the Utah State University (USU) Dairy Extension team led by Dr. Bruce Richards, the USU Dairy Extension Specialist, completed a dairy needs assessment across the state of Utah. In total, 31 assessments were returned from dairies varying in size from 10 lactating cows to 10,000 with the majority being in the 100 to 500 cow range. Topics were ranked by importance and access to information with the difference between the two numbers ranking as the need. This means, a topic with high importance but low access to resources would rank as a high need. According to this needs assessment, the top five needs for Utah Dairies are 1) Improving public perception of water use 2) Succession planning 3) Managing risk 4) Labor recruiting 5) Reducing feed costs. In addition to the formal needs assessment, Dr. Richards and other members of the dairy team toured Utah dairies to get qualitative feedback with an on the ground approach. Labor, managing people and risk management were often topics of conversation during tours. The dairy industry in Utah mainly employs non-native speakers of English who come from diverse cultural backgrounds around the world. The Cross-Cultural Leadership program was presented at two dairy workshops in Utah during 2023 to meet the needs of dairy producers. Our program uses a research-based approach to bridge gaps in culture and communication leading to a stronger labor force. The purpose is to increase the cultural awareness of those in attendance to help labor recruitment, labor retainment and risk management. Feedback and participation from attendees has been positive and thought provoking. Cross Cultural Leadership is highly adaptable and could be implemented in non-dairy settings, as well as other regions throughout the United States.

PARTNERING WITH COUNTY DEPARTMENTS CAN SAVE MONEY AND EXPAND IMPACT

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Marion County Extension is supported through shared

governance by local county government as well as the University of Florida. The need for marketing assistance and execution of marketing efforts is a common thread in Extension offices. Reaching out for help from other county departments was an answer to Marion County Extension marketing needs. In 2021, the Public Relations department in Marion County offered a hand in the creation and distribution of event flyers, marketing of programs via the county-wide Facebook Page, and the opportunity to have updated professional headshots and other promotional photos captured. In 2022, the PR department upped the ante by offering video and photo services for any programs, free of charge. They also invited our office to produce podcasts in their studio to highlight our events. In the past we have worked with private industry for these services, which is often too costly. In 2022 this partnership saved Marion County Extension over $10,000 in video production costs of two major programs and $2,000 of professional photography services. These audio/visual products have allowed for these events to be archived and shared virtually to reach a greater audience than just those in person. Their podcast has aired three episodes highlighting Extension events, leading to increased attendance of local citizens. It can be hard keeping up with the Jones' that is private industry and remaining relevant in the world of Extension when working with limited funds. The partnership with county Public Relations has cut costs of marketing efforts and lead to a greater impact for Extension Services in Marion County. The trust, sharing of services, and teamwork has been a priority for Marion County and the University of Florida, made evident by experiences like this.

BUILDING AND SUSTAINING A POSITIVE TEAM CULTURE – IT TAKES ALL OF US

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Trust can be either your most vulnerable weakness or your greatest asset. Without trust, leaders and organizations fail. Even good leaders and organizations face a crisis of trust.

Without trust in your team, you will struggle to attain a positive team culture. Trust is the glue that holds everyone together as you work to get the job done. Trust is critical in the workplace.

Most leaders agree on the importance of building a positive organizational culture. "There's a growing collection of research on just how powerful positive cultures are for productivity, profitability, engagement, and employee well-being" (Burkes, 2022). Organizational theory indicates that cultures are real. Theorists acknowledge that organizations have personalities just like people.

But many leaders put their focus in the wrong places when seeking to build that positive culture. They equate well-being or company culture with perks and benefits. So, they try to add cool perks like free food or a gym in the office. Or they create new benefits like flexible work arrangements or wellness programs. And while most employees won't say no to these new perks, most organizations that add them don't find they add much to the positivity of the culture.

That's because positive culture doesn't come from perks or benefits. It doesn't flow out from the offices of senior leaders. Positive organizational cultures come from the accumulation of positive team cultures. Most employees' experience of work is the experience of working with the teams they serve on. So, teaching team leaders how to build a positive team culture will have the largest impact on creating a positive organizational culture overall. In this session, we'll focus on how each member of a team or organization can help to build a positive team culture.

NATURAL RESOURCES/ AQUACULTURE ACCEPTED PRESENTATIONS

MILLER COUNTY ANNUAL BUFFALO GNAT MANAGEMENT PROGRAM

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The Buffalo Gnat Management Program is an annual program that began 30 years ago in Miller County. This program was established to monitor, warn, and assist in

potential control of a buffalo gnat outbreak. Black flies are often called buffalo gnats of the family "Simuliidae". They are aquatic insects that typically prefer clean, fast-running water with temperatures at approximately 50 °F for prime breeding. This is typically in the time frame from December through March. Large concentrations of the gnats can cause death in animals and poultry due to blood loss, irritation, shock, and suffocation. They are tremendous pests of humans, domestic animals, and wildlife each spring and are found in many areas of the United States including areas of Arkansas. One of the main waterways in Arkansas where buffalo gnats can be potentially problematic, is along the Sulphur River running through Miller County, Arkansas and Bowie County, Texas. Lake Wright Patman is a cold-water dam releasing into the Sulphur River. The heaviest populations will be in a 5–10-mile band on both sides of the river from a few miles below Lake Wright-Patman Dam, located near Texarkana, Texas, to the Red River in south Miller County, Arkansas. The objective as Chair of the Buffalo Gnat Management Committee, is to annually determine the severity of a potential buffalo gnat outbreak in Miller County, along the Sulphur River and report back to the committee. This is accomplished by using a boat to scout different points along the river by analyzing debris the larva might be attached to, thus determining the severity by the amount of larva found. This allows our County Extension office to warn producers, homeowners, and landowners within range of the potential outbreak so they can use means to mitigate the harm and/or loss of livestock or domesticated animals. Additionally, if conditions are favorable for an outbreak, an emergency meeting of the Buffalo Gnat Management Committee is called to determine if treatment of the Sulphur River using a Bacillus thuringiensis israelensis (Bti) insecticide is needed. If so, arrangements are then made to start the process for treatment.

ADVANCING ADOPTION OF SOIL MOISTURE SENSORS THROUGH ON-FARM TRAINING AND DEMONSTRATION

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In recent years declining water levels in Mississippi River Valley alluvial aquifer has producers, researchers, and governing bodies discussing the sustainability of the resource. Research has shown that soil moisture sensors can help producers conserve water and irrigate less while maintaining or even improving yield and profit. However, hesitation to adopt soil moisture sensors due to educational and financial barriers remain common in Mississippi and nationwide. One-on-one guidance from Mississippi State University Extension professionals over multiple seasons can assist Mississippi producers in gaining the skills and confidence necessary to adopt soil moisture sensors on their own. To empower producers to integrate soil moisture sensors fully into their farming operations, an agent-led, three year on-farm education program was launched. County Extension agents were educated on telemetry-enabled soil moisture monitoring systems and technical support on how to operate and make informed irrigation decisions. The agents provide season-long training, giving hands-on training and troubleshooting to build confidence in the use of moisture sensors. At the end of each season producers and agents meet to review the previous season data and gauge the knowledge gained through the season. Agents gradually decrease their involvement throughout the second and third year with day-to-day sensor data interpretation until the participants become active and capable independent users of soil moisture sensors. In 2022, 33 producers were in the program and with seven of those being three-year participants. A post-training evaluation was given to each participant. Evaluation data not only indicate a large percentage of participants intend to adopt soil moisture sensors, but 100% of participants stated that they increased their knowledge and trust in soil moisture sensors, which have been shown to be top barriers in adoption. All participants also intend to adopt soil moisture sensors into their operation while around 30% had already adopted prior to the completion of the program. The program aims to help growers use less water while maintaining productivity. This supports the farm's financial standing and reinforces the producer's understanding in their role of protecting their water supply

and groundwater resources.

TILE DRAINAGE AND WATER QUALITY WORKSHOPS FOR WOMEN IN AGRICULTURE

NATURAL RESOURCES/AQUACULTURE

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Women play an essential role in agriculture. Based on a recent work by Schultz et al., 92% of women farmland owners are in a decision-making role, (M. Schultz, 2022). Additionally, 47% of all acres and 55% of all leased acres in Iowa are owned by women, (W. Zhang, 2018). Therefore, improving women in agriculture's knowledge-level and decision-making confidence in the areas of tile drainage and water quality can directly improve the productivity and sustainability of agricultural land. A series of two short workshops with small groups of women aimed to build understanding of tile drainage and water quality practices. The workshops taught the basics of subsurface tile drainage, the economics of tile, landowner-tenant agreements, water quality challenges, and water quality practices. Workshops utilized teaching methods to promote long-term learning, including real scenarios and hands-on demonstrations. Hands-on demonstrations involved activities to simulate the soil-water physics related to tile drainage, and small-scale models to show how edge-of-field water quality practices work. Workshops were conducted in partnership with local government and environmental agencies to bring in expertise on conservation program and cost-share opportunities. In attempt to keep the workshop atmosphere informal and comfortable to attendees, discussion and questions were prioritized and workshops were held in the evenings with a free meal. Workshop quality was assessed using short paper evaluations and pre- and post-workshop tests. All respondents reported that both workshops helped them to better understand the basics and economics of tile drainage, water quality practices, and cost share opportunities. Seventy percent of respondents improved their test scores from the pre- and post-workshop tests. All respondents reported that the workshops helped them feel more confident working with either a tenant or landlord on conservation goals. Ninety one percent of respondents reported that the workshops helped them to feel more confident in their decision making related to water quality and conservation. Lastly, around 80% of respondents reported that they plan to use the knowledge they gained in the workshop to make changes, either on the farms they rent or own, or with their clients.

HELPING LAND MANAGERS CONTROL INVASIVE PLANTS IN NATURAL AREAS

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Invasive plants are non-native plants that cause damage to the environment, economy and/or human health. Invasive plant control is costly and complicated, requiring multi-agency management efforts and significant funding. Land managers are responsible for controlling invasives, but often face a steep uphill battle managing thousands of acres of rapidly spreading plants. The Extension agent partnered with the Osceola Cooperative Invasive Species Management Area to plan and facilitate a one-day, six-hour Herbicide Use in Natural Areas Workshop. The program objectives were to improve the knowledge of area land managers by 50% and for 100% of attendees to apply workshop information in the field. The free workshop featured expert speakers from the University of Florida, the Florida Fish and Wildlife Commission, the state Florida Forest Service, and the Florida Natural Areas Inventory. Topics included herbicide labels and safety, herbicide mixing math, uplands and aquatic invasive identification and control, remote sensing of invasives, and herbicide use in sensitive habitats. The agenda included a hands-on outdoor activity to practice equipment decontamination. There was also a demonstration of an open-access application to track invasive plant cover over time using aerial imaging. Thirty land managers from across Florida attended the workshop. According to a post-event evaluation, 100% of attendees improved their knowledge about each topic. On average, they increased their knowledge by 72%. Twenty-seven of the attendees were pesticide applicators. According to the post-survey, these land managers cumulatively manage over 750,000 acres of land. All attendees indicated they are likely or very likely to use the information provided in the workshop for their job. A follow-up survey of 12 attendees found that 100% of respondents applied something learned from the workshop to their daily operations. As invasive

plants continue to spread, land manager education will lead to more effective control saving time, money, and manpower. More efficient invasive plant control can allow for reallocation of funds to native habitat restoration. Furthermore, proper control will protect Florida's ecosystems, maintaining the ecological benefits of natural lands.

LIVE SOCIAL MEDIA FORESTRY VIDEOS EXPAND AUDIENCE AS WEBINAR EDUCATIONAL TOOL

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The Natural Resources Team at Virginia Cooperative Extension in collaboration with faculty and staff in the Virginia Tech College of Natural Resources and Environment embarked on a weekly, short, live video segment originally spurred by working from home with Zoom-enabled tools during the Covid-19 pandemic. We limited the length of the content and entitled the effort Fifteen Minutes in the Forest. This started as a weekly segment on Fridays at noon. Soon there were so many Zoom webinar options it was difficult to find a time where there was not overlap of live content. While this met the need of the moment for educational information delivery under the constraints of the day, it had its shortcomings of limited interaction and the challenges of evaluating impact and implementation of concepts learned. As face-to-face programming has returned as the tried-and-true delivery mode to more effectively engage dedicated clients, we have found that the more purposeful creation of updated videos as well as archived videos continue to serve purposes beyond information sharing. The continual presence of 120 topical videos on YouTube and other social media acts as a marketing tool which continually draws new clients for online as well as in-person programs. There were 1,730 views on Facebook and 6,221 views on YouTube. Some of the YouTube videos serve as educational material for continuing education or in lieu of live updates for partner agent programs that would likely have been declined due to travel costs or schedule conflicts. At least 72 attendees of in-person programs in the past two years have connected with our offerings through social media. YouTube subscribers went from a couple of dozen to over 1,600 as of this date and more are subscribing weekly. Additionally, we have been able to utilize some of these videos as components of continuing education offerings for courses that we teach repetitively.

VEGETATIVE RESPONSE IN DORRY CANYON TO PACK CREEK WILDFIRE

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The Pack Creek Wildfire began in June of 2021 and burned approximately 8,952 acres of the La Sal National Forest, including the Dorry Canyon Pasture. Data was collected in August of 2022 to determine how many Animal Unit Months (AUM's) the pasture could support in 2023. An AUM is a measurement for how many cow/calf pairs can feed for one month on the available forage. Forage supply was estimated using the hoop toss method. A hoop measuring the area of 4.8' and a circumference of 92.2" was thrown randomly 10 times within the pasture. The plants rooted within the hoop were clipped, placed in a tared bag, dried completely, and weighed to determine grams of dry matter per sample. The sample weights were averaged together and multiplied by 20 to achieve pounds of dry matter per acre. A 50% utilization factor was used to determine the amount of available dry matter. The number of acres to be grazed was measured using a GPS and multiplied by the amount of available dry matter. Forage supply was converted to AUM's based off of a 1,000 lb. cow. The number of cows the rancher planned to run was factored into the AUM's to determine the number

of days that number of cattle may be on the pasture. The data collected showed a forage production of 484 lbs/acre which would allow 119 cow/calf pairs to be grazed on 360 acres of the Dorry Canyon Pasture for 22 days. With hay prices at $225/ton, grazing this pasture could save over $10,000 in feed costs, or provide several weeks of relief to other pastures, resulting in better rangeland health. While gathering samples, it was also determined that grass had only regrown in the area of the pasture that had been chained and reseeded in the 1960's. No grass grew outside of the chaining due to Pinyon and Juniper encroachment before the fire and soil sterilizing temperatures during the fire. This finding reiterates the importance of mechanical thinning of pinyon juniper pre-wildfire and reseeding native species post-wildfire.

MOSQUITOES AREN'T A BARREL OF FUN: EFFICACY OF MOSQUITO LARVAE CONTROL METHODS IN RAIN BARRELS

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Rain barrels are an excellent way for homeowners to conserve water. A concern that many homeowners have is the potential of rain barrels to increase mosquito breeding habitats. Extension provides information on practices to reduce the potential for mosquitoes to breed in rain barrels. Examples of methods to deter mosquito breeding in rain barrels include screening of the barrel openings, using Bacillus thuringiensis israelensis (Bti) larvicides ("mosquito dunks"), and creating a surface barrier of oil or soap. The relative success of these practices, however, has not been studied, so 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 mosquitoes (larvae and adults) which included identification and counting each species for each practice. A total of ten trials were conducted during 2021 and 2022 for a total of 113 samples collected during this study. A total of 1,340 mosquito larvae were collected in the buckets, with 1,333 from the control buckets (no treatment practice) and the remaining seven larvae from the other practices. This means that any of the treatment options is beneficial to reducing mosquito breeding habitat with better than 99% efficiency. There were some practical issues that need to be addressed when choosing which option is best for homeowners. 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.

SUSTAINABLE AGRICULTURE ACCEPTED PRESENTATIONS

INTERSEEDING COVER CROPS INTO CORN AND SOYBEANS: WHAT WE'VE LEARNED

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More farmers are seeking alternative ways to reduce inputs such as nitrogen and herbicides. One option in doing so includes interseeding cover crops between crop rows. Goals for this include the potential to reduce chemical and nitrogen inputs, reduce soil erosion, increase diversity, and provide fall forage. From 2020-2022, cover crops were drill interseeded into V3-V4 corn over 12 site-years and into emergence or V2 soybean for 2 site-years. This was the result of a partnership between The Nature Conservancy, Upper Big Blue Natural Resources District, Nebraska Extension, Kelloggs, and farmer cooperators. July 9, 2020 and 2021 windstorms and June 14, 2022 hailstorms impacted these locations. Cover crop biomass was measured prior to harvest in late September each year. Ten of the twelve site-years had greater cover crop biomass in the interseeded treatments than weeds in the check treatment with average cover crop biomass

ranging from 277 lb/ac to 4541 lb/ac. Six of the twelve site-years showed a yield loss in corn of one to ten bu/ac while none of the soybean locations showed a yield loss in the interseeding treatment. Ten of the twelve corn and one of the two soybean site-years showed reduced profitability with interseeding compared to the check. Soil health samples (Haney and PLFA) showed increased soil health across all locations from 2020 to 2022 for both the check and interseeding treatments. Reasons for this will be explained in addition to other observations, what was learned, and future directions. Results of this study have been shared via Extension news articles and websites, soil health and regenerative ag conferences, TV interviews and an interseeding driving tour where attendees could join in at any of six locations in four counties on June 29, 2021.

BEYOND RULES AND REGULATIONS: FOOD SAFETY PRACTICES THAT ALL SMALL PRODUCE FARMS NEED TO UNDERSTAND

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How can Extension agents and other organizations help small farms implement practices to safely harvest, pack and handle produce to minimize the risk of microbial contamination? This is the question the team made up by Extension agents, Carolina Farm Stewardship Association staff and the Blue Ridge Women in Agriculture Food Hub addressed during workshops offered in Western North Carolina in 2023. The team focused on developing programs that would be enticing for the farmers by limiting the time and topics offered. The workshops were planned using mixed methods, two hours of classroom instruction offered online or in person and two hours of hands-on demonstrations. During the instruction time, topics covered included regulatory requirements for produce farms, identifying practices that can lead to contamination and practices that farms should implement to handle produce in a sanitary manner. The hands-on activities focused on: soil amendments, setting up a packing area, how to safely wash produce, preventing cross contamination at harvest and post-harvest, identifying food contact surfaces and learning how to properly clean and sanitize these areas. Finally, we discussed sanitary and adequate transportation of produce. During the hands-on workshops, growers received instructions on how to implement practices and then had to complete the practices in small groups. Two pilot workshops were conducted in Watauga and Buncombe counties. A total of 48 growers participated in the events. Evaluations showed that all attendees prefer hands-on workshops and more than 80% said most of the content covered was new to them. Two hours of classroom instruction provided via zoom or in person (the day before the hands-on workshop) was adequate to cover foundations and explain risks that can lead to contamination of produce and foodborne illness. Feedback received stated that content covered was easy to use, informative, practical and that attendees felt empowered to ask for help if follow up was needed at the farm. As a result of this workshop, the team has identified additional food safety topics that are of interest to growers and refined the delivery of the content offered.

DEVELOPING EFFECTIVE LOCAL BEEKEEPER ASSOCIATIONS AND EDUCATIONAL PROGRAMS WHILE PROVIDING ANSWERS TO COMMON BEEKEEPING QUESTIONS

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Apiculture is extremely attractive as an agricultural production system for those with limited resources. With this surge in interest has come a surge in questionable formation readily available to new beekeepers via the internet. This source of information regularly leads the neophyte astray resulting in significant monetary losses and a negative experience. Client inquiries concerning beekeeping directed to extension agents has increased in parallel with this surge in interest. This has created a dilemma in satisfying information requests as comparatively few extension agents are well versed in apicultural matters. This educational presentation provides

advice on how to establish productive relationships with experienced local beekeepers and develop local beekeeping associations. Such connections provide the agent with a group of knowledgeable individuals to provide locally pertinent advice on beekeeping matters. It also frames the ten most common questions asked by new beekeepers providing the agent with a check list to work from.

A COMPREHENSIVE REGIONAL EXTENSION PROGRAM FOR WATERMELON PRODUCTION IN FLORIDA

Emily Beach
Mayo

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Florida is historically one of the leading producers of watermelons and in 2021 according to the United States Department of Agriculture the state produced 1.016 billion pounds of the 3.4 billion pounds produced domestically. Of the state's production, the Suwannee Valley Region (SV) accounts for over one third of the watermelons produced creating a substantial economic impact in the region. In addition to watermelon production, the SV region is also faced with significant water quality and quantity regulations aimed at protecting the Floridan Aquifer and countless natural springs in the region. With watermelon being one of the leading agriculture industries in the region, producers are faced with the challenge of growing a crop within these regulations and scrutiny while remaining profitable. County and Regional Extension Agents representing 6 counties of the SV region provide a comprehensive extension program for producers aimed at keeping watermelon producers financially and environmentally sustainable. This program includes weekly petiole sap testing, drip fertigation audits, rapid disease diagnostics, on-farm consultations, research and trials into new technologies and solutions to problems, weekly grower updates, and a variety of on-farm field days. This comprehensive program allows agents to provide valuable services to producers while also educating them on developing issues with production and regulation. In 2022, the SV comprehensive extension program reached 85% of the watermelon acreage in the SV region (6,387 acres of 7,500 produced annually). While performing extension efforts across this acreage in 2022, the extension program conducted 873 petiole sap tests, performed over 40 drip fertigation audits, conducted 563 on farm consultations and provided rapid diagnostic services on 33 watermelon fields. Based on a survey of SV watermelon producers (n=18), these services and the comprehensive extension program have provided significant positive economic benefits to watermelon producers totaling and estimate $932,502 in 2022. In addition to the positive economic benefits, the program provided $1,320 worth of diagnostic services. Lastly, the comprehensive extension program has helped producers in the SV region increase their environmental sustainability, reducing nitrogen applications in the region by over 10,000 lbs. in 2022.

TURNING TRASH TO TREASURE: USING MILLED CHERRY PITS AS A GARDEN SOIL AMENDMENT

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Utah is the second largest producer of tart cherries in the Unites States, where yields vary from 35 – 50 million pounds annually. As the cherries are processed, a byproduct includes the cherry pits. These are often taken to landfills or are just dumped in empty fields. We investigated a potential use of cherry pits as a soil amendment. In October of 2021, we milled enough dried cherry pits to a quarter inch size to cover a 20 ft x 30 ft area 2 inches deep. We then rototilled the ground pits into

the soil 6 inches deep. Soil was also tested at this time at a soil lab to ensure the soil was suitable for growing various garden crops. In late may of 2022, we planted replicated plots of sweet corn, bush green beans, tomatoes, sweet potatoes and peppers in the area containing the ground pits and in an area of equal size, acting as our control, where pits had not been incorporated into the soil. Crops were harvested when ripe. In the cherry pit plots as compared to plots without pits, we found an increase in yield of 40% in the green beans, 15% in both peppers and tomatoes, and 10% in sweet potatoes. Sweet corn yields were equal in both.

MISCANTHUS: AN ALTERNATIVE CROP FOR MARGINAL LANDS?

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The Eastern Shore of Maryland has historically been a productive area for growing conventional grain crops. However, in certain areas close to the Chesapeake Bay tributaries or low elevation a serious challenge has arisen, saltwater intrusion along with frequent flooding events. These once fertile fields for growing agronomic crops have been left fallow or suffered total yield losses. Another additional stress for many farms across the Eastern Shore is increasing deer damage in agronomic commodities leading to crop loss. Preliminary research has indicated that an alternate grass crop could withstand these marginal conditions. Giant miscanthus (Miscanthus giganteus) is a sterile hybrid warm season grass that was bred to be a biomass crop. It has a market on the Eastern Shore because it is being used in local poultry houses as a bedding material. The goal of this study was to evaluate a 10 acre commercially managed field of miscanthus in an area where all three factors (saltwater intrusion, deer pressure, and flooding) are present. Our research methods include GPS mapping and subdividing the fields into twenty half acre plots, soil analysis of each plot, moisture monitoring at different depths in six plots and yield measurements from a 1 m2 subplot in each of the 20 plots. Using these measurements and observations we will determine and communicate to farmers through field days and factsheets if miscanthus can be grown on marginal land on the Eastern Shore, and if it is commercially viable in terms of yield for producers.

BMPS IN THE BASIN: AN EDUCATIONAL CAMPAIGN TO PRESERVE THE CHIPOLA BASIN & PROMOTE CONSERVATION AGRICULTURE

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Background: Florida's Chipola River Basin stretches nearly 100 miles and is home to myriad endangered species, pristine springs, and over 200,000 acres of cropland. Though agriculture is the region's primary economic driver, nutrient accumulation in the basin's springs from ag runoff has become a major environmental/legislative issue. Objectives/Purpose: Recognizing that basin agriculture producers needed assistance adopting new technology and Best Management Practices (BMPs) to comply with new water quality rules, Northwest District Ag Agents sought to educate producers on water quality BMPs and connect them with agencies to help fund conservation equipment purchases. Method: A team of Northwest District Extension Agents received a grant in partnership with the Southern Aquatic Resources Partnership (SARP) and the Florida Department of Agriculture & Consumer Services (FDACS) to fund ongoing BMP education and promotion targeted to Chipola Basin producers. With this funding, the BMP Agent Team planned a series of farm tours and educational videos and purchased specialized conservation ag equipment for conducting BMP demonstrations. The farm tours consisted of conservation technology/practice demonstrations on basin farms and Q&A sessions with the participating producers and organizations. The videos were professionally produced/edited, showed conservation practice implementation results, and featured interviews with farmers that had already adopted water quality BMPs successfully on their farms. Conclusions: The Chipola Basin BMP program has delivered three farm tours with 160 total participants since 2021. As a result of attending the farm tours, 87 participants (96%) reported gaining knowledge of BMPs and available conservation practice programs, 42 respondents (46%) planned to alter

and/or adopt conservation management practices, and 34 respondents (37%) planned on enrolling in a BMP or conservation practice program. The video series is in the final editing stages and will be hosted on the Panhandle Ag YouTube channel. Through the video and farm tour series, the BMP Agent team has helped Chipola Basin farmers harness conservation technology to reduce nutrient loading in the basin watershed and improve the efficiency of their farms, a win-win for producers, area residents, and the local environment.

ADVANCING COVER CROPPING TO A PURPOSE-DRIVEN, SITE-SPECIFIC MODEL

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Cover crops can provide various benefits such as scavenging nutrients, adding organic matter and nitrogen to the soil, reducing compaction, or competing with weeds. However, often the same cover crop species and management tactics are applied, regardless of field-specific factors or goals. The objective of this project is to encourage strategic cover crop planning, which can increase the agronomic, economic, and environmental benefits achieved through cover cropping. In this project, Extension Educators plan cover crops with farmers according to site-specific factors, such as soil conditions, field-history, crop rotation and goals. Farmers identify the top needs of the field that can be addressed through cover cropping, identify and potentially create gaps in the cash crop rotation to fit cover crops, and critically evaluate the limitations of cover crops. Farmers then evaluate cover crop species and management that will provide the most benefits while also fitting within the farmer's limitations. Collaborating farmers receive technical and financial support to plant up to three different cover crop systems on up to 150 acres on Maryland's Eastern Shore. Collaborating farmers also participate in farmer-to-farmer learning circles, and complete a Social Network Analysis survey to inform Extension educators on how cover crop knowledge is gained and shared among farmers. Educational events at collaborating farms serve to demonstrate at the field scale to the broader farming community that there is not a one-size-fits-all cover crop and that cover cropping should involve significant planning with regards to site-specific factors and cover crop purpose. After the first season of the project, all field-day survey respondents indicated the program as good or excellent overall, and that as a result of the field-day, they have an "average" or "a lot" likelihood to evaluate various cover cropping options rather than just blanket applying "a cover crop" on the farm; plant cover crop mixes; and plant a cover crop that will be more likely benefit their following cash crop.

FRESHLY FORT PECK

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Food Sovereignty has been a goal of the Fort Peck Reservation, especially with the onset of the COVID-19 crisis. Our vision was to create a meal kit with produce raised on the Fort Peck Reservation and provide it to Tribal Elders and local food banks. This was a collaborative effort among the Fort Peck Tribes Community Services Program, Fort Peck Tribes Natural Resources Department, Natural Resources Conservation Service (NRCS), Health Promotion and Disease Prevention (HPDP), and MSU Extension. The Fort Peck Tribes annexed a 3-acre portion of land with use of a large storage building, to be used for growing produce, agriculture demonstration purposes, and future projects. The NRCS provided assistance to erect two high tunnels valued at $17,000, and HPDP provided a working budget of $65,000 for the purchase of equipment and other associated costs. A recipe was designed that would allow certain garden produce to be harvestable in the fall timeframe and to stimulate healthy eating. The Fort Peck Tribes provided a buffalo for the meat in the meal kit as well as for other meat lessons. Honey was extracted from MSU Extension's hives at the pumpkin patch. Potatoes were grown in the Tribal Extension Garden, and pumpkins and squash were harvested from the Fort Peck Tribes 1-acre Community Services Garden Project

site. In addition, the potato seed was sourced from the MT State Certified Seed Lab, bees were purchased from a Montana owned company, and local buffalo was used for meat classes. The challenges to the project were the ongoing drought in Montana affecting the loss of corn, onions, and dry beans, a grasshopper invasion, and supply chain issues. Despite the nuisances, "Freshly Fort Peck" kits were contributed to 135 low-income households at a market value of $40 each for a cost-savings of $5,400. In addition to the kits, 29 other educational food sovereignty activities were conducted reaching 489 people. These included meat classes, a food sovereignty scholarship recipient, container workshops, a Master Gardener Class, horticulture classes, a pumpkin patch for the local Kindergarten classes, and produce giveaways.

USU EXTENSION AG WELLNESS- THE GREATEST ASSET IS YOU

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The USU Extension Ag Wellness Program was developed to increase awareness and reduce stigma surrounding mental health in rural agriculture communities. This program includes a unique collaboration of Agriculture Faculty and Home and Community Faculty from USU Extension. The goal of this program is to help bring awareness to farmers and ranchers about mental health illness, symptoms, treatments and resources. To accomplish this goal, the team created an hour-long mental health presentation titled "The Greatest Asset is You" that is taught in pesticide applicator trainings, other Extension events such as crop schools, and in local communities where mental health or suicide has had a large negative impact. The presentation utilizes hands on activities as well as current research to teach participants about the symptoms of the most common mental health illnesses. The end of the presentation focuses on mental health resources that can be utilized to help a friend or family member who may be struggling with their mental health. Results from these trainings found that 62% of adult participants stated they were willing to change their behaviors towards mental health because of what they had learned, with an additional 16% stating that they had already changed their behavior towards mental health because of information they had learned before. In addition to the evaluation data, many producers after the training come up to presenters stating that this presentation caused them to have some self-reflection about if they had struggled with mental health or if someone close to them was struggling. Numerous people have come forward to tell us that they have had struggles with mental health and that any information or education that we can provide is always appreciated. Because of these attempts, the stigma towards mental health is starting to slowly change. Better mental health options for our farmers and ranchers is one of the greatest focuses of sustainability of agriculture in our current time. Without our producers and their families operating at their best, there is no need for any other sustainable practices.

During the presentation USU Extension will present to NACAA peers on resources, findings, and best practices to introduce mental health topics into their extension programming (see: https://extension.usu.edu/agwellness/index). They will cover implementations that have found success and others that have not. The intent of the presentation will be to help other States to not have to recreate or create working resources.

CALIBRATING PRESCRIBED FLUSH CYCLES, DRIP FERTIGATION SYSTEMS

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Drip fertigation systems, when properly managed, provide opportunities for increased use efficiencies for both water and crop nutrients. In the Suwannee Valley region of Northeast Florida, drip fertigation in combination with plastic mulch is used on a variety of high value horticultural crops. Among these crops, the region produces approximately 11,000 acres of spring watermelons; over

half of the acres grown in Florida. Using soil moisture probes and weekly petiole sap tests, extensive efforts are made to help optimize efficiencies and to minimize potential environmental impacts relating to the use of crop nutrients.

One component of the 4R Nutrient Stewardship Program addresses fertilizer placement. Without proper and uniform placement, fertilizer efficiencies can be greatly diminished.

In drip fertigation systems, where soluble fertilizers are injected into the irrigation system during operation, fertilizer placement is controlled by the management of irrigation water used to deliver the fertilizer. The less water used; the higher in the root profile the nutrients can be maintained. For this reason, fertilizers are typically injected at the end of an irrigation cycle. Following an injection event, proper flush times are the required to ensure that the fertilizer is pushed out of the system while the system is still at operating pressure.

Failure to properly flush a system at the end of an injection event can result in ununiformly applied fertilizer, clogging and emitter failure, and reduced crop performance. This project has demonstrated that proper system calibration is a required and justifiable activity. Standard estimated flush times, used widely across the region, prior to this service, were shown to be significantly deficient in properly placing important crop nutrients.

In Levy County, over the previous two-year period (2021-22), 71 producer fields were evaluated with 87% being found significantly out of calibration. According to a season end grower survey, farmers estimate that services such as flush time calibration and petiole sap testing represented a $200/ acre value. Of the 1,785 acres in Levy County currently being managed with the support of this program, this represents a $357,000 annual benefit.

Information learned from this project has been shared at producer meetings, field days, annual conferences, in trade journals, and in newsletters. Many producers are now requesting this service, and some have purchased their own equipment to perform their own tests. As a result, farmers are now more uniformly placing fertilizer in the field and in many cases reducing nitrogen application rates therefore increasing efficiencies and reducing risks resulting from nitrogen leaching.

TEACHING & EDUCATIONAL TECHNOLOGIES ACCEPTED PRESENTATIONS

PLANTER UNIVERSITY: TAKING THE PLANTER CLINIC TO THE NEXT LEVEL

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Planting is often considered to be the most important field operation necessary to maximize crop yield as this sets the stage for the rest of the growing season. If something goes askew with planting, it is hard to un-do that sin, and the farmer must live with the consequences. The quantity of improvements made to corn planters in recent years is staggering. Advances in seed metering technology, movement of the seed from the meter to the soil, down force adjustments for the row units, furrow closing technology, row cleaner technology, etc., have left farmers asking about the value of using these technologies verses older technology (Do the improvements pay for themselves?), what data can be found in the monitors / controllers, and how the data found there can be used to make improved on-the-fly decisions and adjustments. With these changes in planter technologies came subsequent questions from farmers and those that work closely with farmers (ag retailers, seed dealers, etc.) about understanding and properly using these technologies in ever-changing environmental conditions. To address this need. Iowa State University Extension and Outreach (ISUEO) responded by offering a unique program called Planter University.

This program was a collaborative effort between the Iowa State University Digital Ag team and the field agronomists, where the group organized and hosted five Planter University locations across the state of Iowa in both 2022 and 2023. The objectives of Planter university included: 1) grain a better understanding of how planter down force systems function; 2) understand the differences in how high speed planters should be set compared to conventional planters to obtain maximum performance;

3) gain confidence in evaluating wear components and how to replace them; 4) gain insights into how seedbed conditions and preparation impacts planter row unit performance; and 5) better understand what data planters can generate and how to utilize that data. The ultimate goal was to enable participants to efficiently plant more acres in very diverse conditions and educate them on "WHY" certain settings and adjustments were needed. Educational activities involved small-group demonstrations and breakout sessions, utilization of individual row units of various colors (provided by the manufacturers) as teaching aids, hands-on demonstrations, PowerPoint presentations with embedded videos for additional information, and open question time. This varied approach resulted in a dynamic learning environment for participants.

Join us to learn more about how we planned and conducted Planter University, lessons learned, and evaluation results.

BEHIND THE SCENES WITH OBS AND OTHER CREATIVE TOOLS FOR PROGRAM PRESENTATION

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[2.] Elizabeth Wahle Commercial Agriculture Educator, Fruits & Vegetables, University of Illinois Extension, Illinois, 62234

In Illinois more than 64 types of vegetables and 15 fruit and nut crops are grown. These specialty crops produce nearly $500 million in sales for farmers. To support growers during the pandemic in 2021 with timely information, Commercial Ag Educator, Elizabeth Wahle collaborated with Horticulture Educator, Andrew Holsinger to provide an online format for growers to view the 2021 Southern Illinois Fruit and Vegetable Conference. Sessions were prerecorded and edited using Adobe Premiere Pro. Closed captioning was added to the presentations using Otter.ai. Captions were supplied to the presenters for review. Open captions were added to some presentations for clarity of technical information. OBS was used during the Zoom meeting to supply a playlist of the content that was synchronously presented. Since the sessions were already prerecorded and captioned, it made for an easy transition to provide the content for asynchronous delivery on YouTube. During 2021, the conference had 120 virtual attendees and the virtual offering allowed consistency of the annual program.

USING A PERFORMANCE BASED LEARNING MODEL FOR BEGINNING FARMER EDUCATION PROGRAM

Jennifer Jensen
Extension Educator
University of Idaho
Sandpoint

Authors: Jennifer Jensen[1.], Colette DePhelps[2.], Jen Werlin[3.], Ariel Agenbroad[4.]

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[4.] Ariel Agenbroad Area Extension Educator, University of Idaho Extension, Idaho, 83714

As small farms continue to increase in Idaho, beginning farmer education continues to be a need. Participant surveys from previous beginning farmer education programs indicated a need for more in-depth and hands-on education. With this task in mind, a team of Extension Educators utilized the performance-based learning design to develop both online and hands-on education modules that could be used at various locations.

Extension Educators first met with an advisory board of farmers to help determine what beginning farmers need to know and to be able to do to have a more productive and efficient farm operation. This determined the primary topics to be addressed in the learning modules. Extension Educators then researched and were trained on the performance-based learning model. Adult learning styles were reviewed and learning objectives that focused on what beginning farmers need to do with the information they learn were developed. Core competencies or skills that farmers should be able to complete as a result of our training were identified. Modules for both the online course and hands-on workshops were based around core competencies and learning objectives. Modules incorporated assessment activities, practice activities and comprehension activities or presentations.

The online course curriculum focused on starting a small business in Idaho, market analysis, soils, climate assessment, irrigation, crop production planning, infrastructure needs, and harvesting. This Zoom and online module class included presentations from Extension

Educators and farmers throughout the state to best address the needs of all participants. In class activities and homework addressed the assessment and practice activities. For the hands-on modules, the workshops were structured around the basic core competencies or skills that were identified as needs of beginning farmers. A main outline for the presentations and activities was described, but the agenda also included flexibility for each to adapt as needed. These workshops were offered around Idaho at different teaching garden sites. Some were offered at a university-run teaching market garden, others were held on farmer-collaborator sites, while other were held in a community garden setting. For all modules, participants were surveyed at the completion of the module. The survey asked participants to describe their knowledge on topics related to the module, as well as their confidence in their ability to perform a related activity or skill.

A goal of this project was to determine how best to offer a training that focused more on what the participants need to do with the knowledge rather than just the knowledge itself. The performance-based learning design proved to be a successful tool for our beginning farmer program. The overall adaptability of the performance-based learning and assessment can help create meaningful Extension programs for a variety of topics. Because the beginning farmer learning modules developed for this project focus on core competencies, they too are adaptable to beginning farmers in other regions.

BENEFITS AND DRAWBACKS OF CREATING 360 VIDEOS- A VIRTUAL REALITY POWERPOINT

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Technology is becoming more advanced in creating content that is designed to engage the audience to develop an experience they won't forget. Hence, 360-degree media is becoming more and more popular with the "immersive feeling" of being in a setting that the general public would not normally experience. The Ohio State University Extension is one of the first Land Grant Universities in the United States to conduct a virtual reality setting aimed at marketing Ohio's agricultural industry. The iFarm Immersive Theater project started in 2019 and is still being used in 2023. With all areas of technology consistently improving, we have been inquiring if 360-degree media is worthwhile and making an impact on the audience. There are several variables with this new integrated media that make it difficult to create the production of 360 videos. For example, on the production side, it is arduous to film all content from scratch, since all the footage must be filmed in 360 formats. A basic b-roll cannot be merged with the 360-degree footage. With this issue, there are several difficulties in editing and shooting a video for production. This session will discuss tips and tricks for filming in 360. The iFarm Immersive Theater was an attraction at the 2022 Ohio State Fair in Columbus, Ohio; and at the 2022 Farm Science Review in London, Ohio. Below are the 2022 demographics for attendees who took part in watching a video in the Immersive Theater:

2022 Ohio State Fair-12 days-7/27/2022—8/7/2022
- Total Adults: 3,362
- Total Kids: 3,351
- Final Total of Adults + Kids= 6,713

2022 Farm Science Review-3 days-9/20/2022—9/22/2022
- Total Adults: 456
- Total Kids: 901
- Final Total of Adults + Kids= 1,357

TACKLING THE DIGITAL DIVIDE FOR AGRICULTURAL PRODUCERS IN BEN HILL COUNTY, GEORGIA THROUGH 4-H YOUTH INSTRUCTORS

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Fitzgerald

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The Ben Hill County Extension Agriculture and Natural Resources & 4-H program partnered with National 4-H

Council for the 2022-23 Tech Changemakers Project in Agriculture Technology. The team is called Ag Tech Changemakers. Tech Changemakers is a national grant program empowering youth to teach adults about technology-related topics, in this case, all technology is agriculture related. Ben Hill County Extension was honored to be selected as one of the ten counties in the state of Georgia with an Agriculture and Technology Changemakers grant. Tech Changemakers is a unique, community-centered program that tackles the digital divide head-on. Empowering young people with the support needed to use their digital skills, Ag Tech Changemakers deliver adult skill-building workshops to create practical, real-world solutions to increase digital know-how and drive economic opportunity. This national program elevates teens as teachers to provide training on technology and digital literacy skills to assist adults in their community. Ben Hill County Ag Tech Changemakers offered multiple classes, workshops, and presentations to teach agricultural producers in their area about the advantage of adding technology to their operations. The goal for adult participation in Ben Hill County, Georgia was 250 individuals. To date, the team has presented to over 140 adults about the advantages of drones for crop scouting to peanut growers, weed and plant identification to civic clubs, homeowners, and city workers, and soil mapping for nematode control. The Ben Hill County Ag Tech Changemakers are currently planning a gardening workshop to teach gardeners about apps for irrigation, weed and disease identification, and optimum planting dates for various vegetables.

FREE DIAGRAMMING TOOLS FOR EXTENSION EDUCATION

Marissa Schuh
Farmington

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Doing research outreach and science communication in extension settings puts educator in the place of breaking down complex information regularly. Even more difficult, some of these topics are abstract or microscopic, making conveying key information difficult, even with a great photo library. Educators can spend hours dragging arrows and icons in PowerPoint, only to end up with messy visuals that don't get the point across. This presentation will cover free, intuitive, online tools that can be used to illustrate agricultural and scientific topics. These tools can be used in online and printed materials, as well as in presentations in all types of settings, from a windy field day to online webinar. This presentation will provide an introduction to tools, including Lucidchart and BioRender, as well as show how these tools have been used in extension settings to improve learning outcomes for a diverse grower audiences.

HOW COMMUNICATING WITH EXTENSION CLIENTS HAS CHANGED IN 45-YEARS

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There have been a lot of changes in how Extension personnel communicate with their clientele through the years. As a long-time employee, I have had the opportunity to live through these changes. The first agent to work in Piscataquis County in Maine in 1915 used a horse and buggy or a train to visit farmers in the county. He either met with them face to face, communicated by mail or newspaper, or conducted community meetings. It seems we have not dropped any communication method but have added more and more as our clientele utilize new techniques.

It is important to see where we have been with communication methods and understand they will change in the future.

In 1983 I had 200 client consultations that were either in person, by surface mail (80), or by phone. During the pandemic that shot up to 860 consultations in 2020 with over half by email. Last year is was down to 620 consultations. Newsletter distribution went from 1,000 people receiving twelve surface mailed issue in 1982 to 6,477 people from throughout the state of Maine receiving 42 issues of either a general ag, garden, or beef newsletter. This presentation will focus on the types of communication one extension educator has employed through my 45-year extension career. Starting with making copies with light sensitive paper to color copies; landline phones to smart phones; overhead transparencies to computer generated slide shows; surface mailings to electronic mailings; video made in studios toYouTube to livestreaming programs through Facebook.
Come and share where you think extension communication methods will go.

360^{o} URBAN AG FARM TOURS: TAKING VIRTUAL TO THE NEXT LEVEL

James Jasinski
Extension Educator
OSU EXTENSION
URBANA

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Ohio has a population of 11.8 M people including 17 cities over 50,000 individuals, many with a diverse array of urban agriculture (UA) farms. Unfortunately, no formal mechanism exists for growers to visit and experience other farms to gain operational wisdom from the manager due to time and travel constraints. In 2020, Ohio State University Integrated Pest Management Program personnel experimented with using 360o virtual tour technology to help bridge the gap between growers. This technology allows images to be rotated 360o instead of a traditional static 2D image or video. These 360o images can be stitched together to form a farm site tour, and viewers can freely interact and navigate between images throughout the tour to explore areas of interest. When applied to UA farms, it allows growers across the country to virtually visit and experience Ohio farms. These tours allow new and beginning growers to see unique farm assemblages, scales of production, and various operational missions which may influence the design or enhance their own UA farm. These tours also allow experienced growers to see specific operations or practices on a working UA farm that may be adopted into their operation. OSU currently has 16 360o virtual tours of eight Ohio UA farms of different scales, complexities and missions online for growers to experience. These models have been viewed 2,468 times since being posted. As the imaging methodology has evolved, a subset of these UA farm tours were augmented with educational “hot spots” where text, audio, images or video have been added to highlight the significance of certain practices, tools, structures, etc. Growers and educators from at least six states have been exposed to this virtual tour concept during a multi-state Great Lakes Urban Ag (GLUA) webinar series, GLUA annual meeting and OSU Extension annual conference all in 2022. Further virtual tour development will occur in 2023 as the GLUA working group has been awarded funds to image UA farms in Michigan, Indiana and Illinois to further showcase the diversity of farms across the region.

HEY SIRI, CREATE AN EXTENSION PROGRAM (WHAT ARE A.I. CHATBOTS AND WILL CHATGPT TAKE MY JOB?)

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Jefferson

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Artificial intelligence (AI) technology is rapidly evolving. Some argue that AI will impact society similarly to how the internet did 20 years ago. Recently, programs like ChatGPT have been making headlines by offering instant human like responses to complex questions and request. This presentation will focus on the use of A.I. technology, particularly ChatGPT, and the opportunities, and possible threats, it can bring to future extension programming. ChatGPT is an advanced language model that can process large amounts of text data and generate responses that are almost impossible to differentiate from human-generated ones. By leveraging this technology, extension educators can use AI to perform a multitude of task. From writing an email or a newspaper article to developing virtual assistants that can answer questions and provide guidance to clients in real-time. AI technology has the ability to free up time for Extension Educators so they can focus on more complex issues. Learning about this technology is essential to keeping extension competitive and viewed as the premier source of information and educational resources. Staying ahead of the curve will allow extension professionals to make AI a tool at their disposal and not an alternative of their services. This presentation will showcase the various use cases of AI in extension and possible future tools, such as image recognition and natural language processing. Lastly, the presentation will touch on the potential challenges of adopting AI technology in extension programming, including the ethical considerations of using AI-generated responses and the ability to remain researched based in the information that it provides. Overall, this presentation aims to showcase the potential of tools like ChatGPT in extension programming and inspire extension educators to explore new and innovative ways to engage with their community.

BARNS TO BEACHES: MULTI-DISCIPLINARY USE UNMANNED AERIAL VEHICLES (UAVS) IN AGRICULTURAL EXTENSION IN FLORIDA

Jennifer Bearden
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UF/IFAS
Crestview

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[3.] Ray Bodrey County Extension Director, University of Florida/Gulf County Extension, Florida, 32465

The University of Florida, like other universities, has increased its utilization of drones or unmanned aerial vehicles (UAVs). In many sectors, including agriculture, there is a growing demand for people who can understand, develop, or fly drones. To satisfy this demand, we must train and educate professionals that can fulfill these roles. To this end, new pilot educational programs were developed for youth and adults.

To increase the understanding of where and how UAVs can be implemented into extension programs, educational efforts were designed to provide opportunities for youth and adults to engage in modern production practices. To achieve the objectives of this project, multiple trainings, demonstrations, and engagements have occurred since 2019, when the first workshop was held. Training workshop topics included Federal Aviation Administration (FAA) requirements, drone equipment, flying methods, standards of operation, and pre-planned flight missions. Also, regular meetings were held for extension educators to collaborate on drone projects creating multi-disciplinary teams.

Through the utilization of mixed teaching methods, Extension educators were able to provide nine programming events reaching over 140 adults throughout the duration of the project. Over 60 youth were taught remote pilot skills through two day camps and a 4-H club. In addition, Extension educators were able to perform three pre-planned flights with cattle operations across Northwest Florida to provide both insight and integration of UAVs for future livestock management. Quarterly meetings of extension educators allowed for opportunities for them to learn new applications of UAVs in extension programs.

Integration of advanced technologies in both youth and adult extension programming provides a novel approach to the pioneering utilization of UAVs in agriculture. Utilization of UAVs in traditional Extension education should be performed within the guidelines of local and national regulations. The introduction of modern agriculture technology to youth should be an integral part of future Extension programming. The source of UAVs in regard to make, model, and type can vary but should meet the priorities of the Extension program. It is encouraged that all educators of UAV implementation have the proper training and program priorities to implement the technology.

PERCEPTIONS OF NORTH CAROLINA AGRICULTURAL EXTENSION AGENTS WITH REGARDS TO SOCIAL MEDIA USE IN EXTENSION

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The Internet is a wide-open frontier with numerous possibilities for education. As such, there has been a considerable amount of research done with regards to social media usage within Extension. However, understanding the perceptions of agricultural Extension professionals regarding the use of social media in their work is not to the level it should be. The purpose of this descriptive correlational study was to determine the perceptions of North Carolina Agricultural Extension Agents regarding the usage of social media in Extension Education. Additionally, this study also set out to determine the effects of the COVID-19 pandemic on Agricultural Extenison Agents' usage of social media platforms in Extension work. A web-based survey instrument was developed containing seven major questions related to agricultural Extension agents' perceptions on items related to social media usage and proficiency, including questions related to social media usage both before and after the start of the COVID-19 pandemic. Additionally, 11 questions were used to collect demographic data. All 275 Extension Agents and County Extension Directors in North Carolina with agricultural programmatic responsibilities were invited to participate in the study. A total of 140 agents and County Extension Directors participated, yielding a 51% response rate. Research findings showed agents do find social media

useful in their work. They do believe that its use improves their performance and that it does make it easier to distribute information to their stakeholders. The findings also showed that the majority of agents used social media as a regular part of their programming during the COVID-19 pandemic and that there was a statistically significant increase in the usage of Facebook, Instagram, YouTube, and TikTok social media platforms during that time compared to their use before the pandemic.

The findings also showed that agents using social media are applying it for the promotion of programming and sharing programmatic information with clientele. At the same time, the research findings show that agricultural Extension agents are not using social media to recruit volunteers, conduct needs assessments, evaluate their programs for change or impact, share success stories or program impacts, or deliver virtual Extension programs.

Respondents reported that the greatest challenges to using social media in their work were: 1) lack of time to prepare and update content for social media, 2) lack of time to learn about updated tools on social media, 3) lack of client interests in using social media, 4) lack of their own personal interest in using social media, 5) lack of clients trust in using social media, and 6) lack of an organizational plan to use social media. The three social media competencies identified with the highest need for training are creating a backup of social media content, editing photos and videos to use with social media, and creating and editing photos and videos for social media. Additionally, agents would prefer to learn how to use social media through face-to-face training rather than online or in a hybrid setting.

A bivariate correlation analysis was conducted to determine whether there was a correlation between agents' current usage of social media and the demographic variables of years of experience in Extension, levels of education, and age. The correlation analysis revealed that there is not any significant relationship between "current usage of social media in Extension work" and any of the reported demographic variables. Additional demographic data were collected (race, ethnicity, gender, job title, primary programming area, extension district, and client groups worked with) and tested through analysis of variance, which showed that there was no statistically significant variation between any of these demographic variables and Extension agents' social media usage.

All agricultural Extension agents will benefit from educational opportunities and resource materials that increase their skillset of using social media in Extension. Recommendations based on the findings of this study included the creation of a social media coordinator position at the state level to provide agents with a point of contact for social media use, as well as develop social media programming materials. The development of an Extension organizational social media policy would provide guidelines and structure for agents on social media usage, as well as ensure trust for clients accessing Extension social media content.

AGRICULTURAL TOURISM EDUCATION USES MULTIPLE TEACHING METHODS FOR SUCCESS

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A producer survey conducted by Oregon State University in 2021 indicated that farm direct sales have increased and that producers planned to start, continue or expand farm stands, u-pick/cut operations and other agritourism activities that bring the public to private farmland. As there was not a centralized training where Oregon producers could obtain information on operating an agritourism business and hosting the public on their property, we first developed a plan to engage producers using four teaching methods. First, we created an online module entitled "Developing a Successful Agricultural Tourism Business" which launched in March 2022. The self-paced course is designed to help producers start or expand agritourism and consider the risk management needed when opening farms to the public. The curriculum covers topics like assessing risks, reducing liability, understanding regulations and permitting, determining marketing strategies and providing high-quality customer service. Producers develop an action plan to guide their next steps in the exploration and development of their identified agritourism activities for their own operation. Since understanding Oregon land use laws and local permitting is a crucial yet intimidating step in developing an agritourism business, participants were invited to attend virtual Q&A sessions with county planning departments, who regulate on-farm activities. Next, we offered individual contact teaching opportunities for interested producers to brainstorm options, discuss concerns, identify potential risk, and address specific questions. These occurred

over the phone or as a site visit. Finally, to strengthen community and encourage information sharing, a producer network was developed for peer-to-peer learning. This four-step approach allows participants to have a better understanding of agritourism, then apply and implement concepts to their operation if it is a good fit. To date the course has been accessed by 134 Oregon learners. Twenty-three participants have taken part in a Q&A session, over thirty have received individualized education and currently there are sixty-three members of the Willamette Valley Agritourism Network. Data from the online course evaluation indicates that 33 producers are planning to add an agritourism activity to their farm or ranch business.

2023 AM/PIC SPEAKER PROFILES

Simon Estes (born March 2, 1938) is an operatic bass-baritone of African-American descent who had a major international opera career beginning in the 1960s. He has sung at most of the world's major opera houses as well as in front of presidents, popes and internationally renowned figures and celebrities including Bill Clinton, Richard Nixon, Boris Yeltsin, Yasser Arafat, Nelson Mandela and Desmond Tutu. Notably, he was part of the first generation of black opera singers to achieve widespread success and is viewed as part of a group of performers who were instrumental in helping to break down the barriers of racial prejudice in the opera world.

Jolene Brown is a walking-talking spokesperson and champion for the people of agriculture. She's a farmer in Eastern Iowa, contributor to *Successful Farming* magazine's popular family business column, author of three great books and an inductee into the prestigious CPAE Speaker Hall of Fame. Her worldwide audiences appreciate her fun-filled spirit and valuable information. She's on a mission to share leading-edge best practices, appreciation, laughter and celebration to increase productivity, profitability and peace of mind.

Brown's presentation was entitled:

"It's a Jungle Out There! Blazing New Trails for Agriculture"™

They're lurking in the jungle… changing job expectations, diverse needs of those we serve, rules and regulations and more. It's time to blaze a new trail because the pace, the people, our processes, our products, and programs have all changed, have we? During this fun-filled, eye-opening presentation, we'll discover today's top influencers on those we lead and serve. We'll learn the value of what we do is in the eye of the consumer, not the creator. With lots of humor and real-life stories, we'll laugh while we learn the joys of blazing trails in agriculture's "jungle!"

For more information please see: www.JoleneBrown.com

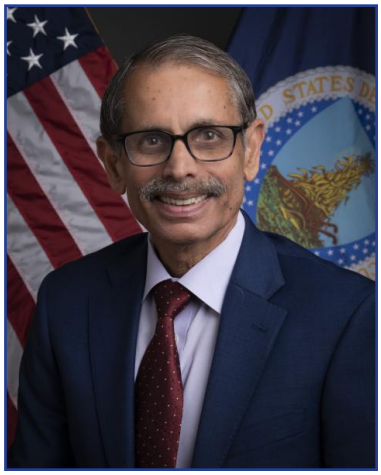
Dr. Manjit Misra is the director of the USDA National Institute of Food and Agriculture, USDA's extramural funding agency in the Research, Education and Economics Mission Area.

Dr. Misra is a world-renowned scientist who has had a transformational impact on food security through the application of engineering principles to seeds, the most vital and fundamental element of food security. Prior to joining NIFA, he was the director of the Seed Science Center at Iowa State University, a position he held from 1991 to 2023. He also was the Endowed Chair of Seed Science, Technology and Systems.

Dr. Misra was the 2018 recipient of the Sukup Global Food Security Award for his distinguished contributions to global food security through research, outreach and teaching in post-harvest seed science, technology and policy.

His interdisciplinary and collaborative approach to leadership has been effective at state, national and international levels. He has been a member of the American Society of Agricultural and Biological Engineers for 37 years. He is a past chair of the National Genetic Resources Advisory Council with the USDA. Dr. Misra is author or coauthor of 137 publications and co-inventor on 10 patents.

Throughout his career, Dr. Misra has received numerous awards, including the Distinguished Service Award for Leadership, Vision and Exemplary Service to the U.S. Seed Industry from the American Seed Trade Association. He received the Outstanding Achievement in International Agriculture Award from Iowa State University. He also received the Global Academic Leadership Award from the Indian Council of Food and Agriculture.



After earning a Bachelor of Science degree in agricultural engineering from Orissa University of Agriculture and Technology in India, Dr. Misra earned a master's degree and a Ph.D. in agricultural engineering from the University of Missouri. He joined the faculty of Iowa State University in 1979 as an assistant professor in seed science and technology. In 2005, he was named director of Iowa State's Institute for Food Safety and Security and was the founding director of the Biosafety Institute for Genetically Modified Agricultural Products.

Dr. Misra was sworn in to a six-year appointment as Director of the USDA National Institute of Food and Agriculture on May 8, 2023.

ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT FUTURE CONFERENCE DATES

2024

Dallas, Texas.....July 14-18

2025

Billings, Montana.....June 29-July 2

2026

Denver, Colorado.....July 11-15

2027

St. Paul, Minnesota.....September 12 - 17