National Association of County Agricultural Agents

Proceedings

101st Annual Meeting and
Professional Improvement Conference

July 24-28, 2016 **Little Rock, Arkansas**

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2015-2016 NACAA Report to the Membership

President

Cynthia L. Gregg

Virginia

What an amazing year. This year has been filled with so much excitement, enthusiasm, joy, wonder and other various emotions. The year began with you allowing me to call my mother for her to listen to my swearing in as your 101st National Association of County Agricultural Agents President. Little did I know what the next few months would bring. So this memory means so much more to me now. Thank you.

This year NACAA has taken strides to enhance our relationships with State Association, Administrators, and the Joint Council of Extension Professionals. It has been an honor to represent you at several functions. It has been a priority for me to insure that we get the message to our Administrators and others about the AMAZING educational programs you conduct in your home counties and states, along with webinars, and at the Annual Meeting and Professional Improvement Conference. I am always impressed by the depth and breadth all of you go to in order to educate and help farmers, ranchers, families, co-workers, and each other. I have learned and admired the types of efforts you do every day to educate – whether it be via computer, social media, news articles, publications, posters, field days, and more. The cutting edge equipment – large, medium, and small – you use every day helps drive home your educational programming. The changes you make humble me. So many say, we never change – well we do, have and will continue to do so.

I have been proud to head up the NACAA Board Team this year. I truly feel we have become a team that has strived to put the NACAA Members needs in focus. It has been a pleasure to work with them this year. I would be remised if I did not acknowledge the abilities, knowledge, and organizational skill of Executive Director Scott Hawbaker. He is the keeper of all things NACAA. He can answer any question you may have and I feel confident he has experienced laughter and wonder with some of my questions this year. We could not do all we do without him.

If I may I would now like to share with you some of the items that may interest to you. This year I attended several functions on your behalf.

I was able to attend the Western Region NACAA Annual Meeting and Professional Improvement Conference this year in Alaska. I was impressed by the Professional Improvement and Professional Development. The posters were well done, the presentations were very informative, and the opportunity to experience Alaskan Agriculture was amazing. The Conference was educational filled on many levels. The work of our Alaskan Co-workers is impressive. They are helping educate their clientele how the many ways to feed, cloth, and shelter themselves economically and efficiently. Where else can you learn about canning walrus meat, qiviut clothing, how to build a home, proper nutrition of reindeer and moose, proper glacier rescue techniques, from Alaska Cooperative Extension of course.

I have had the chance to represent you as part of the NACAA Representation to the Joint Council of Extension Professionals Board. This past year, the JCEP Leadership Conference in Las Vegas was an outstanding opportunity for our members to present on a myriad of leadership topics in addition to leadership development and fellowship among co-workers. The JCEP Public Issues Leadership Development Forum in Alexandria this year was filled with networking with USDA Co-workers, along with learning about how to engage our Senators and Congressmen and fellowship with co-workers from across the country. JCEP being the umbrella organization for our sister Extension Associations, it is imperative that we of NACAA have a seat at the table and work hard to insure our members are represented to the best of our ability as Board Members. I will serve as President of JCEP next year. I will strive to represent you to the best of my ability, will keep your best interests in the forefront, and insure your voices are heard at Board Meetings and other JCEP events.

I have had the privilege to work with the Agricultural Extension Agents in Arkansas this year and for the past two years. I have learned so much about the State of Arkansas, it's agriculture, natural resources, and culture. I am truly impressed by our co-workers and their efforts on our behalf in planning the 2016 NACAA AM/PIC. It will be a truly education filled conference, along with the opportunity to experience first-hand the knowledge, hospitality, and enthusiasm of our Arkansas Co-workers. This will be a meeting like no other, you will be able to experience a varied array of educational programs in all subject areas: Technology, Early Career Development, Animal Science, Natural Resources, and Horticulture just to name a few. Where else but Arkansas can you experience diverse water quality education, taste varieties of rice, learn about horticulture advances, history, culture, see Sustainable Agriculture in action, learn how Agriculture Agents can help

their clientele, and did I mention minerals- even diamonds. So the opportunity to learn about all of this and more in the great State of Arkansas is ours in 2016. I know the 2016 NACAA AM/PIC will be a time of learning, fellowship, recharge, and sharing the best Agricultural Extension Agents and Specialists have to offer from Arkansas and across the country.

The NACAA Committees are putting their best forward for your educational interests and needs. The workshops, trade talks, peer presentations, and posters are not to be missed. There will be something for everyone to take home and utilize in programming efforts. Awards will be presented from Achievement Awards Winners to Distinguished Service Awards, Hall of Fame to Search for Excellence, Scholarships to Communications. The work that the Committees will bring forth is top notch, educational filled ideas for yourself and to share with others. Together we make each other better educators, I know you will take advantage of the numerous impressive educational opportunities.

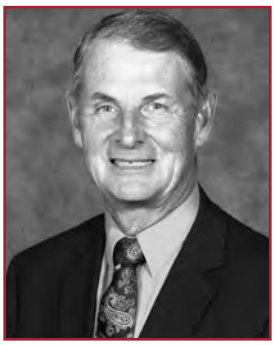
Let me say a strong heart filled thank you to each and every one of you. I am proud to be associated with the noble Extension Agriculture Professionals like you. You inspire me to do better each day. I have tried hard to keep your interests in the forefront of all I have done this year. I have enjoyed the email, phone calls, and personal visits from everyone this year. I may not have always been perfect in everything but I can assure you I am proud of all we accomplish as individuals and as teams across the country. You are the envy of the world in the manners to which you do your jobs every day. I am proud to work beside each of you. A few special thank you to the Agriculture Agents Association Members in Arkansas, I appreciate all your efforts on behalf of NACAA, you all are an amazing team and do fantastic jobs in all you strive to do. To my Virginia Colleagues, I will and can never thank you enough for everything you have done for me as well. I am honored to work with each of you. I have tried to do you proud, as I represented you and all of our co-workers across the country.

Arkansas is rolling out the welcome mat, hospitality, and ready to share all the agricultural and cultural wonders our colleagues work with every day. You will enjoy yourself on multiple levels from educational to fellowship, leadership to culture, catching up with long time colleagues to meeting new co-workers, awards to posters to presentations.

Thank you again for all you do! Safe travels.

I look forward to seeing each of you in Little Rock in July. It's a Natural!

President Elect



Mark Nelson

Utah

Sponsors and Donors are invaluable contributors to your national association. Without the funding from our supporters many of our professional improvement programs and program recognition would not be possible. Many of supporters are longtime friends of NACAA. Others have been contributing for short periods. Unfortunately one long time donor has indicated that they could not provide financial support in 2016. We were still able to raise a total of $136,000 in donations. We would also like to welcome Merck as a new donor this year.

Sponsor and donor relations is the responsibility of the President Elect, however NACAA Executive Director Scott Hawbaker provides an invaluable, consistent linkage to the companies that support our association. I would personally like to thank Scott for all his work for NACAA and in helping us raise these funds that we use to recognize our outstanding members.

Members can also assist to maintain the support from our donors. If you attend a sponsored activity at our AM/PIC or receive program recognition I would encourage you to send a note of thanks to the sponsor. In addition many sponsorships have originated for NACAA through personal contacts by members. I would encourage you to investigate sponsorship opportunities with any contacts you many have. Check out the NACAA website for additional information.

The NACAA Donors help us as members in many ways. One is program development. The members who present at a session share their knowledge with others from across the country. These ideas and topics help expand research, demonstrations, workshop, and networks, which gives so much more back to our local areas. Member also benefit by Professional Development. This is the chance to learn from industry experts and fellow members on various issues including climate, plant, animal disease management, and so much more. Members also receive recognition and awards. The recognition of a job well done by providing the opportunity to say congratulations on research and educational programs.

As President-elect I participated in the JCEP Leadership Conference in Las Vegas. A lot of the state NACAA leaders were able to attend this leadership conference. It was a great opportunity to learn how NACAA functions at the state and national level. The regional Directors did a nice job in planning the association meeting. I hope you think about sharing one of your great leadership programs next year in 2017 in Orlando, Florida.

I also attended the Public Issues Leadership Development (PILD) Conference that was held in Crystal City, Virginia in April of this year. NACAA was well represented at this conference. On the last day of the conference we

were able to visit our congressional delegation from each state. This was a great opportunity to meet them and discuss our concerns with them. I encourage you attend the PILD Conference if you have the opportunity.

It has been a career highlight for me to have been elected to the position of President Elect of NACAA in 2015. I look forward to working closely with the national leadership in the coming years but we cannot do it without your support. I would like to express my appreciation to the men and women of your board of directors, the council chairs and committee leaders for NACAA. These individuals take time from their busy programming efforts to provide you with outstanding professional opportunities.

I look forward to visiting with each of you at the 2016 AM/PIC in Little Rock, Arkansas very soon. I would like to thank everyone who has made it possible for me to serve as the NACAA President Elect this past year. I look forward to the opportunity to follow the many outstanding leaders of NACAA in the role of President of NACAA.

Vice President

Alan Galloway

Tennessee

As your NACAA Vice President it has been my duty to oversee the work of the committees within NACAA. The year has passed quickly and much has been accomplished by your council chairs, committee chairs and regional vice chairs. Abraham Lincoln was quoted as having said, "Whatever you are, be a good one." I can assure the members of NACAA your council chairs, committee chairs and regional vice chairs are "good ones". They have been exceptional in communicating with each other and the states to conduct the work of their committees.

Much of the committee work load begins and ends with the duties of the three council chairs. It has been my pleasure to work with three very dedicated, hard-working individuals throughout the year as they served as NACAA council chairs. They are: Richard Brzozowski, Program Recognition Council Chair (Maine), Kurt Jones, Extension Development Council Chair (Colorado) and Sherri Sanders, Professional Improvement Council Chair (Arkansas). The hours expended by the council chairs coordinating and communicating with various committees is extensive. I cannot express in words how much I appreciate their diligent work in carrying out their duties. Richard Brzozowski will complete his term as the Program Recognition Council Chair this year and we will welcome Keith Mickler (Georgia) as the new council chair of the Program Recognition Council.

Along with the leadership of the council chairs, our 18 national committee chairs and 62 regional vice chairs log many hours communicating, planning and conducting the programs to ensure NACAA members have opportunities for professional development and recognition. It has been impressive to observe the new ideas and planning efforts by the committee chairs and vice chairs to conduct the work of their committee. Many committees expanded the opportunities provided to our members for professional improvement and recognition. We have had more committees developing super seminars this year than ever before and participation in AM/PIC pre-tours has been tremendous. While the national committee members are diligent in their duties, one critical component to the success of the committee work is the state committee chair in each state. By the state chairs helping to deliver the word of each presentation opportunity, poster session, communication awards and other recognition programs to our members, then the system truly works.

I am grateful to each member involved in committee work and I highly recommend to all NACAA members if you are not already on a committee at the state level or higher to step up and volunteer. The knowledge you will learn from participating on a committee will come back in knowledge gained about committee work and you will have opportunities to see and hear about Extension programs from other members nationwide. Many successful Extension agents/educators credit their success to ideas gleaned from programs they saw or learned about through participation in NACAA. Most of us serving on the NACAA board started by involvement on a committee.

While my year as Vice President was complicated due to having to complete the duties as treasurer during the first six months as Vice President, it has been a most enjoyable and educational experience. Each position I have had held has provided the chance to meet others involved in agriculture who have the same desire to help our farmers and ranchers succeed and grow. If NACAA can provide, through our committee programs, the incentive to our members to keep learning and growing themselves then they in turn will be better enabled to help their clientele.

I am thankful to have had the opportunity to serve as NACAA Vice President and look forward to future work within NACAA. As each of you carry out your Extension programs this year just remember to do it to the best of your abilities so you will be referred to as a "good one" as well.

Secretary

Matt Herring

Missouri

Serving my second term as NACAA secretary has been a little less daunting than my first year in this role, but I still find opportunities to learn about the association and how I can contribute to making it stronger.

As Secretary of the Association my primary responsibility is to record minutes of the board meetings and other activities of

the association and keep our membership informed through posting minutes to the NACAA website. The board holds meetings before and after the Annual Meeting and Professional Improvement Conference. We hold winter and spring board meetings and monthly teleconferences. During the meetings I take minutes, but also make audio recordings that I play back to try to capture details I may have missed. Draft minutes are reviewed by the board and then approved at a meeting that is at least two weeks after board members receive the draft minutes. After the minutes are approved by the board they are posted on the NACAA website. Links are also established to board documents. The board decided in 2010 to restrict access to association financial information and so these reports are not available through the website, but can be requested from the NACAA Treasurer.

The Association Secretary serves as the chair of the Internal Publications Committee. This committee is charged with oversight of the content of the NACAA website, The County Agent magazine and the Journal of NACAA. Stephen Brown is completing his third and final year as editor of the Journal of NACAA. He has worked with a team of reviewers to edit and evaluate article submissions. June and December editions of the journal are published each year. Stephen has worked tirelessly to continue the standards of excellence in our journal and I have greatly appreciated his skills in his service to NACAA. Lee Stivers was selected to succeed Stephen and has been training with him since the 2015 AM/PIC. The Journal provides members an avenue to publish in a peer reviewed journal, and an opportunity to share program and research results that can be used by our membership.

For many years an agreement with the National Agriculture Library in Washington D.C. allowed the association to store archival records for future use. In the early 1990's this relationship changed and records have not been stored at the library since that time. Efforts to renew the relationship with the library were unsuccessful with the library stating that they do not have the resources to work with the Association. The Publications Committee met to determine other options for storage of association records. They thought it was important for records to be stored so that they could not be damaged by fire or flood. The committee also thought it was important that the records be accessible by membership. Scott Hawbaker told the committee that most Association records are available on the NACAA website and what is not there he can make available to members upon request. The committee requested and the board approved the purchase of four fire proof filing cabinets for Scott to store association records in his office. Alan Galloway found cabinets for a very reasonable price. This should help secure the association's records while keeping them accessible. The Publications committee plans to address records stored at the National Ag Library and if we should try to do anything differently with these records.

I have appreciated the opportunity to serve the membership of NACAA and look forward to seeing you in Little Rock in July!

Treasurer

Wes Smith

Georgia

It has been an interesting and enjoyable year serving as treasurer. It's also been a year of learning more about NACAA and it's organizational structure. I started officially writing the checks on January 1st. I appreciate Past NACAA Treasurer Alan Galloway's willingness to answer my questions and helping me out. There are way more moving parts than I originally thought there would be. A friend that has served in this position some years ago both at our state level and at the national level told me "you just have to write a few checks and go to a few meetings". It's far from that!

The association is in good standing. I plan to continue to watch over the association's money and serve our association to the best of my ability. We will have some challenges to work through to make it easier for states to host national meetings and hopefully we can come up with some solutions. I believe in giving back to what has been good to me and NACAA, along with GACAA, have both been good to me throughout my career. I enjoy serving our membership.

Prior to beginning my service as NACAA Treasurer, it was my pleasure to serve as the OYF liaison. The Outstanding Young Farmer program is special to me and it meant a lot to get to serve as the first liaison. Growing up there was a certificate from the OYF program hanging in my dad's office from where he had competed in the early 60's. We have increased the number of applications drastically from 13 the year before the liaison position was created up to 39. Working with the OYF board to rework the nomination/application should get more producers to apply. We all work with great young producers and need to get them recognized. I truly enjoyed my term as OYF liaison and made working relationships with great producers on the OYF side. I am glad a friend, Ray Hicks, will replace me. He has some great ideas to continue to grow the program.

Past President

Mike Hogan

Ohio

It is hard to believe that it has been four years since we met in Charleston South Carolina for the 2012 AM/PIC and I began the journey through the NACAA President's rotation. Time truly does fly when you are having fun!

It has been an amazing experience to serve in a leadership role for NACAA the past four years, and I thank each and every

one of you for the confidence and the support which you have expressed during the past four years. Sue and I have met many wonderful people during the past four years and we will treasure the wonderful experiences which we have had during this journey.

If one experience or theme from the past four years stands out for me, it would have to be the extraordinary respect and gratitude shown for our profession and your work by so many different individuals and organizations that I have interacted with. From the USDA Deputy Secretary of Agriculture, to donors and sponsors and university presidents & chancellors, respect and appreciation for the work that we do has never been greater.

While serving as your Past President this year, I had the privilege to represent NACAA at several national events. The National Outstanding Young Farmer Awards Program in Cincinnati was without a doubt the highlight. The extraordinary young farm families and the entire OYF organization have a remarkable affinity for NACAA and a genuine affection for county agents.

Representing NACAA at PILD in Washington DC this past year again demonstrated the value which federal legislators and USDA leaders place on Extension work, and the annual JCEP Leadership Conference in Las Vegas allowed many NACAA members to hone their leadership skills.

Representing NACAA at the national meetings of other Extension professional associations such as ESP in Coeur D'Alene, ID and NAE4HA in Portland, OR allowed me the opportunity to share information about the excellent work of NACAA with our sister Extension professional associations.

Our profession and our professional association will certainly face challenges in the years ahead, and I would challenge each and every NACAA member to consider serving in a NACAA leadership role in order to address these challenges effectively and successfully. Both you and your professional association will be better off because of your service.

Rick Gibson

Policy Committee Chair

Arizona

Among the many responsibilities of the Policy chair, the most essential is the opportunity to serve as the link between the Policy Committee members, the NACAA Board of Directors, and the NACAA membership. The Policy Committee also has the responsibility of safeguarding the intent of the NACAA by-laws, assisting in the preservation of NACAA professional standards, reviewing reports and proposed actions before they are presented to the Board of Directors, and when invited, offering an opinion on new measures before the Board of Directors, NACAA committees, and the membership. The Policy Committee also offers a historical perspective, clarifies and/or interprets policy, and proposes measures to meet the challenges of changing internal and external conditions. Another key responsibility is to review and, where necessary, revise the pages of the NACAA Policy Manual. The assignment is challenging but definitely satisfying in many ways. I appreciate the opportunity to continue to engage in service to my colleagues and peers, the members of NACAA! For me, that part has always been fun. Policy chairs serve for two years and are past national presidents. In completing my first year, I have learned much, not only about the duties, but also about the intricacies of the business of NACAA from the position of one who has no official vote but who must ever be vigilant to help the Board best represent the interests of the NACAA membership.

Two years ago, the NACAA by-laws were changed by voting delegates to allow membership of the Policy Committee to include all past presidents from the previous ten years plus all active member past presidents no matter how long ago they served. The Policy Committee chair must still be an active member, if there is one available, but the change to allow retired presidents to serve allows a greater diversity of insight and opinion among the membership of the committee. Previously, only active members of the Association, and who were also past national presidents, could be considered. The new format will prove, I am sure, to be quite valuable as we move forward.

For the past year, members of the Policy Committee have included: Gary Hall, Mickey Cummings, Chuck Otte, Fred Miller, Rick Gibson, Phil Pratt, Stan Moore, Paul Wigley, Paul Craig, Henry Dorough, and Mike Hogan. Gary Hall retired during the past year, and because his presidential term was concluded over ten years ago, he has now been excused from his lengthy run on the Committee. Even though Glenn Rogers is no longer technically a member of the Committee, I have chosen to request his insights on key issues. Mickey Cummings will formally exit the committee this year but I will similarly continue to ask for his insights. We are pleased to formally welcome Cynthia Gregg to the committee. I wish to publicly thank each of these wonderful colleagues for their past and continuing service to NACAA.

I mentioned earlier that the Policy Committee chair is routinely asked for interpretations of policy. Some questions are fairly easy to answer but occasionally some inquiries must be considered by the full committee, especially where a historical perspective, broader interpretation, or a unified opinion is needed. Such was the case this year as the NACAA Board of Directors considered the addition of Puerto Rico as a member of NACAA. The pertinent question was not about the admission of Puerto Rico, the membership of which is warmly welcomed, but about a potential problem in the by-laws as previously written. Article 1, Section 1 in the by-laws adopted September 29, 1975 stated, "One Association of professional Cooperative Extension Service workers per state ("state" means individual states including Commonwealth of Puerto Rico, Virgin Islands, Guam, and District of Columbia which hereafter shall be referred to as "state") may become a member of the National Association of County Agricultural Agents…" Careful reading will show that under this current verbiage only four of several new potential members among the various protectorates could be considered for membership.

Fortunately, this did not impact the application of Puerto Rico, but it was noted that there might be others not so listed who might wish to apply for membership. Recognizing that there might in the future be other protectorates, such as American Samoa or the Northern Mariana Islands, who might wish to join the association, the Policy Committee unanimously agreed to suggest that the voting delegates consider inserting the phrase, "and other protectorates" to the by-laws between "District of Columbia" and the word "which" so that the new section would read, "One Association of professional Cooperative Extension Service workers per state ("state" means individual states including Commonwealth of Puerto Rico, Virgin Islands, Guam, and District of Columbia and other protectorates, which hereafter shall be referred to as "state") may become a member of the National Association of County Agricultural Agents…" Such a change would give all protectorates, current and perhaps future, the opportunity to apply for membership in NACAA.

I look forward to serving the membership of NACAA during this my second year as Policy chair. Please feel free to contact me with any questions that you might have related to NACAA policy.

North Central Region Director

Chris Bruynis

Ohio

What an honor to serve the membership of NACAA in the North Central Region! I want to thank my colleagues from Ohio for nominating me for this position. I appreciate their support in covering for me while I am out of the office on NACAA business.

As my first year, as Regional Director, comes to a close I am reflecting on all the interesting travel, new friends, and fun places I visited during the past twelve months. As I visited with each state I observed some commonalities. First is the turnover from a predominately male baby boomer workforce to a predominately female millennial workforce. What an opportunity for Extension to incorporate new ideas and philosophies into our profession! Secondly, many states are in various states of flux as leadership and funding streams changes. Finally, it did not matter what state I traveled to, everyone enjoyed great food and drink as they visited with their colleagues from across their state. I truly appreciated all the hospitality extended to me by colleagues from the North Central Region while visiting their states.

I enjoyed the time discussing issues important to our members during the NACAA board meetings. We have discussed issues like increasing membership reach, improving membership communications and benefits, and how to improve educational events, including the Annual Meeting and Professional Improvement Conference. I also represented our membership while serving on the Public Issues Leadership Development (PILD) planning committee and assisting during the conference in April. The conference went extremely well as we attended many great breakout sessions, conversed with our USDA National Program Leaders, and held many rewarding visits with our Congressmen on Capitol Hill.

As always, let me know if you have questions, concerns, or simply need information about NACAA. I will do my best to fully represent our North Central Region members on the NACAA Board while serving for another year as your Director. I hope to see many of you in Little Rock, Arkansas, for the 101st NACAA AM/PIC!

Northeast Region Director

Ginny Rosenkranz

Maryland

This past year was full of interesting, creative, motivated and dedicated Extension agents!

I am deeply honored to have had the opportunity to represent the North East Region this past year and I wish to extend my thanks to the Maryland Association of County Agriculture Agents for their faith in nominating me as the North East Regional Director. My career with Maryland Extension began 22 years ago and I have been an active member with NACAA for the past 18 years, and I have always been impressed with the creative, brilliant and dedicated Extension professionals I have met over the years.

As the North East Director, I have had a great opportunity to meet many wonderful Extension professionals! I have enjoyed the responsibility to visit all the states in the North East Region last year, and it was wonderful to see old friends and meet new friends throughout the Region. All of the state annual meeting were informative, educational and always presented with wit and humor, encouraging the attendees to be engaged. My responsibility was to present new and emerging issues that the National Board was working through and to bring back to the Board any concerns and new ideas from the North East Regional states. I was also able to encourage all members to look into applying for the many wonderful awards available as there is so much creativity in every county of every state. The programs and research should be shared with all of NACAA.

I also worked with other Directors and Vice Directors to create the NACAA component of the JCEP meeting to be both informative and interesting. I try to encourage as many Extension professionals to attend the JCEP conference for the leadership development the program provides. Next year's JCEP conference will be held in Orlando, FL and I again hope many will take the opportunity to attend. I also helped plan the PILD conference held in Alexandria, VA and again I was

very impressed with the creativity of the planning committee, and the professionalism that was apparent throughout the conference. I learn so much at these professional conferences!

I would like to encourage everyone to become more involved in both your state and national associations. You will receive the best professional development and leadership skills and at the same time you can develop wonderful friendships through all the networking opportunities. I look forward to seeing you all at the 2016 NACAA AM/PIC in Little Rock, Arkansas this July!

Southern Region Director

Lenny Rogers

North Carolina

As Little Rock and the AM/PIC approaches, so does the end of my term as Southern Region Director. It seems as just when I was getting to know most of the southern states, their members, their leadership and their administration, it is time to move on. This opportunity has been a very rewarding experience for me. I have met many wonderful people, experienced awesome educational programs and gained many new ideas while learning how NACAA truly operates across our nation. One thing I have truly learned is that there is a tremendous group of hard working, very effective extension agents in the Southern Region. I have been overly impressed through my state visits over the past few years.

I feel very good having been a part of visiting with and bringing the U.S. province of Puerto Rico into our association. In December I visited several Puerto Rican extension offices and agents, various farms, their Ag Dean at the University of Puerto Rico of Mayaguez and spoke to all of the Puerto Rican agents in Arecibo at the Puerto Rico Agriculture Agent Association Annual Meeting. Since then, the new Puerto Rican Agents' Association President, Professor Irving Rodriguez submitted a letter to the NACAA Board, requesting their acceptance into our National Association. On January 13th the NACAA Board of Directors unanimously voted to approve The Puerto Rico Association of Agricultural Agents as a as an official National member. Since then 12 members from Puerto Rico have joined out association. We are excited to have them on board and we look forward to a long and beneficial relationship in the future.

Also I feel that I have assisted NACAA by serving on the PILD Planning Committee for three years, revising the State Officers Handbook, chairing the State Relations Committee, visiting many states and leading various sessions at PILD, JCEP and AM/PIC.

I want to thank the North Carolina Association of County Agriculture Agents for their support over the past four years. I will never forget their vote of confidence in selecting me as their Southern Region Vice-Director candidate in 2012.

In closing, I encourage all NACAA members to make every effort to attend the family friendly AM/PIC in Little Rock, AR and at future sites. The knowledge, friends, connections gained, etc. will be invaluable. And you never know who you might meet on one of those Professional Improvement Tours? You might even meet a future spouse, I did!

Southern Region Director

Jerry Brown

Kentucky

It seems like my first year as a Southern Region Director has gone by in one quick flash. It has been a pleasure to represent NACAA at the state association meetings that I have attended this year. There are great things going on in every state that I have visited. Every state does things just a little differently than the next, but all are accomplishing many things to help the citizens of their communities and states.

There are many great association leaders in every state. Their professional development sessions and tours are interesting, educational and well planned. I have enjoyed representing NACAA at their business meetings. It is great to see all of the posters, presentations and program recognition awards received by the agents. And best of all, I enjoy just interacting with agents from these states.

Your national board is doing our best to enhance communications between the state associations and the NACAA. The state officers and state committee chairs are the backbone that makes our national program recognition and professional improvement efforts successful. At the NACAA sessions of the JCEP Leadership Conference, held each year in February, your regional directors have talked with the state leaders about how we can strengthen this communication.

Serving as a Regional Director has to be the best job in the NACAA. I would like to thank the Kentucky Association of County Agricultural Agents for their confidence in me and allowing me to serve the Southern Region. I also want thank second year directors, Lenny Rogers and Janet Schmidt, for their leadership and direction on our board duties this past year.

The more time you spend involved with this organization, the better appreciation you develop for the tremendous opportunities provided by the NACAA. There is no other Extension organization that provides Extension professionals with the depth of professional development and leadership opportunities as the NACAA. I would urge every member to take advantage of the opportunities that the association can provide to them over the course of their careers as a County Agricultural Extension Agents.

I look forward to great achievements as the NACAA begins its second hundred years.

Western Region Director

Janet Schmidt

Washington

Greetings from the West! At the conclusion of the AM/PIC in Little Rock, Arkansas, my term on the board as the Western Region Director will come to an end. It has been a great honor and privilege to represent the region and serve the association. The past few years have passed rapidly as I have visited many states in the West, made new friends and learned about the tremendous diversity and quality of research and educational programs offered throughout the region.

It has been a very rewarding experience to serve on the board and help shape the future of NACAA and the Extension Profession. As a Regional Director, we serve on board committees; take leadership for planning the NACAA component of JCEP and PILD; conduct Officer and Director/Vice Director workshops at the AM/PIC; other activities as assigned; and participate in state association visits.

I have served on the Fiscal Committee, Policy Committee, Development and Planning. Working on these committees has given me a greater insight into our association. The highlight of my board work has been meeting new colleagues during state visits or at conferences. Regarding state visits, I have had the opportunity to visit Arizona and Wyoming as a Vice-Director and Montana, Oregon, Idaho, Alaska and of course my home state of Washington as a Director. I hope to visit at least one more state before my term comes to an end.

I am highly optimistic about the future of the Extension Profession and NACAA. Membership is up by 63 members and many states are hiring. The knowledge and talent that these new hires possess will carry NACAA to the next level.

At the Joint Council of Extension Professionals (JCEP) meeting this past February, we had several presentations regarding millennials in the work place. Many of the new hires in the states are millennials and they are incredibly talented! We are in good hands with their leadership and capabilities. Speaking of JCEP, it is a truly exceptional professional development experience. I attended many presentations with take away messages that will help me be a better, more productive Extension Educator. If you have not been to a JCEP Conference, I highly recommend it.

Regarding professional development, the Western Region is very unique in that we are the only region that offers a mini or regional AM/PIC. Last year, Alaska hosted this event. This year, the Western Region NACAA AM/PIC will be October 27-28, 2016 at the Courtyard King Kamehameha's Kona Beach Hotel in Kona, Hawaii. Hawaii would like to invite all those interested to please attend. A wonderful program has been organized by HACAA with support from event sponsors and help from Cooperative Extension Service partners in Alaska, Oregon, Utah, and Washington States. Please visit http://www.wrampic2016.com/ for details and http://tinyurl.com/zwreubp for easy online registration. My challenge to the membership is to engage in the many opportunities that NACAA provides!

In closing, since I am a horse person, I can say it has been a great ride and it will be a pleasure to pass the reins to Stephen Brown as your new incoming Western Regional Director. Stephen is very talented and will be an excellent Regional Director. Many of you know him as Editor for the Journal of NACAA. I want to thank my colleagues in Washington for nominating me for the Western Regional Director for NACAA. This opportunity only comes once in a person's career. I also want to thank Washington State University Extension Administration, Rich Koenig, Director of Extension, Pat Boyes and Doreen Hauser-Lindstrom, Unit Leaders and all my co-workers for supporting me in this endeavor. Last but not least, a huge thanks to my supportive husband Tim who cares for our "four-legged" kids while I am traveling and attending meetings.

As always, if I can answer questions or carry messages to the board, please do not hesitate to contact me. I look forward to seeing everyone in Little Rock, Arkansas, for the 2016 edition of the NACAA AM/PIC!

Professional Improvement Council Chair

Sherri Sanders

Arkansas

The Professional Improvement Council (PIC) is one of the three Councils that make up the committee structure of NACAA.

The purpose of this council is to further the professional improvement of our members. The Council consists of six committees: Agricultural Economics & Community Development, Agronomy & Pest Management, Animal Science, Horticulture & Turfgrass, Natural Resources/Aquaculture and Sustainable Agriculture.

The educational activities consist of presentations, educational tours, and super seminars planned for AM/PIC. One of the greatest attributes of the NACAA AM/PIC is that most of the presentations given are by other agents or specialists from across the country. Not only is this advantageous for promotion in rank for the presenter, it is "real –world" useful information that other participants can take home, modify and use in their own area of work. Between the member led

presentations, pre-tours and super seminars planned, everyone will have ample opportunities to experience a wide variety of topics.

Animal Science, Horticulture and Natural Resources/ Aquaculture/Sea Grant have planned educational pre-tour opportunities. The Animal Science pre-tour will allow the participants a diverse view of Arkansas. The group will depart Little Rock and travel toward Fayetteville in the northwest corner of the state to see the Tyson Foods Discovery Center, University of Arkansas Poultry Science Department, I-40 Livestock Auction, USDA Dale Bumpers Small farms Research Center, a purebred Angus cattle operation, and many other sites. This tour is being coordinated by Brian Haller and a team of Ag agents from Arkansas.

The Horticulture two day pre - tour has been arranged by Randy Forst and Janet Carson of the University of Arkansas. The group will enjoy a trip to P. Allen Smith's home and farm called Moss Mountain. They will tour the gardens and the farm there. They are slated to go to Wye Mountain Flowers and Berries, The Fruit Substation at Clarksville, Bemis Tree Farm, North Pulaski Farms and to Heifer Ranch. Bonnie Plants is a sponsor for this event.

Natural Resources/Aquaculture/Sea Grant committee will offer a two day pre-tour that highlights why Arkansas is called "The Natural State." Participants will earn about native wildlife and plant species issues managers face with these resources, and operations that blend commercial enterprises with environmental protection. The group will visit Stuttgart (the Rice and Duck Capital of the World) and the largest baitfish hatchery in the world. Dr. Mike Daniels, University of Arkansas Professor for Extension Water Quality is coordinating the tour in our state.

Sustainable Agriculture has chosen four new SARE Fellows. The committee is planning a trade show booth. Current and formers SARE Fellows will man the booth to share with you their experiences about the program.

NACAA is an organization with numerous opportunities for professional development and leadership. One method of involvement is through the committee structure, which provides a way for members to share their talents for the benefit of NACAA. This next year, I encourage you to try something new with NACAA, apply for a committee position, participate in a pre-tour, apply to be a presenter, apply for an award or perhaps put your hat in the ring to become a SARE Fellow!

Finally, with sincere gratitude, thank you to the committee chairs, vice chairs and state chairs. I truly appreciate your hard work and dedication. My sincere appreciation is extended to Alan Galloway for his leadership and to Mary Sobba for "never being more than a phone call away".

Agronomy & Pest Management

Wade Parker

Georgia

Committee members:
Wade Parker, Southern Region
Bruce Clevenger, North Central Region
Aaron Easer, Western Region
Paul Cerosaletti, Northeast Region

This year has been a very exciting and busy year for the Agronomy and Pest Management committee, as we look forward to an exciting annual conference in Little Rock, Arkansas. This year's Super Seminar, **Unmanned Aircraft: Are You Ready to be a Pilot and Chart New Directions?** This workshop promises to be a continuation of our unmanned aircraft system (UAS) seminar from last year. This year we will be focusing on types of unmanned aircraft platforms, potential applications in precision agriculture, and an overview of rules/regulations. A variety of unmanned aircraft will be available for workshop participants to explore from a "first hand" perspective. The seminar will also include hands-on experience with a flight simulator and a micro-UAS. Due to limited equipment the seminar will be limited to the first 25 people that register. An e-mail will be sent with registration information. The super seminar will take place on Wednesday, July 27 from 1:00-4:00 PM. The seminar is being coordinated by the UAS in Agriculture Learning Network of eXtension (http://www.learnuasag.org/). We look forward to seeing you!

Presenters include:

Dr. Jim Robbins – Extension Specialist in commercial ornamental plants at the University of Arkansas Division of Agriculture for the past 18 years. His role is to support all Green Industry businesses including garden center, wholesale growers, and landscapers.

Dr. Dharmendra Saraswat –Associate Professor of Agricultural & Biological Agriculture at Purdue University. His research is focused on using information and communication technologies for solving issues in plant production (field and nursery crops) and management of natural resources. Drs. Robbins & Saraswat have collaborated on research using UAS-based sensors data since 2010.

Dr. Wayne Woldt - Associate Professor of Biological Systems Engineering at the University of Nebraska-Lincoln has active research and Extension education programs on unmanned aircraft for remote sensing in crop production – with an emphasis on irrigation management. Dr. Woldt has a private pilot rating for single engine land aircraft, a glider with self-launch endorsement, a commercial hot air balloon rating, and has been flying unmanned aircraft under FAA authorization for more than four years.

Agricultural Economics & Community Development

David Bau

Minnesota

The Agricultural Economics and Community Development committee is pleased offer professional improvement opportunities for NACAA members. This year's AM/PIC will include a Super Seminar Tuesday morning, examining farm legal issues important to Extension professionals. There will be member presentations on a variety of topics important to Extension professionals on Tuesday afternoon.

This year's super seminar will take place on Tuesday, July 26th from 8:30 am to 11:30 am. Keynote speaker John Dillard will continue discussing legal issues currently facing agriculture. He will be followed by Harrison Pittman from the Ag Law Center in Little Rock discussing agricultural law issues important to extension educators. Laurence Crane with National Crop Insurance Services will wrap up the seminar discussing crop insurance issues. Margins are getting tighter for farmers across America and balance sheets are deteriorating, make plans to attend seminar to look at legal aspects.

We are able to offer this seminar through the generous sponsorship of the National Crop Insurance Services (NCIS).

A total of 14 proposals from members were received for Agricultural Economics and Community Development Professional Improvement Council presentations. After careful consideration by the committee, 11 proposals were selected for presentation at the AM/PIC. Make plans now to join us for these presentations on Tuesday afternoon. Topics will include:

- The Ohio Farm Employment Handbook: Using technology to create an online bulletin, by Eric E. Barrett and Peggy Hall, Ohio
- Ag CEO's Lender's Conference, by Jack Davis, South Dakota
- Design your Succession Plan - Pilot Project and Beyond, by Willie Huot, North Dakota
- Your Farm, Your Business, Your Future: New Missouri Extension Curriculum for Transferring Assets Across Generations, by Mark Jenner Missouri
- Extension's Role in the Development of Urban Agriculture Social Enterprises, by Ms. Jacqueline Kowalski, Ohio
- Education Beyond Annie's Project Class, by Mary Sobba, Missouri
- Exploratory Study to Identify Business Interest in Local Foods in the Somerset County Region, by Kathryn M. Hopkins, Maine
- Whole Farm Analysis with Crop Enterprise Budgets, by Archie Flanders, Arkansas
- Marketing Locally Raised Beef, by Megan Bruch Leffew, Tennessee
- Demonstrating Economic Impact by Implementing SNAP/EBT at Your Farmers Market, by Martha B. Maddox and Dr. J. Stacy Strickland, Florida
- County Profile: Community Development in High Definition, by Trevor C. Lane, Washington

The members of the Agricultural Economics and Community Development Committee are:

North Central Region Chair and Vice Chair – David Bau, MN

Southern Region Vice Chair – Megan Bruch Leffew, TN

North East Region Vice Chair – Shannon Potter Dill, MD

Western Region Vice Chair – Jody A Gale, UT

Animal Science

Brian Beer

South Carolina

Committee Members:

Chair: Brian Beer, SC

Northeast Region Vice-chair: Elizabeth Claypoole, NY

Western Region Vice-chair: Kellie Chichester, WY

North Central Region Vice-chair: Chris Penrose, OH

Southern Region Vice-chair: Rebekah Norman, TN

Each year the Animal Science Committee is responsible for planning and conducting the two-day Pre-AM/PIC Animal Science Seminar and Tour. This is a tremendous professional improvement opportunity for our members and a great way to network with colleagues from across the country having similar interests.

Northeast Region Vice-chair, Elizabeth Claypoole, along with Nicole Carutis and Heather Weeks from Pennsylvania, planned and conducted a webinar that highlighted the 2015

Pre-Conference Tour as a means to increase interest and participation. All interested NACAA members were invited to participate and learn more about the Pre-Conference Animal Science Seminar and Tour. This was the first time our committee used a webinar to highlight the tour. Thank you to Elizabeth, Nichole, and Heather for taking leadership and presenting this information to NACAA members.

The 2016 Pre-AM/PIC Animal Science Tour is scheduled for July 21-23, 2016. The tour will begin in Little Rock, travel toward Fayetteville, and conclude back in Little Rock. Some of the highlights include: USDA Dale Bumpers Small Farms Research Center, I-40 Livestock Auction, Tyson Foods Discovery Center & University of Arkansas Poultry Science Department, Jac's Ranch (purebred Angus cattle), Fayetteville Biosolids Management Farm, White River Creamery (goat dairy and artisan cheese), Marely Farm (University of Arkansas Discovery Farm), and Willow Springs Cattle Company (show cattle). Thanks to Brian Haller from Arkansas, and his team, Berni Kurz, Johnny Gunsaulis, Cindy Ham, Dr. Dustan Clark and Dr. Andrew Sharpley for planning a great tour this year.

This year's tour will have 26 participants from 13 different states. Each year the committee seeks sponsorships for the tour, with participants funding the remainder. We express our sincere appreciation to this year's sponsors: Merck Animal Health, Livestock Marketing Association, and Purina, Land O' Lakes. Also, thanks to all the tour stops and to our local meal sponsors for their vital role in making the tour possible.

In Little Rock you will have the opportunity to hear about some successful Extension programs and research being conducted by your peers. There will be 15 presentations offered during the Animal Science Professional

Improvement Seminars on Tuesday afternoon of the AM/PIC. Presentations will cover beef cattle, dairy, equine, swine and forage topics. Be sure to review the AM/PIC Program when you arrive in Little Rock so you can find the time and place of the presentations that interest you. I'm confident you will learn something that can be used in your programs when you return home.

The Animal Science committee has made arrangements with the American Registry of Professional Animal Scientists (ARPAS) to offer certification exams during the AM/PIC on Wednesday afternoon. Contact any member of the animal science committee for more information. In addition, continuing education units (CEU's) will be available for those who participate in the Tuesday seminars.

Please join us for the full Animal Science Committee meeting on Monday afternoon. We will be planning the committee's activities for 2016-2017. Input from NACAA members is critical to insure that committee activities are meeting the membership's needs. We invite you to be part of the planning process by attend the committee meeting.

Thank you to the committee vice-chairs. Each of you contributed during committee discussions and helped guide decisions that will make the 2016 AM/PIC in Little Rock a great professional development experience for NACAA members.

Natural Resources/ Aquaculture

Libbie Johnson

Florida

Libbie Johnson, Committee Chair, Southern Region—Florida

Katie Wagner, Western Region Vice-Chair, Utah

Todd Lorenz, North Central Region Vice-Chair, Missouri

Pat Rector, North Central Region Vice-Chair, New Jersey

With the help of Dr. Mike Daniels, University of Arkansas Professor for Extension Water Quality, the Natural Resources/ Aquaculture committee will offer a two day pre-tour that highlights why Arkansas is called "The Natural State." Participants will have the opportunity to learn about the native wildlife and plant species, what issues land and water resource managers face trying to manage these resources, and see operations that blend commercial enterprises with environmental protection. We will visit Lake Maumelle, the source of central Arkansas's main water supply. Watershed management plans for Lake Maumelle are key components of assuring the effective and long-term protection of the Little Rock and surround communities drinking water, while maintaining affordability and abundance. We will also visit fruit, berry and timber operations on Friday. On our way to visit Stuttgart (the Rice and Duck Capital of the World), we will stop by the largest baitfish hatchery and fish farm in the world. The Saturday trip will also include lessons about water management for crop production and duck/wildlife habitat when we visit the Bayou Metro Water Management District, Five Oaks (a full service duck hunting lodge), and Terry Dabbs at an Arkansas Discovery Farm.

Our committee was very pleased by the number of abstract submissions for this year's AM/PIC. We were able to accept the following:

- Aquaponics Systems Evaluations for Production, Sustainability, and Environmental Effects—Brad Bergefurd
- Restoring the Health of Silver Lake—Gary Fredricks
- Community Programming and Stormwater—Pat Rector
- Initial Assessment of E. coli and D.O. in a Recently Refilled Lake—Salvatore Mangiafico
- Native Meadow Habitats in Stormwater Detention Basins—an Urban Pollinator Refuge—Mike Haberland
- A Multidisciplinary Invasive Species Workshop—

Matt Orwat and Mark Mauldin

- Eastern Ohio Oil and Gas Royalties Workshop—Mark A. Landefeld
- What is the Role of Natural Resource Professionals in Landowner Legacy Planning? Adam Downing
- Educating Natural Resource Professionals through Agency Collaboration in Arkansas—Dr. Rebecca J. McPeake
- Targeted Grazing to Reduce Wildfire Spread in Sagebrush Steppe Ecosystems—Scott Jensen and Chris Schachtschneider
- The Color Country Natural Resource Experience: Enhancing Education through Creative Partnerships—Vernon Parent

Finally, we are very excited to announce that we will have a whole afternoon session dedicated to AgroForestry. Dr. Carol Williams, Research Scientist for the Center for AgroForestry at the University of Missouri helped to set up this session that will provide an introduction to temperate agroforestry and its main practices; insight into agroforestry's multiple ecological and environmental benefits; and resources for further information and training.

- Temperate agroforestry practices: Successful strategies to help farmers—Carol L. Williams
- Productive farming resilient to a changing climate—Richard Straight
- Promoting pollinators with perennial practices—Gary Bentrup
- Silvopasture: Opportunities for agroforestry transitions—Gene Garrett
- Early stages of transitioning managed timber to silvopasture: A practitioners experience in planning and implementation—Rennie Reynolds
- Opportunities for education & training for farmers, agricultural agents, and military veterans—Gregory Ormsby Mori

If you are interested in learning more about our committee or taking a more active roll, please join us on Monday, July 25th at 1:30. See the conference agenda to find out which room.

Horticulture & Turfgrass

Sarah Denkler

Missouri

Sarah Denkler, Committee Chair

Annette Meyer Heisdorffer, Southern Region, Vice Chair

Ronald Patterson, Western Region, Vice Chair

Marjorie Peronto, Northeast Region, Vice Chair

Patrick Byers, North Central Region, Vice chair

Our Horticulture and Turfgrass committee looks forward to an exciting annual conference in Little Rock, Arkansas. We have once again collaborated to develop an outstanding pre-tour before the AM/PIC as well as an excellent slate of presentations related to horticulture in Extension.

As arranged by our local host and tour guides, Randy Forst and Janet Carson of University of Arkansas, we will start off on Friday July 22 in Little Rock Arkansas leaving from the hotel before 12:00 p.m. The group will be traveling together by bus. The group will drive north to Moss Mountain (P. Allen Smith) to tour the gardens and farm. From there we will attend Wye Mountain Flowers and Berries for a tour then move onto Heifer Ranch for a tour and dinner before returning back to Little Rock that evening.

Saturday morning, we will load the buses and depart at 7:30 am from the hotel, driving to the Clarksville Research Farm for a thorough tour followed by lunch. Once we depart from there we will move onto North Pulaski Farms and then to Bemis Tree Farm. We will return Saturday evening at a reasonable time for dinner on your own.

We sincerely thank our sponsor Bonnie Plants and their representative Cheryl Lange for this special opportunity to visit all these great horticultural establishments and to network with our colleagues for an extended period.

Please join us for the Horticulture and Turfgrass committee meeting on Monday, July 25 from 1:30-2:30 p.m. where we will discuss horticultural issues and introduce the new committee leadership to begin planning for 2017.

On Tuesday July 26 from 1:30 to 4:30 p.m. we will offer 3 professional improvement sessions with 15 presentations including soil testing, invasive beetles, diseases in wine grapes, warm season grasses, the spotted lanternfly, jail gardens and Master Gardeners.

Finally, we offer our sincere appreciation to our regional vice chairs and state chairs as well as the NACAA leaders/organizers/officers, especially Sherri Sanders and Scott Hawbaker for their easily accessible guidance and advice over this past year.

Sustainable Agriculture

Suzanne Mills-Wasniak

Ohio

The Sustainable Agriculture Committee has been busy planning for 2016 activities while planning to celebrate an important anniversary. In 2017 the SARE Fellows Program celebrates its' tenth year. Thirty-four Fellows from twenty four states have completed the USDA – SARE Fellows Program through 2015. A celebration is being planned for the NACAA AM PIC in Salt Lake City in 2017.

In 2016 the SARE Fellows program had twenty four applicants. After reviewing the applications the committee selected one applicant from each of the four NACAA regions to be a Fellow. Please congratulate the 2016 SARE Fellows:

Northeast Region – Olivia Saunders, New Hampshire

North Central Region – Michael O'Donnell, Indiana

Southern Region – Laura M. Miller, Texas

Western Region – Seth Swanson, Montana.

In 2015 SARE Fellows experienced Sustainable Agriculture in Arkansas (Southern Region) and Nebraska (North Central Region). Sustainable Agriculture Committee vice Chairs from the Southern and North Central Regions attended their respective regional trips and wish to commend the Arkansas and Nebraska Sustainable Agriculture organizing committees for outstanding educational experiences.

The 2013 SARE Fellows will be front and center at the SARE Fellows luncheon to be held on Tuesday, July 26. They will be presenting an overview of their SARE Fellows experiences and how they plan to use what they have learned in their respective programs. All NACAA members are welcome at the luncheon.

This year the Sustainable Agriculture Committee will have a booth at the trade show in Little Rock. We will be featuring the SARE Fellows program. With pictures from the SARE Fellows trips, Sustainable Agricultural practices will be on display. Current and former SARE Fellows will staff the booth to share with you their experiences.

Seven NACAA members will be presenting their work during the professional improvement seminars under Sustainable Agriculture on Wednesday, July 27th at the AM PIC Conference in Little Rock. The presentations cover soil health and cover crops, organics, and bees.

It would be impossible for a committee to function without the dedicated Regional Vice Chairs, working towards positive program impact. I would like to express my gratitude to Northeast vice Chair Michelle Infante – Casella, Southern Vice Chair William (Bill) Tyson, and Western Vice Chair Matt Palmer.

I wish to thank Professional Improvement Council Chair Sherri Sanders and Scott Hawbaker for their counsel and patience. The Sustainable Agriculture committee looks forward the seeing you in Little Rock.

Extension Development Council Chair

Kurt Jones

Colorado

The Extension Development Council's (EDC) committees -- Administrative Skills, Agricultural Issues and Public Relations, Early Career Development, and Teaching and Educational Technologies – help members improve their skills related to the art and science of extension practice. This focus on skills and methodologies to conduct extension work effectively makes NACAA unique from other subject-specific professional organizations.

The Council's efforts at the 2016 AM/PIC include informational seminars on Tuesday morning, July 26. The presentations are part of four concurrent sessions featuring 12 hours of training. There are some exciting and diverse topics that have been accepted. Our council is also offering two super seminars this year. Early Career is offering advice on mentorship and building your vita, and Ag. Issues has planned a super seminar to help County Agents identify the Food Safety Modernization Act Produce Rule training and outreach needs of their growers through the development of a statewide produce safety action plan. We hope you will join us!

Over the year, educational programming extended beyond the confines of the AM/PIC through one webinar. The Early Career Development Committee offered a "First Timers Webinar" in late April. The Agriculture Issues and Public Relations also conducted an outstanding webinar on GMO's in March of this year. These sessions are archived and available for those who missed the live broadcasts (see the NACAA website for the URL).

One piece of advice that I received as a relatively new agent was to join NACAA and get involved in committee work. It is something that I have taken to heart, and it has helped me in my career tremendously. I encourage NACAA members to increase your participation in the Extension Development Council's activities, and offer guidance and ideas on how we can better to serve your needs. Please share any ideas with your State Committee Chair or Regional Committee Vice-Chair, or

attend out Committee Workshops on Monday afternoon, July 25 at the AM/PIC.

Finally, I offer my appreciation to our committee chairs, regional vice-chairs and state chairs as well as Vice President Galloway for their individual and collective leadership and guidance during the past year.

Agricultural Issues & Public Relations

Meredith Vaughn Melendez

New Jersey

The Agricultural Issues and Public Relations committee has been busy preparing for the 2016 NACAA conference in Little Rock! We are pleased to welcome Jeff Anderson of New Mexico and Melody Teague of Tennessee to the committee. We would like to thank Bill Burdine and Don McMoran for their previous service to the AI&PR committee. Bill is now serving as the Vice-Director of the Southern Region.

Our Ag Issues and Public Relations session will take place on Tuesday morning in Little Rock. We have a great lineup of speakers who will focus on topics including: agricultural careers and drones, marketing extension programs, farm food safety, livestock education for law enforcement, and utilizing community resources. I hope you can find time to join us in this session filled with important information relevant to your producers.

The committee has also been hard at work preparing for our super seminar that will take place on Wednesday afternoon. The focus of this seminar is to help agricultural agents understand who in their region will be impacted by the Food Safety Modernization Act Produce Rule. Identifying producers who could be impacted, assisting them in understanding the components of the rule and identifying resources for both the growers and agents will be discussed. Experts from the Produce Safety Alliance are working to develop a tool-kit that any agent, no matter their familiarity with the Produce Safety rule, can use in their county.

I had the pleasure of attending the Outstanding Young Farmers annual meeting in Cincinnati this year, along with the new OYF NACAA liaison Ray Hicks from Georgia and a number of other NACAA members. I am always so impressed with the farmer winners and nominees recognized by OYF, if you have a chance to attend this meeting I highly recommend it! Be sure to nominate an Outstanding Young Farmer from your County, application forms can be located at http://www.nacaa.com/awards/other_awards.php . Nominations are due by August 1st.

Finally I would like to offer my appreciation to the AI&PR committee members and Kurt Jones our Extension Development Council Chair. They have been incredibly helpful and responsive in our collaborations to organize our programs. We look forward to seeing everyone in Little Rock!

Early Career Development

Nicholas Simmons

Mississippi

The Early Career Development Committee has been busy during the past year thanks to the efforts of our committee members:

Ed Martin, University of Arizona Cooperative Extension

Emily Adams, Ohio State University Extension

Jenny Carleo, Rutgers University Extension Service

The focus of the Early Career Development Committee is to develop professional improvement opportunities that assist members with early career development. The education provided typically involves tools and resources to help an early to mid-career employee succeed. Presentation at past conferences have included mentoring, promotion, work/life balance, and publishing in Extension and other professional journals.

The Early Career Development Committee is excited to sponsor a super seminar on Sunday July, 24th from 1-3 pm. The goal of this super seminar is to provide in-depth information related to career development, current trends in extension education, and the roles of mentors and protégés.

Our first speaker is Daniel Kluchinski, Assistant Director of Extension and Chair of the Department of Agricultural and Resource Management Agents in Rutgers Cooperative Extension. Dan's presentation will focus on the mentoring process including roles, responsibilities and timelines, and on building mentoring relationships through communication, commitment and trust. Participants will learn how to develop meaningful relationships that benefit both the protégé and the mentor, and in turn, our Cooperative Extension programs and professional organizations.

Our second speaker is Dr. Nick Place, Dean for Extension & Director of the Florida Cooperative Extension Service. Dr. Place's presentation will focus on administrative expectations and opportunities for Agents in relation to Extension careers. Participants will learn about how Extension careers have evolved over time and where we are heading; in addition, you'll learn how to see and how to position yourself to take advantage of opportunities for career advancement in Extension.

We look forward to seeing everyone at our super seminar session!

One of the educational programs developed by the Early Career Development Committee is an educational session at the 2016 AM/PIC in Little Rock, AR. Seven abstracts from members have been accepted for presentation. These topics are applicable to more than just early career professionals. Following is a list of accepted presentations:

Painlessly Publishing in the Journal of NACAA

Stephen Brown, University of Alaska Fairbanks

How to Replace "Winging it" with "Winning it" When Planning Programs

Jenny Carleo, Rutgers University

Deep Work vs. Shallow Work: A Time Management Method

Sheila L Gray, Washington State University

Reaching Out: Conducting A Needs Assessment

Andrew Holsinger, Jr., University of Illinois

Engaging New Members in Your State Association Activities: Programs and Ideas

Libbie Johnson, University of Florida

How to Get the Most Out of Your Performance Appraisal

Daniel Kluchinski, Rutgers University

Finding Peace in the Promotion and Tenure Process: Guidance for the New Extension Professional

Donald A. Llewellyn, Washington State University

The other main product of the Early Career Development Committee was the NACAA AM/PIC First Timers Webinar held on Thursday, April 19th 2016. The purpose of this webinar was to better prepare participants for the 2016 AM/PIC by reviewing the conference program, logistics, and the registration process. Approximately 21 participated in the live presentation and the presentation was also archived at ….. We partnered this year to incorporate more information from the committee working with First Timer's at the AM/PIC. The First Timer's Reception will be held on Sunday, July 24th, the luncheon on Monday, July 25th, and this year the goal is to match mentors with first time attendees.

State Early Career Development Chairs and other parties interested in early career development issues are encouraged to attend the Early Career Development Committee meeting at this year's AM/PIC. Our meeting will be held on Monday, July 25th from 1:30 – 2:30 p.m. Your ideas will be useful for the development of goals for the 2016 – 2017 year and the 2017 AM/PIC. Please share your thoughts and ideas with any of the committee members. We look forward to seeing you in Little Rock, AR!

Administrative Skills

Bruce Barbour

New Jersey

"Administrative skills" mean many things to many people. The best examples in my career have been a mix of clever persuasion, integrity, caring honesty, nurture, awareness of duty and tolerance for the many paths humans can take to get a job done. The toughest for me has always been disciplining others; whether it be in the form of a critical performance review or a less than expected raise. It was at those times I would have to remind myself that an organization can't have high standards if there is no consequence of below standard performance. Administrative work is not easy, if it is done well and worse if it is done poorly!

But fortunately we in the NACAA have a wealth of colleagues from whom we can learn and benefit.

This year at our Tuesday morning session we will feature three fine presentations. Florida's Wendy Wilber will present "RECRUITING, RETAINING AND DISMISSING VOLUNTEERS". Viginia's Rachel Grosse will present "ENSURING AGRICULTURAL SUPPORT BY LOCAL AGENCIES THROUGH EDUCATION OF LOCAL CANDIDATES". And Eric Richer from the Buckeye State will tell us about "BREAKFAST ON THE FARM, AN EDUCATIONAL FARM TOUR, IMPROVES CONSUMER TRUST FOR ENVIRONMENTAL STEWARDSHIP, ANIMAL CARE, AND WATER QUALITY."

So if your administrative interests run to working with volunteers or looking out for the public relations of your unit there will be food for thought delivered by our worthy presenters.

A parting thought. One of the best administrators I ever worked under had a fondness for referring to the "extension family". I confess that at times I thought that a bit hoaky. However a recent book by Sebastian Junger, "Tribe", looks at the concept of community and our need for it though the lens of soldiers returning to civilian life. It finds that the divisiveness of modern society is just too much of a shock for men and women who have been living in the tribal closeness, interdependence and mutual support of the military life. The discussion of that book led me to reflect that as Cooperative Extension has attempted to change with the times and become more "businesslike" we have lost some of our critical sense of community. At least in my part of the world that sense of shared mission, respect and loyalty has given way to an increased emphasis on "entrepreneurship" and self aggrandizement. Maybe its time for a return to talk about the "extension family". Best wishes to you all!

Teaching & Educational Technologies

Connie Strunk

South Dakota

The Teaching and Educational Technologies Committee is excited to help members improve their skills related to the art and science of extension practice. Some of these opportunities will be taking place in Little Rock, Arkansas during the 101st National AM/PIC while some of the other opportunities will take place throughout the rest of the year. Our committee has been trying to focus on emerging and established technologies which can make all educators more efficient and effective with our teaching and extension programming.

We offered a webinar, "*Getting the Most Out of Your Mobile Device*" presented by Aaron Esser, Washington State University Extension Agronomist in the late winter/early spring. We are always looking for webinar ideas as we felt the webinar session was very successful. We also will be attempting to record the presentations offered during our educational session in Little Rock, AR. If you have any comments or feedback, we would love to hear them!

Make plans to join the Teaching and Educational Technologies Committee on Tuesday, July 26, 2016 in Little Rock, AR from 8:30 a.m. to 11:30 a.m. for our educational session. Our session will feature speakers focusing on webinars, interactive games, on-line training, diverse audiences, and a companion handbook.

Our committee is excited to share the following presentations with you:

From Start to Finish: Effective Education Using Webinars

Julie C. Robinson and Richard L. Poling, Arkansas

8:30 – 9:00 AM

Interactive Games for Adult Audiences

Julie McConnell, Florida

9:00 – 9:30 AM

WSU Extension Tree Stewards Online Training

Nicole Martini, Washington

9:30 – 10:00 AM

Teaching Diverse Audiences in the Same Classroom

Don McMoran, Washington

10:00 – 10:30 AM

Development and Evaluation of an Online Soil Sampling Course

Julie C. Robinson and Terry Kirkpatrick, Arkansas

10:30 – 11:00 AM

A Companion for the Handbook of Biological Statistics Uses R for Free Statistical Analysis

Salvatore Mangiafico, New Jersey

11:00 – 11:30 AM

State Teaching and Educational Technologies Chairs and other parties interested in teaching and educational technologies are encouraged to attend the Teaching and Educational Technologies committee meeting at this year's AM/PIC on Monday, July 25, 2016 from 1:30 – 2:30 pm. Your ideas will be useful for the development of goals for the 2016-2017 year and the 2017 AM/PIC. If you cannot attend, please share your thoughts and ideas with any of the committee members throughout the year.

The Teaching and Educational Technologies Committee consists of:

Connie L. Strunk, (SD), National Committee Chair and North Central Region Committee Vice-Chair;

Michele Bakacs, (NJ), Northeast Region Committee Vice-Chair;

Jerry Clemons, (AR), Southern Region Committee Vice-Chair;

Susan Kerr, (WA), Western Region Committee Vice-Chair

Program Recognition Council

Richard Brzozowski

Maine

The Program Recognition Council (PRC) is one of the three Councils that make up the committee structure of NACAA. The Council consists of seven committees: Communications; Search for Excellence; 4-H and Youth; Professional Excellence; Public Relations; Recognition & Awards; and Scholarship. The purpose of this council is to provide a vehicle to recognize the professionalism, performance and programs of NACAA members.

These committees help the NACAA recognize the work of its members in their respective states, regions and counties. Each year the committees review a great number of entries to determine state, regional and national winners. Each committee

has worked with dedication to make sure that NACAA members are recognized for their outstanding efforts.

The activities of this council focus on special personal recognition, presentations, programs, posters and other forms of recognition at the Annual Meeting and Professional Improvement Conference. In Little Rock, there will be a wide variety of presentations from which to choose. I encourage you to attend as many sessions as your schedule permits with the goal of learning and networking. Go out of your way at the AM/PIC to introduce yourself, meet others and to make connections. Go with the intention to identify programming ideas and methods to adapt, to use, or to pass on to Extension co-workers.

NACAA is an organization that provides a variety of ways for membership involvement. One method of involvement is through the committee structure which provides a way for members to share their time and talents for the benefit of the organization and of its members. If you have never been involved with a committee or if it's been a while, I encourage you to consider serving on a committee. Committee work is a great way to meet others, learn about our organization and share your knowledge, abilities and skills.

This has been my final year as the Chair for the Program Recognition Council. I have genuinely appreciated the support and advice I have received from NACAA leadership and many others.

I am grateful to the committee chairs, vice chairs and state chairs. Their attention to detail and extra effort are what makes this committee structure successful, thus benefiting our organization and its members.

Best wishes to all attendees for a great AM/PIC.

Communications

David Marrison

Ohio

The NACAA Communications Committee is pleased to report that Bayer Advanced has continued sponsorship of the Communications Awards Program for 2016. Their support of this awards program is very much appreciated! Our committee continued to work this year on expediting the judging of all entries in a timely fashion and developed a "Frequently Asked Question" help sheet to help state chairman answer questions from their membership.

We continue to see large numbers of entries in the fourteen communication award categories. The caliber of award entries is outstanding. Our members are producing excellent materials and are to be commended for the quality of their submissions. As a whole, the competition was very close and the quality of submitted items was top-notch. In total, we had 586 total entries were made from across the nation. Congratulations to the Florida Association for having 79 applications submitted at the state level to lead all states by a large margin. The following is a summary of the entries made in each category.

- Audio recording had 39 entries
- Published Photo and Caption had 29 entries
- Computer Generated Graphics had 38 entries
- Promotional Piece had 83 entries
- Personal Column had 76 entries
- Feature Story had 55 entries
- Individual Newsletter had 53 entries
- Team Newsletter had 32 entries
- Video Presentation had 50 entries
- Fact Sheet had 36 entries
- Publication had 45 entries
- Web Site had 49 entries
- Learning Module had 18 entries
- Bound Book had 17 entries

I am appreciative to the regional vice-chairs for the communication committee. The regional vice-chairs are: North Central Region Chair - Michelle Buchanan (Kansas), North East Region Chair Donna Coffin (Maine), Southern Region Chair – Donna Hamlin Beliech (Mississippi) and West Region Chair – Mark D. Heitstuman (Washington). I would like to thank Richard Brzozowski and Scott Hawbaker for their assistance throughout the year with questions and concerns.

Search for Excellence

Stanley McKee

Pennsylvania

The current Search for Excellence (SFE) committee is comprised of four regional vice chairs and myself. The regional vice chairs include Amy-Lynn Albertson from North Carolina, Stacey Bealmear-Jones from Arizona (Recently moved to North Carolina), Travis Harper from Missouri, and Greg Strait from Pennsylvania.

The committee held an organizational meeting by conference call in January 2016. We discussed procedures for promoting SFE entry submissions and for scoring the entries to be received. A description of the criteria was posted on the awards section of the NACAA website for consistency in judging entries. During the conference call we also confirmed the division of responsibilities regarding the SFE categories that each would lead.

They were as follows:

Consumer or Commercial Horticulture – Stacey Bealmear-Jones

Livestock Production – Travis Harper

Crop Production – Greg Strait

Young, Beginning, or Small Farmer – Amy Lynn Albertson

Forestry & Natural Resources – Travis Harper

Farm & Ranch Financial Management – Greg Strait

Farm Health and Safety – Amy-Lynn Albertson

Sustainable Agriculture – Stan McKee

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 by May 1, 2014. All the entries forwarded by the states were judged before the end of April, and National winners were notified by very early May. The number of completed entries per category was as follows:

Landscape Horticulture – 12 completed entries

Livestock Production – 13 completed entries

Crop Production – 12 completed entries

Young, Beginning, or Small Farmer/Rancher – 4 completed entries

Forestry & Natural Resources – 8 completed entries

Farm and Ranch Financial Management – 13 completed entries

Farm Health and Safety – 3 completed entries

Sustainable Agriculture – 10 completed entries

The total number of entries received was 13 less than last year, but 14 more than 2014. There is certainly an opportunity for more Members to participate by submitting entries in SFE. The entries are not difficult to prepare and submit, and the program provides a great opportunity for individual and team recognition. Our 2016 winners and finalists will be recognized during their respective SFE luncheons at the upcoming AM/PIC. The committee will continue to promote the SFE awards program, and encourage more applications next year.

The recently added Forestry and Natural Resources category again received 8 entries this year. There are still opportunities for sponsorship with this new category, and suggestions of potential sponsors would certainly be welcome.

Thanks:

Thanks to each state chair for their efforts in promoting SFE to their membership and selecting state winners.

Thanks to each regional vice chair for all their efforts to facilitate the judging of the entries and the other associated tasks of the committee.

Thanks to Program Recognition Council Chair Richard Brzozowski for his assistance and support during the year.

Thanks to the NACAA Board for their support of the Search for Excellence program.

Thanks to NACAA Executive Director, Scott Hawbaker for his support and assistance to me when questions or situations with entries arose. He was always prompt and provided exceptional follow-up.

4-H and Youth

James Jones

Oklahoma

Every time that I have the opportunity to review our membership's award and presentation applications, I am in awe of the outstanding programming efforts and programs that are being delivered. This year has been no different. There were 30 award applications from all four regions. The judging was extremely difficult and the final results were close. The same goes for the presentation applications. There were so many quality presentations applications that the committee voted unanimously to maximize the number of presentation spots so that we could get more presentations given during the AM/PIC.

I would like to encourage the membership to not only keep the outstanding applications and entries coming, but to increase them. Make the committees jobs even harder to decide who to include and who the winners should be. I thank you for the opportunity to serve as the national chair and I look forward to next year.

Professional Excellence

Keith Mickler

Georgia

In 2015 we saw the poster session go from judging all posters entered to judging only the state winners. By reducing the number of posters being judged, the judging became more equitable and less time consuming. Posters were able to be judged using a team approach with the team consisting of a member from each region.

In 2016 another key change took effect. The change involved replacing the senior author attendance/ registration requirement with the requirement that an author listed on the

poster must be in attendance and registered for the AM/PIC along with attending "meet the author's sessions."

In 2016, 141 abstracts were accepted for the AM/PIC in Little Rock with 40 entries in the Applied Research and 101 entries in Extension Education. A summary of posters and authors will be available during the poster session allowing one easy location for posters of potential interest.

Posters must be in place no later than 1:00 p.m. Sunday, July 24 through Tuesday, July 26, 2016. "Meet the Author's Poster Session" will be from 10:00 a.m. – 10:30 a.m on Monday, July 25 and Tuesday, July 26.

National, regional, and state winners will be formally announced and recognized during the poster session awards breakfast that will be held on Tuesday, July 26 starting at 6:30 a.m. Syngenta Crop Protection will sponsor the 2016 Poster Awards Breakfast.

During the awards breakfast the top three posters in each category will receive a cash award and plaque; regional and state winners will receive a certificate.

Judging criteria is found on the NACAA website for participants to consider prior to preparing their posters. Poster scores will be made available to all participants at the "Poster Session Awards Breakfast."

Current regional vice-chairs are: North Central Region, Eric Barrett; North East Region, Mike Haberland; Southern Region, Gene McAvoy; and Western Region, Mylen Bohle. The Professional Excellence committee is responsible for organizing and conducting the poster session before and during the AM/PIC. It takes a lot of dedication and work to make this happen and without the regional vice-chairs and state chairs the poster session would not be possible.

Public Relations

Paula Burke

Georgia

The Public Relations committee is responsible for conducting the Agriculture Awareness and Appreciation Awards (A4) program. The A4 program is a great way for NACAA members to highlight educational programs that demonstrate the public relations side of extension work, as well as enhance the understanding of agriculture in our communities.

The A4 program had 17 examples of outstanding quality and public relations work. There is a tremendous amount of great work that many are doing, some of which would make excellent entries in the A4 program. We challenge all of you to make an effort to enter the A4 Awards program in 2017.

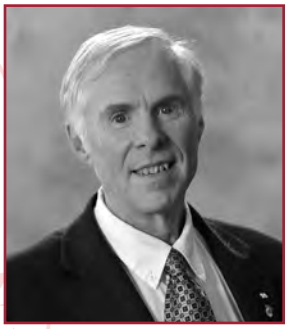
Congratulations to Norman E. Harrell, Jr. from North Carolina, who is the A4 program National winner. Norman will present his winning entry during the A4 awards recognition luncheon on the Wilson Regional Ag Summit. Congratulations also go National finalists Carol Schurman from Pennsylvania and Susan Kerr from Washington. Regional winner is Deryn Davidson from Colorado. State winners are Libby Eiholzer from New York, Julia Smith from Vermont, Frank Dowdle from Florida, Steve Pettis from Georgia, Gregory K. Drake, Jr. from Kentucky, Bill Burdine from Mississippi, and Rachel Grosse from Virginia.

A sincere thank you to all of the Public Relations Committee regional and state chairs for their commitment to the committee.

The Public Relations committee is looking forward to having entries from all of the four regions in 2017. The Public Relations committee challenges each of you to submit an entry in the NACAA awards programs especially A4.

A special thank you to NACAA Board of Directors for sponsoring the Agriculture Awareness and Appreciation Award this year. This is my final year as National Chair of the committee and I have enjoyed my time working with our Regional Chairs and reviewing all of the great programming our agents are doing across the country.

Recognition & Awards



Stephen Hadcock

New York

The committee welcomed new Vice Chairs Amber Yutzy as Northeast Vice Chair and Donna Hoffman as Western Vice Chair. Both of these ladies became quickly involved in committee work and providing input. Keith Perkins and Joni Harper have continued their service to the committee too. As the "old pros," Keith and Joni provided great leadership in their respective regions.

Making our jobs easier are the many state Recognition and Awards State Chairs. The state chairs helped to make our jobs easier this year with the cooperation and adherence to deadlines set by our committee. On behalf of the National Committee, I extend our sincere thanks to them.

On Tuesday morning, 62 Achievement Award recipients will receive their awards at a Breakfast in their honor. This is the 42nd year that NACAA has presented this award with this year's recipients joining 2,049 fellow Achievement Awards winners. The 2016 Achievement Award winners have demonstrated their ability to conduct high quality programming for their clientele, gaining the respect of co-workers for their work. Achievement Award recipients have accomplished this in less than 10 years. A special thank you goes to NACAA President

Cynthia Gregg and American Income Life's Bill Viar, who will assist with the awards presentation on Tuesday morning.

This year is the 78th year our national professional organization is presenting the Distinguished Service Award. This year's recipients will be recognized Wednesday evening at the Annual Banquet. The Distinguished Service Award will be presented to 60 NACAA members from across the country. These members were chosen by their respective states to receive one of the highest awards presented by NACAA in 2016 and join 7,211 past recipients. These DSA recipients are being recognized for providing outstanding educational programming, are respected by their clientele and co-workers, and have worked for more than ten years.

The Committee is tasked to facilitate the selection of Hall of Fame recipients each year. This is the 11th year for this prestigious award. Four outstanding Hall of Fame winners will receive their awards on Monday's general session. The recipients have been recognized with awards during for their outstanding work as an Extension Educator and for being involved in their communities. They have provided leadership for professional organizations, churches, and humanitarian service organizations. This year's inductees make one proud to be a member of NACAA.

The committee wishes to thank the Ag Pipeline Alliance for continuing the financial support for the Hall of Fame award. The committee expresses our appreciation for the continued support of the Achievement Awards Breakfast by American Income Life Insurance Company for 56 years and they have provided sponsorship for 61 years overall to NACAA programs. Altria Client Services is the sponsor of the Awards Booklet and the committee wishes to say thank you for your continued support of the Annual Banquet.

Finally, I want to express my appreciation for the honor to serve as Chair of this committee. One cannot but feel pride and the sense of accomplishment when reading the abstracts of this year's recipients. They all are entitled to this recognition and the committee is proud to do what we can to make it happen.

Scholarship

Dwane Miller

Pennsylvania

Report to the Membership – Scholarship Committee

The Scholarship Committee is charged with the responsibility of promoting the scholarship program by obtaining funds from NACAA members, friends of NACAA, and others interested in the scholarship effort. The committee works with the NACAA Educational Foundation to award scholarships for professional development to NACAA members. Primary activities include: promotion, review, and awarding of scholarships; administering the live and silent auction at the AM/PIC; and soliciting donations to the scholarship program through various means. I would like to say thank you to the members of the Scholarship Committee for their hard work during the past year: Wayne Flanary, North Central Region Vice-Chair; Sheila Gray, West Region Vice-Chair; Brian Haller, Southern Region Vice-Chair; David Handley, Northeast Region Vice-Chair; Charles Moody, Life Member Representative, and all of the state chairs. I would also like to recognize the NACAA Educational Foundation for their help and support of the scholarship program. Through their guidance and stewardship of the investments, we continue to be able to provide funding for excellent professional development activities.

The scholarship committee continues to work with state scholarship chairs to encourage donations to the scholarship program. During the period of May 16, 2015 through May 15, 2016, NACAA members and friends contributed $24,213.50 to the scholarship program. This represents an increase of over $2,786 from a year ago - thank you all for your generous support! We had another tremendously successful scholarship auction at our AM/PIC in Sioux Falls, which raised $11,746. This past year, 8 individual and 2 group scholarships were awarded for continuing education and professional development, in the amount of $12,900.

The Scholarship Committee would like to recognize the following members for reaching designated giving levels to the NACAA Scholarship Program during the period of May 16, 2015 through May 15, 2016. Certificates of appreciation will be awarded to these members during the regional meetings at the Little Rock AM/PIC:

$100-$249

North Central Region: Kapil Arora, Beth Berlin, Brad M. Carlson, Wm Bruce Clevenger, Jeffery L. Davidson, Francis John Hay, Mark A. Landefeld, Brenda Miller, Aaron J.H. Nygren, Dennis L. Patton, Randy Pryor, Brian L. Rees, Todd Whitney and Emily Wilmes

Northeast Region: Elizabeth Claypoole and Erin Frederick

Southern Region: Scott Baker, Peter L. Callan, Karen F. Carter, Robert Clark, C. Taylor Clarke, Jeff Cook, Brittany Council, Joseph E. Dillard, Debbie Dillion, Brian Freking, Brian W. Haller, Cindy M. Ham, Mary Elizabeth Henry, Robert Conway Hochmuth, John Howe, Brad Jarvis, Brian Jervis, Bruce G. Jones, Lauren Langley, Danny Lauderdale, James Wes Lee, Rodney Leech, Leland McDaniel, David Moore, Joshua B. Payne, Keith Perkins, Scott Reiter, Christopher J. Richards, Kyle Robinson, Lenny Rogers, Stephanie Romelczyk, Nicholas Simmons, Cary Sims, Glenn Slade, Carl Stafford, Will Strader, John G. Thompson, Sr., Lindy Tucker, Keegan Varner and Anita Webb

West Region: Sergio Arispe, Jeffrey E. Banks, C. Kim Chapman, Catherine H. Daniels, Aaron D. Esser, W. F. "Frank" Hendrix, and Donna Cuin Hoffman

$250-$499
North Central Region: Randy D. Saner
Northeast Region: Donna Coffin, Laurel R. Gailor, Kathryn M. Hopkins, Peter J. Nitzsche, Virginia Rosenkranz, and Julie Smith
Southern Region: Brent Allen and C.P. Chihasz

$500-$999
North Central Region: Chris L. Bruynis and Parman R. Green
Northeast Region: Robert L. Jones and Joan S. Petzen
Southern Region: James C. Cowden, Laura Griffeth and Jamie Jenkins

$1,000-$2,499
North Central Region: Neil Broadwater and Robin Salverson
Northeast Region: Paul H. Craig, Stephen E. Hadcock and Daniel Kluchinski
Southern Region: Frank L. Fitzsimons
Western Region: Janet L. Schmidt
$2,500-$4,999
Southern Region: Keith Mickler

The committee would like to remind the membership of the opportunity to submit applications for scholarships. These scholarships can be used for members' professional improvement, which can include funding advanced degrees, tours, seminars, research, or other specialized training.

- All applications are electronically completed on the NACAA website. Deadline for applications is June 1st.
- In order to be eligible for up to $1,000 in awards, members need to be vested at $40 in the scholarship program. Members need to be vested at $100 to be eligible for up to $2,000 in awards. This contribution must be made before the end of the previous year's AM/PIC to qualify (ex: contribution must be received by the end of the 2016 AM/PIC to apply for an award in 2017).
- Other criteria can be found at the NACAA website under the "Awards" tab.

Vestment in the scholarship program can occur in a variety of different ways. Here are some possibilities:

- Bring items to the silent and live auction at the AM/PIC. You receive credit for the amount the item sells for.
- Purchase tickets ($20 each) for the special cash drawing, held at the AM/PIC. Non-winning tickets receive credit for a donation to the scholarship program.
- Some states have auctions or other fundraisers in which they designate proceeds towards the NACAA Scholarship Program.
- Direct donations by individuals. You can also directly donate online with a credit card! Simply visit the NACAA website and scroll to the bottom of the page. Click on "Donate to the NACAA Educational Foundation – Scholarship"

The process of submitting applications is still continuing. All applications that have been submitted by the June 1st deadline will be reviewed by the scholarship committee at the 2016 AM/PIC in Little Rock. Please consider bringing an item or two for this year's auction, and taking a chance to win some cash!

Life Member

Tom Benton

Texas

The Life Member Team consists of Doug Warnock, Neil Broadwater, Russell Duncan and Gene Schurman who serve as Life Member Regional Chairs. I would like to extend my thanks and appreciation for the work they have done. Melvin Brees and Dave Phillips will be joining the Life Member team next year.

I am looking forward to presenting at the State Officers workshop in Little Rock to stress the importance of active life member chairs in each state to keep all life members active and informed. We must remember that our life members are retired but still are willing to help and support in many ways.

Each year the NACAA Life members who have gone before us are honored at the life member's business meeting with a memorial service. We will conduct a memorial again this year at the AM/PIC in Little Rock.

We are still seeking a Life Members program sponsor. The sponsor would have a great opportunity to interact with our membership and have a part of the program and a site in the trade show. If you know of a potential sponsor please let the committee know.

I trust that you have made plans to attend the 2016 NACAA meetings in Little Rock. A full schedule of life member activities has been planned by the Arkansas Agents and especially the Life Member Committee. Tours and activities will keep you busy. I am looking forward to seeing everyone there.

Many thanks to the NACAA board for the support given the life members. We are ready to assist you and NACAA in anyway that we can.

Journal of NACAA

Stephen Brown

Alaska

More than 30 articles from our members were published in the December 2015 and June 2016 issues of the Journal of the National Association of County Agricultural Agents. It has been truly impressive to see how many of our author's articles have been cited in other journals, national magazines and newspapers!

The journal publishes on June 1st and December 1st. Submissions must be electronically submitted by March 15th for the summer publication and September 15th for the winter edition. This means it is possible for authors to have as little as a 2 1/2 month turnaround from submission to publication! More information can be found at: nacaa.com/journal.

The purpose of the journal is to give NACAA members the opportunity to publish in a peer reviewed journal and thereby advance their credentials. Because the Journal of the NACAA does not focus exclusively on research, it is an opportunity for county-based Agents to publish articles on innovative activities, case studies or emerging opportunities. Finally, the journal is an opportunity for first time authors to gain experience and confidence in publishing.

The June 1st issue of the Journal concludes my two terms and six years as Editor. The new Editor will be Lee Stivers of Pennsylvania and we have been working closely to make the transition a seamless one. It has been a tremendous honor and I would like to thank all of the past and present National Peer Reviewers for making my tenure a successful one!

Thanks to 2015/2016 Journal of the NACAA National Peer Reviewers

Nicole Anderson – Oregon
Dr. Sergio Arispe – Oregon
Cesar Asuaje – Florida
William Bamka – New Jersey
Derek Barber – Florida
Pamela Bennett – Ohio
Dr. Jerry Bertoldo – New York
Sarah Bertrand – Louisiana
Carol Bishop – Nevada
Chris Bruynis – Ohio
Beth Burritt – Utah
Carl Cantaluppi – North Carolina
Brent Carpenter – Missouri
Dr. Gordon Carriker – Missouri
Dr. Michael Davis – Florida
Dr. Kathryn Dodge – Alaska
Wayne Flanary – Missouri
Linden Greenhalgh – Utah
Adele Harty – South Dakota
Michael Heimer – Texas
Steven Hines – Idaho
James Hoorman – Ohio
Richard Kersbergen – Maine
Dr. Susan Kerr – Washington
James Keyes – Utah
Jeremy Kichler – Georgia
Stephen Komar – New Jersey
Dr. Rocky Lemus – Mississippi
Dr. Ayanava Majumbar – Alabama
Salvatore Mangiafico – New Jersey
David Marrison – Ohio
Dr. Casey Matney – Alaska
Jeff McCutcheon – Ohio
Keith Mickler – Georgia
Dr. Charles Mitchell – Alabama
Tracy Mosley – Montana
Barbara Murphy - Maine
Kurt Nolte – Arizona
Rebekah Norman – Tennessee
John Nottingham – Maryland
Dr. Andy Overbay – Virginia
Frank Owsley – Alabama
Michael Pace – Utah
Dr. Angelique Peltier – Illinois
Chris Penrose – Ohio
Marjorie Peronto – Maine
Heidi Rader – Alaska
Cindy Sanders – Florida
Hans Schmitz – Indiana
Dr. Bill Sciarappa – New Jersey
Mary Carol Sheffield – Georgia
Dr. Bill Shockey – West Virginia
Dr. Julie Smith – Vermont
Mark Stewart – Missouri
Lee Stivers – Pennsylvania
William Strader – North Carolina
Gary Strickland – Oklahoma
Dr. Ann Swinker – Pennsylvania
Dr. Stephen Van Vleet – Washington
Richard VanVranken – New Jersey
Todd Weinmann – North Dakota
Michael Wheeler – Georgia
Tim Wilson – Florida
Jeff Wilson – Mississippi
John Wilson – Nebraska
Gary Zoubek - Nebraska

Extension Journal, Inc.

Keith Mickler

Georgia

Countless appreciation is extended to the NACAA officers and board for their longtime support of my representing our association on the Extension Journal, Inc. (EJI) board. Currently I am serving as Past-President for Extension Journal, Inc.

Journal of Extension

JOE is a scholarly, double-blind, peer-reviewed online journal representing the best of Cooperative Extension from across the nation.

All ***JOE*** submissions are peer reviewed with high editorial standards and scholarly rigor expected from all papers submitted and from the reviewers. Should your paper be published in ***JOE,*** consider that a huge achievement.

The Journal of Extension remains a rigorous, refereed journal for Extension professionals. It has over one million visitors

2015 was a barn burner of a year for *JOE*. We received 334 submissions; our all-time high and 11 submissions more than in 2014 when we tied our previous high of 323 submissions. For more on the numbers, see the February 2016 Editor's Page, "***JOE*** by the Numbers 2015" found at: http://www.joe.org/joe/2016february/ed1.php

You can also find the top 50 most read articles for 2015 at: http://www.joe.org/website-statistics/top-articles-2015.php . Tracking of the top 50 most read articles goes back to 2005.

If you are interested in being a reviewer and have **breadth** across several areas as well as **depth** of expertise, please visit ***JOE***: http://www.joe.org/about-faqs.php#rp01 . You can apply to become a *JOE* reviewer by sending the name and e-mail address of a reference who can speak to your ability to serve as a reviewer and a file containing your curriculum vitae to Robert Ricard at: robert.ricard@uconn.edu.

TIME FOR A NEW EDITOR

In late 2014 EJI president (at that time) Dr. Michelle Rodgers along with Past-President Dr. Joseph Donaldson set the pathway to find a new editor to replace the longtime *JOE* editor Dr. Laura Hoelscher who would be retiring on December 31, 2015.

A search committed was appointed with Terry Meisenbach chosen to lead the committee. The search committee consisted of Dr. Karen Cannon, Dr. Debra Maddy, Dr. Eli Sagor, and me. Over the course of nine months the search committee sought candidates for the editor position. After two rounds of interviews, very thorough screening of the candidates and references (provide and non-provided), the search committee presented their recommendation for the next *JOE* editor to the EJI board of directors.

At the September 2015 EJI board of directors meeting; Debbie Allen was appointed new editor for *JOE*, effective January 1, 2016. I encourage each of you to meet the new editor by visiting the *JOE* website at the following link: http://www.joe.org/joe/2016february/ed1.php

National Job Bank

Extension Journal, Inc.'s additional product is the National Job Bank http://jobs.joe.org/. The National Job Bank provides access to a broad range of faculty positions in teaching, research, extension and outreach along with other professional positions involving education, research and/or outreach missions.

The National Job Bank allows the job seekers free registration and accounts, quick access to employers that are ready to hire, ability to communicate to employers online, and alerts when a relevant job becomes available. Employers to search through and find key individuals for positions they wish to fill.

TIME TO FIND A NEW REPRESENTATIVE TO THE EJI BOARD

On a somewhat somber note, I will be retiring from the EJI board of directors on December 31, 2016. I have proudly represented and served as the NACAA's representative to the EJI board since January 1, 2007. I hope I represented our organization well, with poise and dignity.

Over the past 10 years I have served in the capacity of marketing chair, treasurer, and president's rotation. 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 absolutely priceless.

Serving as the NACAA representative on the EJI board has truly been an honor and privilege.

Outstanding Young Farmer

Ray Hicks

Georgia

National Outstanding Farmers of America

If you want to get reenergized, just get involved with the Outstanding Young Farmer program. I recently was awarded the Special Assignment to be the liaison between NACAA and this great program. Having been involved with this program a little with nominating two past top ten applicants I was somewhat aware of its existence. But little did I realize just how wide spread this program is. The

Outstanding Farmers of America Organization is made up of past nominees of the program. It is designed to facilitate an exchange of ideas and friendship that encourages excellence and involvement in agriculture and the local, state, and national community. There are approximately 1,500 members across the nation who utilize their connections with each other in a strong networking format to assist farmers and promote the importance of America's farming community.

The National Outstanding Young Farmers program is administered by the Outstanding Farmers of America and supported by NACAA, John Deere and the United States Junior Chamber. Applicants must be between the ages of 21 and 40, deriving a minimum of two-thirds of their income from farming. They are judged on progress in agricultural career, extent of soil and water conservation practices, and contributions to the well-being of the community, state and nation.

Seeing these young people interact and become friends is inspiring. They all come from different backgrounds but have a common cause in deriving their livelihood from agriculture. They share heartaches and triumphs alike. They listen to the older alumni and learn from them. It's like a big family.

At the 2016 60th Annual Awards Congress, 18 of the 23 nominations were made by NACAA agents which resulted in 3 of the top 4 candidates who thanked their Extension Agents for their help in getting nominated. NACAA is doing an outstanding job of recognizing these young farmers but we need to keep on encouraging these to fill out the nomination forms. The 2017 Congress will be held in Greenville, South Carolina. Applications for the program are due August 1 and be found at http://ofafraternity.org/id13.html.

I look forward in representing NACAA during my assignment. For more info please feel free to contact me at Ray Hicks, rhicks@uga.edu, (912) 682-8670.

Executive Director

Scott Hawbaker

Illinois

Another year has gone by with outstanding achievements and accomplishments by many NACAA members. Congratulations to all award winners, selected presenters, and the leadership at the state, regional and national levels. It has been my pleasure to once again work with you throughout the year, making NACAA the greatest professional improvement association for agriculture educators. A special thank you to all of the Agri-businesses who continue to show such generosity in supporting NACAA. Financial support is critical to NACAA's success in being able to offer professional development and improvement opportunities to agents/educators/specialists across the country. A special thanks to the Arkansas Association for planning an outstanding AM/PIC in Little Rock, it's been a pleasure working with you!

Poster Session

Applied Research

2016 NACAA

101st
Annual Meeting
and
Professional Improvement Conference

Little Rock, Arkansas

Western Region

POLLINATORS AND THE PUBLIC

Gray, *S.L. [1], Gwin, T. [2]

[1]Associate Professor and County Director, Washington State University Lewis County Extension, Chehalis, Washington, 98532, sgray@wsu.edu

[2]Associate Professor, Washington State University Pacific County Extension, South Bend, Washington, 98586, tgwin@wsu.edu

Pollinators are in the news almost daily. Often the headline reads no bees; no food." What does the public really know about pollinators, do they recognize pollinators or is it simply a "buzz" word?

WSU Lewis County Extension led a modest survey on public knowledge levels at various public venues (county fairs, extension workshops, school classrooms, garden clubs, food banks and online).

The survey results provide insight as to what the public understands about "popular pollinators," including bees & butterflies and the "overlooked" fly; involvement with extension or not, and whether growing flower gardens help pollinators.

Information collected from results of this endeavor will set the course for future extension outreach education programming.

2nd Place

USING CHLOROPHYLL METER AND TISSUE TESTING TO DETERMINE IN-SEASON NITROGEN NEEDS IN TIMOTHY HAY PRODUCTION

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Timothy (Phleum pratense L.) hay is the largest grass hay commodity in Washington State and the majority of hay is exported to Japan and other countries. Very little research work has been done on determining optimum nitrogen rates for this commodity or a tool for in-season adjustment of nitrogen rate.

We hypothesized that in-season nitrogen status of timothy could be assessed using a Soil Plant Analysis Development (SPAD) units or by nitrogen content of leaf samples. A calibration of these parameters would be accomplished so farmers would be able to in-season apply the nitrogen using fertigation. The SPAD meter measures how much of red light is absorbed and infrared light transmitted by the sample and gives a greenness measurement (SPAD unit). These SPAD units are compared to an over-fertilized strip in the field and relative chlorophyll units (RCM) are calculated (SPAD in question/SPAD over fertilized=RCM) averaged over at least 20 measurements. The objective of the research conducted is to calibrate the SPAD meter and tissue testing for nitrogen in timothy and determine their effectiveness.

Research was conducted at two Washington State University Experiment Stations located near Prosser, and Othello, Washington using different nitrogen rates. Results indicate that the vegetative stage (stems 6 inches in length) will be the most accurate time to assess nitrogen status using RCM and leaf tissue nitrogen content. Results also indicated that both tools RCM and tissue testing will be useful tools to predict in-season nitrogen to maximize yield and profit.

TARGETED GRAZING TO REDUCE WILDFIRE SPREAD IN SAGEBRUSH STEPPE ECOSYSTEMS

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Wildfire is a major threat to the greater sage-grouse (Centrocercus urophasianus) severely impacting key habitat every year. Although fire is a natural ecological process in these habitats, the presence of annual grasses has increased the continuity of fuels and has aided in shortening the fire return interval. Many studies have observed how fire affects plant communities at different grazing usage, but few have looked at how livestock grazing alters fire behavior in sagebrush ecosystems. Even without scientific studies, livestock grazing has been suggested as a tool to reduce fine fuel biomass and fuel continuity. This study bridges a gap in our knowledge of how livestock grazing can be used to reduce fire behavior. We created 30 paddocks (30 x 30 meters) in mountain and Wyoming big sagebrush (Artimisia tridentata) ecosystems. Cattle were used to graze at low and moderate utilization levels, 30-40% and 55-65% respectively, in the summer (June-July) and fall (September). Utilization was 60% and 31% in the Wyoming big sagebrush and 55% and 33% in the Mountain big sagebrush summer treatment paddocks. A prescribed burn was conducted across control and grazed plots in late September of 2015. Flame height, rate of spread, and burn characteristics were observed. Grazing treatment reduced fire behavior in mountain sagebrush sites.

Southern Region

ESTABLISHING FSMA WATER QUALITY PROFILES

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Poster URL: https://drive.google.com/file/d/0By1dWEn3glWoV2hWWndsTVhVRVU/view?usp=sharing

The Produce Safety Rule (PSR) under the Food Safety Modernization Act (FSMA) requires the establishment of a water quality profile (WQP) by sampling twenty times for a minimum of two years and calculating a geometric mean (GM) and a statistical threshold value (STV). To meet the water quality standard, the GM and STV should be ≤126 E. coli (2.1 log) and ≤410 (2.6 log) E. coli in 100 mL water sample, respectively. After establishing the WQP over two years, annual sampling involves the collection of five samples to determine if they support the previously defined WQP. Data on surface water metrics (e.g., GM, STV) are lacking in Virginia, as well as guidance for Virginia growers on what to do if water does not meet the new regulations. Therefore, Virginia Cooperative Extension personnel partnered to quickly address grower needs in one of the largest vegetable producing regions in Virginia. The team performed baseline sampling of surface waters on the Eastern Shore to generate WQP for growers who need to comply with the new FSMA Produce Safety Rule regulation. Data shows 17 of the 20 ponds tested meet the regulation standards (GM ≤ 126 CFU/100ml, STV ≤ 410 CFU/100ml). Additionally, the team provided "FSMA rapid response" sessions with growers to discuss how to properly test agricultural water, interpret results and calculate the WQP metrics. This applied research project between extension personnel was critical to serve our vegetable growers in the wake of these new food safety regulations.

COMPARISONS OF HERBICIDES AND APPLICATION METHODS FOR CONTROL OF HUISACHE

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Huisache (*Acacia farnesiana*) is a noxious woody species infecting pastures and rangelands throughout the Southeastern third of Texas. As a seedling, it is a one stemmed plant. When top is removed, either by mechanical means or fire, it resprouts with several stems from the bud zone. If left untreated, these prolific trees can suppress desirable vegetation and become increasingly difficult to control. Past herbicide control attempts have been either poor or unreliable. We tested Sendero® (Dow AgroSciences herbicide) alone and in combination with other herbicides through individual plant treatment methods and aerial applications in Jackson County, Texas and compared these results to protocols replicated in San Patricio and Kleberg Counties. One year post-application of individual plant treatments resulted in 60-100% control of huisache trees sprayed, with Sendero® at 1% and 1.5%. Aerial applications at 10 gallons per acre resulted in a maximum control of 40% with a three-way mix of GrazonNext HL®, Grazon P+D®, and Tordon 22K®. Results showed difficulty in providing adequate coverage of huisache leaves through aerial applications. Individual plant treatments may be best for multi-stemmed regrowth until new chemistries or further research is available.

USING DRYING TRAILERS TO REDUCE HARVEST LOSS DUE TO POD SHATTER AT WINTER CANOLA HARVEST

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Winter canola harvest loss from seed shatter has been a serious problem at harvest time for Oklahoma winter canola (*Brassica napus*) producers. Harvesting canola wet (14 to 21% moisture) and drying canola to storage moisture (8-10%) to prevent seed splits is a common practice among seed production companies. The objective of this project was to dry commercially grown canola in drying trailers to reduce harvest loss from swathing, combining, and weather which causes winter canola pods to shatter. The opportunity to put the practice of drying commercially grown canola in drying trailers arises in Caddo County, Oklahoma due to the availability of the trailers which are also used for drying peanuts. In 2014 and 2015 a total of 3 fields were harvested comparing canola swathed at 30% moisture and harvested wet (12 - 21% moisture) to swathed canola harvested dry (8 -10% and to straight cut canola (6 – 10% canola). Results varied from no increase in yield when swathed at 12% moisture up to a 17% yield increase when harvesting at 21% moisture. Moisture was tested in the drying trailers 3 times a day during the drying process. The quality of the canola was tested and no reduction in quality due to harvesting wet and drying the canola when compared to conventional harvest was found. An additional benefit was the early harvest date of the wet canola which allowed the producer to harvest canola earlier. A drying point harvest strategy was developed based on test results.

BEST BROCCOLI IN THE PIEDMONT

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MDI, a North Carolina produce distribution company, is interested in buying locally grown produce in the Piedmont. Broccoli is a primary product they are interested in. Broccoli is a highly nutritious and profitable crop for wholesale and retail markets. However, broccoli is also very difficult to grow in the Piedmont because of erratic spring temperatures.

Extension agents in Caldwell, Catawba, Davidson, Davie, Forsyth and Rowan counties partnered with the NCDA & CS Piedmont Research Station to plant six different varieties of broccoli and evaluate them for yield and marketability.

A workshop was held at the station on May 22, 2015. Market growers and homeowners from the surrounding counties were invited to learn about the results of the trial and participate in a taste test panel. Overall, the participants rated two of the varieties best for taste, color and size. In pre vs. post test evaluations, all 12 participants showed an increase in knowledge on how to grow and store broccoli. One hundred percent said that they would grow broccoli in the future. With the information gained from this trial, Extension will be able to give better variety recommendations for broccoli in the Piedmont. We also have post harvest information and can provide recommendations for growers who are trying to sell to the wholesale market.

PRICKLY SIDA CONTROL IN LOUISIANA PASTURES

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Prickly sida (*Sida spinosa* L.) is a summer annual broadleaf weed species that infests many warm-season grass pastures throughout the southeast region of the USA. It is also referred to as teaweed in many locales. The objective of this study was to compare 6 broadleaf pasture herbicides for control of prickly sida in a warm-season grass pasture. A pasture located in southeast Louisiana near Franklinton was chosen as the test site. Herbicides were applied on 22 May 2015. The herbicides evaluated included: 2,4-D @ 2 pints/A, GrazonNext @ 1.2 and 1.5 pints/A, Picloram @ 1.25 pints/A, Chaparral @ 2.5 ounces/A and Weeedmaster @ 2 pints/A. All herbicide treatments were applied using a CO_2-powered backpack sprayer with an 8 ft boom and calibrated to deliver 15 gallons per acre. Prickly sida control was evaluated 31 and 89 days after herbicide treatment (DAT). At the first evaluation date (31 DAT), all herbicide treatments provided over 80% control, with the exception of 2,4-D which provided 75% control. At the final evaluation date (89 DAT), the two GrazonNext treatments, Chaparral and Picloram provided control ranging from 57 to 68%. The 2,4-D and Weedmaster treatments both provided relatively poor control (25%). Results of this study suggest that prickly sida is a relatively difficult broadleaf weed species to control, and it is important for producers to select the appropriate herbicide that will provide acceptable control.

3rd Place

EVALUATING FUNGICIDE PROGRAMS FOR REDUCING WHITE MOLD IN PEANUTS

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White Mold (*Sclerotium rolfsii*) is considered one of the most destructive diseases in peanuts in Georgia. The disease desiccates vines and can significantly reduce yield and quality. In 2014 a fourteen acre field trial was established in Cook County, Georgia to evaluate eight fungicide programs for controlling white mold in peanuts. Treatments were replicated three times. Check included chlorothalonil only treatments. Treatments were rated for white mold as percentage of white mold hits per 600 feet of row after digging. Variability in white mold hits across the eight treatments replicated three times made statistical separation not feasible however large numerical differences were evident. Programs that included fungicides with active ingredient (A.I.) penthiopyrad, and fluxapyroxad + pyraclostrobin had the greatest control of white mold when compared to the untreated check. The same chemistries produced the greatest yields when compared to the untreated check. Products with A.I. tebuconazole had greater control of white mold when compared to the check however white mold incidences were greater when compared to other programs.

MULTI YEAR ON FARM PEANUT VARIETY EVALUATION OF HIGH OLEIC AND NON HIGH OLEIC VARIETIES IN EARLY COUNTY GA

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Peanuts have always been a mainstay for Early County's . Varieties were planted in twin rows on 36 inch centers with a seeding rate of 3.5 seed per foot on each twin. Plots were planted in a randomized complete block design with 3 replications. Each plot was six rows wide and the length of the field. Plots are harvested and evaluated for yield and economic return. Since 2007, fifteen different varieties have been evaluated. These varieties include: GA-Green, GA-03-L, GA-06-G, FLA 07, AP 3, McCloud, AT 3085, GA-Greener, TifGuard, GA-07W, GA-09B, GA-10T, GA-12Y, TUFRunner 727, and FloRun 107. Not all varieties have been evaluated since 2007 for various reasons. The number years (yrs.) evaluated and average yields (lbs./acre) for each variety are as follows: GA-Green (3) 5553, GA-03L (2) 5264, GA-06G (8) 6730, FLA

07 (4) 5780, AP-3 (1) 4724, McCloud (1) 4943, AT 3085 (2) 5472, GA-Greener (5) 6264, TifGuard (2) 5449, GA-07W (4) 6057, GA- 09B (4) 6703, GA-10T (1) 4927, GA-12Y (1) 7165, TUFRunner 727 (2) 6472, FloRun 107 (2) 6649. FLA 07, GA-09B, FloRun 107, and TUFRunner 727 are high oleic varieties that manufactures pay a premium for. There has been a high oleic variety in each trial since 2007. With the premium of $25.00 added, there was only one instance (2014) that a high oleic variety had a higher dollar value per acre than GA06G. GA09B had a dollar value of 1420.10 after the premium was added and GA06G had a dollar value of 1385.33.

DEVELOPMENT OF OPTIMAL NITROGEN APPLICATIONS FOR SELECTED ASIAN VEGETABLES

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Poster URL: http://www.slideshare.net/BonnieWellsDPM/development-of-optimal-nitrogen-applications-for-selected-asian-vegetables

Asian vegetable acreage is increasing in Florida as growers seek alternative crops to stay competitive. However, optimal fertilizer applications to increase grower returns and minimize environmental impacts have not been established for these crops. This project aims to determine optimal nitrogen (N) rates for selected Asian vegetables by evaluating the effect of N rates on crop yield and petiole nitrate levels. Field trials were established in Hastings, Florida on July 29, 2015, using bitter melon (*Momordica charantia* L.), yardlong bean, (*Vigna unguiculata* subs. *sesquipedalis*), and luffa (*Luffa cylindrica* (L.) Roem). Fertigation through drip irrigation was used to apply N rates of 50, 100, and 150 lbs per acre using an 8-0-8 liquid fertilizer to the plantings that were randomly assigned with 4 replications. Petiole nitrate levels were determined using a HORIBA LAQUA Twin nitrate meter (Model: B-741), with sap measured at flowering, early fruiting, and late fruiting. Fruit number and weight were measured at 50-89 days after planting. Petiole nitrate levels and yields were highest with 150 lb/ac N and lowest with 50 lb/ac N; however, significant yield increases were only seen with bitter melon. Luffa had a similar yield tendency but with more mixed results. Yardlong bean is an effective nitrogen fixer and did not have much difference in yields. Field evaluations will be repeated with improvements in 2016.

HIGH TUNNEL CULTIVAR TRIAL OF TOMATO IN AN ORGANIC SYSTEM FOR EARLY SPRING PRODUCTION

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Poster URL: http://santarosa.ifas.ufl.edu/wp-content/uploads/2016/02/tomato-poster-2.pdf

The purpose of high tunnel production is to modify the environment to decrease inputs and extend the growing season. Nearly zero acres were reported in 2001 for Florida production of high tunnel tomatoes (*Solanum lycopersicum*). The acreage increased to 23.43 acres as reported in a 2013 statewide survey. With the increase of production and interest in the system, the need for recommended cultivars for northwest Florida is important. Small farmers using high tunnel production of tomatoes in northwest Florida desire to begin harvest prior to the harvest of field tomatoes and to use organic or pesticide free systems. This study evaluated high tunnel production of five of the highest yielding hybrid field cultivars and 'Early Girl' in an organic system. A randomized complete block design with five replications was used with seven transplants established per plot. Fruit was harvested vine-ripe at or after the breaker stage. After harvest, cultivars were evaluated for weight and graded for local direct markets. The first month's harvest data was analyzed to determine cultivar earliness along with all of the harvest data. The statistical analysis determined that some of the cultivars outperformed 'Early Girl' in the first month, while most of the hybrid cultivars outperformed 'Early Girl' for the entirety of the trial for total weight. The cultivars performed very well in the high tunnel organic system and compare favorably to standard conventional field yields of tomatoes. These cultivars can now be used on a trial basis for small farmers in northwest Florida.

2016 IRRIGATION EFFICIENCY STUDIES IN ARKANSAS COUNTY

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For many decades farmers have known that water conservation would become an issue one day and that day is now. In some parts of the county groundwater is cost prohibitive to pump and surface water supplies, reservoirs, are being stretched to the breaking point in hot, dry summers. Irrigation education is now viewed as a top priority by many producers. To address this water conservation need many things have been done. Some producers have been building more reservoirs and utilizing tail water recovery systems to keep all the water on the farm. The next step is to increase our irrigation efficiency by conducting demonstrations on the farm utilizing multiple irrigation conservation practices such as the use of a surge valves which can increase water infiltration. To monitor how efficient the irrigation was we utilized soil moisture sensors set in the ground at 6, 12, 18 and 30 inches. Data was relayed every 20 minutes through a cellular modem allowing us to view the status of the soil moisture on our smart

phones and tablets 24 hours a day. By utilizing control fields, fields that the farmer watered like he always has, we were able to compare practices and show that we can increase the irrigation efficiency, use less water and sometimes increase yield in the process. This data along with field economics will be used to educate growers and the industry on innovative new ways to irrigate row crops in the county.

COUNTY EXTENSION AGENT TRANSFER IN THE DELTA AREA OF ARKANSAS

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Due to the mobility of agriculture, county Extension Agents have discovered relocation rewarding. Personal as well as professional reasons have an influence on this movement. To find the reasons behind these moves, a survey was taken from Agents in the Delta of Arkansas. The survey recorded the "perceptions" of co-workers from both the original location as well as the transferred location . The survey showed that 55% of the transfer occurred in the first 5 years work span while only 30% transferred after 15 years. This shows more movement among newer agents than older agents. 75% of the transfers were positive to agents in the Delta area. A major finding was that 10% of the transfers were for financial reasons, even though 40% of the respondents stated they had an economic incentive to transfer. Transfer was generally easy for agents. On a scale of 1-5 for difficulty, they stated the difficulty level on average was 1.41. The perceived attitude of coworkers from where agents transferred was supportive (50%) and happy where they transferred to (55%). A fact that came to light was that 95% of transfers came from in state. This shows that out of the state might be a market for new experienced agents in the Delta of Arkansas.

EFFECT OF FEED-THROUGH HORN FLY CONTROL MINERAL CONTAINING (S)-METHOPRENE ON IMPORTED FIRE ANT IN CATTLE PASTURES

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Anecdotal reports from farmers using (S)-methoprene feed-through horn fly control measures in cattle pastures include references to incredible control of imported fire ants as a side benefit. This story has been repeated by several Alabama farmers using Altosid® protein and mineral products fed free-choice to cattle with some reporting "eradication" of fire ants from their pastures. To test this claim a trial was designed in which an Altosid® feed-through mineral was provided to five groups of cattle on five separate farms in Calhoun County, Alabama for the period of two consecutive horn fly seasons. Two additional groups of cattle on two separate farms were fed free choice mineral that did not contain (S)-methoprene as a control measurement. Live mound counts were recorded in three ¼-acre circles randomly selected in each of the seven pastures. One month following the initial introduction of (S)-methoprene treated mineral there appeared to be an uncharacteristic and significant drop in live mounds with control being 25.96% vs 0.67% for the treated and untreated pastures, respectively. However, this difference did not occur on all remaining data collections as live mound counts and percent control remained similar for both treated and untreated pastures over the entire two-year study period.

Northeast Region

SEASONAL VEGETABLE VARIETY TRIALS

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West Virginia Agriculture products total $1.036 Billion Dollars, but vegetable production only makes up less than $100 Million leaving a lot of room for horticultural expansion. When the local markets are growing every day, it is important that producers find their niche markets to maximize sales and production. West Virginia is challenged with a shorter growing season, so producers are taking advantage of extending their seasons through high tunnel production. WVU Extension has been working on vegetable production trials inside and outside of high tunnels to help determine the types of vegetable that should be grown, and in what manner. Two of these vegetable trials that took place covered cucumber and Brussel sprout production. The Brussel sprouts were planted in two different parts of the state to evaluate 14 different varieties of Brussel Sprouts evaluating plant yield (number of marketable sprouts and unmarketable sprouts), sprouts circumference, sprouts weight per plant, and plant height. The Brussel Sprout trials had three reps and two locations. One trial was located in the mid-western region and the second trial located in the northern region. Similar research trials were conducted with selections of cucumbers to evaluate plant yields, weights, average lengths, and marketability for local produce. Seven varieties were evaluated over two reps in two different locations in West Virginia. This information will allow producers to pick a variety of Brussel Sprouts and or cucumbers that meets their production plan.

STRAW BALE GARDENS: VOLUNTEERS RESEARCH GARDEN FAD

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The practice of gardening in straw bales is promoted as a way to produce crops in a small area with minimal labor. Many

books have been written on the subject, but a search of online journal databases shows that little to no research has been conducted to test the effectiveness or efficiency of the process. This project engaged volunteers in testing the practice using tomatoes and sweet potatoes as test crops. Ten volunteers were given four straw bales each and the materials in which to prepare the bales for planting. Each volunteer also repeated the planting in their own traditional gardening spaces. The volunteers recorded variable production returns, with the majority reporting lower yields than compared to traditional garden plots. Survey data from participants also included high water usage, pest and weed issues, dissatisfaction with the lengthy preparation process, and foul odors. Most participants indicated that they would not incorporate the practice into their own gardening spaces in the future.

Regional Winner

ABSCISIC ACID (ABA) AND GIBBERELLIC ACID (GA3) IMPACTS CLUSTER ARCHITECTURE OF WINE GRAPE CV. 'CHARDONNAY' IN SOUTHERN NEW JERSEY

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Poster URL: https://www.slideshare.net/secret/CRNXgWJV2mVhyc

Plant growth regulators (PGRs) could provide an economical method to reduce the incidence of bunch rots in tight clustered varieties of wine grapes. A trial was conducted to study the efficacy of Abscisic Acid (ABA) and Gibberellic Acid (GA_3) on cluster loosening in Vitis vinifera cv. 'Chardonnay' at Rutgers Agricultural Research and Extension Center in southern New Jersey. Treatments comprised of un-treated control, 100 ppm ABA applied once (80-90% bloom), 100 ppm ABA applied twice (80-90% bloom and 3 d later), 200 ppm ABA applied once (80-90% bloom), 200 ppm ABA applied twice (80-90% bloom and 3 d later) and 4% GA_3 applied once (pre-bloom). A randomized complete block experimental design was employed with five blocks of six treatments. At harvest cluster looseness of whole clusters, percentage of normal and number of shot berries, and rachis length were evaluated. The untreated control had the tightest while GA_3-treated vines had the loosest clusters. Rate and number of ABA applications loosened clusters at varying levels. However, neither of the PGRs significantly affected length of main rachis. Percent normal berries and reduction of shot berries was greater in ABA-treated vines when applied twice and at the higher rate. There were some small but fully matured berries in clusters of GA_3-treated vines which may have increased the cluster looseness.

INVESTIGATION OF BREEDING SITE SELECTION PREFERENCES OF AEDES AND CULEX MOSQUITOES USING AQUATIC PLANT INFUSED WATER SAMPLES

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Poster URL:http://morris.njaes.rutgers.edu/environment/Aquatic%20invasive%20species/RectorNitzsche%20poster%203_15_16.pdf

Aquatic Invasive Species (AIS) often create dense vegetative mats that create stagnant waters. A link between AIS and the preferential breeding site selection of mosquitoes has often been inferred. Certain native aquatic plants such as elodea (Elodea canandensis) or American white water lily (Nymphaea odorata) can also create dense vegetative mats. Knowledge of whether stagnant water with AIS is more attractive than native plants species to gravid female mosquitoes seeking a breeding site would be helpful to mosquito control agents. Plant infusions of native plants (elodea and water lily) and invasive plants (hydrilla and water lettuce) were used in ovitraps and gravid traps to investigate breeding site selection preferences of Aedes and Culex mosquito species and compared to a control of tap water. The ovitraps captured a total of 780 eggs of Aedes species, however there was no significant difference in egg numbers between the plant infusions or the control. The gravid traps captured a total of 4,789 Culex mosquitoes and the control captured significantly less mosquitoes than the plant infusions. The number of Culex mosquitoes in the traps of elodea infusion was significantly less than the hydrilla infusion. The results indicate that plant species may play some role in breeding site selection preference of certain mosquito species.

DEEP SOIL NUTRIENTS NEGLECTED RESOURCE FOR PROFITABILITY AND ENVIRONMENTAL STEWARDSHIP

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This study investigated the pool of soluble Nitrogen deep in the soil, which may represent an opportunity to reduce N pollution and increase farm profitability. Early planted radish cover crops may be capable of capturing N in the fall and releasing it in the spring. This experiment quantified N uptake, measured the effect of radish on the nitrate concentration in leaching water over winter, and studied the effect of aerial seeding with and without using irrigation for establishment of radish. Residual Nitrogen in the soil after corn harvest

was found to be 250 – 500 lbs./acre in the top 7-foot of soil. Irrigating a half-inch after aerial seeding increased fall dry matter 1.5x to over 4x compared to no irrigation. The radishes reduced the nitrogen in the entire upper 5-foot of the soil profile. The nutrients taken up were in the leaves and root, which was released in the spring on the surface and top foot of soil.

MARYLAND EASTERN SHORE AGRICULTURE NEEDS ASSESSMENT

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The University of Maryland Extension (UME) conducted an agricultural needs assessment for the nine counties on the Eastern Shore of Maryland in 2015. This assessment was designed to assist UME in three areas which include: understanding issues concerning Eastern Shore agriculture, identifying educational needs and focusing UME agricultural training resources.

The research was conducted in 2015 and included four sections 1) industry priorities, concerns and viability, 2) research and education needs, 3) education and training preferences and 4) demographic and farm information. Results were received from 295 farmers through paper or online survey with a 28% response rate. The results for gender, ethnicity, race and age is consistent with data from the 2012 Agriculture Census.

Results from industry priorities and viability were predominately related to regulatory, legislative and production topics. Major farm concerns include farm transfer to the next generation and loss of farmland due to urban encroachment. Industry concerns include agriculture maintaining its viability and profitability in years to come and the public image of agriculture.

Survey respondents were asked about desired knowledge, education and training they would like to receive as well as educational preferences. Priority services would be the interpretation and assistance with agricultural regulations, research data from field and variety trials and on farm consulting. Moving forward UME will continue to analyze the data and prepare a plan to respond to the requests and to meet the needs of farmers and landowners in the nine Eastern Shore counties.

EXPLORATORY STUDY TO IDENTIFY BUSINESS INTEREST IN LOCAL FOODS IN THE SOMERSET COUNTY REGION

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This exploratory study in Somerset County, Maine researched the local food expenditures of businesses appealing to the rafting, ski, and hiking tourists in the Kennebec Valley region. The factors that influenced local food purchase decisions including: desired use of local foods, types of produce and quantities demanded by buyers, and preferred time of year were explored. Other requirements including: quality of product, food safety certification requirements, price, client preference, and consistency were investigated as well. The research was conducted qualitatively using in-person interview techniques. The local food questionnaire contained twelve questions about local food use and preferences. The questions were open-ended and allowed interviewees to offer their opinions on the feasibility of using local foods at their business. One surprising finding was that the definition of local food was broadly diverse. The majority of businesses expressed a desire to purchase more locally raised foods and this study explored the barriers to doing so.

MAINE CORN SILAGE HYBRID PERFORMANCE TRIALS, 2007 – 2015

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Corn (*Zea mays*) silage hybrid performance trials were conducted at one of two commercial farms in central Maine from 2007 – 2015. Thirty to forty-three hybrids chosen by local seed dealers were evaluated each year. Relative maturities (RM) ranged from 60 to 115 days. Plots were harvested close to a killing frost and in concurrence with harvest appropriate for the region. In six of the nine years, there was a significant, positive linear relationship between yield (corrected to 30% dry matter (DM)) and RM. This increase ranged from 0.97 – 1.9 tons/acre per 10 days longer maturity. In five of seven years, there was a significant positive linear relationship between expected milk yield per acre and RM. This increase ranged from 91 to 3280 pounds per acre. The data were variable, with these linear relationships having r^2 from 0.02 to 0.394. In all years, at least one early- or mid-season hybrid had one of the top yields, and DM decreased as RM increased. In five of the nine years, more than one-third of the hybrids were harvested at lower than optimum DM, which can lead to improper fermentation and losses in storage. The data indicate that earlier-maturing hybrids can yield well in a cooler or shorter season and can decrease production risk associated with poor weather. Earlier harvest can also allow for cover crop establishment and a more sustainable crop rotation. Hybrid performance data helps farmers choose hybrids that yield high potential milk per acre.

UNIVERSITY OF MAINE STRAWBERRY CULTIVAR TRIALS: KEEPING BERRIES PROFITABLE FOR LOCAL FARMS

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Growing strawberries in Maine is a challenging, but potentially rewarding venture for our small farmers. Selecting strawberry varieties that will preform well under the short growing season and cold winter conditions of Maine's climate, in addition to satisfying local consumer demand for quality and quantity, can be a difficult and critical decision for farmers. For more than 30 years, the University of Maine Cooperative Extension has helped farmers make appropriate plant selections through our strawberry variety evaluation program. At Highmoor Farm, the University of Maine's Fruit and Vegetable Research Facility, strawberry variety trials are developed by Extension Specialists in cooperation with the Maine Vegetable & Small Fruit Growers Association, and regional, national and international berry breeders and nurseries. New trials of 10 to 20 selections are planted every three to five years, and are evaluated for yield, quality, hardiness and pest resistance. Trial results are shared with farmers, Extension Agents, and nurseries. State and regional strawberry variety recommendations are developed based on trial results and shared through presentations, field days, fact sheets, web pages and journal articles. Grower surveys indicate that Extension is a primary source of information for determining which strawberry varieties they grow. The impact of this program is reflected in the relative stability and growth of the local strawberry industry, which suggests that this crop will continue to be profitable for local farmers.

North Central Region

CHILLING REQUIREMENT OF LOWBUSH BLUEBERRY

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Lowbush blueberry *(Vaccinium angustifolium)* is a woody shrub native to eastern North America and harvested commercially in Maine, Quebec, and the Canadian Maritimes. Lowbush blueberry fields are unique because they are not planted with known varieties, but rather populate from existing wild plants. This results in a genetically diverse field with no known phenotypic data available to select for clones that are frost hardy. The goal of this research was to identify the variation in chilling requirement present in lowbush blueberry clones from the Downeast region of Maine in natural and artificial growth conditions. Stems containing flower buds were collected from 10 field grown clones in October of 2011-2014 following leaf drop. A 0.5m^2 sod was removed from each clone and moved to cold storage (~4C) with artificial light replicating day length. Temperature data loggers were placed in the field and in cold storage to record the time of exposure to chilling hours (0-7C). Three stems were cut from each clone in the field and cold storage every 14 days at the soil surface and transferred to glass beaker with water in a growth chamber at 23C. Following a 21-day incubation the stems were removed and the stage of development was recorded. Stems containing 50% or more buds at stage 4 or greater were considered to have met their chilling requirement. Significant differences ($p \leq 0.001$) in chilling hours were observed between clones with 376 chilling hours separating the lowest chilling requirement from the highest (515 and 891, respectively).

EVALUATING UREA NITROGEN LOSSES IN STOCKPILED FORAGES

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Orchardgrass (*Dactylis glomerata*) is a palatable grass most species of livestock readily consume. To increase growth and extend the grazing season, paddocks are stockpiled with orchardgrass using nitrogen fertilizer. This is a practical option for Ohio producers since orchardgrass is already present in many pastures and hay fields. In 2015, a replicated study using granular urea on orchardgrass was conducted. The purpose of the study was to determine the effects that additives had on nitrogen (N) usage by forages, when applied in the form of urea during hot/dry summer months. The study was initiated August 3, 2015 and harvested on December 2, 2015. Treatments consisted of: no treatment (control); urea at a rate of 46 lbs. of N per acre; urea plus Agrotain® (46 lbs. of N per acre with Agrotain® at the labeled rate per ton); and urea plus NutriSphere-N® (46 lbs. of N per acre with NutriSphere-N® at the labeled rate per ton). There was a significant increase ($P<.05$) in crude protein (CP) content when Agrotain was used. The treatment with NutriSphere-N® was 12.54% while the treatment with Agrotain® was 14.58%. The control was 13.16% and urea treatment was 13.15%. There was no significant difference ($P<.05$) in quantity of dry matter (DM) produced. Average DM content of the control was 1630 lbs. per acre and treatments ranged from 1899 to 2141 lbs. of DM per acre. Producers should always consider cost of applying N compared to purchasing hay. In most situations stockpiling with urea is a viable option.

EVALUATION OF A NATURAL GROWTH PROMOTER AMAFERM FOR LAMB FINISHING

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Natural growth promoters may enhance forage digestion and benefit livestock producers as the use of antibiotics and growth promoters are under public scrutiny. Amaferm, described as a prebiotic by (Biozyme Inc., St. Joseph, Mo), a patented natural fermentation extract of mold Aspergillus oryzae, and has been shown to increase growth and performance of lambs (Bard et al., 2006). In this project, lamb rate of gain and feed conversion were evaluated utilizing a pelleted finish ration (dry distillers grain base) with/without Amaferm Digest More Pellets (AMAF), (top dressed once daily at morning feeding). Lambs were randomly assigned to four replicates of each feeding group and evenly sorted to pens of five wethers. Lambs fed Amaferm experienced a higher rate of gain and feed conversion than lambs not receiving Amaferm. AMAF is currently locally priced (2016) at approximately $78 per fifty pound bag. Lambs fed .25 oz/day AMAF or a total of 18 ounces over 72 days resulting in an additional feed cost of $1.75 per lamb. AMAF lambs weighed on average 6.35 pounds more after 72 feeding days. Although these lambs had a slightly higher feed cost of $43.61/hd compared to $40.60/hd, the additional gain at $1.70 per pound resulted in an average $7.78/hd net revenue increase for AMAF fed lambs.

USE AND BUYING PATTERNS OF ETHNIC VEGETABLE CROPS BY THE REFUGEE POPULATION IN CLEVELAND, OH

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Each year, the State of Ohio welcomes thousands of refugees and immigrants from all over the world. In response to the need to help new arrivals acclimate and gain marketable job skills, the Refugee Agricultural Empowerment Program (REAP) was created and is managed by Refugee Response in Cleveland, Ohio. Ohio State University Extension and Refugee Response are partnering via an Ohio Department of Agriculture Specialty Block Grant to expand the production and use of ethnic specialty crops. One objective of the project is to conduct an environmental scan to determine market interest of several vegetable crops that have shown promise in Northeast Ohio and examine buying practices of the refugee and immigrant population associated with Refugee Response. A survey document was developed by the Extension Educator and Refugee Response Farm manager. The survey was piloted by the Refugee Response within the organization. After revisions, the survey was then administered by two resettlement groups, Catholic Charities and US Together, Inc. A total of 25 responses were collected. Results of the survey showed that 65% of the respondents currently shop for ethnic specialty crops at farmer's markets. 100% stated that they would purchase locally-produced ethnic crops if they were available. The respondents listed several other crops such as specialty eggplants and basil, which they would purchase if they were available. Survey results suggest that there may bei nterest for several ethnic specialty crops among the refugee and immigrant population in Cleveland, Ohio.

YIELD RESPONSE TO NITROGEN RATE FOR SOFT RED WINTER WHEAT IN SOUTHWESTERN 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 into the environment. Few nitrogen rate studies have been completed for southwestern Ohio. The objective of this study was to determine the nitrogen rate for optimal yields of soft red winter wheat in southwestern Ohio. Seed Consultants 1342, a medium-maturity variety, was established in the fall of 2014 on the OARDC Western Research Station near South Charleston, Ohio. Eight nitrogen rate treatments were applied as urea-ammonium nitrate between greenup and early stem elongation: 0, 40, 60, 80, 100, 120, 140, and 160 pounds per acre. All treatments received 20 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, spike number, and flag leaf nitrogen uptake were measured for each plot. Yields were 61.3, 65.8, 76.0, 85.8, 85.6, 82.9, 85.9, and 86.7 bushels per acre for the 0, 40, 60, 80, 100, 120, 140, and 160 nitrogen rate, respectively. Grain yield significantly increased ($P<0.01$) with larger nitrogen rates until the 80 pound per acre nitrogen rate. Yields were similar for the treatments larger than 80 pounds per acre nitrogen rate. Results from this study would suggest minimal yield benefits above the 80 pound per acre nitrogen rate. An optimal nitrogen rate would exist between the 60 and 80 pound per acre nitrogen rate for this year at this location.

Regional Winner

CORN YIELD RESPONSE TO STARTER FERTILIZER IN NORTH DAKOTA

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North Dakota State University (NDSU) recommends the use of phosphorus (P) starter fertilizer for optimizing corn grain yield. The recommendation primarily is based on university data from the Midwest, including limited North Dakota research. Dryland field trials were conducted from 2007 through 2015 at the NDSU Carrington Research

Extension Center on loam soil, generally testing medium or less for P, to examine corn yield response to selected starter 10-34-0 liquid fertilizer application methods. Experimental design was a randomized complete block with four replications. Best management practices based on NDSU recommendations were used for corn production including P fertilizer application rates. The standard starter fertilizer treatments were 10-34-0 applied in a 2- by 0-inch band (2 inches horizontally placed from planted seed) or in-furrow (directly placed with planted seed). Averaged across multiple years, yield increased with banded 10-34-0 compared to broadcast application or the untreated check. Also, yield response tended to be greater with banded fertilizer on low- versus medium-P soils. Yield was similar with banded and in-furrow applied 10-34-0. Yield improved with 6- versus 3-gpa of in-furrow applied 10-34-0. Averaged over two years, yield tended to be greater with split rate application of 10-34-0 as a band plus in-furrow versus only band application at the full rate. Also, at similar P rates, in-furrow applied 10-34-0 tended to provide greater yield than the low-salt fertilizer 6-24-6.

SOYBEAN (GLYCINE MAX) GROWTH AND YIELD RESPONSES TO EARLY SEASON APPLICATION OF GIBBERELLIC ACID

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Gibberellic acid (GA3) was applied to soybeans (*Glycine max*) at unifoliate, first trifoliate leaf or both stages of development to determine the potential benefit of this chemistry. Plant growth data were collected at regular intervals throughout the growing season. Internode lengths, and percent branching of unifoliate nodes were noted to be significantly effected with sequential applications. Increases in unifoliate node branching contributed to significantly more pods/plant at harvest (*~20/plant, P<0.001*). Differences in pods/plant were not noted in single applications treatments. Yields due to sequential applications were not significantly different and did not correspond with pod counts noted in August, although more pods numbers at harvest were still documented. Yields were affected by soil environment/fertility levels, with sequential applications of gibberellic acid resulting in reduced yield at a low fertility site, while a large increase (12%) was noted in a high yield environment. A single application of gibberellic acid at first trifoliate leaf resulted in a highly signficant yield increase (17%, P<0.0001) in the lone experiment involving large plots that were combined, although pod numbers/plant were similar.

EVALUATION OF PRODUCER INTERESTS AND CONCERNS FOR COVER CROP PRODUCTION

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As soil and water conservation continues to be an important issue in modern agriculture, growers face the challenges of conserving these natural resources while maintaining high productivity. Cover crops continue to be one of the best options for conservation and improved soil health, thus increasing productivity. With the benefits associated with cover crops, why are growers still hesitant to include this practice in their yearly management strategies? Producers were surveyed to get a better understanding of opportunities and challenges faced by cover crop growers throughout the region. They were also asked what type of information is needed to help them with cover crop decisions and management. The goal was to identify cover crop needs among producers across the north central United States. Over 700 survey results were collected, showing differences in interests among producers depending on location and cropping system. Producers indicated their main reasons for planting cover crops were soil health, erosion control, and nutrient management. The major challenges of growing cover crops were identified as timing of planting/termination, cost of seed, and increased management. Cover crop expense, timing of planting, and rotation concerns were the main reasons for not using cover crops. Further information on cover crops is needed in the areas of cover crop economics, benefits, and its role in current crop rotations.

SOIL HEALTH FOR IMPROVED FOOD SECURITIES: NATURAL ECOSYSTEMS, ROW CROP AND LIVESTOCK PRODUCTION FUNCTION

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Recent environmental and ecological awareness has resulted in long term consideration of soil and not simply as a

medium for root biological growth and livestock production. In order to meet the expected growing world population and subsequent food production demands producers are forced to reevaluate traditional management systems in order to maintain profitability as well as ecological and social sustainability. Ecosystems that maximize soil organic matter and good soil structure maintain high soil biological functioning, soil health and plant growth. Natural ecosystems such as prairies are valuable benchmarks for developing sustainable crop and soil management practices. Soil biological properties critical for successful ecosystem functioning and optimum soil health include microbial diversity and soil carbon content and quality. Soil microbial diversity may be the most valuable property of any ecosystem because high diversity provides a greater range of pathways for primary production and ecological processes (i.e., nutrient cycling). Management during reconstruction of native prairie ecosystems is aimed at increasing microbial diversity and soil health often on sites that have been subjected to long-term intensive cultivation resulting in deteriorated soil conditions. Soil health assessment models used during establishment of perennial ecosystems serve as a basis for monitoring and developing environmentally responsible management systems. Soil health status determined in prairie ecosystems thereby serves as a valuable reference to guide restoration of soil biological function, plant productivity and environmental quality. Benchmarks can be utilized in evaluating production systems and comparing baseline data for row crop and animal impact on soil health.

EVALUATION OF THE HANEY TEST AS A MEASURE OF SOIL HEALTH AND AS A TOOL IN DEVELOPING SOIL FERTILITY GUIDELINES IN LONG-TERM TILLAGE SYSTEMS

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The Haney Test has been used as a tool to measure biological and chemical indicators of soil health. Although results from the Haney Test include estimated available N, P, and K in the soil, correlation and calibration research has not been conducted on a significant scale in Minnesota to aid farmers in using results to help determine fertilizer needs for a crop. Little is also known if test results are influenced by tillage system. This project was initiated to evaluate 1) the impact of long-term tillage systems on soil health indicators measured by the Haney Test, 2) compare results from the Haney Test for available N, P, and K to standard soil test results, and 3) compare fertilizer guidelines generated from the Haney test for N, P, and K to University of Minnesota soil fertility guidelines. Soil samples were collected in 2015 at three sampling dates (6/1, 7/14, and 10/14) from long-term tillage plots (established in 2007) arranged in a RCBD with four replications. Tillage systems evaluated included strip-tillage (ST), moldboard plow (MP), and a disk/rip (RIP) system. Corn had been planted continuously since 2007 until 2015 when soybeans were planted. Little difference was found among tillage systems in soil health indicators across all sampling dates. Differences were observed in available nutrient levels and fertilizer guidelines between the Haney Test and standard soil testing procedures, particularly at the spring sampling date where the Haney Test resulted in higher recommended nitrogen applications than standard soil testing procedures.

Poster Session

Extension Education

2016 NACAA

101st
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Professional Improvement Conference

Little Rock, Arkansas

Western Region

SOIL TEST KITS AS A TEACHING TOOL

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Soil test kits can be a valuable and fun teaching tool for horticulture classes. In addition, they can be used with clientele in the field to quickly assess basic soil nutrient levels. They are relatively affordable and most kits come with enough supplies to conduct multiple tests. I purchased five soil test kits from different manufacturers and evaluated them for both ease of use and accuracy. All kits can be used to test for nitrogen, phosphorus, potassium, and pH by adding reagents to a mixture of soil and water and matching the change in color to the charts provided. The kits used for this project are available at many garden centers and online retailers and cost less than $30 each. To expand the kits for use with large groups, inexpensive and readily available materials like drinking straws and medicine cups were used. By using, evaluating, and expanding several soil test kits, I developed a set of tools and protocols that work well in both the classroom and the field.

Regional Winner

TEACHING DIVERSE AUDIENCES IN THE SAME CLASSROOM

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Poster URL: http://ext100.wsu.edu/skagit/wp-content/uploads/sites/5/2014/02/Teaching-Diverse-Audiences-in-the-Same-Classroom-Poster-NACAA-20164.pdf

Abstract

Extension serves an increasingly diverse community with a number of program participants who are new farmers, minority farmers and low income farmers. Since the 1980s, Skagit County Extension has provided a tractor safety course to young adult farmers, ages 12 to 15. In 2008, several retired females inquired about learning how to operate farm machinery. In 2009, adults were allowed to join the WSU Skagit County Extension Gearing Up for Safety course. Early in 2010, a non-profit farm incubator showed interest in having their members participate in the Extension's farm safety course. This introduced new adult farmers and Hispanic farmers to a classroom of young adults. Meeting the needs of these distinct farming cohorts in a single classroom requires a multimodal approach replicable in other Extension education programs. The following poster contains the results of the 2012, 2013 and 2015 WSU Skagit County Extension Gearing Up for Safety Program.

THE WASHINGTON STATE UNIVERSITY G-TEAM: CONNECTING EXTENSION PUBLICATIONS WITH STATEWIDE GARDENING NEEDS

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In 2011, Washington State University faculty with horticultural outreach responsibilities united to form a team to better address the needs of our State-wide gardening community. The goals of this G-Team were numerous with at least two key objectives: 1) determine the needs of the gardening community (through the WSU Master Gardener Volunteer Program) and 2) produce Extension publications that garner institutional credit for author efforts. Key to our success was to assemble several multi-disciplinary committees that periodically participated in face-to-face meetings and conference calls to discuss and identify current issues and horticultural needs of our clientele. An overriding task of the G-Team was to create a State-wide web presence with content to meet our community needs and publish scientifically defensible, non-biased material related to horticulture, turfgrass and gardening in Washington State. To date, G-Team output has resulted in 69 Home Garden series manuscripts either in peer review or published during 2012 – 2015, with an additional 14 in preparation. This compares to just four Home Garden series publications created during 2009 – 2011, from the same group of faculty.

RUSSIAN OLIVE CONTROL EDUCATION PROGRAM IN UTAH

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Russian olive (*Elaeagnus angustifolia*) is a thorny tree that displaces native riparian vegetation, limits grazing and damages farm equipment. Carbon and Emery Counties declared Russian olive a noxious weed, and Emery County set a goal of eradicating Russian olive along the San Rafael River and its tributaries. Because of local concerns, the authors initiated research on Russian olive control in October, 2005 and have done plot work nearly every month since. Demonstration plots were established in Price, Castle Dale and Green River, Utah so clients can see control options firsthand. The

authors published four fact sheets and produced two videos on Russian olive control, and taught multiple classes on that topic every year. For example, from March, 2015 to March, 2016 the authors taught a total of eleven classes, workshops and tours on Russian olive control attended by 330 persons. Emery County Weed Crews and landowners used treatment methods researched and taught by Extension to eradicate Russian olives along the entire length of the San Rafael River (90 miles). Eradication efforts continue along San Rafael tributaries and on the Price River and its tributaries in Carbon County. In response to local efforts to control Russian olive, the Natural Resources Conservation Service obtained $300,000 to help landowners eliminate Russian olives from pastures and cropland. The NRCS has Extension teach control methods to landowners who receive funding.

THE URBAN RESEARCH CENTER IN SOUTHERN NEVADA

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An urban research center is a unique idea, one that can benefit both urban and rural agricultural communities. The center began over 20 years ago as a collaborative effort among the city of North Las Vegas, the University of Nevada Las Vegas and the University of Nevada Cooperative Extension. The center has concentrated on testing various cultivars of deciduous fruit trees and vines for the desert climate. Hands-on classes are taught to the public. New fruit varieties are selected each year and added to the orchard and vineyard. Outreach was made to farmers' markets, chefs, and breweries for use of products. Over the past few years, changes in leadership of Extension at all levels have improved the direction of research and teaching at the center.

As the center continues to develop new avenues for research and teaching projects, such as testing of new grapevine rootstocks (new USDA grant) and hops. A major goal of the center is to test new crops that can be grown on small urban farms (a third of an acre to 3 acres). New crops being tested this fall include pumpkins and sweet potatoes. We are extending our educational outreach more into the community. The goal of this center is to continue bringing research-based sustainable crop production concepts and methods to both urban and rural communities for sustainable crop production in southern Nevada.

MANAGEMENT OF VOLES IN IDAHO CROPS AND LANDSCAPES

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Poster URL: https://www.slideshare.net/secret/gUVt2WJqnmrr5V

Vole populations in Southern Idaho experienced a significant peak in 2009-10. Following 2010, populations declined. However, in 2014-15, vole populations increased dramatically with more reported crop losses than in 2009-10. Extension educators and specialists estimated average losses due to increased vole pressure at 30-50% and higher in crop and rangeland. An Idaho producer tracked voles using a GIS/GPS mapping app and reported vole numbers of 200 and more per acre. In extreme cases, producers experienced over 50% crop losses and removed fields from production. Crop loss estimations exceed a million dollars. Increased vole populations significantly reduced yields in rangeland, alfalfa, pastures, and other agricultural crops. Homeowners and gardeners experienced significant vole damage in lawns, gardens, and small acreage orchards. If current climatic and management trends continue, populations will continue to increase. Knowledge and implementation of an integrated vole management program has become necessary to decrease damage to crops, pastures, lawns, and gardens. To address this significant problem, we collected information on vole biology and management techniques from literature and field observations. We informally tested several management methods. We then developed an integrated approach to manage voles through monitoring, modifying habitats, protecting desirable plants, trapping, and baiting. We authored two publications which are available online. Lastly, we developed and implemented an integrated, multi-faceted vole education program for clientele which was critical to effectively manage increased vole populations and reduce economic losses. Our educational efforts have reached over 5,000 clientele through publication downloads and educational presentations.

SCHOOL GARDEN FOOD SAFETY

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Poster URL: https://www.slideshare.net/secret/kWD5ev7S8pS1ZB

Many Arizona schools utilize gardens to implement learning strategies that are relevant to their students and are aligned to Arizona's Academic Standards. McAleese and Rankin (2007) confirm in their research that students growing their own fruits and vegetables in school gardens are more likely to consume the produce.

In 2012, the Arizona Department of Health Services (ADHS) did not allow schools to utilize the produce grown in the gardens in the school cafeteria. After consultation with the AZ Dept. of Education (ADE), school Food Service Directors, ADHS and the AZ Dept. of Agriculture (ADA) the Agent and Dr. Kurt Nolte wrote a grant to develop a school garden food safety certification program similar to the GHP/GAP program. Specialty Crop Block Grant (USDA - AMS) funds, three years totaling $146,000, were received to develop and administer the program.

In 2013, peer-reviewed School Garden Food Safety Guidelines were developed for schools to implement. The Agent conducted nine statewide workshops in 2013 and 2014 in which

almost 300 educators attended. Many educators were unable to attend the workshops because of work commitments so an online training website was completed in September 2015. The website features 15 short videos and links to 23 fillable forms for all the necessary reports and documents needed for certification.

ADHS has certified 29 schools so their school grown produce can be served in the school cafeteria. Workshops continue to be offered at various school conferences in Arizona and an additional 122 educators have participated in the trainings.

3rd Place

CENTRAL VIRGINIA AG SPOTLIGHT BRINGS THE FARM TO READERS

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Poster URL: https://drive.google.com/file/d/0B7GnS3Mln4JVVERxNTdzLXhram8/view?usp=sharing

Consumers are increasingly concerned with agricultural issues but many rarely engage with farmers. Many producers seek information on farm practices. Both groups often rely on online resources. The Central Virginia Ag Spotlight blog was created in 2013 to engage readers each month with stories about local farms that utilize good practices, creatively solve challenges, or offer unique products. It aims to raise consumer agricultural literacy and provide ideas to producers. 40 stories have been shared to date. The blog is marketed via social media, web, and newsletters. Impact is tracked via Google Analytics, conversations, site comments, and social media. By January 2016, the site had 28,638 page views by 14,034 users. 20% of traffic comes from returning visitors. Several producers considered diversifying as a result of reading the blog. Stories garnered dozens of Facebook engagements, and 24 people commented directly on the blog site. An estimated 30 people interested in the emerging hops industry contacted agents as a direct result of finding hop stories on the blog. Many other client calls and emails resulted from encounters with the site. Several readers sought follow-up information and tours of featured farms. Four blog stories were reprinted in Virginia Cattleman. One was reprinted in The Virginia Forager and one was reblogged by the Farm Credit Knowledge Center. Three were used as feature stories in two newspapers. The blog was the National Finalist website in the 2014 National Association of County Agricultural Agents communications contest, and a blog photo was National Winner in 2015.

FARM TIRE RECYCLING PROGRAM PROTECTS ENVIRONMENT AND RECYCLES A RENEWABLE RESOURCE

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In the past, it was a common practice for farmers to "collect" old worn-out tires to be utilized to stoke fires as land was cleared and drained. At some point in time the burning of tires was deemed inappropriate due to the emission of hazardous fumes. Consequently, the practice of burning changed, leaving farmers with piles of tires and no feasible way to dispose of them. Modern day agriculture operations utilize farm tires of all shapes and sizes. Many of these tires are left on farms as they are replaced for one reason or another. With large combine tires costing in excess of $150 each to be disposed of at the local landfills, one can understand why they are retained. Section 10.1-1418.B & C. of the Code of Virginia states: "B. It shall be unlawful for any person to store, dispose of, speculatively accumulate or otherwise place more than 100 waste tires on public or private property, without first having obtained a permit as required". To address this issue, as well as reduce area for potential mosquito breeding ground, the "Farm Tire Recycling Program" began. The current program is administered by the Virginia Dare Soil and Water Conservation District with additional promotional and logistic support provided by Virginia Cooperative Extension.

GROWING SILVOPASTURE IN VIRGINIA: PARTNERSHIP IN RESEARCH, DEMONSTRATION & DISSEMINATION

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Poster URL: https://drive.google.com/file/d/0B7vXxOwdKwUqS3Q1TVJacEthWlU/view?usp=sharing

Silvopasture, one of five agroforestry practices, involves the purposeful integration of trees, forages, and livestock on the same unit of land. Implementation in the Mid-Atlantic has been limited, in-part because of gaps in knowledge for this climate and forest types as well as cultural barriers. VCE Agent/Specialist partnerships are having significant impact in developing research and demonstration sites that support silvopasture implementation. Our partnership has been further strengthened through engagement with the Natural Resource Conservation Service (NRCS) and the Virginia Department of Forestry (VDOF) personnel at the field and specialists levels. This is translating into growing producer awareness and adoption of silvopasture practices. Specialists' efforts have led to over $450,000 in funding to support silvopasture research and to create demonstration sites in four regions of the state. Two MS and two PhD projects have been supported. Agent efforts include proceedings and presentations for AREC field days, co-authored peer-reviewed publications, a silvopasture web page, and on-farm demonstrations through producer tours. Our team's efforts have made Virginia a leader in the Mid-Atlantic and both agents and specialists are engaged at a national level (e.g., NRCS, USDA National Agroforestry Center) to create guidelines and shape the message of silvopasture's potential as a sustainable management practice. Furthermore, evidence of impact includes NRCS adoption of silvopasture as an approved cost-share practice and the grass-roots discussions taking place between producers and team members who are now routinely fielding questions on this topic.

REENERGIZING LOGGING CAPACITY TO SUPPORT INDUSTRY REBOUND

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Poster URL: http://www.slideshare.net/ClarkNeil/reenergizing-logging-capacity-to-support-industry-rebound

Recently, the forest industry of southeastern Virginia has experienced a downturn with the closure of one of the largest paper mills in the U.S. along with many sawmills and other wood products industries. This resulted in the closing or downsizing of hundreds of logging businesses. Fortunately, the industry is rebounding with the reopening of the paper mill, along with a new pellet mill to supply biomass overseas and conversion of a couple of domestic energy plants to produce electricity from wood. This has resulted in a need of 3 million additional tons of wood, which roughly converts to an additional 75 logging crews required. In response, Virginia Cooperative Extension, in concert with several collaborators, have developed the Southeast Virginia Logging Capacity Task Force. This group has met 7 times and has implemented the following programs: Employment Service Providers Field Tour (3h, 14 ppts), Southeast Virginia Logging Expo (6h, 186 ppts), Transportation Regulations for Loggers (3h, 40 ppts), series of continuing education opportunities. As a result, at least 24 job seekers have been put in touch with logging businesses and at least 8 have been employed. Four(4) large capacity (>700 hp) micro-chippers have been purchased. Over $1,600,000 of financing has been obtained for equipment and business start up expenses. At least 12 additional crews have started up in the area. Forty-eight (48) hours of SFI required training has been delivered to 226 loggers. Five publications were written and over $25,000 in grants and sponsorship have been received.

AGRICULTURE IMPACT BREAKFAST

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The Agriculture Impact Breakfast idea was initiated by UT-TSU Extension in Giles County. A committee of representatives from the county Farm Bureau, county USDA office, county agri-business cooperative, Chamber of Commerce and Extension office was formed to plan the yearly program. The purpose of the breakfast was to educate the business community as well as city and county officials on the economic impact agriculture has on the county. A total of four breakfasts have been held so far. The committee was responsible for identifying speakers, developing a menu, assembling a mail list of potential attendees and preparing handouts and giveaways that promoted local agriculture resources. The program was planned to include a speaker who would address agriculture's impact locally. Speakers have included the Commissioner of Agriculture for Tennessee (twice), the Director of the Center for Profitable Agriculture for Tennessee and the Executive Director of the Tennessee Cattleman's Association. The Giles County YF&R provided leadership in preparing the meal which included donations of local foods being grown and/or processed in the county. Sponsorship and in-kind donations have been valued at $1700 for the first four breakfasts while attendance has reached 506. Most of the attendees have come from either the business community, local governmental officials or county farmers. Many positive comments have been noted. Most related to the fact that attendees did not realize that agriculture is a $45 million industry in the county.

EAST TENNESSEE GRAIN AND SOYBEAN CONFERENCE

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The production of row crops in East Tennessee has increased over the past few years. According to the National Agricultural Statistics Service corn acreage planted is up 19,000 acres from 2007 to 2012, and soybeans acreage planted increased 16,000 acres in the East Tennessee agricultural district. A group of East TN agents and specialists saw the need to create The East Tennessee Grain Conference to provide much needed education to serve this growing clientele in 2013. The 3rd

East Tennessee Grain & Soybean Conference focused on improving production in East Tennessee. The program utilized both University specialists and industry partners to present the topics. Topics for the program included: intergrated pest management, the Tennessee variety testing program, diseases control, crop outlook, gps technologies, and grain drying methods. Over 70 participants attended the conference including; farmers, industry leaders, and educators. With the high attendance there was a satellite room setup for overflow.

INCREASING VISIBILITY: MARKETING UT EXTENSION

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Background Extension's future hinges on our ability to market – to effectively tell the story of Extension's educational programs and the impact of those programs. Marketing has been identified as a critical responsibility for entire Extension staffs (Varea-Hammond, 2004). This responsibility, while recognized as favorable and important, can be challenging given most Extension employees lack of formal marketing training (Telg, Irani, Hurst, & Kistler, 2007).

The state Increasing Visibility Team conducted an on-line survey of 488 county Extension employees to determine perceptions of and training needs for marketing. Survey results pointed to a need for trainings on developing county marketing plans and for communication skills building.

Topic Overview

Participants received instruction on practical aspects of understanding marketing and marketing plans, using social media, writing columns, creating video, improving customer service, involving volunteers, attracting media coverage, and using Extension branding. Instruction was led by a team of agents and specialists selected by state administration for their effectiveness in marketing. Mentors followed-up with participants at 30 and 60 days.

Evaluation

A pre-assessment and six month post-assessment was administered to participants. An analysis of the results revealed significant mean increases ($p<.001$) in participants' intent to market the overall Extension program, use social media, consistently use new Extension branding, engage in word-of-mouth marketing, utilize volunteers in marketing, contact news media outlets, and provide positive customer service experiences.

At the six month follow-up assessment, participants reported satisfaction in working with their mentor.

IMPLANTS IN SUCKLING CALVES

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Poster URL: http://www.slideshare.net/OKstate12/implants-in-suckling-calves

One of the most beneficial practices available in the beef industry is the use of growth promoting implants to safely and efficiently increase weight gain. Implants contain natural or synthetic anabolic compounds that produce physiological responses in the animal, similar to natural hormones. By placing implants under the skin on the back of the ear, gain and efficiency will be improved in suckling calves, stockers and feedlot cattle. Extensive research has been conducted on the use of implants in the stocker and feedlot sector, however research findings on implants in suckling calves are less common. Nonetheless, available research reviews have documented implants in suckling calves to increase average daily gain by 5 – 6 % over un-implanted controls. Despite the positive effect of implants on weight gain in suckling calves, only 33 percent of cow calf producers in the United States currently use this practice. For this reason, the objective of this demonstration was to display how implants could be utilized efficiently in a commercial cow calf production system to improve suckling calf weight gain.

CREATING SUCCESSFUL FARMERS THROUGH NORTH CAROLINA FARM SCHOOL PROGRAM

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Starting five years ago with the Piedmont Farm School, the North Carolina Farm School Program has provided new and transitioning farmers with the knowledge and skills to have a successful farm business operation. Concerned over the declining numbers of farms and farmers in North Carolina, extension agents from several different counties and specialists formed the North Carolina Farm School Program. The program helps train participants on different production practices and business principles addressing issues such as marketing, taxes, record keeping, and crops and livestock production.

The North Carolina Farm School program consists of fourteen sessions throughout seven months. Each month, participants train in one business session and one field day. Facilitators collaborate with different public and private entities to provide participants with accurate information. A total of six schools across North Carolina have gone through the program resulting in 277 graduates. Before attending one of the schools, 86% of the participants had never written a business plan and 56% had no current farm receipts. Prior to the program, 50% of the total participants stated that they had never used extension services before.

Upon completion, 75% of all participants stated that they now have a written business plan. The average gross farm sale for 2014 was a total of $140,381. Participants are projecting an average gross farm sale of $161,331.94 for 2015. In addition to increasing farm sales, the program has connected participants to other farmers and mentors allowing the farming community to grow economically and socially.

HIGHLY PATHOGENIC AVIAN INFLUENZA EDUCATIONAL PROGRAM

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Addressing the need of backyard poultry producers in Craven and Jones Counties, I began an Annual Backyard Poultry Management Program in 2011. The class typically covers basic management practices of raising backyard poultry, but this year the need was strong for educational programming on the threat of Highly Pathogenic Avian Influenza (HPAI).

The program included two speakers, one from a regulatory role and the other from an educational role. The Emergency Programs veterinarian from the North Carolina Department of Agriculture addressed response planning and preparedness for the North Carolina agricultural industry. The poultry veterinarian from North Carolina State University's Cooperative Extension Service discussed managing risks of HPAI in backyard poultry.

The target audience included backyard poultry owners who wanted to better understand the risk of HPAI and how to manage their flock in case of an outbreak. Goals of the program included explaining the signs of HPAI, how to report suspicion of the virus to the North Carolina Department of Agriculture, how to properly dispose of birds, and how to encourage strict biosecurity measures.

Impacts of the program were evaluated by distributing evaluations to see what practices and behavior changes participants planned to adopt after the program. Evaluations showed participants estimated the program saved them on average $500 and showed an overall increase in knowledge of how to prepare for HPAI by practicing proper biosecurity measures, as well as monitoring their flock for signs of the virus.

NC INVASIVE PLANT IDENTIFICATION & CONTROL; AN INTERACTIVE APPROACH

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The purpose of this educational program was two fold; to increase the ability to identify and control invasive plants identified by the NCFS and to provide Extension agents in North Carolina with an easy to deliver, interactive, and hands-on educational program that is applicable across the state. The Western North Carolina 'Green Team' accomplished this task by identifying 20 invasive plants listed by the North Carolina Forest Service, incorporating a hands-on session with photos and physical samples for participants to identify, and creating a PowerPoint that utilizes TurningPoint Technologies to formally identify and convey control measures. By utilizing a hands-on approach along with interactive technology (clickers), participants are engaged for the 2 hour duration of the educational program. The materials for the program have been gathered and are available for agents throughout the state to utilize and replicate the program. At this point, the 'Green Team' has presented this program to more than 120 pesticide applicators, 25 Extension Agents, and the program 'kit' has been utilized by 2 other agents for programming within their county. Program participants have indicated a 95% increase in knowledge of invasive plant identification and control, and while at the NC State Extension Conference, agent participants indicated a 90% increase in comfort utilizing technology within their programming along with knowledge of the plant material.

1st Place

USING INTERACTIVE AUDIENCE RESPONSE TECHNOLOGY TO ENHANCE BEEF QUALITY ASSURANCE TRAINING

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Beef Quality Assurance (BQA) is a voluntary certification program known nationwide. In North Carolina, BQA is delivered through face-to-face trainings with producers. The majority of the training focuses on a BQA guidelines lecture with a PowerPoint presentation and an optional hands-on demonstration. During 2015, training materials were reviewed

and audience response technology was added into the BQA PowerPoint presentation to increase participant engagement and subject matter comprehension. The revised BQA presentation with audience response technology was delivered at three regional trainings and one focus group training in 2015. Participants were able to use the audience response device to click in their answer to questions throughout the presentation for immediate feedback. For the three regional trainings, participants were able to body condition score live cows with the audience response device. As a result, 95% of participants agreed that the audience response technology helped them stay engaged and 77% agreed that the technology helped them learn the subject matter better. Furthermore, 90% of participants stated that they would like to see more Extension programs using the audience response technology. Participants commented that the device encouraged them to interact with the group and that the device made learning interactive and fun.

ESTABLISHING AN EARTHBOX DEMONSTRATION IN SOUTH MISSISSIPPI

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The interest in vegetable gardening in south Mississippi has been increasing for last several years. But a common misconception is that a large amount of land is required for the vegetable garden. In fact, more home gardeners with limited backyards are becoming interested in growing vegetables in containers. Growing vegetables in containers is a way for those with limited space, maybe only a porch or patio, to have a fresh harvest. This is especially true in the urban areas of Mississippi where many homeowners have never gardened before. An effort at the Coastal Research and Extension Center for several years has been to provide home gardeners with examples of vegetable gardens suitable for typical small urban yards. One of the easiest ways for novice gardeners to get started is with sub-irrigated containers. Coastal Research and Extension Center is using a commercial product called EarthBox for our demonstration area. This demonstration area will highlight seasonal homeowner crops grown in sub-irrigated containers and be a trial site for state-wide vegetable and ornamental plant trials.

CONSERVATION EDUCATION AND DEMONSTRATION THROUGH THE LOUISIANA MASTER FARMER PROGRAM

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The Louisiana Master Farmer Program was initiated in 2001 through a cooperative effort between the LSU AgCenter, Louisiana Dept. of Agriculture and Forestry, Louisiana Cattlemen's Association, USDA's Natural Resource Conservation Service (NRCS), and Louisiana Farm Bureau Federation. This voluntary environmental stewardship program was developed for agricultural producers to focus on addressing sustainability, conservation, and improved water quality through education, demonstration, and ultimately implementation of Best Management Practices (BMPs). A producer must complete three phases to be awarded certification. These include: 1.) attendance of six hours of environmental education through classroom instruction 2.) attendance at a field day, field tour, soil quality workshop, or other function where conservation, soil health, or water quality is discussed and demonstrated 3.) development and implementation of a comprehensive conservation plan with technical assistance from the Soil and Water Conservation District and NRCS.

Since its inception, 225 agricultural producers have completed certification, with just over 3326 participating in one or more phases of the program. Over the 15 years, the program has become successful mainly due to the support and cooperative effort from state and federal agencies, as well as all major commodity groups and industry. It has become the standard for environmental pro-activeness and a guideline for other states in the creation of their own programs. Through awareness, education, demonstration, and NRCS' cost-share incentives, producers have been able to positively address many of the soil and water quality challenges that agriculture is faced with.

DEVELOPING COMMUNITY PARTNERSHIPS TO MANAGE STORMWATER RUNOFF

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Through regulations and penalties, the Environmental Protection Agency encourages cities to prevent the contamination of rivers, streams, and other bodies of water by untreated sewage, sediment, debris, and chemicals that harm humans and the environment. Keeping stormwater out of the Owensboro combined sewer system prevents the system overflows resulting in discharges of untreated wastewater into the Lower Green River watershed. To address stormwater runoff in Owensboro and to complete educational programming as part of Minimum Control Measures required by EPA, the University of Kentucky Cooperative Extension agent and specialists partnered with the Regional Water Resource Agency (RWRA), provider of wastewater services to Owensboro and Daviess County and the MS4 Coordinator to deliver programming to residents promoting onsite stormwater infiltration in rain gardens and beneficial reuse using rain barrels. Agent and specialists provided the marketing, developed the programming, and delivered educational material; the RWRA provided the supplies and meeting space. The 6-hour rain garden program delivered 3 hours of educational programing including a presentation and discussion about stormwater, how to improve water quality at home and how to construct and manage a rain garden. In the afternoon, the class participated in the construction of a rain

garden on a private business property in 2015. The 3-hour rain barrel workshop involved describing how to construct, install, and utilize a rain barrel and the stormwater collected in the barrel. Following the discussion, construction of partially pre-built rain barrels were completed by participants for them to use. Over 45 people participated.

LIVING GREEN AND GROWING WELL IN GREENUP COUNTY

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There is an alarming rate of diabetes and obesity among adults and children in Greenup County. According to the CDC Behavioral Risk Factor Surveillance System, 10 percent of adults in Kentucky and 12 percent of adults in Greenup County have diabetes.

The same source indicates 27 percent of adults and 15 percent of children in Kentucky are obese. Obesity in Greenup County is worse. Thirty-two percent of adults and 17 percent of children in Greenup County are obese.

Another concern is that many residents do not understand how to economically provide and prepare healthier foods. There is a lack of understanding among children and their parents about food sources, the co-dependency of humans and insects in food production and how to produce your own food.

This is why the Greenup County Cooperative Extension Service and Kiwanis Club of East Greenup County believes it is necessary to address poor nutrition and lack of physical activity among residents of Greenup County.

Greenup County Extension Service and Kiwanis Club of East Greenup County collaborated to install a vegetable garden at the Extension office that would provide produce for food preparation classes taught by Extension Service personnel and volunteers.l

Funding for the vegetable garden was provided by the Kiwansis Club of East Greenup County through the Greenup County Green Fund.

ANNUAL PEANUT 'SHADE TREE' MEETING STILL BEING UTILIZED TO EDUCATE PRODUCERS

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Since many of the farmers were new at growing peanuts in Effingham County after the inception of the Farm Security and Rural Investment Act of 2002, they were not familiar with disease and weed control. With this in mind, the county agent thought that it would be most beneficial for producers to have an educational meeting in the peanut field. The meeting has attracted producers from several nearby counties and has been an annual event since 2005. This is one of the few meetings of its kind in the state that still utilizes the effectiveness of a TRUE 'shade tree' meeting. Only so much can be taught in the classroom environment. These meetings have been located on different peanut producers' farms each year throughout the county and the first one took place in agent's new county of Bulloch last year. These meetings start out under a "shade tree" and then progress into the peanut field. Dr. Eric Prostko and Dr. Bob Kemerait are guest speakers that discuss weed and disease control options. These meetings allow peanut producers to observe the topics being discussed first-hand, since each meeting is held in the peanut field. Producers look forward to these meetings each year, because of the hands-on experience that is offered during the educational program.

CHEMICAL AND PHYSICAL PROPERTIES OF

2ND PLACE

EDUCATING GROWERS IN GEORGIA AND FLORIDA TO PRODUCE AND MARKET SATSUMA MANDARINS

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Satsuma mandarins are a citrus crop that has generated interest from small farmers and landowners in Georgia, Alabama, and North Florida. Extension programs have never before been conducted on satsumas in Georgia prompting agents in Lowndes County Georgia and Madison County Florida to collaborate and educate clientele about these fruits. Five programs focused on production and marketing have been conducted in the last two years reaching over 350 participants. The meetings are videotaped and available to distribute on DVD to potential growers. Due to demand these videos will be put on-line. Seven newspaper and magazine articles generated have been viewed by approximately 150,000 viewers as many media outlets across Georgia and nationally have picked them up. Three power-point presentations and two fact sheets have been produced. The objectives of the programs and media produced are to educate growers in all facets of production and marketing fruit. Topics covered include: orchard establishment, freeze protection, marketing, budgets, developing business plans, regulation of citrus plants, propagation, fertilization, weed control, food safety, rootstocks, diseases, insects, new varieties, and forming a cooperative. Results from surveys indicate a 67% increase in knowledge and 100% of participants gained information that will help them make decisions about satsuma production. 75 acres or 11,250 satsuma trees have been planted in Georgia since the initial production meeting which represents an investment of $412,000. Virtually all plants produced on rootstocks we recommended have been sold out or pre-sold in Alabama, Louisiana, Georgia, Florida, and Texas since late 2013.

EVALUATING THE EFFECTS OF CARCASS TRAIT SELECTION IN BEEF BREEDING HEIFERS: AN EXTENSION EDUCATION EFFORT

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The Heifer Evaluation and Reproductive Development (HERD) program is an extension educational effort that allows Georgia beef producers to consign weaned heifers for development as replacements according to industry accepted best management practices. The HERD program is coordinated by participant producers, the Georgia Cattlemen's Association and the University of Georgia. Consigned heifers, registered or commercial, are delivered to one of the program facilities on the defined date having already been pre-conditioned and vaccinated per pre-determined protocol. Since the program's inception in 2000, heifers (n=5621) have been evaluated for disposition, reproductive tract score (RTS), pelvic area, skeletal structure and performance. In 2016, carcass ultrasound measurements (n=175) were collected at the Calhoun location. The program requires that each heifer consigned must meet minimum standards for docility, RTS, pelvic area, growth and pregnancy to be sale eligible. All heifers maintained through the program are artificially inseminated and then naturally exposed to Angus bulls. Since inception, HERD entries averaged 170.7cm^2 for pelvic area, 1.4 for disposition and 99% received RTS of 2 or greater. The 175 Calhoun HERD consignments averaged 9.37 in^2 ribeye area and 4.81% intramuscular fat. Collected carcass measurements will be offered to consignors for educational purposes and evaluated alongside other reproductive measurements for greater understanding of carcass trait selection in breeding females. In 2015, 220 head were marketed through the Tifton and Calhoun HERD auction sales appraising for $630,200.

FARM WOMEN IN SOUTHWEST GEORGIA INCREASE BUSINESS AND FARM PRODUCTION SKILLS THROUGH ANNIE'S PROJECT

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UGA Extension agents, UGA Extension Specialists, USDA Agencies, Fort Valley State University Extension Specialist, and University of Georgia Southwest District Program Development Coordinators conducted Annie›s Project in Dougherty and Houston Counties for farm/ranch women. It is a comprehensive educational agriculture program designed to deliver training to farm women to help enhance their business skills and to develop a support network. The workshops were attended by 38 women farmers who were taught farm and money management skills, crop production, livestock production, estate planning, inter-personal relationships, recordkeeping, and they expressed a desire for the opportunity to network with other women in agriculture.

The United States Department of Agriculture (USDA) records that 29% of Georgia›s farmers (17,779) are women responsible for 2,437,070 acres and contributing 535.8 million dollars in economic impact to Georgia each year. The USDA also recognizes that women in farming are often underserved; lacking educational resources and the opportunities to be mentored and networked with other farmers.

PASSING IT DOWN THE NEXT GENERATION: MASTER GARDENERS VOLUNTEERS PROVIDING HORTICULTURAL EDUCATIONAL PROGRAMS IN GWINNETT COUNTY SCHOOLS

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Gwinnett County, GA, is home to the largest and most culturally diverse school district in Georgia. As the population increases, environmental awareness and education have increasingly become part of educational curriculums in the county schools. Gwinnett Extension receives many requests from educators for assistance in the development of educational programs on the environment particularly in regards to horticulture and gardening. We have responded by utilizing our Master Gardeners to become engaged with the schools in the creation and implementation of a multitude of horticultural and environmental educational activities. The Master Gardeners visit the schools, consult with the educators to assess their needs, provide fact sheets, grant funding information, and curriculum material. Many schools want to plant gardens, and the most preferred types are a vegetable, pollinator, annual/perennial, and native plant gardens. The Master Gardeners work with the teachers and students to design and plant the gardens. In 2015, a total of 42 Gwinnett County Master Gardeners gave 740 volunteer hours to 15 schools. Many of the projects are ongoing. The activities are expected to expand to other schools in the county as the interest in horticultural and environmental education increases.

SMALL FARM BUSINESS PLANNING: SUSTAINABILITY INCLUDES PROFITABILITY

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Georgia's $13 Billion agricultural economy is constantly changing and new trends are opening opportunities for current producers as well as allowing people new to agriculture an avenue into the market. Whether producers are developing a new venture or adapting an existing operation to meet new opportunities, having an understanding of the market and proper preparation are key to a successful agricultural enterprise. Under the leadership of the SE Distgrict Agriculture Program Development Coordinator; UGA Extension in Bulloch and Tatnall counties collaborated with Fort Valley State Extension, University of Georgia and Georgia Southern University Small Business Development Center (SBDC) to host a series of farm business workshops. A spring workshop was held in Bulloch, followed by a winter workshop in Tatnall County. The three hour long workshops were designed to provide farmers with information on the business aspects of operating a farm or other agriculture enterprise, especially those relevant to the initial years of operation. Speakers included county agents, an SBDC business consultant, a credit lender, a local small farm business owner, and a USDA farm loan specialist. These workshops attracted 44 participants representing eight counties from around the state. Responses from the evaluation were positive about the effectiveness of this program in improving their business practices and they found the information useful and helpful to their operations. Participants expressed interest in further programming about small business principles. The workshops yielded two new businesses, in which both are operating today.

UGA EXTENSION FACILITATED GOOD AGRICULTURAL PRACTICES (GAP) TOBACCO FARM SAFETY AND WORKER TRAINING

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The US Tobacco GAP program is an industrywide program supported and funded by all tobacco buying and manufacturing companies in the US and aims at ensuring sustainable, economically viable production of usable tobacco. Growers are required to provide on-going training and education to ensure that everyone involved in tobacco production understands the importance of working in a safe manner. A Jeff Davis County tobacco farmer asked for help in providing worker safety training for his workers as required by the GAP program. A training session was held at the extension office. Seven farm workers and the tobacco farmer participated in this 1.5 hour video training using Spanish version videos: http://www.nclabor.com/ash/ash.htm. Videos were downloaded and projected for all to see in the extension office conference room. Topics included: Los Cuatro Peligros: Se Puede Evitarlos, The Top 4 Farm Hazards: How to Avoid Them; El Montacargas, Forklift Safety; Estrés Por El Calor, Heat Stress; Empacadoras de Tabaco, Tobacco Baler; Cosechadoras de Tabaco, Tobacco Harvester. Also shown was a video (in Spanish) from the NCDOL Occupational Safety and Health Division's Agricultural Safety and Health Bureau entitled: Prevención y Tratamiento de la Enfermedad de la Hoja de Tabaco, Preventing and Treating Green Tobacco Sickness: https://www.youtube.com/watch?v=eOjhxAO56B4. Extension assisted a cooperating grower to provide worker safety information to workers in their own language, document their attendance and meet some of the requirements of the US Tobacco GAP program. This format may serve as a template for use by other extension offices.

2015 UF/IFAS EXTENSION ALACHUA COUNTY WATER QUALITY TOURS

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Poster URL: http://tinyurl.com/hmyenma

The objectives of the tours were to provide community leaders and private citizens with research based information and to 1) increase their knowledge of water quality issues impacting the water resources in Alachua County, 2) encourage informative public policy decisions relative to water issues in Alachua County and Florida. In partnership with UF/IFAS Extension specialists, Extension agents developed a 3 day tour. The tour topics included the Gainesville Urban Watershed, Rural Watershed, and Agricultural Best Management Practices. 130 citizens attended the tours. As a result of the tours 79%-97% of participants increased their knowledge of Urban, Rural, and Springs Watersheds, Water Quality, and related issues.

BUILDING PARTNERSHIPS AND BEEKEEPERS

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2012 USDA statistics rank Polk County second in the number of beehives per Florida County, yet prior to establishing a Small Farms Extension Program, little programming had been provided. A relationship was cultivated with the local beekeeping association to establish an annual introductory beekeeping seminar. OBJECTIVES: Provide effective beekeeping instruction and build relationship with association. Seventy-five percent of participants will report better understanding of startup considerations and daily operations of a commercial beekeeping operation. ACTIVITIES: Relationship with Ridge Beekeepers was reinvigorated; participation solicited and online registration and promotion provided. METHODS: An interactive quiz show reviewing basic beekeeping opened the program. Participants cycled through ten, demonstration stations instructed by experienced beekeepers, UF Honeybee Lab, Apiary Inspectors, and Extension. Stations included: looking inside the hive, building frames and boxes, wax rendering, queens, nectar sources, pests and diseases, honey extraction, moving bees, tools, and splitting colonies. RESULTS / EVALUATIONS: 2013 - 2015: Three workshops, 210 participants. 97% (n=158) reported improved understanding of startup considerations; 95% improved understanding of daily operations; 85-100% gained knowledge in ten subjects presented; 99% said teaching methods were effective; and 81% said program exceeded expectations. IMPACT STATEMENT: Instructed more than 200 new beekeepers and 95% planned to adopt changes as a result. Eighty-two percent indicated the program had a positive impact on the bottom line of their operation. Association reconnected with Extension and increased mentoring. Led to a six week beekeeping series; three media articles; and relationship foundational for subsequent discussions of pesticide related bee kills and hive thefts.

DEMONSTRATING ECONOMIC IMPACT BY IMPLEMENTING SNAP/EBT AT YOUR FARMERS MARKET

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By implementing Supplement Nutrition Assistance Program (SNAP)/ Electronic Benefit Transfer (EBT) terminals at the Sumter County Farmers Markets, SNAP/EBT transactions will increase revenue to local produce vendors by $750.00 in the first year. A presentation was made to the market board on the benefits SNAP/EBT at the local market. The presentation covered: SNAP/EBT contributions to the market and the community, guidelines, how transactions work, funding opportunities and application process. A needs assessment was created and vendors were surveyed to gauge interest. The market made the application to start accepting SNAP/EBT cards. Creative works created to promote and advertise include: three power-points, vendor signs, a webinar and 4 other promotional pieces. The markets application was accepted and on September 8, 2014 the Sumter County Farmers Market started accepting EBT cards. The economic impact over a three month period was $1,100 and in one year was $2,995 with SNAP/EBT sales to 40 families. This is a 172% increase in revenue from 2014 to 2015. This program has brought a previously untapped customer base to local farmers, increased sales, and provided consumer education while providing families with fresh/local fruits and vegetables. Since the launch three other local farmers have been interested in applying and making application for SNAP/EBT at their location. Application is being made to partner with Florida Organic Growers to receive Fresh Access Bucks an incentive program that will increase sales of Florida grown fruits and vegetables to Florida customers receiving SNAP at Farmers Markets.

ENHANCING THE PROFITABILITY OF NORTH FLORIDA PEANUT PRODUCERS IN THE SUWANNEE RIVER VALLEY

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Peanut production has become an important commodity crop for Hamilton County and the surrounding counties over the past ten years. In North Florida, throughout the Suwannee

River Valley, peanut producers generated approximately $56,482,000 from the 70,603 acres of peanuts produced. Often the only data producers have to determine the best peanut cultivar or spray program comes from small plot trials conducted at research stations some distance from their fields. While this data provides quality insight into cultivar and fungicide selection, it neglects to account for the variability associated with farm equipment and differing production techniques. To assist peanut producers in determining best peanut practices, an annual program consisting of two peanut production meetings and two peanut on-farm trials were conducted during the past five years. Through this platform, University of Florida peanut specialists and the Hamilton County Agricultural Agent were able to help producers increase quality and yields. Producers have incorporated new cultivars that possess disease resistance in their production areas which have a history of disease. They have also integrated spray programs patterned by the ones evaluated in the on-farm trials. In Hamilton County 100 percent of peanut producers (n = 45) now use fungicide spray programs consisting of biweekly sprays adopted from the Hamilton County peanut on-farm trial. Adopting one of the recommended fungicide programs increased input costs $38.00 per acre (5600 acres) but increased yields over 1,000 pounds per acre resulting in an additional $963,200 in Hamilton County.

EXPANDING BEEKEEPING AS A PROFITABLE AGRICULTURAL ENTERPRISE THROUGH EXTENSION EDUCATION

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Poster URL: https://www.slideshare.net/secret/5fbjCo1KoBm3Q

The need for beekeeping education has become particularly relevant in recent years with rapidly growing interest in beekeeping and increased awareness of the decline of honey bees and their value as pollinators. Goal: Promote beekeeping as a profitable agricultural enterprise in Osceola County, Florida. Objectives: 1) Increase knowledge and application of Beekeeping Best Management Practices and regulations; 2) Increase the number of registered beekeepers in the county; 3) Provide support to new and established beekeepers. To accomplish these objectives, the Agent created and regularly taught a three-part educational series, established a beekeeping association, became a beekeeper, offered consultations, and educated the general public. 528 aspiring beekeepers participated in educational programs (2012-present), increasing knowledge 24% through introductory programming. Local, state-registered beekeepers increased by 238% (N=44). Education participants who became beekeepers generated a combined estimate of $400,000 in honey sales (2013-2016). Extension education successfully supported beekeeping as a hobby and business, increasing beekeepers' knowledge of regulations and responsible practices, and increasing the number of local beekeepers.

GREEN INDUSTRIES BEST MANAGEMENT PRACTICES CERTIFICATION FOR MASTER GARDENERS

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Florida is the third most populous state in the nation and ranked in the top 5 for its water use. Due to a rapid rise in population and development, the use of water and fertilizers has taken a center stage in the educational curriculum of Master Gardeners. Inefficient irrigating and using fertilizers inappropriately contribute harmful effects to Florida's water quality and natural resources. The objectives of this project were to certify Master Gardeners in the Green Industry Best Management Practices (GI-BMP) program and to incorporate GI-BMP training into Master Gardener curriculum. Three training sessions were held for Master Gardeners and Master Gardener trainees. Master Gardeners consisted of both Sumter and Hernando Counties. The pre test average test score was 83.3% (n= 58) and the post test average test score was 94.4% (n= 58), resulting in an 11.1 % increase in knowledge. As a result, 100% of Master Gardeners received their Green Industries Best Management Practices certification. This certification puts Master Gardeners on par with industry professionals who are required to be GI-BMP certified and licensed in order to apply fertilizer commercially. Comments from GI-BMP certified Master Gardeners demonstrate the need to incorporate this training as part of their Master Gardener curriculum. As a result of this project, GI-BMP training and certification will be required for those entering the UF/IFAS Sumter County and Hernando County Master Gardener program. Hopefully, this will be a model for other counties throughout the state and nation.

IMPROVING THE HEALTH AND WELL-BEING OF FARMS AND FAMILIES IN JACKSON COUNTY THROUGH PARTNERSHIPS

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According to the Jackson County, Florida County Health Profile, 20% of the population is living in poverty. Also noted from this report is the rise in the percentage of adults being diagnosed with diabetes to 12.4% along with a large rise in the obesity rate to 37.1%. It has been well established that poor dietary intake and a sedentary lifestyle are contributors to the development of diabetes. The health of county citizens is poor, despite the fact that Jackson County ranks 6th in the state for vegetable acreage. In order to improve the health of citizens and the financial stability of local farms participating in the Marianna City Farmers' Market, an educational and outreach program was developed. Targeted participants were newly diagnosed diabetics referred to the Health Department for diabetic education. The Jackson County Family Consumer Sciences (FCS) and Horticulture Agents partnered to provide a series of classes to educate Farmers' Market customers on healthy eating habits and growing their own food. The FCS Agent provided demonstrations on preparing recipes utilizing locally produced ingredients. The Horticulture Agent taught customers how to grow herbs and other short duration crops that could accompany local produce in homemade dishes. To encourage participants to purchase local produce, a $10 match was made possible by partnering with the Florida Organic Growers (FOG) through the Fresh Access Bucks program. The program allows SNAP cardholders who spend $10 of their benefits at the Farmers' Market to receive an additional $10 toward the purchase of more produce.

LIVESTOCK EDUCATION AND CERTIFICATION FOR AGRICULTURAL LAW ENFORCEMENT (LECALE)

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Poster URL: http://www.slideshare.net/secret/Blz2X7E5jvqY3D

Many law enforcement agencies in Florida have dedicated law enforcement officers (LEOs) who respond to crime in agricultural areas, urban/rural interface issues, and potential livestock neglect cases. These LEOs have presented themselves as potential Extension clients with educational needs. Objectives: To develop and implement a training and certification program for Florida LEOs in the field of animal science to better prepare them to do their jobs. Methods: Participants are taught using a combination of classroom work and experiential learning sessions utilizing applicable equipment and live animals. Benefits: The LECALE training program addresses Florida specific conditions and it will enable LEOs to do their jobs more efficiently and uniformly. The training will also equip LEOs with the ability to be vigilant for threats to our food supply system by natural and man-made causes. The accompanying certification program will add to the credibility of this clientele group when they present their testimony in a court of law and make difficult decisions in cases. Conclusion: A pilot program was taught to a group of veteran LEOs in July 2014. Utilizing survey and focus group data obtained from pilot participants, the program was modified and taught in courses offered to a total of 47 participants in the spring and fall of 2015. 87% of the participants passed the certification requirements of the program and overall knowledge was increased by 39%. Utilization of the LECALE program by Florida LEOs could result in a savings of nearly $2,500 per client compared to other national certifying services.

PROMOTING AGRICULTURE AWARENESS IN PALM BEACH COUNTY, FLORIDA

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In the present climate of government mistrust, skepticism of "Big Ag," and increasing development pressures that threaten local farming operations, extension agents are the linkage between the agricultural industry and the concerns of the public by providing the unbiased scientifically-based answers to their questions and solutions to their problems. Palm Beach County leads Florida in the production of green pepper, lettuce, specialty leaf, celery, radish, Chinese vegetable, and rice. It is the national leader in sugarcane, sweet corn, and sod production. A third of the county's acreage is devoted to agricultural production, generating $1.327 billion in sales and an economic impact exceeding $2.5 billion for the 2013-14 season. Few citizens are aware of the local agricultural industry's impact because most residents do not work in agriculture and live clustered along the coast whereas most agricultural production is concentrated in the western part of the county. Based on grower input, raising public awareness of agriculture and connecting the populace to their local food source has become a top priority. UF/IFAS Palm Beach County Extension therefore created a multifaceted educational display at the county's largest attraction to achieve the objective of increasing public knowledge of local agriculture. Approximately 3,000 fair goers visited the display area during the 16 day South Florida Fair. Of the visitors participating in both the pre and post quiz, the percent knowledge gain was 93.9%.

UTILIZATION OF COMMUNITY RESOURCES FOR AN AGRICULTURAL EVENT

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The purpose of this educational program was to increase knowledge in 100% of the elected officials about the importance of agriculture to the economy of Sumter County. Empower elected officials to make more informed agriculture decisions. Attract 2,000 Villages residents to the Farm-City Event. While Sumter County is primarily rural, it also has the fastest growing metropolitan population in the United States (The Villages). There are 1,367 farms on 183,246 acres. 1.3% of the 101,620 citizens are farm operators. The method used was targeting two distinct populations for agricultural education: The Villages residents and elected officials in consecutive years. The program execution was 38 exhibitors educated Villages residents about agricultural operations in conjunction with the elected official tour focused on livestock industry, commercial horticulture and natural resources. The results as measured for the Farm-City event in 2013 attracted 73% of elected officials. Three month follow-up surveys were sent to elected officials that attended. As a result of this event, 100% (n=11) self-indicated knowledge gain. Also as a result of attending the Brownwood event and Farm Tour, 80% (n=11) of the elected officials indicated that this event and tour helps them make more informed decisions regarding agriculture. At the 2014 event The Villages Entertainment estimates attendance at 2,500 for the event. The event in 2015 attracted over 5,000 in attendance. In conclusion the committee successfully organized and carried out three educational events showcasing agricultural commodities in the community, emphasized stability, and empowered elected officials to make more informed agriculture decisions.

BUILDING A COUNTY PROGRAM THROUGH COMMUNITY PARTNERSHIPS

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One of the hardest components of being a new agriculture agent is getting the audience of producers actively involved in the county extension program. There are several community partners who can become major assets in this department. The Arkansas Livestock and Poultry Commission (ALPC) is one of our primary partners in Hot Spring County. By combining with this organization, we are able to offer herd health programs, such as brucellosis vaccinations and disease testing, access to the National Poultry Improvement Plan, and even certify our equine producers as Coggins Checkers. 62% of Hot Spring County beef producers take advantage of one ALPC program, resulting in 566 vaccinated heifers across the county. As a new agent, this was a huge benefit to meeting producers in order to design a program that fit the needs in the county. The local farm store is also a major partner for Extension. Many farmers and homeowners will walk into a feed store and want to buy something immediately without the knowledge to make a wise decision. By building a strong relationship with the local store, they will be able to direct clients to the extension office. This is a major factor in reaching a diverse population of producers. Not every producer may be a Cattleman or a Master Gardener, but they all must buy supplies. By creating strong partnerships in the community, it is possible to not only reach a broader population, but have the ability to make an educational impact for local producers.

BUILDING A SMALL RUMINANT PROGRAM FROM THE GROUND UP

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With an increase in small ruminant production, both commercial and hobby farms, the Fulton County Extension Council's Agriculture Subcommittee identified small ruminant production as an area to grow Extension's reach into the local agriculture industry. Since the program would be starting from scratch, a survey was conducted at the local sale barn to gain input from those with the educational need – the producers. The results from that survey were used to build an agenda for a producer meeting that would specifically address those prioritized topics. Twenty-two (22) producers attended that event. A pre/post meeting evaluation was conducted to determine predicted cost savings, potential increased profits, and intent to implement recommended practices. Participants reported knowledge gained in pasture management and nutrition, pregnancy toxemia, and marketing. One-third of attendees reported an estimated economic benefit of more than $25 per head. With more than half of the attendees reporting a herd size of 1-20 head, an estimated savings of $3,500 was calculated. Combined with approximately $5,000 in estimated forages savings, the impact of the program was $8,500 in total savings in the coming year. The evaluation also served as a follow-up survey for future programs that will be addressed in 2016. As a result of this effort, the number of small ruminant contacts increased by 31% from the 2014 to 2015 program year.

CROPS FOR KIDS

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Agriculture awareness is a vital aspect of educational programming in White County. Crops for Kids is a school enrichment program that brings agricultural education to two school districts in White County. Local farmers provide the kids a one acre tract of corn or rice. The farmers donate the profit (if one is made) from the acre to the classes involved. In return, the youth keep track of crop expenses while learning about agriculture, how their food is grown, and where their

food comes from. For the past two years, this program was conducted for the fifth and sixth grade classes at Bald Knob and Pangburn Schools, reaching 150 students per year. At the beginning of the program, a majority of the students (75%) did not have a clear understanding that their food had to be grown on a farm before it was placed on grocery store shelves. They were shocked to learn everything they ate, excluding wild-caught seafood, salt, and water, came from farms. Each year, the students took a field trip to see their acre of rice or corn. Sixty percent of students polled indicated they had never been to a rice or corn farm prior to the field trip. Eighty percent of students increased their knowledge of soil and plant sciences. Over the past two years, the farmers involved donated over $1,200 for the classes to donate to a charity of their choice.

FOUR COUNTY BEEF CATTLE AND FORAGE BUS TOUR

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In 2012, livestock producers in north central Arkansas endured one of the worst droughts in history. Producers needed ideas for renovating pastures and reestablishing their cowherds in 2013. Agents in Cleburne, Faulkner, Stone, and Van Buren counties worked together to conduct an out of state Beef Cattle & Forage Tour for producers. A second tour was conducted in 2014 due to ideas for topics spurred by 2013 tour stops, specifically the possibility of touring a beef cattle processing plant in the Kansas area. On these tours, producers were able to gain knowledge of cattle genetics, 3 different University research programs in Animal Science & Forages, beef cattle marketing, purebred beef cattle industry, the cattle feeding industry, and beef cattle processing and product marketing. These tours allowed producers to see different segments of the cattle industry and forage research practices that they may only have been able to read about or see at educational meetings. We preach "learn by doing" to our youth but sometimes forget that concept to with adults. These tours allowed producers first hand contact with ideas and methods that could assist them in improving their operations and making them more profitable and efficient. From the 2014 tour, 33% of the 27 producers attending reported that their operations would be impacted from a range of $1000 to $10,000 in improvements.

FRANKLIN COUNTY YOUTH LEADERSHIP PROGRAM

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The purpose of the Franklin County Youth Leadership Program (FCYLP) was to develop leadership skills among young people by exposing them to opportunities for community involvement and improvement. Implementers taught adolescents about leadership styles, teamwork, county government, social media, career preparation and community service in order to achieve these goals. To promote the overall goal of leadership and citizenship development, the FCYLP utilized multiple activities and teaching methods during the spring school semester of 2015. These included ExCEL (an experiential-based training and development program), leadership styles workshop, a county government tour, mock city council meeting, social media, resume writing, the interview process, and completing a community service project. Along the way, the teens indicated they benefitted from the FCYLP by developing leadership skills, meeting new people, learning about local government, understanding what to post on social media, and presenting themselves more effectively. The lessons and experience among the 13 youth who participated in the FCYLP proved to be invaluable.

HELPING PRODUCERS MANAGE THROUGH DROUGHT WITH ON-FARM DEMONSTRATIONS

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In 2012, Arkansas cattle producers faced one of the worst droughts in 50 years, while also facing rising input costs by as much as 80%. An economic study of Arkansas cattle producers indicated drought losses of $141 per head during this time period. Short hay supplies also forced producers to reduce hay losses or sell cows to only face high replacement costs later. The Montgomery County Extension Service conducted three on-farm demonstrations to help producers make sound decisions and reduce costs during drought. The goals of these demonstrations were to show producers ways to reduce costs through limit feeding, hay feeding methods to reduce waste, and the effectiveness of pasture aeration. Hay feeding results showed a 95% hay utilization for both unrolling and processing hay. These results also indicate unrolling hay may be a more economical option than owning additional equipment. Limit feeding, saved $1,680 in hay costs when compared to traditional feeding methods (hay ring). Hay saved also allowed this producer to retain ownership of animals, saving $45,024 in replacement cow costs. Pasture aeration demonstrations showed pasture aeration did not improve yield (2755 lbs./ac for aerated plots vs. 3804 lbs./ac for non-aerated plots). Two producers used aeration project results to cut expenses by $7263 and labor by 180 hours while maintaining current forage yield. These demonstrations highlight the effectiveness of on-farm demonstrations as an outcome based educational method for Extension impact.

MASTER GARDENERS VOLUNTEER AT COUNTY FAIR

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Each September the Baxter County Fair is held in Mountain Home, Arkansas. The horticulture department at the Baxter County Fair needs volunteers to oversee it during the fair. As a way to volunteer time back to the community through the University of Arkansas Division of Agriculture Cooperative Extension Service Master Gardener program, the Baxter

County Master Gardeners decided to oversee the horticulture department as one of their projects. Master Gardeners (MGers) manage the exhibit listings for the horticulture section of the Baxter County Fairbook and oversee the horticulture department during the fair. MGers have written and published informational guides to help educate the public to be better exhibitors. These guides provide detailed information about selecting, preparing and judging the following horticulture for competition at the fair: fruits, herbs, vegetables, plants, flowers and floral arrangements. There were 38 MGers volunteering 429 hours during the 2015 fair. This is an economic value of $9,897. Attendance at the fair was over 26,500.

PECAN PROBLEMS

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Pecan is the only major tree nut that grows naturally in North America, originating in central and eastern North America and the river valleys of Mexico. In 2015, pecan consumption topped over half a billion pounds worldwide. US consumption alone approached 315 million pounds; a new record. The increase in consumption has led to increased interest in growing pecans in Arkansas. The Plant Health Clinic receives numerous samples of pecans with quality problems, most problems directly linked to disease, insect, fertility and water issues. Pecan scab, caused by *Fusicladium effusum* previously known as *Cladosporium caryigenum*, remains the leading disease problem in orchards with poor spray programs. Inadequate irrigation, fertility issues, and insect pressure are also contributing factors in yield loss. Many county agents have limited experience when dealing with pecan production issues. This poster is an attempt to provide education concerning some of the most common problems seen in pecan samples arriving at the Plant Health Clinic.

SADDLE UP FOR SUCCESS-EQUINE SCIENCE

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Animal projects are a tradition carried out by many 4-H members. Animal science related projects provide many opportunities for youth to develop skills that will benefit them throughout their life. Baxter County has kept this tradition by providing youth, interested in equine sciences, with a well maintained horse project club. Surveys conducted in the past ten years by the American Youth Horse Council have found that equine activities develop life skills such as decision making, communicating, problem solving, goal setting and empathy. The Easy Riders 4-H Club provides equine science education to youth ages 5-19. They offer: well-planned monthly club meetings throughout the year, weekly riding sessions during the summer, hands-on club activities, monthly Hippology study groups, and various other educational opportunities. With these horse based programs, youth are learning not just about showing horses, but they are gaining life skills that will aid them in growing into self-sufficient leaders of tomorrow. This program is dedicated to impacting the lives of interested youth, by providing healthy competition and leadership opportunities.

SOIL SAMPLING DEMONSTRATION

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Poster URL: http://www.slideshare.net/BrianSee1/soil-sampling-demonstration

Soil sample types in Marion County primarily fit into these categories: home gardens, home lawns, turf, pastures and hay meadows. Soil testing guidelines recommend that 15 to 20 subsamples be taken per soil sample and that one sample not represent more than 20 acres. In reality this number of subsamples is rarely taken by clienetle. As a result soil samples can be inaccurate and unreliable. This can lead to improper fertilizer rates, which can cost clients unnecessary expense, cause poor crop yield and it can have a negative impact on the environment.

A bermudagrass hay meadow was sampled using a grid system. Ag PhD, an iPad application, was used to set up the sampling grid. The field was approximatley 8.5 acres and 12 sub samples was taken from the field. Each sub sample was tested individually to show the differences in soil fertility throughout the field. Thus reinforcing the recommendation of taking a representative soil sample.

SOYBEAN IPM PROGRAM EDUCATES PRODUCERS

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County Extension Agents and soybean (*Glycine max*) producers in Johnson County and throughout Arkansas have benefited from participation in the soybean integrated pest management program (IPM) in Arkansas. Specific objectives for the 2015 program: Monitoring for kudzu bug infestation, fields were sweep net sampled every other week throughout the season. Frog eye leaf spot samples were obtained from 10 fields to determine the existence of strobilurin-resistant frogeye leaf spot. Weed seed samples were collected to identify herbicide resistant weed species. Monitoring for dectes (Dectes texanus) stem borer (fields were sweep net sampled throughout the season and and stem sampled prior to harvest. The soybean IPM program has had an impact on Johnson County producers by determining that (1) kudzu bugs have not been found in Johnson County (2) Strobilurin resistant frog eye leaf spot has been found (3) We have weeds that are resistant to glyphosate (4) Dectes stem borer is found in all fields, but below economic thresholds for control. The program increases awareness of IPM and increases profitability for soybean producers through implementation of sound IPM practices.

STOCKPILING FESCUE TO REDUCE WINTER FEED COSTS

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The cost of hay and feed for winter feeding is the largest expense of maintaining a beef cattle herd. Estimates in Arkansas in 2009 showed that combined costs of producing and harvesting hay were at least $25 per round bale. All too often, producers finish harvesting hay in the fall and then begin feeding it soon afterward. Adopting pasture management practices that extend the grazing season avoids investing more cost into forage that could be grazed instead of being harvested for hay. Stockpiling fescue is a pasture management practice that will reduce winter feed cost for beef producers. Two demonstrations were conducted in the Fall/Winter 2014 through Winter 2015 stockpiling tall fescue pasture. The pastures were clipped to 2-3 inches in height in early August and fertilized with 100 lbs/acre of urea fertilizer. Grazing was deferred until November 27th at Farm A and December 31st at Farm B. Farm A grazed for 30 days without feeding hay or supplement and Farm B grazed for 44 days without feeding hay or supplement. Farm B saved $500.93 or $25.17 per animal unit (AU = 1,000 lbs. cow) by grazing instead of feeding hay and supplement. Economic data for Farm A were not available due to an issue with record keeping. Stockpiling fescue will save producers money.

TIP TUNE UP

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Worn spray tips cost producers thousands of dollars each year in the form of poor uniformity and damaged crops. This problem can be easily identified with a simple catch test that is both quick and free.

The U of A Application Technology program started offering a Tip Tune Up service in conjunction with the programs educational efforts. Producers were made aware of application issues through demonstrations at winter extension meetings. They were then shown how to perform a catch test to identify these problems. We also offered to travel to counties with equipment to troubleshoot spray nozzles quickly on equipment that was winterized. When new nozzles were needed producers were walked through selecting and sizing a set of nozzles to fit their needs.

This testing service was met with great interest. In a matter of months we had tested application equipment that would be responsible for spraying over 400,000 acres and still counting. In addition to the nozzle issues that were identified, this service opened the door for the program to make recommendations on nozzle upgrades that were better suited for more effective applications.

A new set of tips is an investment of $500 to $700. Properly selected nozzles can create a savings of 10 times their value in the first season alone. Any savings opportunity to make applications more efficient should not be overlooked. Our Tip Tune Up campaign has been a valuable service helping producers identify costly issues with application equipment and provided recommendations to correct these issues.

CONTROL OF RED IMPORTED FIRE ANTS IN ALABAMA

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Since their introduction in Mobile, AL in the early 1900's, imported fire ants have become a problem in every county of Alabama. In addition to affecting households, fire ants have become a nuisance to entities such as agriculture, commercial businesses, airports, golf courses, schools, utilities, camps, and fair grounds. Proper fire ant management has become critical in many of these locations. For the past ten years, demonstration and evaluation of formulated fire ant bait products has been conducted in various ecosystems in Alabama including pastures, farms, and recreational lands. Since 2007, the Alabama Cooperative Extension System has evaluated the management of fire ants at the National Peanut Festival fair grounds in Dothan, AL. From this, the Extension System has been able to train Master Gardeners in fire ant management. Today, Master Gardeners and Extension personnel host a "Fire Ant Booth" during the National Peanut Festival reaching 4,000 to 6,000 individuals annually. This exhibit has provided the opportunity to explain basic fire ant biology to children as well as offer best management strategies to adults.

INTRODUCTION TO FARM AND RANCH RESOURCES WORKSHOPS FOR BEGINNING FARMERS/RANCHERS IN CENTRAL ALABAMA: RESULTS AND PERCEPTIONS

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Two regional Introduction to Farm and Ranch Resources Workshops targeting beginning farmers and ranchers were hosted in Central Alabama during 2015 to address basic and broad aspects of environmental interactions in agricultural systems. Workshops were broken into distinct program area topics: 1) Soil, Water, and Climate, 2) Livestock, Forages and Economics and focused on providing information to beginning farmers and ranchers by presenting educational resource information to attendees showcasing the scope of information

the state extension system makes available to clientele, introducing key concepts and terminology commonly used when discussing environmental/agricultural interactions, and assisting beginning farmers and ranchers to gain insight into varied agricultural systems and the interactions between those systems and the environment. Results of the two workshops documented a change in knowledge of the material presented. Perceptions of workshop attendees with respect to sustainable agriculture and environmental stewardship and workshop satisfaction were measured and found to be a priority.

Northeast Region

PROMOTING VETERINARIAN-CLIENT RELATIONSHIPS USING SMARTPHONE APPLICATION

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Nationally, approximately 500 counties in the US have no veterinarian based in that county despite the fact that these counties also have over 5,000 head of livestock; and, 1,300 counties have less than 1 farm veterinarian per 25,000 animals. This constitutes a potential animal health crisis and a clear husbandry problem nationally. West Virginia (WV) is suffering from the worst shortage in production-animal livestock veterinary services in its history, and conditions continue to degrade every year. The northern region of WV is especially stricken by this problem. In Preston County, WV large animal veterinary support generally requires 2 to 3 hours of expensive travel time. A smart phone application was written to allow livestock producers to have direct contact with a remotely located large animal veterinarian or veterinary clinic service. By entering basic health information such as heart rate, respiration rate, and body temperature along with a description of the animal, outward signs and symptoms, and a video recording, livestock managers can have direct contact with a remotely located large animal veterinarian services. Such interaction decreases travel costs by remote diagnosis of non-urgent issues, confirms equipment and medicinal needs that need to accompany the veterinarian when long distance farm calls are deemed necessary, and establishes a veterinary-client relationship to help meet requirements of the Food and Drug Administration's Veterinary Feed Directive Regulation.

Regional Winner

THE SPOTTED LANTERNFLY, LYCORMA DELICATULA: EXTENSION'S ROLE IN EDUCATION AND COMMUNITY INVOLVEMENT

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The spotted lanternfly, Lycorma delicatula (White), an invasive fulgorid planthopper, was first discovered in September 2014 in eastern Pennsylvania. It has potential to impact grapes, stone fruits, ornamental plants, and forest product industries. Early detection is vital for the protection of Pennsylvania businesses and agriculture. A quarantine order has been issued by the Pennsylvania Department of Agriculture (PDA) to try to prevent the spotted lanternfly from being introduced into additional areas. Residents and businesses need to know how to be compliant with the quarantine order. There is an on-going collaborative effort between state and regulatory agencies, Penn State Extension, local governments, and community groups to promote community teambuilding and provide education about this insect. An eradication effort is underway which relies on PDA personnel and trained community volunteers. Since the spotted lanternfly was discovered in 2014, Penn State Extension has organized or presented at least 19 face-to-face educational sessions, which were attended by more than 1,000 participants. Four articles were written and published in blogs and Extension newsletters. Ten radio, television, and newspaper interviews were also conducted. Extension provided training to volunteers participating in the eradication effort and to Master Gardener volunteers. Monthly conference calls are held to communicate progress and challenges. In 2014-2015, an estimated total of 603,645 spotted lanternflies were eliminated through egg mass destruction, and 174,390 spotted lanternfly nymphs and adults were captured and destroyed. Management practices are on-going and Penn State Extension continues to provide educational support for industry stakeholders and the public.

AGRICULTURE ACROSS THE AGES: TOOLS AND RESOURCES IN PREPARING FOR LATER LIFE FARMING

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A recent survey of New Jersey farmers (n=137) showed that almost 75% of respondents expected to pass down the farm to their children, and yet in another survey only 16% had a transition plan, 40% had written goals, and 50% had wills. How can these expectations possibly be met without 'breaking the silence' and planning for the future they prefer? Funded through a USDA/NIFA award and Northeast Extension Risk Management Education grant, The *Preparing for Later Life Farming* program was developed to assist multi-generational New Jersey farm families with education and resources in estate and transition planning. With additional support from the New Jersey Department of Agriculture and Farm Bureau New Jersey, a dynamic training program was developed to introduce concepts and communication strategies in a traditional setting. The program launched in 2015 with 65 producers attending one of three consecutive eight-hour workshops held regionally across the state. All program materials were provided to attendees on flash drives and the website, http://laterlifefarming.rutgers.edu, was launched to provide on-demand access to presentations and videos as references and to reach a larger audience. Post workshop, six month, and one year follow-up surveys revealed substantial knowledge gains and actions taken by these farm family participants. The website has logged over 200 video views, and survey respondents have requested the workshop be repeated periodically to reinforce what is presented online. Utilizing these communication techniques to educate clientele on estate planning has proven highly successful in getting this important conversation started back at the farm.

COLLABORATION IS ESSENTIAL TO DEVELOP AN EFFECTIVE FARM FOOD SAFETY PROGRAM

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The fruit and vegetable industry is under increased pressure to improve their food safety practices. This is even more important with the enactment of the Food Safety Modernization Act which will be implemented over the next several years. Fruit and vegetable growers need to understand the risks involved in production of raw agricultural commodities, how to reduce those risks and how to develop a robust food safety plan specific to their farm. Outreach to farms on the topic of food safety and third party audit compliance began in 1999 at the request of New Jersey growers and has reached over 6,000 growers since then. The Rutgers On-Farm Food Safety team provides education through regional workshops, industry meeting presentation, timely blog posts on the Rutgers Plant and Pest Advisory and farm walk throughs. The New Jersey Department of Agriculture has been a key partner in this education, as it oversees the New Jersey Food Safety Task Force, USDA Third Party Audits in the state and will likely implement the Food Safety Modernization Act. The New Jersey Food Safety Task Force is comprised of members representing State agencies, the grocery industry, wholesale produce buyers, the Jersey Fresh program, Farm Bureau and Extension. These annual meetings are informative for all participants on the food safety needs of the produce industry and help guide the development of programming and outreach. Collaboration is at the foundation of the Rutgers On-Farm Food Safety program and imperative to the quality of assistance to NJ producers.

COMMUNITY SUPPORTED AGRICULTURE

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Poster URL: http://www.slideshare.net/KeneshaReynoldsAllie/community-supported-agriculture-59613104

Community Supported Agriculture (CSA) is not a new marketing concept in the U.S. However, more farmers are taking advantage of this marketing strategy, driven primarily by the increase in the local food movement and consumer demand for fresher, healthier locally grown food. The basic premise of a CSA is mutual risk taking and production support by both consumers and the farmer. In return for their investment or subscription, CSA members receive a portion of the harvest during the growing season (Komar, 2012). This marketing strategy is unique and fits the unique conditions of agriculture in New Jersey. The state is one of the densest population in the country, with only approximately 15% of its land space dedicated to agriculture. The average size of farms in the state is 79 acres, where majority are considered small farms by USDA's definition. Given this challenge, majority of farmers utilize retail or direct-to-consumer marketing channels. Based on producers demand, two CSA workshops were held to provide information on what is becoming a popular direct-to-consumer marketing strategy in NJ. The workshops were attended by a mix of farmers: new/beginning, as well as farmers that has been farming for decades; and farmers who currently has a CSA operation and those looking to start or restart one. Topics presented included CSA marketing strategies, farm analysis, budgeting, customer communications, share pricing, food safety and regulations. All participants gave positive feedback, and gained valuable information for their current or future CSA operation.

MINIMIZING POWERPOINT TO MAXIMIZE LEARNING

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PowerPoint is a useful tool allowing everyone to clearly see a presentation. Conversely over-use of PowerPoint can be detrimental to an educational program by causing the audience to become disengaged. Breaking out of this common problem requires more pre-class preparation and can sometimes be stressful for the presenter but can greatly increase participant knowledge gain. "Gardening by the Seasons" is an Extension program in which a short, simple presentation is delivered followed by a hands-on activity. Hands-on training is not new to Extension educators. Our techniques for minimizing PowerPoint, however, have created an interactive and comfortable atmosphere by using additional pre-program preparation, engaging the audience and enlisting participants as co-producers of their learning. These techniques have proven to be beneficial to both the presenters and the participants. Due to altering our methods we have attained a 99% overall participant satisfaction rating. Furthermore, participants reported affirmative changes in their level of understanding as a result of the class. When surveyed via a post-pre test the results were as follows: Those who reported "No Understanding" decreased by 100%; "A Little" decreased by 94.4%; "Some" decreased by 57.7%; "A Lot" increased by 90% and "Complete Understanding" increased by 207.7%.

SWOT ANALYSIS EDUCATION FOR DIRECT MARKETING AND AGRITOURISM FARMS

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Poster URL: http://www.slideshare.net/minfante4ag/2016-nacaa-ex-education-poster-swot-analysis

Strength, Weakness, Opportunity and Threat (SWOT) analysis is a common business planning and management tool. SWOT analysis is an excellent tool for farmers with direct marketing and agritourism operations. The Rutgers Agritourism Working Group teaches SWOT analysis to both farmers and undergraduate students. This is accomplished via extension education programs and an on-campus course (AFS 011:020:315 - Direct Marketing and Agritourism). SWOT lectures at 4 educational conferences were presented to 212 farmers in 2015-2016. During the 2015 fall semester, 17 undergraduate students were taught SWOT analysis and performed hands-on analysis during 2 farm visits. s and weaknesses are the internal factors that can be controlled by the farmer. Assessing strengths often identifies roles and talents of each family member or manager, farm assets, and the ability to produce and market farm products. Objectively evaluating an operationâ€™s weaknesses may be difficult, but can reveal needed improvements and identify performance concerns. Assessing opportunities and threats identifies factors attributed to external sources not controlled by the farmer. Opportunities such as high per capita income of area residents or current market trends may positively influence the farm business. Conversely, threats identified as not controlled by the farm can be potentially detrimental. Examples of threats include storm damage, poor economy, or overburdening regulations. Farmer self-assessment using SWOT analysis has been well received and continues to be taught in extension educational events to help improve farm management.

USE OF COLISCAN EASYGEL PETRI DISHES FOR MONITORING OF E. COLI AND FECAL COLIFORM BACTERIA IN A RECENTLY RE-FILLED LAKE

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Coliscan Easygel petri dishes have been used for volunteer monitoring and other citizen science projects. The product promises relatively easy and effective measurements of E. coli bacteria and total fecal coliform bacteria. Samples of lake water were taken and assessed with Coliscan Easygel weekly at three locations in Sunset Lake, Bridgeton, NJ, from June 2015 to March 2016. Samples were incubated in the proprietary petri dishes for 24 hr. at 35 C, and bacteria colonies were counted by extension faculty. The product proved to be relatively inexpensive and easy to use compared with EPA-approved laboratory membrane filtration methods, and gave quantitative results over a wide range. E. coli concentration measurements were similar to values from County Health Department samples and to historical values, both of which were determined by membrane filtration methods. The tool shows promise for use for waterbody monitoring by extension personnel as well as for youth and citizen science education projects.

ANNIE'S PROJECT: EIGHT YEARS AND COUNTING

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Annie's Project is a nationally recognized and accomplished farm management program for women. It provides education, tools and resources for women in agriculture to gain more

knowledge of farm business operations. Annie's project empowers participants with the knowledge to make educated decisions for their family and future. In 2008, Annie's Project began in Maryland at one site. In 2010, the project expanded to 10 sites in Maryland and Delaware and in 2015 added a site in Virginia. The program in total has reached 514 participants to date.

Evaluation data has been collected since the beginning of Annie's Project. This includes a pre-class, end of class and 18 month follow up evaluation. There are eight topic areas that participants focus on and are encouraged to implement following the project to improve farm management. Participants conclude the program with a high intent to write business and marketing plans, use computers, check credit reports, prepare financial statement, update estate plans, and positively increase community and family relations. Follow up evaluations report a 55% implementation rate of knowledge and skills gained. Participants also report increasing profitability (44%) between $2,387 and $3,994. This poster will summarize the past eight years of Annie's Project in the MidAtlantic and share evaluation results including participants implementation of practices on the farm and increased profitability.

ASSESSING GROWERS RESPONSE TO INCREASING BIOSECURITY DEMANDS

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Biosecurity can be defined as any and or all procedures used to prevent the introduction and spread of disease-causing organisms. Because of the recent highly pathogenic avian influenza (HPAI) outbreak in the U.S., poultry growers are encouraged to implement better on-farm biosecurity practices. Working with industry professionals and extension personnel on Delmarva (DE, MD, VA), a multistate education program was conducted. As part of this program a series of six "Poultry Grower's Disease Control Workshop: Keeping Disease Off of the Poultry Farm" workshops were held. Prior to the workshop growers, industry personnel and government employees were surveyed using audio response devices to determine what biosecurity measures they were currently using. To determine what impact the workshops had, a follow-up survey was conducted approximately three months following the workshops. Results showed that 87% of growers had made changes to their biosecurity plans, with adding signage (93%) and footbaths (91%) as the most common changes. Additionally, 100% of growers reported that they are requiring visitors to wear protective clothing when visiting the farm. These results show that poultry producers on Delmarva are making changes to meet improved biosecurity requirements.

DESIGNING RISK MANAGEMENT EDUCATION FOR MAINE FARMERS

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Poster URL: https://www.slideshare.net/secret/wa0PMcvQwHPbJt

Maine farmers are identified as "underserved" by the USDA Risk Management Agency (RMA) due to low crop insurance participation and program availability. The University of Maine Cooperative Extension in partnership with RMA created the Maine Risk Management and Crop Insurance Education Program. The objective is to provide farmers the information needed to make informed risk management decisions. From 2014-2015 our methods were to reach Maine farmers through trainings at state commodity meetings and mass communication outlets such as Extension newsletters and websites. As a result, we reached approximately 13%[1] of Maine farmers (n=1,031) in-person and 83,651 through mass media. During 2015-2016 we've made further efforts to target our audience and quantify outreach impacts through surveys distributed at the conclusion of trainings. Our goal was to identify the farmers we're reaching, identify the issues preventing Maine farmers from enrolling in crop insurance, and measure the impact our outreach has on farmers' knowledge of risk management programs. Results (n=155) indicate our audience was primarily experienced farmers (farming greater than 10 years) marketing three or more crops. Farmers identified "other" as the top reason they did not enroll in crop insurance and 51% of farmers said their knowledge of risk management programs increased "somewhat" as a result of our presentation. Based on survey results, future outreach should include "real world" examples of crop insurance programs for diversified farmers in practice, identify "other" farmer barriers to crop insurance through increasing farmer dialogue, and involve farmers in future presentations to increase knowledge.

ENCOURAGE GARDENING ONE TOMATO AT A TIME

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Poster URL: https://www.slideshare.net/secret/ITXFoNo8I8PrPJ

If you haven't grown a garden ever or it has been a long time since you had a garden, planting a garden seems intimidating and over whelming to some folks. To try to encourage more people to grow their own vegetables UMaine Extension Piscataquis County Executive Committee adopted the One Tomato™ project.

In the past two years one cherry tomato plant was given to 495 folks at food cupboards, a community event, and at the Extension Office, to plant in a container or in a garden to take care of and harvest during the growing season. They were

given factsheets on container gardening and could sign up for a newsletter or view Facebook postings. 75 plants were given to a prison garden that provides food for the food cupboards.

Of the 495 people who completed the survey, 78 (16%) had never gardened and this was their first garden, 90 (18%) have only gardened 1 to 3 years. 167 (46%) signed up for the electronic newsletter. For 25% of the people, this was the first contact they had with UMaine Extension.

At the end of the season a survey found 19% had no harvest, 38% harvested a handful of cherry tomatoes, 19% harvested a bowl full and 25% said they harvested a bucket full of tomatoes. If the handful (cup) was valued at $1, the bowl full (pint) at $5 and the bucket full (gallon) at $20 then the estimated value of harvest of all plants distributed was over $3,100.

North Central Region

CULTIVATING SUCCESS FOR FEMALE FARM OPERATORS IN OHIO

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Female farm operators involved in the production and sale of commodity and specialty crops make up more than 28% of agricultural producers in Ohio. Extension professionals involved with the Ohio Women in Agriculture Team (OWIAT) collaborate to develop and deliver the five areas of Risk Management Education (human, financial, marketing, production and legal) to empower women to be better stewards and business partners of their operation. OWIAT developed the Ohio Women in Agriculture Learning Network (OWIALN) in 2014 to extend learning, create confidence, and cultivate connections among women interested in food, agriculture, natural resources and small business. Modeled after eXtension's WIA Learning Network, OWIALN provides women with research-based educational and mentoring opportunities reaching >700 women via social media and electronic newsletters. In 2014-15, OWIAT provided innovative outreach programs to >277 Ohio women and 60 youth through: 1.) The East Ohio WIA Conference, a one-day conference featuring break-out sessions focusing on risk management topics, the role of mentoring, and a youth track encouraging high school students to learn alongside adult participants, 2.) Growing the Knowledge, Skills, and Success of Farm Women incorporates direct marketing, produce safety, social media and retail topics into Annie's Project programs for specialty crops producers, and 3.) Traditional risk management education through Annie's Project across the state. The impacts of OWIAT and OWIALN efforts to directly strengthen communication skills, enhance management skills, and create local networks for Ohio women involved in all aspects of agriculture will be highlighted.

GOOD AGRICULTURAL PRACTICES EDUCATION PROMOTES PRODUCE SAFETY IN OHIO

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The Ohio State University Fruit and Vegetable Safety Team (FVST) formed in response to producer requests for food safety education programs. Team members now deliver Good Agricultural Practices (GAPs) training for clientele in Ohio. The FVST ensures a strong scientific basis behind the best practices taught and recommended to clientele, provides helpful tools and resources to develop risk assessments and food safety plans for the farm, and promotes high-quality, safe produce from Ohio growers. Extension educators and program staff develop curriculum and provide training workshops and educational materials on all aspects of produce safety. Three-hour workshops educate participants on reducing on-farm safety risks due to wildlife, biological soil amendments, pre and post- harvest water quality, human health and hygiene, and equipment ,tools and buildings. Workshops also incorporate newly defined legislation found in the Food Safety Modernization Act. Educational programs and workshops have been tailored for traditional producers, Amish producers (no technology allowed), community gardeners, farmers market vendors, CSA operators, greenhouse growers, among others. More than 660 producers participated in these trainings in the past two years.This poster provides an overview of the FVST, GAPs educational programs and efforts in Ohio, and the impact of these efforts on Ohio agriculture.

GREAT LAKES VEGETABLE WORKING GROUP ADDRESSING INDUSTRY PRIORITIES

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The Great Lakes Vegetable Working Group (GLVWG) was organized in October 2004 with funding support from the NC IPM Center. Members are researchers and Extension specialists from the departments of Entomology, Horticulture, Plant Pathology, and Weed Science primarily from land grant universities located in IL, IN, KY, MI, MN, NY, OH, Ontario, Canada, PA, and WI. Vegetables are high value crops that are management intensive, with a farm gate value in the Great

Lakes region exceeding $1 billion annually. While researchers, specialists, and Extension educators dedicated to vegetable production continue to shrink, the GLVWG consists of a broad community of knowledgeable individuals united by common regional IPM priorities. The GLVWG members have met annually since 2004 to exchange current vegetable crop research and extension education information that strengthens interstate and international cooperation, and is the mechanism used to identify current priorities affecting the vegetable industry.

A Social Network analysis survey was completed in 2014 of the 156 GLVWG members. A 33% survey response rate indicated that networking, collaboration and information sharing are the three greatest impacts of the GLVWG. Results indicate the most useful part of the annual meeting was networking, meeting others and knowing who to contact.

TEACHING MASTER GARDENER VOLUNTEERS THE PROCESS OF PLANT AND PEST DIAGNOSTICS VIA THE 20 QUESTIONS OF DIAGNOSIS

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A frequent activity asked of Ohio Master Gardener Volunteers (MGVs) is to diagnose cultural, disease and pest problems of plants for Ohio residents. OSU Extension Educators developed hands-on, day-long educational programs to prepare MGVs to perform diagnostics. For five years, four to five programs were conducted at various locations throughout the state each year. The diagnostic training was organized around the OSU Extension FactSheet PP401.03 entitled, "20 Questions on Plant Diagnosis." The 20 questions guide readers through a process of developing a sound diagnosis. To demonstrate the process, fresh samples of diseased and healthy plants and multiple pests were collected from the field. Samples include examples of: properly and poorly collected samples, problems of known and unknown causes, and healthy plants. The samples were then organized to correspond with the 20 questions presented on the fact sheet. Participants were given time to examine the samples to attempt to make a diagnosis as to why each sample was collected. After the allotted time for the initial examinations, presenters walked the MGVs through the 20 questions of diagnosis to explain the process. The diagnostic process was the main lesson. The samples were tools to get the MGVs to think through the process. Approximately 150 MGVs were trained each year. The trainings were rated as highly valuable by participants. End of program evaluations were used to measure knowledge gained and increased confidence in their abilities to diagnosis plant problems. The trainings have been successfully presented to audiences at both national and international conferences.

USING FIELD DAYS TO MEET PESTICIDE AND FERTILIZER CERTIFICATION REQUIREMENTS

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Poster URL: http://champaign.osu.edu/sites/champaign/files/imce/Misc_Files/Ag/Flyers/NACAA2016Poster.pdf

The Ohio State University Extension (OSUE) Agriculture and Natural Resource (ANR) Educators have been tasked to provide training for fertilizer applicators as part of an effort to address water quality concerns. The typical timeframe that these certification meetings are held is during the winter, utilizing a lecture-based format. However, many studies have shown that by employing different teaching methods, a profound impact can be made on the desired behavioral change by learners in attendance at the program.

During the summer of 2015, OSU Extension delivered Fertilizer Applicator Certification Training (FACT) programs in several Ohio counties in a field day format, combining lecture-based teaching with hands-on demonstrations. This format allowed farmers to engage with the principles discussed in lectures through a variety of activities.

Program evaluations were distributed to assess participants' perceptions of teaching methods and knowledge gained as a result of attending each type of program. Analysis of surveys indicates that both types of training methods were appropriate; however, there was a statistically significant higher agreement that the field day methods were more fitting. The field day and lecture format received the same rating for appropriate educational materials and improved knowledge leading to the conclusion that both are an equally effective teaching method.

UTILIZING MASTER GARDENER VOLUNTEERS AS EXPERTS TO EXPAND A COUNTY BASED PLANT AND PEST CLINIC

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Volunteers are a tremendous asset to Extension programming. With proper training, they can take a program from Good to Great! In 2012, a new educator decided to upgrade a county program from Good to Great by expanding an existing Plant and Pest Diagnostic Clinic. The upgrade began with an analysis of the program and impacts based on the number of volunteers involved, hours spent and the number of questions answered.

A basic training was implemented, resulting in a doubling of the number of volunteers and the number of hours volunteered through the clinic from 2011 to 2012. Renewed interest in the clinic from volunteers spurred a clinic reorganization, with new equipment purchases and the implementation of a train the trainer program in 2013. The trainees (Master Gardener Volunteers) then trained more new volunteers during several mini trainings in 2013, 2014 and 2015. Marketing efforts were planned and implemented to promote the clinic through email newsletters and newspaper articles. Soil testing was added as a for charge service of the clinic to meet the growing demand for answers from the public. As a result these efforts, the number of questions answered through the clinic increased steady over the five year period from 378 questions in 2011 to 812 questions in 2015. A survey of volunteers shows the clinic is improving due to training and volunteer ability to provide timely answers to clientele. The clinic is recognized as a great public service for homeowners and professionals.

YOUNG LADIES, SCIENCE, AND URBAN AGRICULTURE

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Since 2009 the emphasis of the Montgomery County Agriculture and Natural Resources Urban Agriculture program has been agricultural education with the target audience being the underserved populations in identified "food deserts." During an educational trip to the 2014 Farm Science Review two community organizers saw the opportunities for women in agriculture if there was a strong foundation in science. Extension Educators responsible for the urban agriculture program were approached for assistance in planning two summer programs. Four Master Gardener interns assisted with development and delivery of the programs. Twenty - four young ladies ages 8 to 14 years participated. With the emphasis on science the participants learned to build raised beds: doing the measuring, learning how to handle tools, squaring the beds, planting the seeds, and harvesting the produce. Micro greens were planted in containers, placed on the grow table, allowed to grow, and taken home for participant's families to enjoy. Vermiculture composting showed the benefits of recycling and what could not be recycled. At the end of each session the participants discussed what they had learned that day and the science principles involved. Participants kept journals recording their observations regarding the weekly plant growth and weekly weather conditions. Participants' observations and science principles involved were discussed weekly. Participants' verbal responses showed an increased understanding of applied science principles and the desire to continue learning by growing produce on their own. Videos were shown at the final session allowing the parents to see and the participants to discuss their experiences.

EDUCATING THE NEXT GENERATION OF IRRIGATION MANAGEMENT THROUGH EXCELLENCE IN AG SCIENCES DAY

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When Nebraska Extension and Nebraska Agricultural Education partnered in 2007 to create Excellence in Ag Sciences Day, a tremendous response in collaboration between the two organizations has resulted with a huge impact by reaching agriculture education students through teachers. Excellence in Ag Sciences Day is an annual professional development program for Nebraska agriculture education instructors held in the summer.

Sixty Nebraska agriculture teachers participated in the 2013 Excellence in Ag Sciences Day that focused on irrigation management, specifically equipment used by the Nebraska Agricultural Water Management Network. A one-year follow-up survey indicated:

- 84% majorly or significantly improved their knowledge on crop water use estimation.
- 50% of teachers plan to start teaching irrigation management.
- 48% of teachers plan to expand or modify their water conservation curriculum.
- 82% saved time (from not having to prepare lessons, etc.) by participating in the conference.
- 98% said this would improve their classroom curriculum.

Excellence in Ag Sciences Day was held at Omaha Bryan School in 2015 with thirty-eight agricultural education instructors learning about precision agriculture; specifically unmanned aerial vehicles, basics of field prescriptions and emerging irrigation technologies.

A post evaluation with an 87% response yielded the following results:

- All participants indicated precision ag discussion as useful, with 93% rating the overview of unmanned aerial vehicles useful for their curriculum.
- 88% of participants rated emerging technologies to protect water quality session as very useful.
- Nearly 90% rated emerging irrigation technologies as useful.
- 97% of participants rated the overview of precision ag tools as useful.

PERSPECTIVE OF AGRICULTURE AND NATURAL RESOURCE EXTENSION EDUCATORS ON CLIMATE CHANGE AND RESOURCE NEEDS FOR THE NORTH CENTRAL REGION

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Poster URL: https://unl.box.com/s/ub0ox2o0u8he4mfmt76bkbcj4ot5v2ff

Shifts in crops, cropping seasons, winter hardiness zones, etc. are occurring throughout the United States in response to observed changes in the climate. For example, corn acres have increased in North Dakota and Northern Minnesota as growing conditions have become more favorable. It was recognized that changing climate and weather conditions may result in additional needs of agriculture and natural resource (ANR) county extension professionals. An email survey was delivered to all ANR extension professionals in the north central region (except Missouri) either directly to their email or as an email from the state ANR program leaders. Survey results from 275 participants showed 63% where somewhat or very worried about global warming and when asked to rate the level of concern they hear from their constituents 47% reported medium, high or very high level of concern and 46% reported low concern. Respondents' level of education about climate change was low with 34% reporting little or no education and 50% reporting some education. This highlights the need for extension to build basic competencies in the area of climate change and its impacts on agriculture as 75% indicated that climate changes should be a medium, high or very high priority for Extension. When asked what topics needed additional information, management practices for coping with drought, extreme rainfall, and unseasonable weather, as well as resources for self-education received the highest response rates. Identification of these resource needs presents an opportunity for research and extension to develop information and training for county extension professionals.

STORMWATER PRACTICES AND MAINTENANCE CORE CURRICULUM (SWCC) EMPOWERING PRACTITIONERS AND EDUCATORS TO LEARN STORMWATER BASICS AND TEACH OTHERS

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Motivated by the need for clean water, a collaborative team of stormwater educators, researchers, and professionals from across the country have developed an on-line research based *Stormwater Practices and Maintenance Core Curriculum*. The goal of the course is to empower practitioners and educators to learn stormwater basics and teach others so that communities can optimize stormwater operations and exceed clean water goals.

Led by University of Nebraska Extension & University of Minnesota Extension and funded by aNorth Central Region Water Network (NCRWN) seed grant, a team began conducting needs assessment and developing the course using the Moodle platform and eXtension online campus. Finally, an extensive peer review along with two pilot evaluations were carried out to significantly improve the course. A detailed promotional plan has begun and will be carried out into 2016.

The project has already generated many significant outcomes and impacts including creation of a new and sustainable collaborative extension stormwater "community" in the North Central Region; and increase in skills of area Extension Educators in developing online courses with national and regional exposure; and a better understanding of multi-state stormwater issues and gaps. A major goal is to use the course to provide professional development within the the NCRWN 12 states region. SWCC will enable new and early career stormwater practitioners and educators to obtain professional development training to optimize their stormwater operations and meet their community clean water goals.

STORMWATER SLEUTH AND RUNNING RAIN: EDUCATING YOUTH ABOUT STORMWATER RUNOFF AND GREEN INFRASTRUCTURE SOLUTIONS

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With this poster, participants will learn about and experience "Stormwater Sleuth and Running Rain - Keeping It Clean! Slowing It Down! Soaking It In!" educational resources for youth. The resources were developed by the University of Nebraska-Lincoln Extension Stormwater Education Team to teach decision makers of tomorrow about stormwater issues and green infrastructure solutions. Along with sleuth resources, education activities used with youth and selected impacts will be shared.

Municipal stormwater management is a critical water resources issue. In developed landscapes, large volumes of stormwater runs off impermeable surfaces, transporting pollutants to surface water and decreasing the amount of rainwater that infiltrates - thus reducing soil moisture and groundwater recharge. Traditional practices of moving stormwater off-site as quick as possible with grey infrastructure are changing to managing stormwater on-site with green infrastructure.

Educating youth about stormwater issues and green infrastructure solutions is important to gaining understanding and increased acceptance and use of practices that conserve and protect water resources today and in the future.

Education resources include: a comic-style booklet; "how to" sheets to guide educators through hands-on activities such as estimating how many gallons of water runs off of a roof during a rain event; and a custom-designed card game. Each card illustrates and defines an example of a water threat, green infrastructure, or other best management practices such as sweeping fertilizer granules from pavement. Youth match solution cards to water threat cards and discuss their reasoning. This kit has been pilot-tested by 117 Nebraska schoolis 2014.

HEIRLOOM SEED LIBRARY

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The Springfield-Greene County Library, in collaboration with University of Missouri Extension, established the Heirloom Seed Library in 2015. The mission of the Heirloom Seed Library is to inspire and educate community members in the agricultural plant practices of seed saving and home food production. Funded initially with a grant and with donations of heirloom seeds, the project includes facilities for seed packaging and storage, seed checkout and return displays at two library branches, a lending library of seed saving references, seed swap events, and educational seminars on seed saving and other gardening topics. Over 2065 packages of seeds were distributed through the project in 2015, with an average of 4 packages of seeds distributed each to over 500 library patrons of the seed library. Twenty packages of saved seeds were returned to the project by patrons in 2015. Two seed swap events attracted over 150 people. Over 140 people have participated in educational seminars on seed saving and other gardening topics. Seminar attendees reported an average knowlege gain of 3.875 (on a 1-4 Likert scale) of gardening and seed saving following the trainings, and 66% planned to start saving seeds. Plans for 2016 include expansion of the project to additional library branches, development of a core collection of seeds, increased partnerships with community groups, and improvements in seed checkout.

MASTER GARDENER CORE COURSE TRAINING-ONE YEAR'S STATEWIDE EVALUATION

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The Missouri Master Gardener program has conducted core course training since the1980s, with about 400 individuals trained annually. But while many evaluations have been conducted, these never occurred uniformly across the state. An effort began mid-year 2014 to redress this. To insure all training locales be represented, both Fall 2014 and Spring 2015 trainings were included, thus a complete year. The University of Missouri's Assessment Resource Center was contracted to assist in developing an evaluation instrument, which had 31 questions, some requiring multiple answers. While entered online, paper completion was available. For the year, 207 surveys were completed, an estimated 55% response rate. Thirty-nine of Missouri's 114 counties responded, with the dominant age group being 45 to 62 and an employment status dominated by retired or working full time. All aspects of customer satisfaction and knowledge gained were high. Likely changes in gardening practices was above 75%. The evaluation broke new ground by inquiring about important, but less easily gauged aspects, like economic value, enthusiasm towards volunteering and changes in attitude towards University of Missouri Extension and the university overall. On volunteering enthusiasm, 60% reported a moderate to large increase. Regarding awareness, understanding, appreciation, and trusting MU Extension and University of Missouri, a moderate to large increase was reported. This included the county extension center and value of education. On economic value, 26% estimated saving between $50 and $100 the first year, and over 40% anticipated saving more than $100 to over $300.

MEASURING PRODUCER ADOPTION WITH THE FOCUS IN FORAGES PROGRAM

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A long-term adoption evaluation was conducted on our Focus on Forages program. This program was designed to improve forage production and increase livestock production efficiency and was started in 2006 and continued through 2015. Extension specialists presented different education topics during an annual summer evening meeting and producers toured forage plots. The meeting was held at the Hundley-Whaley Research Center located at Albany, Missouri. A survey instrument was mailed to growers who attended past meetings and growers were asked to return the survey. The survey consisted of twenty seven statements and asked growers to rate their percent change. The reported results are averaged across producers and indicated change in their operations ranging from a low of 4% to a high of 52% and . More specifically, producers rated two practices above 50%; increased forage production per acre and over-seeded red clover into pasture. Within the range of 40 to 50%, producers, increased forage quality, increased rate of gain, increased forage production per

acre, increased number of cows on same number of acres, increased weed control in forage systems, managed KY-31 endophyte by adding legumes. Next, in the range of 30 to 40% change, producers increased nitrogen rates to increase forage production, moved spring nitrogen to fall and added red clover, reduced KY-31 endophyte by clipping seed heads, reduced toxic endophyte by diluting feed, stockpiling fescue to reduce hay needs, increased forage testing and used forage budgets to increase profitability.

TEACHING GARDENERS ABOUT PRODUCING PREPARING, AND PRESERVING TOMATOES AT THE BUCHANAN COUNTY TOMATO FEST!

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Home gardeners usually have their favorite tomatoes which they have grown for years. While Extension Specialist encourage gardeners to try new cultivars, they often lack an opportunity to taste new cultivars without actually growing them. For many years, there has been a trial demonstration garden at the Buchanan County Missouri Extension Center. The trial includes over fifty varieties of tomatoes, many of them heirloom varieties. The regional horticulture specialists and Master Gardener volunteers decided to have a Tomato Fest! For the past three years they opened the trial garden to the public, so that area gardeners could see the cultivars, growing methods and have an opportunity to taste them. Master Gardeners grow and manage the demonstration garden. At Tomato Fest! participants can take notes on specific cultivars and rate them as they taste them. Extension Specialists and Master Gardeners give talks and demonstrations on growing, preparing and preserving tomatoes. This event has been a great success, averaging nearly 200 people per year attending and learning more about producing, preparing and preserving tomatoes.

TEACHING PASTURE-BASED DAIRY CURRICULUM VIA ONLINE TECHNOLOGY

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Pasture-based dairy production has steadily gained in both acceptance and practice in Missouri during the past twenty years. Educational efforts targeting pasture-based producers have focused on producer discussion groups, Missouri Dairy Grazing Conferences, demonstrations at the University of Missouri Southwest Research Center, and various other educational events. In 2011, members of the MU Pasture-Based Dairy Team developed and team taught a three credit-hour on-line course, AN_SCI 4001 Pasture-Based Dairy Production, for students enrolled in MU's College of Agriculture, Food and Natural Resources. The course covers all management aspects of pasture-based dairy production and features a four-day "lab segment" following completion of on-line content. AN_SCI 4001 was offered again in 2012, but in an effort to further extension's educational outreach, was opened to non-traditional adult learners (producers) in addition to MU students. The continued interest in the course from both traditional and non-traditional students has led to it being offered each spring semester since 2011. In six years 88 traditional and 16 non-traditional students from six states and Ecuador have completed AN_SCI 4001. This course has demonstrated student learning and impact through 1) Classroom assessment 2) Students entering the dairy industry as farm employees, managers and owners 3) Demonstrated proficiency through on-farm adoption of course concepts. AN_SCI 4001 has provided an effective new avenue for MU Extension and the MU Pasture-Based Dairy Team to effectively educate present and future employees and owners of pasture-based dairy operations.

TEAMS USING TECHNOLOGY TEACHING LEASE WORKSHOPS

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Agricultural leases for farmland have become more complex as agricultural inputs and land have increased in value. In addition many landowners are further removed both in experience and geographically from the farm. This has created an environment with more leasing due to the higher land values and landowners less familiar with agriculture. The need for risk management education on leasing is growing. The high number of requests for information has been an indicator of the need for education for both land owners and tenants. A team of agriculture business specialists worked together to take a traditional topic, develop examples and create an interesting and educational workshop. Newer

technology has been incorporated into the delivery method. The program includes: types of leases, current trends, legal termination, methods of leasing and items to include in a lease. This program was designed to be delivered by a team using a combination of presentations, discussions on-site and written materials. The program has been delivered through distance learning interactive networks and via computers using Internet. The participation rate has been much higher than anticipated. Both land owners and tenants have participated to increase their knowledge and understanding of leases. The age group has varied from young farmers to retirement age individuals. An evaluation tool has been used to gather feedback at the conclusion of the program. The feedback has been used to modify the program and delivery.

THE SHOW-ME SHEEP AND GOAT PROJECT: MANAGEMENT EDUCATION FOR SHEEP AND GOAT PRODUCERS

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Sales of sheep, goats and their products have increased by nearly sixty percent from the 2007 Census to the 2012 Census in Missouri (roughly $9.5 million to $14.7 million). This increase in value is likely due to the growth in ethnic populations statewide. In West Central Missouri, sheep and goat producers have experienced this increase in demand and value. The University of Missouri Extension, together with Lincoln University Cooperative Extension, has begun offering a 4-session course that discusses raising sheep and goats as a profitable enterprise focusing on livestock production and financial management. This course includes classroom demonstrations, lectures, and hands-on exercises. At the end of the course, participants were given a survey to determine knowledge gained and skills attained. There was also a follow-up survey 6 months later to determine behavioral change. Every participant reported knowledge and skills gained including ways to identify profitability both at production and financial levels. Of those that returned the follow-up survey, increases in pasture stocking rate and decreases in per head production costs occurred.

YOUR FARM YOUR BUSINESS YOUR FUTURE

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In Missouri, 99,000 farms have land assets valued at $65 billion based on the 2012 Census of Agriculture. Farm numbers are declining and the farm operators are aging. There is a growing awareness among farm families that they must make thoughtful plans with their life's farming assets before they die. MU Extension has developed a new, interdisciplinary curriculum to provide business and farm families with the tools to navigate family business succession, estate, and retirement planning. The curriculum development team included agricultural business, family financial education, and small business development extension specialists. The class is 12 hours in length and is taught in four, 3-hour sessions. The first session covers initial planning goals, intergenerational differences, and communication. Session two is on succession business planning and entity selection. Session three, estate planning covers probate, wills, trusts, and titles. Session four addresses pre-retirement investments and monetizing farm assets. An innovation to the technical information is the inclusion of a fictional farm family case study. In addition to providing a familiar context for the technical material, the Biggins example provides a safe context in which the class participants can ask personal questions. Evaluations from the first three classes taught with this new curriculum have shown an increase in property owners reviewing their real estate titles and communicating their wishes to their heirs. All participants better understand the purpose of probate and the associated fee structure. Furthermore participants realize the differences and interdependency of succession, estate and retirement planning.

EXTENSION PROGRAMMING AND THE AVIAN INFLUENZA EPIDEMIC OF 2015

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Highly Pathogenic Avian Influenza (HPAI) arrived in Minnesota and the Upper Midwest in March 2015. It spread rapidly, infecting hundreds of farms. Nationally about 219 premises were affected resulting in the death or euthanasia of 48 million poultry. When the outbreak began on the West Coast in December 2014, UMN Extension Educators began to collaborate with state and federal agencies, and industry associations, to educate the public about HPAI. That meant planning outreach to large commercial operators, pastured poultry producers, urban/backyard poultry keepers, as well as keeping the general public informed of developments. A website was created that contains information about HPAI as it may affect pastured and organic producers, urban/backyard poultry owners, and for pigeon owners, as there was concern about their potential, however low, of acting as carriers of the disease. Numerous interviews with the news media occurred throughout the outbreak, to continue the process of informing the public. Over 4,000 page views occurred for the Extension Avian Influenza website, April-December 2015. A collaborative effort with turkey industry to gain adoption of the Danish Entry for barn access was established. Biosecurity practices information was targeted to specific audiences. Budgets related to different turkey production systems were developed. The economic impact report of HPAI has been incorporated into the federal record. UMN Extension efforts filled educational gaps for a large and varied audience in a short time period. The MN Turkey Association gave a special thank you to Extension at the Fall Conference for its collaborative effort.

USING YOUTUBE VIDEOS TO EDUCATE SMALL SCALE PIG FARMERS ABOUT BIOSECURITY

Schieck, S.[1]; Martin, W.[2]
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[2]Extension Educator, University of Minnesota, St. Paul, MN, 55108

Poster URL: https://drive.google.com/file/d/0BwefhHM6jXaMV3FiTUFyejVieEE/view?usp=sharing

In the winter of 2013, Porcine Epidemic Diarrhea Virus (PEDV) hit with devastating results in the state's swine population. It quickly became important to deliver accurate and accessible biosecurity information to small scale pig farmers so they could develop biosecurity protocols to minimize the introduction of PEDV or other disease pathogens into their swine herd. Educational efforts for this audience are a challenge because they are low in numbers and spread throughout the state. We chose to create a series of 4 videos to demonstrate biosecurity practices for small scale pig farmers. The videos were posted on the University of Minnesota Extension (UMN) Small Farms YouTube channel so that our audience could view the videos at any time. Using YouTube analytics we know about 63% of views are from the U.S with Minnesota and other Midwestern states recording the most views. Our videos have also been viewed internationally, with Canada and Philippines recording the most views after the U.S. In total the 4 videos have been seen by 3,000+ viewers. The video project was completed through an e-Learning grant through University of Minnesota (UMN) Extension Technology. We developed the script, filmed, and edited all video footage ourselves using an iPad, tripod, wireless mic, and Windows Movie Maker under guidance from UMN Extension Technology staff. Learning how to film and edit videos was a fun and valuable experience for us. We plan to use this new skill to serve our audiences on a variety of topics.

Regional Winner

EVALUATION OF PROFESSIONAL DEVELOPMENT: ANNIE'S PROJECT EDUCATOR CONFERENCES

Schultz, M.M.[1]; Scarbrough, L.J.[2]
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Poster URL:http://www.extension.iastate.edu/womeninag/files/articles/files/NACAA%20Poster_AP%20EducatorsConf_031516_4.pdf

Rationale: The USDA reports 31% of all farmers/ranchers are women; yet these women are an underserved audience. A JOE article indicates a best practice for professional development is to bring educators together around a program of mutual benefit. Annie's Project is a well-established program for farm/ranch women. With this in mind, two Annie's Project national educator conferences were presented in Ames, Iowa.

Main Objectives: The overall goal was to prepare educators to teach business management skills to farm/ranch women. Primary objectives were to: 1) meet educator needs for networking, programming and expertise, 2) present curricula and methodologies, 3) demonstrate and provide on-going support, and 4) encourage delivery of programs for farm/ranch women.

Methods: The Annie's Project leadership team and guest speakers led tours, presentations, video storytelling, panels and group discussions. The Research Institute for Studies in Education designed and conducted an independent evaluation. The survey was developed using Qualtrics (TM) online software. Educators were emailed the survey two months after the conferences.

Results: There were 54 attendees in 2014, and 57 in 2015, coming from 26 states. Participants returned 32 completed surveys in 2014, and 25 in 2015. Responses indicated 98% rated the overall quality of the professional development as above average or excellent. Respondents planned to offer 124 Annie's Project and similar courses and 75 other programs for farm/ranch women within 18 months.

Conclusions: Survey results provide evidence the Annie's Project national professional development conferences were effective in preparing educators to teach farm/ranch women skills for managing their businesses.

COVER CROP RESOURCE TOOL

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[1]Extension Educator, Ag. and Natural Resources, Purdue University Extension, Jasper, IN, 47546
[2]Extension Educator, Ag. and Natural Resources, Ohio State University Extension, Fremont, OH, 43420
[3]Extension Agricultural Agent, University of Wisconsin Extension, Sparta, WI, 54656
[4]Horticultural Specialist, University of Missouri Extension, Sainte Genevieve, MO, 63670
[5]Extension Agronomy Field Specialist, South Dakota State University, Watertown, SD, 57201

Soil and water conservation continues to be one of the major issues affecting modern agriculture as producers face challenges to preserve and improve soil productivity while also protecting natural resources such as fresh water sources and animal habitat. One widely accepted practice that works to address these challenges is the use of cover crops. Wide variations in growing conditions, soil types, and access to seed are just some of the scenarios that producers across the Midwest region of the United States must consider in their use of cover crops. The North Central Cropping Systems Academy Cover Crops Team developed a cover crop resource tool that provides information on cover crops species selection, economics, and management challenges. The focus of this project is to provide as much research based, non-biased information as possible so that it can be utilized by producers, university extension professionals, conservation agency staff, and private industry personnel. A comprehensive list of extension fact sheets, bulletins, training materials, and videos were gathered and put

into a sortable format so the user can find information based on a location or topic through web access. This resource guide can serve as the basis for extension educators to understand and teach the basics of cover crops in their areas, as well as become a readily accessible tool on the web to help producers make better informed cover crop decisions.

INDIANA MASTER CATTLEMAN

Walker, D.[1]; Brown, A.[2]
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Beef producers in Indiana are in need of in-depth educational programming that will help them increase productivity, efficiency, and profitability of their operations. In order to address these needs, a team of Purdue Extension Educators and Extension Specialists created the Indiana Master Cattleman program and launched it state-wide. This program is designed to help beef producers improve profitability through an increase in production efficiency, forage utilization, reproductive success, genetic selection, herd health, and business management. This advanced, in-depth, 10-week educational experience offers beef producers the opportunity to critically evaluate their cow herd and improve management techniques. Participants created a business plan, evaluated the efficiency of their cow herd, and strengthened their business management skills. The Indiana Master Cattleman program is an innovative, multidisciplinary educational program addressing issues relevant to Indiana beef producers. After hosting the program in two locations, 40 Indiana beef producers have been certified. 100% of participants had a written business plan, mission, and goals for their operation at the conclusion of the program. After participating in the program: over 75% indicated the marketing information will increase revenue potential; 83% had a better understanding of EPDs and $Indexes; 90% had an increased understanding of calving interval and its effects on profits, over 85% identified new or improved ways of measuring reproductive efficiency; and over 80% indicated they would develop a comprehensive herd health plan. Overall, participants indicated that the program helped increase the revenue potential of their operation from $1,000-$10,000.

PURDUE SUCCESSION PLANNING TEAM: HELPING FARM FAMILIES PREPARE FOR TRANSISTION

Held, N.[1]; Heckaman, K.[2]
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As Indiana farm families face the issue of transferring the farm business to the next generation of operators, the need for information and resources in the area of business transfer and succession planning has become crucially important. The Purdue Succession Planning Team, comprised of Extension Educators and Specialists, was formed in 2011 to address this need. The team mission is to cultivate strong Indiana farm families through the succession planning process by providing educational opportunities and current resources. From 2013 to 2015, the Purdue Succession Planning Team has organized and presented regional workshops, funded by North Central Extension Risk Management Education grants, at locations throughout Indiana. These workshops have focused on beginning succession planning steps, financial skills, communication strategies, business structures, risk management tools, options for asset transfer to the next generation, and management transfer plans. Participating families are also provided with the opportunity to take part in one-hour farm family meetings with team members to ask questions and seek guidance on their specific family situations. The workshops have been attended by 251 individuals in various stages of the succession planning process and have been highly rated by the participants. Each year, strong majorities of evaluation respondents have indicated they planned to utilize knowledge gained from the workshops in developing or improving their succession plans.


NATIONAL ASSOCIATION
COUNTY AGRICULTURAL AGENTS
RESEARCH
EXTENSION
LAND GRANT COLLEGE
NACAA

Award Winners

2016 NACAA
101st
Annual Meeting
and
Professional Improvement Conference

Little Rock, Arkansas

Agriculture Awareness and Appreciation Award

National Winner

WILSON REGIONAL AG SUMMIT

Harrell, Jr., N.E.*[1], Bradley, A.L.*[2], Earle, W.F.*[3], Johnson, K.*[4], Little, W.E.*[5], Smith, M.*[6], Spivey, B.M.*[7], Tyson, C*[8]

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[2] County Extension Director, Cooperative Extension, Tarboro, NC, 27886

[3] County Extension Director, Cooperative Extension, Wilson, NC, 27893

[4] County Extension Director, Cooperative Extension, Goldsboro, NC, 27530

[5] Extension Agent, Cooperative Extension, Wilson, NC, 27893

[6] County Extension Director, Cooperative Extension, Greenville, NC, 27833

[7] County Extension Director, Cooperative Extension, Smithfield, NC, 27577

[8] County Extension Director, Cooperative Extension, Nashville, NC, 27856

In 2015, a seven-county region in Eastern North Carolina collaborated to conduct a Regional Agricultural Summit to highlight the contribution of agriculture and agribusiness to the area economy. The seven counties included Edgecombe, Greene, Johnston, Nash, Pitt, Wayne, and Wilson; each ranking in the top 12 among North Carolina counties in farm income from crops that generated sales over $1.85 billion. Additionally, agribusiness including processing, wholesale, and retail provides critical jobs and is a primary economic driver. However, the population of North Carolina is rapidly growing and both commercial and residential development compete with agriculture for land resources. In addition, agriculture is sometimes left out in discussions regarding economic development in the region. Extension Agents in the seven-county region partnered with the Wilson Chamber of Commerce and the Wilson Economic Development Council to hold an Agricultural Summit on March 12, 2015. The summit program included Dr. Richard Linton, Dean of the College of Agriculture and Life Sciences at NC State University, The Honorable Steve Troxler, Commissioner of Agriculture, and Dr. Blake Brown, Hugh C. Kiger Professor in the Agricultural and Resource Economics Department at NC State University. Ag Summit participants toured Scott Farms, a modern farming operation including state of the art automated vegetable packing facilities and a demonstration of a new self-propelled high clearance sprayer equipped with Global Positioning System, autotrac-assisted steering, and boom section control. The summit was attended by over 400 individuals including elected officials, business leaders, and economic development officials from the region.

National Finalists

"AGRICULTURE, KIDS, AND CAMP" - TEACHING AGRICULTURAL SCIENCE PRINCIPLES TO YOUTH IN SOUTHWEST AND INDIANA COUNTY, PENNSYLVANIA

Schurman, C.*[1]

[1] Extension Educator - 4-H/Youth, Penn State Extension, Indiana, PA, 15701

During the summer of 2015, 4-H staff from Indiana County Extension conducted agricultural awareness programming with 76 youth in three different settings. This included three three-day day camps sponsored by 4-H. The camp theme was "Acres of Adventure". The camp staff taught basic concepts about animal science, local agriculture, and the importance of animals in our lives. When asked if campers had learned more about agricultural science during camp, 97% said "yes". Campers also indicated (98%) that they had learned more about Indiana County agriculture. 99% of the campers would return to day camp again. 98% of campers said that agriculture is part of our lives every day. "Barnyard Palooza" was the theme of the 2015 Southwest Regional 4-H Camp. A camp population of 51 campers ages 7 -12 and 22 teen counselors from seven counties were involved with an educational program to teach youth about animal science, agricultural science, and Pennsylvania agriculture. This camp population included urban audiences from the greater Pittsburgh area and rural agricultural and coal communities from the Ohio River Valley. This is an overnight resident camp, involving three nights and four days. 100% of the campers indicated they learned something about Pennsylvania agriculture and ag science. As a result of camp, most counselors strongly agree or agree that they have a plan for reaching personal goals, can make alternative plans, know who to go to for help, have adults in their lives who care about them, and like to work with others to solve problems.

WASHINGTON AG IN THE CLASSROOM OUTREACH

Kerr, S.*[1], Johnson, K.*[2], Brady, D.*[3], Avery, L.*[4], Hinton-Vanvalkenburg, K.*[5]

[1] WSU NW Regional Livestock and Dairy Extension Specialist, Washington State University, Mt.Vernon, WA, 98273

[2] Newspapers In Education Outreach and Program Specialist, The Seattle Times Company, Seattle, WA, 98111

[3] Newspapers in Education Sponsorship Development Account Executive, The Seattle Times Company, Seattle, WA, 98111

[4] WAIC Office Manager, WAIC, West Richland, WA, 99353

[5] WAIC Public Relations Representative, WAIC, Mount Vernon, W, 98273

Washington Ag in the Classroom (WAIC) is a program devoted to increasing agricultural knowledge and literacy in students, teachers, and citizens throughout the state. To inform the public about agriculture using fact-based

information about modern farming enterprises and practices, WAIC staff and volunteers conduct year-round, state-wide outreach. An advisory board oversees WAIC activities, which include distribution of a thrice-yearly educational newsletter; partnership with The Seattle Times to produce an annual Newspapers in Education (NIE) insert focusing on the state's agriculture; and sponsorship of agricultural literacy activities throughout the state every year. Funded solely through donations, WAIC sends 22,000 "Ag@School" issues to about 650 Fourth Grade classrooms three times each school year. Ag@School aligns with Washington Educational Standards in Science, Math, Social Studies, Reading, Writing, and Integrated Environmental and Sustainability. The NIE insert is included in the Sunday Times published closest to Earth Day. The eight-page, full-color insert reaches up to 1,196,600 Sunday readers and 913,600 weekday readers. Each NIE issue is also sent to about 1,000 teachers and more than 39,000 students in 527 locations throughout four of the seven most-populated counties in the state. NIE incorporates Educational Standards and aligns with Grade 6-8 Science Standards in Application and Life Science Ecosystems standards. WAIC's goal is to help teachers, especially those with little knowledge of agriculture, integrate the study of this vast industry into existing curriculum so students will understand, appreciate, and support agricultural enterprises and producers in the state.

Regional Winner

"FROM OUR LANDS TO YOUR HANDS" – BOULDER COUNTY, CO

Bokan, S.*[1], Burr, J.*[2], Davidson, D.*[3], Hickenlooper, S.*[4], McIntyre, N.*[5]

[1] Small Acreage Coordinator, CSU Extension, Boulder County, Longmont, CO, 80501

[2] Soil Conservation Technician, Boulder Valley & Longmont Conservation Districts, Longmont, CO, 80501

[3] Horticulture Extension Agent, CSU Extension, Boulder County, Longmont, CO, 80501

[4] Soil Conservationist, USDA - NRCS, Longmont, CO, 80501

[5] District Manager, Boulder Valley & Longmont Conservation Districts, Longmont, CO, 80501

From Our Lands to Your Hands was created in response to the lack of agriculture knowledge within the community. With only a small percentage of the population involved with farming and ranching it has become apparent through local classroom presentations, public hearings involving agricultural practices, and personal communications that the general Boulder County population has not been provided the education needed to fully understand the production of their food and challenges that agriculture producers endure within the county.

In 2010, a collaborative multiple agencies group (Longmont and Boulder Valley Conservation Districts, Natural Resource Conservation Service, Colorado State University Extension Boulder County, Farm Service Agency, Boulder County Parks and Open Space) and local farmers developed the program of "From Our Lands to Your Hands" to address the agriculture education deficiency within the county. The program's goal has been to provide youth with a hands-on interactive event where they can learn about the important role agriculture plays in their daily lives from the food they eat, the clothes they wear, the agriculture source derived products they use, to the vast open spaces within the community.

Over the past seven years nearly 9000 students (7500 at the Longmont event and 1600 at the Boulder event), teachers, parents, public, and sponsors have been a part of this event.

State Winners

CONNECTIONS WITH EVAN DAWSON

Eiholzer, L.*[1]

[1] Bilingual Dairy Specialist, Cornell Cooperative Extension, Canandaigua, NY, 14424

In the ten-country region where dairy specialist Libby Eiholzer works, there are increasingly negative comments in the local media about agriculture and agriculture's uses of modern technology. The public relations objectives that she chose to advocate for are that dairy farmers are passionate about providing good care to their cows, the environment and their local communities. Libby wrote an email to the host of *Connections with Evan Dawson*, a public radio talk show, explaining her desire to inform the local community about the reality of being a dairy farmer in 2015 and correct some of the common myths about modern agriculture. Evan enthusiastically agreed, and Libby helped put together an outstanding panel of dairy farmers and members of the dairy industry. She helped the panelists compile a list of talking points that centered on how farmers care for their cows, their environment and their communities.

An estimated 35,000 listeners were reached by the broadcast, and the panelists commented that the host was very supportive of them and felt that he helped lead a positive conversation about the modern dairy industry. Panelists also invited listeners to a dairy farm open house later that month.

While it's impossible to know how many people's minds were actually changed or swayed by this broadcast, it's certain that it gave many listeners from urban and suburban areas the opportunity to hear a positive message about dairy farming straight from the farmer's mouth, an opportunity that they most likely would not have had otherwise.

BREAKFAST ON THE FARM EVENT CHANGES CONSUMERS' PERCEPTIONS

Smith, J.*[1], Workman, Kirsten*[2], Carter, Jeff*[3]
[1] DVM/Dairy Specialist, Animal Science, UVM Extension, University of Vermont, Burlington, VT, 05405
[2] Agronomy Specialist - Field Crops & Nutrient Management, UVM Extension, Middlebury, VT, 05753
[3] Agronomy Specialist - Field Crops & Nutrient Management, UVM Extension, Middlebury, VT, 05753

With farmers a small minority of the population, the objectives of Breakfast on the Farm are to improve consumer perceptions of farming and increase consumer trust of farmers by bringing people not familiar with agricultural practices to a commercial farm. Vermont Breakfast on the Farm targeted Addison County to hold its first event in 2015 based on proximity to the state's major population center. An innovative dairy farm hosted the event where over 500 people enjoyed a breakfast and educational farm tour. Volunteers staffed stations focusing on a number of topics including animal care, nutrient management and water quality, and food safety. The agricultural community came together to sponsor and conduct the event. Members of NACAA and other UVM Extension personnel assisted with planning and staffing the event. An end-of-tour evaluation indicated that attendees learned a lot about many topics, improved their perceptions of agricultural practices, and increased their trust in dairy farmers.

PROMOTING AGRICULTURE AWARENESS IN PALM BEACH COUNTY, FLORIDA

Asuaje, C.*[1], Dowdle, F.*[2], Miller, C.F.*[3], Rice, R.*[4], Teerman, A.*[5], VanWeelden, M.*[6]
[1] Regional Specialized Agent, University of Florida-Institute of Food and Agricultural Sciences, Palm Beach County Extension, West Palm Beach, FL, 33415
[2] Extension Agent 1, University of Florida-Institute of Food and Agricultural Sciences, Palm Beach County Extension, West Palm Beach, FL, 33415
[3] Extension Agent 2, University of Florida-Institute of Food and Agricultural Sciences, Palm Beach County Extension, West Palm Beach, FL, 33415
[4] Extension Agent, University of Florida-Institute of Food and Agricultural Sciences, Palm Beach County Extension, West Palm Beach, FL, 33415
[5] Graphics Designer, Palm Beach County Extension, West Palm Beach, FL, 33415
[6] Extension Agent 2, University of Florida-Institute of Food and Agricultural Sciences, Palm Beach County Extension, West Palm Beach, FL, 33415

In the present climate of government mistrust, skepticism of "Big Ag," and increasing development pressures that threaten local farming operations, extension agents are the linkage between the agricultural industry and the concerns of the public by providing the unbiased scientifically-based answers to their questions and solutions to their problems. Palm Beach County leads Florida in the production of green pepper, lettuce, specialty leaf, celery, radish, Chinese vegetable, and rice. It is the national leader in sugarcane, sweet corn, and sod production. A third of the county's acreage is devoted to agricultural production, generating $1.327 billion in sales and an economic impact exceeding $2.5 billion for the 2013-14 season. Few citizens are aware of the local agricultural industry's impact because most residents do not work in agriculture and live clustered along the coast whereas most agricultural production is concentrated in the western part of the county. Based on grower input, raising public awareness of agriculture and connecting the populace to their local food source has become a top priority. UF/IFAS Palm Beach County Extension therefore created a multifaceted educational display at the county's largest attraction to achieve the objective of increasing public knowledge of local agriculture. Approximately 3,000 fair goers visited the display area during the 16-day South Florida Fair. Of the visitors participating in both the pre and post quiz, the percent knowledge gain was 93.9%.

MILKING COW DEMONSTRATION AG DAY 2015

Pettis, S.*[1], Johnson, Brittany*[2]
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[2] Rockdale Extension 4H Agent, CEC, University of Georgia, Conyers, GA, 30677

The annual Rockdale County Agriculture and Natural Resources Day celebration annually brings together members of the agriculture and natural resources communities to showcase their efforts to educate the public about agriculture and natural resource conservation. Rockdale County Cooperative Extension agents Steve Pettis and Brittany Johnson along with 4H youth volunteers and Master Gardener Extension Volunteers worked to make the 2015 event was one of our best ever. Over 600 people attended the celebration of agriculture and natural resources in Rockdale County. More than 400 children of all ages, mostly minority, including preschoolers were brought in from local day care centers to learn about the environment and about natural resource conservation. One of our main agricultural education messages is to teach urban, mostly minority children where their food comes from.

The Rockdale Agriculture and Natural Resources day was fun for the entire family! Children learned where our food comes from by getting to see a dairy cow being milked. The kids got to mingle with rabbits, pigs, horse, goats, pigs, chickens and more. Natural resources organizations such as the Georgia Forestry Commission where there to teach kids about the environment around them. Also, there was be a pie contest, a cooking demonstration with a local chef and the Rockdale Farmers Market was open for business.

"THE BUTLER COUNTY AG. CONNECTION"

Drake, Jr., G.K.*[1]
[1] County Extension Agent for Agriculture and Natural Resources, University of Kentucky, Morgantown, KY, 42261

Public relations efforts are an important part on any county extension agent's job. The farm population is falling every year. The number of persons involved in the agriculture industry is falling in most parts of the country. Those of us involved in agriculture must do a good job of promoting our industry to all stakeholders. We need the support of non-farm people to insure a favorable environment to produce the nation's food and fiber. In Butler County there are almost thirteen thousand people and only about fifteen hundred that are involved in agriculture. A weekly radio program to promote agriculture was developed and executed by the local agriculture extension agent with support from the local FM radio station. It airs weekly and provides agriculture and rural living information. The program was successful in helping people understand where their food comes from and the importance of what is happening in our rural community.

"IMAGINE THE POSSIBILITIES"

Burdine, B.*[1]
[1] Regional Agronomy Specialist, MISSISSIPPI STATE UNIVERSITY, New Albany, MS, 38652

Young people rarely think about their future and they often think agriculture means corn and cattle. To help youth plan for their future, a Career Expo titled "*Imagine the Possibilities*", was developed in Northeast MS for all 8th graders in a 6-county area. This Expo was not just pamphlets and speeches; it was a fun, hands-on event where youth could see, touch and experience different careers. Agriculture, Food & Natural Resources was one of 18 job categories as defined by the Dept of Labor that was highlighted. I solicited fellow experts from agronomy, entomology, GeoResources, animal/dairy science, horticulture, wildlife management, forestry, food science, USDA and other disciplines to show young people a wide array of potential Ag careers. Students enjoyed holding spiders and scorpions, milking cows, making candy, ginning cotton and seeing how unmanned aerial vehicles can be use. This is only a sampling of agriculture's footprint at the Expo. The expo allowed students to visit and talk with over 300 career booths and Agriculture was among their favorite stops. Agriculture gets so much negative exposure in the media but students learned how agriculture feeds and clothes the world as well as providing recreational activities and improving well-being through technology discoveries. The expo will expand in 2016 to 9 counties and add a third day. This expo reached many youth in 2015 and will reach many more in years to come. Over 5,300 people attended the 2-day event. Attendee numbers by category are: Schools (33), Students (3350), Teachers (1002), Parents/Chaperones (398) and State/Local elected officials (70). Comments were 98% positive and young people were impressed with the amount of technology and career options in todays agriculture. The expo directed at 8th graders is a wonderful event for sharing our positive story and leading bright minds toward an agriculture career while they are young and open-minded.

ENSURING AGRICULTURAL SUPPORT BY LOCAL AGENCIES THROUGH EDUCATION OF LOCAL CANDIDATES

Grosse, R.*[1]
[1] Extension Agent, Virginia Cooperative Extension, Powhaton, VA, 23139

The purpose of this educational dinner was to increase the awareness by local elected officials of agricultural support agencies' importance to the farming community in Powhatan County. This was accomplished by working with the local Farm Bureau Federation Board and Monacan Soil & Water Conservation District (SWCD) on an Agriculture Awareness Dinner for all 32 of the candidates in the November election. A 7-minute movie was created and shown to provide the candidates with testimonials from local producers about items which support or hinder their ability to successfully farm. A presentation with information from the most recent Census of Agriculture was provided to show the economic impact of Virginia's number one sector on the County of Powhatan. This was a follow up to the first Agriculture Awareness dinner held in 2012 for the Board of Supervisors and Planning Commission following drastic budget cuts which eliminated Monacan SWCD, over $80,000, from the county budget and the Family and Consumer Science (FCS) part-time Extension position. Currently the SWCD has received half of their funding following years of zero funding and the Extension office now splits an FCS position with another county and has a full-time Agriculture Extension Agent instead of the shared county position. The true indicator of success has become the increase in awareness of the importance of these local agencies for the farming community by the candidates who became elected, who now have a working relationship to better address important needs for all constituents in the county.

Excellence in 4-H Programming

National Winner

CATTLE HANDLING CONTEST

Anderson, N.*[1]
[1] EXT EDUCATOR AG/4-H, , Stillwater, OK, 74074

Most young people today are removed from the family farm and have little or no animal agriculture experience. This program was established in 2004 to educate young people, grades 7th through 12th, on livestock handling, Beef Quality Assurance, animal health, record keeping and teamwork. The contest is made up of three member teams. Teams are divided into two divisions, juniors – 7th -9th grade and seniors – 10th -12th grade. Participants are given explicit instruction and details concern all aspects of the contest. After participating in a live action, inter-active training, teams are active participants in processing beef calves. Teams utilize their livestock

handling skills to sort, move and catch calves in chute and head gate. Team members then divide and conquer to tag, take temperature, apply pour-on, oral and injectable pharmaceuticals. Teams complete a health evaluation including checking for runny noses, temperature, injection site lumps, lesions, eyes and feet. Teams record all work performed including pharmaceutical lot numbers and expiration dates. This process is repeated until the set number of cattle has been processed. Teams are evaluated by a panel consisting of industry professionals, producers, and extension specialists. Panel evaluates teams on efficiency/speed, record keeping, cattle handling techniques and teamwork. Sponsors provide all facilities, cattle, pharmaceuticals, supplies and prize money of $1200.00. This event has educated over 600 Payne County youth on proper cattle handling practices and BQA protocol.

Results speak for themselves-we've never lost a kid or a calf!

National Finalists

TEACHING AG SCIENCE AT "BARNYARD PALOOZA!" - SOUTHWEST REGIONAL 4-H CAMP, AND "ACRES OF ADVENTURE" - INDIANA COUNTY 4-H DAY CAMPS

Schurman, C.*[1]
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During the summer of 2015, 4-H staff from Indiana County Extension conducted agricultural awareness programming with 76 youth in three different settings. This included three three-day day camps sponsored by 4-H. The camp theme was "Acres of Adventure". The camp staff taught basic concepts about animal science, local agriculture, and the importance of animals in our lives. When asked if campers had learned more about agricultural science during camp, 97% said "yes". Campers also indicated (98%) that they had learned more about Indiana County agriculture. 99% of the campers would return to day camp again. 98% of campers said that agriculture is part of our lives every day. "Barnyard Palooza" was the theme of the 2015 Southwest Regional 4-H Camp. A camp population of 51 campers ages 7 -12 and 22 teen counselors from seven counties were involved with an educational program to teach youth about animal science, agricultural science, and Pennsylvania agriculture. This camp population included urban audiences from the greater Pittsburgh area and rural agricultural and coal communities from the Ohio River Valley. This is an overnight resident camp, involving three nights and four days. 100% of the campers indicated they learned something about Pennsylvania agriculture and ag science. As a result of camp, most counselors strongly agree or agree that they have a plan for reaching personal goals, can make alternative plans, know who to go to for help, have adults in their lives who care about them, and like to work with others to solve problems.

GARDEN EXPLORERS 4-H CAMP

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Research indicates that gardening has multiple benefits to youth—including increased academic achievement, physical health, social and emotional health and a greater sense of community. Since 2011, the Extension team of Horticulture, Agriculture, 4-H and Family and Consumer Sciences agents offered the Garden Explorers 4-H Camp. The goals of the camp include introducing youth to gardening activities, experiences in nature, healthy eating choices and careers in horticulture. Campers received various lessons on horticulture, entomology, wildlife, careers in horticulture and eating nutritious foods. Sessions included hands-on experiences and experiments. Master Gardeners volunteered as group leaders for the participants. Each camper received a resource notebook of UF/IFAS information as well as many plants, projects and recipes to take home. On the last day of camp, there is a field trip to enhance the learning objectives from the week. In 2015, an email survey was sent 3 months after the camp to 17 parents of the camp participants with a 41% (N=7) return. 100% said that their child shared what they learned at the camp with their family, 100% said that their child spent more time gardening since attending the camp, 100% stated that their child had become more aware of their connection to the environment and 85% felt their child was more willing to try a new and healthy food. By participating in gardening and nature experiences and being exposed to nutritious eating, youth may make lifelong choices to spend more time outdoors and eat healthier.

JUST KIDDIN' AROUND 4-H GOAT CAMP

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According to the United States Census Bureau, Alamance County has a population of 155,792 (2014 estimate). In 2014, it was estimated that youth under 18 years old make up 22.9% of the population in Alamance County (U.S. Census Bureau). With a growing population, comes a need for more 4-H youth

programming to take place, especially as it relates to livestock and agriculture. This is due to the fact that the average American is now at least three generations removed from the farm (American Farm Bureau Federation). In response to this growing need, 4-H youth livestock opportunities now take place in Alamance County. In particular, a need was identified from a survey conducted in 2014 and 2015 for youth to learn about goat showmanship, health, and husbandry. In 2015, a 4-H goat showmanship camp was developed as part of the 4-H summer program to allow youth to learn more about goats in order to create an interest in animal projects and showing. In total, twelve youth with ages ranging from 5 to 14 years old attended the day and a half showmanship camp where they learned showmanship, breeds, feeds, equipment, general care, health, and more! As a result of the goat camp, five youth continued their interest in showing goats by doing one of the following: starting a goat project, purchasing a goat, or attending an informational 4-H livestock show meeting for spring 2016.

Regional Winner

NEBRASKA EXTENSION YOUTH SCIENCE FIELD DAY

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Nebraska Extension Youth Science Field Day taught over 500 students per year hands-on experience in food science, livestock reproduction, veterinary science, mechanical engineering, credit management, entomology, forensic science, human nutrition, cropping systems, ruminant animal biology, horticulture, range management and equine science. Participation in this event spurs youth career interest in science, technology, engineering, math and agriculture in sophomore-level science and agriculture education students. Over the past four years, 70% of youth indicated the program helped them explore potential careers. The top four career choices by participants were veterinary science, 33%; wildlife biologist, 22%; economist, 19%; and dietician at 7%. The most important things students said they learned included:

• "About the animals was pretty cool. I learned things I didn't know before."
• "Money management, sugar is good in moderation."
• "About irrigation and agriculture."
• "About ways to judge range and how to move cows."
• "Going to UNL and being interested in a career that deals with science and technology."
• "The fact that cows can digest grass and humans can't and how we relate to animals."
• "Grasp the science of other jobs and careers in agriculture."
• "All the job careers open to people with plants, animals, and food!"

Ninety six percent of participants did not participate in the traditional 4-H program, including minorities that had not been reached in past programming efforts. Approximately 79% of the participants were Caucasian, 5% African American, 6% Native American, 5% Asian and 5% Hawaiian heritage.

TEEN LEADERSHIP PROGRAM

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In an effort to strengthen leadership skills for 4-H youth, a multi-county teen leadership program was implemented. Leadership skills are an integral part of a well-rounded young adult. 4-H provides many opportunities throughout the year for youth to serve in leadership roles and help younger youth. Teen leaders are often part of county, district and state 4-H activities and are called upon to teach workshops at 4-H events such as camps, Teen Leader Conference, and 4-H enrichment programs. Research has shown that youth serving in leadership roles gain experience in conflict management, decision making, team work, and gain confidence. The proper training for these youth is a vital component to their success as a leader. Extensive training was provided in the areas of leadership, citizenship, and healthy living. Benefits of multi-county programs are two-fold. For agents, this method lightens the load of program planning and evaluation; provides more options for program facilities, and is more cost-effective. For youth, it allows them additional opportunities to work with new peers, learn from each other, and form relationships beyond the county level. Through collaborative efforts, twenty youth are now active teen leaders in their respective programs.

WHERE FOOD COMES FROM

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As a part of a larger nutrition program for second graders, Tom Miller, Ballard County Extension Agent for Ag and Natural Resources developed a module to teach kids where the food they eat actually comes from. A power point presentation was developed that starts with pictures of each food group in the food pyramid from the local grocery store. It then takes each of these products eventually back to the local farm level. Since its inception in 2013, over 360 kids have been through the program. Post program surveys have shown that 95% of the children that responded did have a better understanding of where their food came from and could recognize the connection from the grocery store to the farm. It was very gratifying to see the look of understanding come on their faces when they realized that the cow in the neighbor's pasture could be the hamburger that they ate for supper and that farmers were really responsible for all the food that they ate.

CIVIC MINDED LEADERSHIP EDUCATIONAL PROGRAM

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The State of Tennessee Board of Education standards identify learning experiences related to leadership and citizenship as a priority. The Stewart County 4-H Advisory Committee identified leadership and citizenship standards as an area where 4-H could supplement and enhance the school's curriculum.

A three-year Civic Minded Leadership educational program was implemented. The program was implemented through classroom lecture, field trips to government offices, leadership camps, service projects, and public speaking. These activities focused on teaching responsible citizenship, leadership, teamwork, and ethical decision making. Educational programs were evaluated during each of the three years beginning with short term evaluation in 2013 and ending with long term evaluations in 2015. Seventy-two percent of participants reported that the civic minded leadership program had improved their ability to work in a team and make better decisions in their schools, community, and personal lives.

There are 510, 4-H members in Stewart County 6th – 12th grades. These are the grade levels where the Civic Minded Leadership educational program was implemented.

4-H DONATED MEAT PROGRAM

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Meat continues to be the most in-demand food item for the Utah Food Bank. In addition, the Utah Food Bank states that 444,000 Utahans (1 in 6 people in Utah) are at risk of missing a meal daily. Also 1 in 5 Utah children are unsure of where their next meal is coming from. To address this issue, the 4-H Donated Meat Program was started by a 4-H Club in Davis County, Utah. The program is made possible through generous donations from corporations allowing for the purchase of market livestock exhibited by 4-H youth at county fair livestock sales. USDA certified processed meat was then donated to the Utah Food Bank for distribution to hungry families in the counties participating in the program. The program has grown rapidly. In 2005, two counties were involved with 3,000 pounds of meat donated to the food bank. By 2015, thirteen counties were involved with over 1 million pounds of meat donated. The program has evolved to include women shelters and by February 2016, 2,000 pounds of meat in addition to new freezers were donated to a women's shelter in Davis County.

HOW TO RUN A STRUCTURED MEETING: A TOOLKIT FOR FIELD TRIP CHAPERONES

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Trips and conferences provide an opportunity for youth to increase social emotional skills or life skills, whereas in school this opportunity is lacking (Astroth, 1996). While the knowledge aspect of the conference is the focus the intentional development of life skills is lacking. With life skills as a goal of many youth organizations, conferences that include life skill focused meetings will better reach organizations goals. A meta-study by Collaborative for Academic Social and Emotional Learning (CASEL) identified that by including life skills in programs, some of the many benefits to youth are: improved interactions, decreased negative behaviors, and improved academic scores. (Durlak, Weissberg & Pachan 2010). This chaperoning curriculum's primary purpose is to provide a structure for meetings that improve the knowledge and life skills learned at conferences for youth. The secondary purpose is to provide a tool of volunteers who are working with that and future youth groups. Multiple years of the WSU 4-H life skills retrospective pre post surveys show youth consistently report higher percentages of growth in life skills. The WSU Know your government program has for three years shown an average 50% greater youth self-report on decision making skills. The expansion of this program has been through journal articles, WSU publications, incorporation into statewide civic programs, used on national trips, and been presented at national and state conferences.

WYOMING'S FUTURE: EXPLORING NATURAL RESOURCES AND RELATED CAREERS THROUGH ADVENTURE CAMP

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Wyoming is a state rich in natural resources. These consumptive and non-consumptive resources diversify our economy. Therefore, the University of Wyoming (UW) Extension has a vested interest in promoting natural resource education. Educating young citizens enables them to make informed decisions for Wyoming's lands and natural resources while becoming better stewards of our great state's natural resources.

Additionally, 4-H has a mission to promote learning through Science, Technology, Engineering, and, Mathematics (STEM) leading to non-traditional STEM lessons for youth outside the classroom. Presently, natural resources skill development in Wyoming 4-H is lacking. Traditional 4-H projects like livestock husbandry and horse judging typically take center stage in many Wyoming 4-H programs. According to the 2011 UW Combined Research and Extension Plan of Work, "Despite the many natural resources-related opportunities, many Wyomingites are not directly tied to natural resources and agriculture. This results in lack of knowledge and experience regarding natural resource systems, their management and the industries they support (pg. 56)."

A Team of UW Extension Educators with various natural resource topical expertise; organized with the goal of addressing the need to encourage youth from within our state to select career track choices in natural resources throughout the state. This team hopes to encourage these youth to select educational tracks that will lead to careers in renewable and non-renewable natural resource fields, within the state, once they reach college. The team has also partnered with professionals from natural resource agencies to share about career opportunities in these topics.

State Winners

SHOWMANSHIP MANUAL

Schmidt, R.*[1]
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Livestock exhibition is an art as well as hard work. As a livestock judge and an Extension Agent who conducts fitting and showmanship clinics across the state, I developed a Showmanship Manual, which summaries the essential elements needed to be competitive in livestock showmanship events. Livestock Superintendents from across the state have analyzed the various methods of exhibition. We considered ease of showmanship, safety of the youth and where exhibitors maintain maximum control of the animal when determining what we felt was the most acceptable practices. Ethical treatment of the animals is highly focused upon both in and out of the showing throughout the manual.

The manual addresses the importance of proper care of the animals. Nutrition is extremely important for livestock to look and perform to their greatest potential. Youth need to feed and provide care for their animals on a regular scheduled routine daily.

Youth exhibiting livestock need to be aware of maneuvers, techniques and patterns in which they may be expected to perform in the showing. The manual is used as a guide to assist youth, with visual diagrams, ways to properly practices and preform the tasks.

The manual is also sent to out of state judges coming to evaluate shows in our state, so they can be familiarized with the accepted practices that we expect from our youth. Showmanship techniques vary in each state. We prefer judges become familiar with the methods we use to teach our youth before evaluating showmanship classes.

ND JUNIOR MASTER GARDENER PROGRAM

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Many children in ND are undernourished and inactive. The Centers for Disease Control and Prevention reported 92% of children in ND do not eat enough vegetables for a healthy diet. An estimated 78% of children do not get enough physical activity. These rates are among the highest in the nation (North Dakota: State Nutrition, Physical Activity and Obesity Profile, 2012).

Gardening programs can help. Children who grow their own food are more likely to eat vegetables and have healthy eating habits throughout their lives. Healthy diets lead to better performance in school, better paying jobs in the future, and the prevention of chronic diseases such as obesity and diabetes.

The ND Junior Master Gardener Program provides hands-on activities that lead to healthy kids and strong communities. The NDSU Extension Service awarded $30,000 to 65 youth gardening projects. NDSU Extension staff provided educational support to all projects and led 43 of them. All 65 project leaders completed a survey at the end of the year. This survey showed that 5,200 youth participated in Junior Master Gardener projects.

Project leaders reported youth developed skills in gardening and science. Children learned how to eat a healthy diet and enjoyed being active in the garden. The youth gained experiences in helping their community through public service.

Projects assisted in the production of 30,000 pounds of fresh vegetables. This produce was donated to food banks, churches, new Americans, the elderly and other needy families. Additional

vegetables were provided to school cafeterias.

Annual Report: www.ag.ndsu.edu/jrmastergardener/

JACKSON COUNTY 4-H PROGRAM

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The mission of Texas 4-H is to prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term, progressive series of educational experiences that enhance life skills and develop social, emotional, physical and cognitive competencies.

Jackson County 4-H youth were given the opportunity to participate in many different events. From local community service events to state events, participation is encouraged and rewarding. Youth participated in Food Challenge, One Day 4-H, Major Livestock Shows, etc. During these events, youth developed skills and character that will be beneficial to them in the future.

SEARCH FOR EXCELLENCE CROP PRODUCTION

National Winner

PEANUT PRODUCTION EDUCATION IN HAMILTON COUNTY, FLORIDA

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Peanut production has become an important commodity crop for Hamilton County and the surrounding counties over the past ten years. In North Florida, throughout the Suwannee River Valley, peanut producers generate approximately $56,482,000 from the 70,603 acres of peanuts produced. Often the only data producers have to determine the best peanut cultivar or spray program comes from small plot trials conducted at research stations some distance from their fields. While this data provides quality insight into cultivar and fungicide selection, it neglects to account for the variability associated with farm equipment and differing production techniques. To assist peanut producers in determining best peanut practices, an annual program consisting of two peanut production meetings and two peanut on-farm trials were conducted during the past five years. Through this platform, University of Florida peanut specialists and the Hamilton County Agricultural Agent were able to help producers increase quality and improve yields. Producers have incorporated new cultivars that possess disease resistance in their production areas which have a history of disease. They have also integrated spray programs patterned by the ones evaluated in the on-farm trials. In Hamilton County 100 percent of peanut producers (n = 45) now use fungicide spray programs consisting of bi-weekly sprays adopted from the Hamilton County peanut on-farm trial. Adopting one of the recommended fungicide programs increased input costs $38.00 per acre (5600 acres) but increased yields over 1,000 pounds per acre resulting in an additional $963,200 in Hamilton County.

National Finalists

NEW STRAWBERRY SELECTIONS

Nitzsche, P.J.*[1], Hlubik, W.*[2], Jelenkovic, G.*[3], Weidman, R.*[4], Millburn, M.*[5], Hillman, B.*[6]
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Strawberry growers in the Eastern US need improved varieties to increase strawberry production and capture more of the regional market. As a result, the Rutgers New Jersey Agricultural Experiment Station has invested in a long term strawberry breeding program. Unfortunately for many years there were no strawberry varieties released from the program and successfully commercialized. Agricultural Agents Peter Nitzsche and William Hlubik assembled and led a team of faculty and staff to expedite the evaluation and release of advanced strawberry selections bred by Research Professor Gojko Jelenkovic. Grants totaling over $380,000 were secured by the project team to support the work. The team partnered with faculty from other Universities, farmers and commercial nurseries to test the best of the genetic material from the program. Consumer taste panels were also utilized to gather input on the strawberry selections before commercialization. Nitzsche and Hlubik conducted on farm twilight meetings throughout the state and produced five videos to document the project and educate farmers, nurserymen, and consumers. Plant patent applications were made for three of the best selections and one selection was named 'Rutgers Scarlet' and released. The release of 'Rutgers Scarlet' strawberry brought in a tremendous amount of press and publicity through television, radio, newspapers and the internet (http://breeding.rutgers.edu/strawberry-news/). The publicity resulted in growers indicating increased sales of locally grown 'Rutgers Scarlet' strawberries as well as the other varieties grown on their farms. Two commercial nurseries have also benefited by selling over 240,000 'Rutgers Scarlet' plants to 114 growers from 22 states.

AWARENESS OF BIODIESEL PRODUCTION

de Koff, J.*[1], Robbins, C.*[2]
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The objectives of the mobile biodiesel demonstration program are to increase stakeholders' knowledge, perceptions, interest and awareness of biodiesel production. The demonstration was used in formal workshops/demonstrations with stakeholders and at numerous events and high schools around Tennessee. Research was also engaged to support the extension activities with new data related to using winter canola for biodiesel production in Tennessee. Face-to-face demonstrations, videos, fact sheets and social media were used to deliver the information to stakeholders. Between 2014 and 2016, this program had over 850 direct contacts and over 100,000 indirect contacts. The program was also featured in a Tennessee Department of Agriculture publication, a local Nashville news report and on RFD-TV. Increases in knowledge, positive perceptions, interest and awareness of biodiesel production were observed through analysis of participant evaluations. The effect that the internet could have on the level of program impact was surprising and the implementation of more online content will help to increase the effectiveness of future programs.

SALMON SAFE IN GREEN PEAS/WHEAT IN UMATILLA COUNTY, OREGON

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[2] Professor and Director of Integrated Plant Protection Center, Oregon State University, Corvallis, OR, 97330

Umatilla County is the breadbasket of Oregon and the green pea/wheat industry is worth more than $380 million per annum. There are many Century Farms but these are often associated with older farming techniques and heavy reliance on organophosphates and carbamates. These broadspectrum chemicals are not only toxic to beneficial insects but also are highly toxic to aquatic life. In the past, sustainable production has not been a priority for these growers, but they have been receptive to presentations of the idea for the last 8 years. Finally, in 2015 they agreed to adopt Salmon Safe farming practices. Salmon-Safe was founded in 1996 and has focused on transitioning more than 300 farms and more than 60,000 acres to practices that protect water quality and native biodiversity, while building marketplace presence for ecologically sustainable farm products. Minimizing the impact of chemicals that are toxic to aquatic life by limiting their use is paramount. A concerted effort by the author has seen the major expansion of Salmon Safe certification in the Walla Walla Valley where ~1800 acres of wine grapes (70% of total acreage) ~1500 acres of apples (60% of total acreage) are now certified. Recent efforts have concentrated on introducing green pea/ wheat growers to Salmon Safe. Standards have been established for these growers and initial audits have been performed. As a result, Salmon Safe have conditionally certified >18,000 acres of green pea/ wheat farmland in Umatilla County. Novel efforts to incentivize growers and establish diversity setbacks will be reviewed.

State Winners

DEMONSTRATION PLOTS

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Producers in the crop production enterprise need access to research-based information to operate an efficient and profitable operation. Crop producers deal with many decisions throughout the growing season and I am always looking for ways to help producers make more knowledgeable and sound decisions. My main emphasis is on the agronomic aspect of production agriculture. In the last three years, I have organized **18 demonstration plots** illustrating three different crops produced in the Post Rock Extension District which includes grain sorghum, soybeans and wheat. **Yield reports** are published annually and are distributed in the seven area newspapers, on our District website along with given to our walk-in clientele at each of the five District Offices. **Soil testing** has also saved producers 20% on their fertilizer costs. The rental arrangements between landowners and producers can have significant impacts on the risk and returns of those operations. For the last three years, I have implemented a **leasing arrangements survey** in the Post Rock Extension District that has provided leasing arrangements along with averages of rental rates. I have also organized and implemented **29 educational events** such as seminars, workshops, formal field days along with setting up educational displays within the district. In the last 3 years, I have had **823 personal contacts** with producers providing them with research-based information to help them make educational production decisions. I also provided Kansas State University›s research-based information through radio programs for two radio stations along with personal columns as well as on our District website.

TRANSFORMATIONAL EDUCATION RESULTED IN OVER 30% INCREASE IN SUGARBEET YIELD

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[2] Extension County Agent, NDSU - Cass County, Fargo, ND, 58108

[3] Extension County Agent, NDSU - Grand Forks County, Grand Forks, ND, 58201

[4] Extension County Agent, NDSU- Walsh County, Park River, ND, 58270

Sugarbeet is one of the most important crops in North Dakota and Minnesota with total economic activities calculated at over $4 billion. The most important limiting factor were damping-off of seedlings and crown and root rot of older plants caused by the fungal pathogen, Rhizoctonia solani and leaf spot caused by Cercospora beticola. Over the past three years, research and education was focused on developing research based recommendations to manage these diseases and then conducting a transformational education program to facilitate growers to adopt recommended practices. Research demonstrated that the use of penthiopyrad as a seed treatment followed by a timely application of azoxystrobin effectively controlled R. solani. The use of fungicides starting at first symptoms with subsequent applications at 14 day intervals based on the presence of symptoms and favorable environmental conditions effectively controlled C. beticola. Extension specialist and County Agents conducted and evaluated programs using different teaching methods which were most appropriate for the activity to educate growers. Reporting sessions, seminars and workshops were used to educate and train educators and growers on how to identify and manage R. solani and C. beticola. Production guides and bulletins with recommendations were made available as hard copies and electronically for producers. Annual radio program on major stations provided 'Growing tips' which addressed specific issues in a timely manner. Annual surveys and direct electronic responses indicated that growers rapidly adopted research based recommendations which resulted in yield increase of 36-50% and annual savings of over $16 million in crop protection costs.

CUSTOM MANURE APPLICATOR TRAINING

Clark, J.*[1]

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Chippewa and Eau Claire counties have strong dairy and livestock industries. The two counties have over 40,000 dairy cows and 109,000 cattle and calves according to the 2014 National Agricultural Statistics Service. Both counties have combined cropland acreage of highly erodible soils of 339,777 acres. Custom application of manure has increased as larger dairy and livestock farms are using for-hire businesses to handle and apply manure. Custom manure applicators continue to seek training opportunities from UW-Extension's Nutrient Management Team to help keep them up to date on changes in nutrient management regulations, manure handling techniques, and public road operation.

A training curriculum was developed to train custom manure applicators to increase knowledge of manure handling techniques and decrease manure spill incidents. The training curriculum was provided to Professional Nutrient Applicators Association of Wisconsin members and associate members. Associate members were primarily dairy farms. Curriculum included classroom instruction, in-field manure spill response training, confined spaces and manure gas safety, and equipment demonstrations.

An evaluation of custom manure applicators who completed all levels of certification indicated an increase in knowledge of manure gas safety, Business owners felt their employees were better prepared to identify prohibited and restricted manure application areas. Custom applicators indicated their employees were more prepared at a high or very high level after the training compared to before the training. Businesses also changed or plan to change to use of agitation boats as a result of attending the agitation boat demonstration.

GRAIN SORGHUM PRODUCTION CHALLENGING IN 2015

Runsick, S.*[1]

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Clay County producers grew grain sorghum on 13,048 acres in 2015, a substantial increase from the 2,000 acres grown the previous year. For many, this was their first attempt to grow grain sorghum, others have not produced sorghum in several years,even decades. The need for education was great. I sprang to action putting together a newsletters and a tips sheet for over 300 producers and industry representatives. This production information was distributed early. A production meeting was held in February, with 50 producers attending, to address production issues especially the dreaded sugarcane aphid. I cautioned and warned against making automatic sprays for midge and disease. Throughout the season I surveyed sorghum field's weekly and informed producers and consultants of the pest situation by email, text and newsletters. I responded to multiple field calls and made in field recommendations. A hands on IPM meeting was conducted with 20 producers to teach proper insect scouting technique and control options. A fungicide trial was also conducted to demonstrate results of automatic fungicide sprays.

The purpose of this educational program was to provide research-based information to producers so they could successfully produce grain sorghum with maximum profitability and minimum impact to the environment. 30% of the acres did not require sugarcane aphid treatment saving $22.00/acre. Stopping automatic sprays for midge and disease saved producers $34.00 per acre. Grain sorghum production was successful with yields ranging from 110 to 180 bu/acre, 20 to 90 bu/acre more than the state average yield.

IRRIGATED EVALUATION OF PEANUT VARIETIES

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Peanut acreage in Jenkins County has increased substantially since the passage of the 2002 farm bill, in which the old peanut quota system was dissolved. In 2012, peanuts were a leading commodity in terms of value, with a $10.2 million farm gate value, while the entire county had a total farm gate value of $63.2 million. Georgia Green is a runner-type peanut cultivar released in 1995 by the Georgia Agricultural Experiment Stations. In the middle 2000's peanut growers were faced with a variety dilemma, Georgia Green's "shelf life" was expiring, therefore; demand for information on new varieties was increasing at a rapid pace A challenge for peanut producers is a lack of "on-farm research" data to support emerging and new varieties. A comprehensive research and educational based extension program was developed to help farmers transition to more productive peanut varieties. Research programs included: on-farm county variety trials and variety trials at the Midville Research Center. Peanut educational opportunities offered to Jenkins County growers included: the annual Midville Agronomic Crops Field Day, peanut production meetings, and "shade-tree" meetings during the growing season. The county agent used the local newspaper to educate and disseminate information to peanut farmers.

JACKSON COUNTY FIELD CROPS

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Row Crop production accounts for over 100 million dollars annually in Jackson County. Producers are forced to pay close attention to all production decisions - from farm program alternatives to fertilizer and pesticide choices. Jackson County AgriLife Extension has strived to educate producers with demonstrations and educational programs directed to sustainability of the farm.

Search for Excellence in Farm and Ranch Financial Management

National Winner

EFFECTIVE MANAGEMENT OF FARM EMPLOYEES CONFERENCE

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Agricultural producers today are challenged with managing the people who work for them. Employee management has become one of the primary roles of farm owners with the potential to affect farm performance and profitability to a large degree. Durst and Moore initiated and conducted a project to work with dairy farm owners and managers using feedback from their employees. In that project, anonymous phone interviews were conducted with 174 employees from 13 farms in 4 states. Analysis of the feedback from a farm's employees provided opportunity to make customized recommendations for management. Durst and Moore have used the overall results of these interviews to provide valuable recommendations to many other agricultural producers and professionals to improve employee management and engagement on farms. They have shared principles of effective employee management with agricultural owners/mangers and agricultural professionals in Michigan, 7 other states and internationally through 28 presentations and conferences, 2014 - 2016. In addition, they have been featured in three webinars, have recorded three podcasts on employee management topics and have written a regular column on Human Resource management for Dairy Business – East. Employee management conferences developed by Durst and Moore featured four sessions to help owners and managers improve their skills and knowledge. Evaluations completed two months after these conferences show that many participants put the knowledge to work on their farms and are seeing positive results.

National Finalists

DESIGN YOUR SUCCESSION PLAN

Scharmer, L.*[1], Schaunaman, C.*[2], Huot, W.*[3], Grueneich, R.*[4], Lemer, J.*[5], Ueckert, A.*[6], Brummund, P.*[7]
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Farm and ranch succession planning is a critical need for America's producers. In the United States 77% of farm assets are owned by those 70-year-old and older. Those assets will be transferring as owners pass away and it's important that families take steps to ensure assets are transferred in a way that makes sense for the family and keeps the business viable if it is to be passed to the next generation.

NDSU Extension Service has developed Design Your

Succession Plan, a program with tools and resources for North Dakota producers beginning the succession planning process. The program is designed to be taught by both FCS and ANR agents partnering together to offer a broad perspective. The program emphasizes: getting started, opening lines of communication, and working with professionals to construct a plan with a shared vision for the family business extending into the next generation. This program also provides tools and resources for communicating when the issues are sensitive or there is conflict; tips on how to choose competent professionals and how to prepare to meet with legal and tax professionals; how to assess the business's finances and what documents and information will be needed to draw up a succession plan.

This program uses a post workshop evaluation tool and a 1 year follow up survey to assess knowledge gained, behavior changed, and impact on family succession plans. Design Your Succession Plan has been delivered in 25 North Dakota sites to over 290 people.

OHIO FARMLAND LEASING WORKSHOPS

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Farmland rental arrangements require landowners and farm operators to make important economic decisions within a legal framework. The purpose of the Ohio Farmland Leasing Workshops is to provide current information to help landowners and farm operators make farmland lease decisions that are equitable, sustainable and legally enforceable. We designed a three-hour workshop curriculum that integrates our legal and economic expertise into a unified program. The program prepares attendees for the farmland leasing process and includes problem solving activities and discussion of current farmland leasing issues in Ohio. Program participants receive crop production budgets, cash rent survey data, data on land values and leasing, fact sheets on legal and economic topics and sample farmland leases. We have partnered with Extension Educators to offer the workshops at 13 locations around Ohio, drawing 499 attendees to date. Results of a pre/post knowledge level evaluation indicate substantial knowledge gains in each of our program areas of farmland leasing options, crop production economics, factors affecting rental rates, evaluating cash rent survey data, legal issues in farmland leasing and developing a written farmland lease. Attendees have strongly agreed that the workshop will help them make decisions in the future and is a very good value.

2014 MONTANA FARM BILL PRODUCER EDUCATION

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The Farm Bill Education effort extended from October 15, 2014 through March 31, 2015 with over 4,000 farmers and other interested parties attending 85 presentations. The 85 presentations included three trainer-the-trainer sessions, 14 webinars (7 for Montana audiences only and 7 for Native American producers throughout the U.S.), 68 face-to-face meetings, and a comprehensive website. The largest meetings were held in North Central Montana with 340 people in Fort Benton, 291 in Havre, and 201 in Great Falls. Fourteen of the presentations were held on Native American Reservations with assistance from the FRTEP Agent and other Extension staff from the Tribal Colleges. In addition, seven webinars were developed specifically for Native American communities. The website containing these recordings was viewed by 355 users in 488 sessions. The general audience Montana State University Farm Bill website was viewed by 2,272 users in 4,854 sessions.

State Winners

WOMEN INVOLVED IN AGRICULTURE

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[3] County Extension Agent, ANR, K-State Research & Extension - Pottawatomie County, Westmoreland, KS, 66549
[4] County Extension Agent, ANR, K-State Research & Extension - Flint Hills District, Council Grove, KS, 66846
[5] County Extension Agent, ANR, K-State Research & Extension - Marshall County, Marysville, KS, 66508
[6] County Extension Agent, ANR, K-State Research & Extension - Geary County, Junction City, K, 66441
[7] County Extension Agent, ANR, K-State Research & Extension - Dickinson County, Abilene, KS, 67410
[8] County Extension Agent, ANR, K-State Research & Extension - Marshall County, Marysville, KS, 66508

Women Involved in Agriculture is a series of six educational meetings designed to help women become better farm business managers. In addition to becoming better financial managers, participants also gain a better understanding of interpersonal relationships and family dynamics. Goals for the program include: improved financial skills, better communication with family members and business partners (including landlords or tenants), and networking among program participants. Topics covered in the course are: True Colors, financial management, family dynamics and communication, Farm Service Agency programs, crop and livestock marketing, land leasing principles, record keeping with Quicken, and estate planning. Since the program's inception in 2011, 95 women have completed the course, with many enrolling based on a recommendation from someone in the previous year's class. To continue to serve

Women in Ag clientele, we began offering Women Involved in Agriculture - 2 programs in 2015. In the words of some of our program participants: "This was a very good course. I really enjoyed each week with the various topics. The speakers were friendly and informative." "This was terrific and the time went by very fast." "Thank you for putting these classes on."

YOUR FARM YOUR BUSINESS YOUR FUTURE

Campbell, D.*[1], Devlin, K*[2], Dyer, K*[3], Horner, J.*[4], Jenner, M.*[5], Koenen, J.*[6], Prewitt, W.*[7], Travnichek, R.*[8], Tucker, W.*[9], Zumwalt, A.*[10]

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[5] Agricultural Business Specialist, University of Missouri Extension, Butler, MO, 64730

[6] Agricultural Business Specialist, University of Missouri Extension, Unionville, MO, 63565

[7] Regional Director, West Central Region, University of Missouri Extension, Clinton, MO, 64735

[8] Family Financial Education Specialist, University of Missouri Extension, Camdenton, MO, 65020

[9] Agricultural Business Specialist, University of Missouri Extension, Bolivar, MO, 65613

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In Missouri, 99,000 farms have land assets valued at $65 billion based on the 2012 Census of Agriculture. Farm numbers are declining and the farm operators are aging. There is a growing awareness among farm families that they must make thoughtful plans with their life's farming assets before they die. MU Extension has developed a new, interdisciplinary curriculum to provide business and farm families with the tools to navigate family business succession, estate, and retirement planning. The curriculum development team included agricultural business, family financial education, and small business development extension specialists. The class is 12 hours in length and is taught in four, 3-hour sessions. The first session covers initial planning goals, intergenerational differences, and communication. Session two is on succession business planning and entity selection. Session three, estate planning covers probate, wills, trusts, and titles. Session four addresses pre-retirement investments and monetizing farm assets. An innovation to the technical information is the inclusion of a fictional farm family case study. In addition to providing a familiar context for the technical material, the Biggins example provides a safe context in which the class participants can ask personal questions. Evaluations from the first three classes taught with this new curriculum have shown an increase in property owners reviewing their real estate titles and communicating their wishes to their heirs. All participants better understand the purpose of probate and the associated fee structure. Furthermore, participants realize the differences and interdependency of succession, estate and retirement planning.

BEGINNING FARMER AND RANCHER SYMPOSIUM

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The Beginning Farmer and Rancher Symposium is held annually on the South Dakota State University (SDSU) campus in Brookings. Held in November or December each year, the symposium's theme is Estate Planning and Farm Transition. Focusing on the next generation of South Dakota farmers and ranchers, 345 students from SDSU, Mitchell Technical Institute, Lake Area Technical Institute and Northern State University have attended each year.

The event features a headline speaker and two panel discussions. One panel includes industry professionals (bankers and lawyers) and the other features returning to the farm 25 to 35 year-olds. Extension has programming focused on the "older generation" and estate planning annually, however this event targets the next generation and challenges them to begin the critical thinking process involved with returning to the farm.

The students attend for multiple reasons, ranging from "I am returning to the farm and want more information" to "because my professor required it". However, based on survey results at the end of each session, the students have indicated via personal response devices, they have learned one to four communication tools or ideas to take home and implement.

Sponsorship is a major component of the symposium as the event is free of charge to students. All planning, contracts, fundraising, advertising and participant invitations are completed by SDSU Extension staff. Results from the 2014 event have been published and released to the public via iGrow.org and a copy is attached. The 2015 results have yet to be released.

ANNIE'S PROJECT

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Women producing specialty and value-added products are a rapidly growing segment of the agriculture industry across the country. The background of women principal operators is significantly different from the general population: higher percentages are beginning farmers and on average have less acres and agriculture sales. These smaller farms are more likely to rely on alternative markets, including specialty crops and varieties, value-added products, and market diversification techniques including fresh market and direct sales.

To target this growing population, *Annie's Project* for Value-Added Women Farmers was developed and a six-week series was held in Northwestern Wisconsin. The following winter, a subsequent two-week *Annie's Project*: Financial Management Workshop Series was offered for participants interested in more in-depth financial training. Multiple program activities and teaching methods were utilized by the 20 speakers who presented information and resources on various topics during the two *Annie's Project* programs. Financial management was the most highly rated topic by participants in terms of requiring more in-depth training and information. Networking continued among participants after completion of the course, highlighting the importance of building networking time into the program.

Sixty-three percent of participants reported they would make changes to how they manage and analyze their farm's finances based on what they learned from the workshops. Eight-six percent of participants have developed their business plan or moved forward with their enterprise plans; time was the biggest barrier to their progress. Eighty-five percent of participants felt that it is very important to offer programs especially designed for women in agriculture.

PREPARING FOR LATER LIFE FARMING

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[3] Agriculture Agent, Rutgers NJAES Cooperative Extension, Bridgewater, NJ, 08807
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[5] Specialist in Farm Management, Rutgers NJAES Cooperative Extension, New Brunswick, NJ, 08901

A recent survey of New Jersey farmers (n=137) showed that almost 75% of respondents expected to pass down the farm to their children, and yet in another survey only 16% had a transition plan, 40% had written goals, and 50% had wills. How can these expectations possibly be met without 'breaking the silence' and planning for the future they prefer? Funded through a USDA/NIFA award and Northeast Extension Risk Management Education grant, The Preparing for Later Life Farming program was developed to assist multi-generational New Jersey farm families with education and resources in estate and transition planning. With additional support from the New Jersey Department of Agriculture and Farm Bureau New Jersey, a dynamic training program was developed to introduce concepts and communication strategies in a traditional setting. The program launched in 2015 with 65 producers attending one of three consecutive eight-hour workshops held regionally across the state. All program materials were provided to attendees on flash drives and the website, http://laterlifefarming.rutgers.edu, was launched to provide on-demand access to presentations and videos as references and to reach a larger audience. Post workshop, six month, and one year follow-up surveys revealed substantial knowledge gains and actions taken by these farm family participants. The website has logged over 200 video views, and survey respondents have requested the workshop be repeated periodically to reinforce what is presented online. Utilizing these communication techniques to educate clientele on estate planning has proven highly successful in getting this important conversation started back at the farm.

SAVING CROP PRODUCERS MONEY: A MULTI-PROGRAM APPROACH

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Depressed commodity prices had White County crop producers searching for methods to cut input costs and improve marketing skills in order to keep their operations profitable. A multi-program approach was utilized to aid growers in the following: marketing and budgeting decisions, understanding the 2014 Farm Bill, and reduce costs associated with pest control, irrigation, and fertilization. Over 70 crop producers, consultants, and other agriculture professionals attended annual county crop production meetings over the past three years. At the production meetings, extension economists provided their expertise on market outlooks as well as decision making tools for the Farm Bill. Fifteen crop newsletters were sent to 150 producers to educate producers about adopting sound pest management practices, improving irrigation efficiency, and utilizing site specific soil testing for nitrogen fertilization. Fourteen producers representing over 9,000 irrigated acres attended a workshop designed to reduce irrigation costs. An on-farm demonstration in addition to 55

irrigation designs was conducted to reduce irrigation costs to growers by approximately 25%. Through newsletters, production meetings, and on-farm consultations, over $65,000 in unnecessary insecticide applications to soybeans producers was saved by proper insect identification and eliminating calendar-based applications. Four producers have adopted site specific nitrogen soil testing for rice, saving as much as 40 units of nitrogen per acre. Through a multi-program approach, over $200,000 in savings was realized for White County producers.

MULTI-COUNTY FARM BUSINESS WORKSHOPS

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Georgia's $13 Billion agricultural economy is constantly changing and new trends are opening opportunities for current producers as well as allowing people new to agriculture an avenue into the market. Whether producers are developing a new venture or adapting an existing operation to meet new opportunities, having an understanding of the market and proper preparation are key to a successful agricultural enterprise. UGA Extension in Bulloch, Jenkins and Tatnall counties collaborated with Fort Valley State Extension, University of Georgia and Georgia Southern University Small Business Development Center (SBDC) to host a series of farm business workshops. A spring workshop was held in Bulloch, followed by a winter workshop in Tatnall County. The three hour long workshops were designed to provide farmers with information on the business aspects of operating a farm or other agriculture enterprise, especially those relevant to the initial years of operation. Speakers included county agents, an SBDC business consultant, a credit lender, a local small farm business owner, and a USDA farm loan specialist. These workshops attracted 44 participants representing eight counties from around the state. Responses from the evaluation were positive about the effectiveness of this program in improving their business practices and they found the information useful and helpful to their operations. Participants expressed interest in further programming about small business principles. The workshops yielded two new businesses, in which both are operating today.

NC FARM SCHOOL

Adcock, D.*[1], Albertson, Amy-Lynn*[2], Birdsell, T.*[3], Brennan, M.*[4], Bullen, S.*[5], Burns, P.*[6], Cutting, D.*[7], Jones, P.*[8], Kelly, S.*[9], Orfield, M.*[10], Pless, C.*[11], Taylor, A.*[12], Williams, T.*[13], Worden, L.*[14], Xiong, D.*[15]

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[7] Horticulture, North Carolina Cooperative Extension, Salisbury, NC, 28146

[8] Horticulture, North Carolina Cooperative Extension, Mocksville, NC, 27028

[9] County Extension Director, North Carolina Cooperative Extension, Rockingham, NC, 28379

[10] Livestock, North Carolina Cooperative Extension, Jefferson, NC, 28640

[11] Livestock, North Carolina Cooperative Extension, Concord, NC, 28027

[12] Commercial Horticulture, North Carolina Cooperative Extension, Lenoir, NC, 28465

[13] Horticulture, North Carolina Cooperative Extension, Carthage, NC, 28327

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NC Farm School is a training program where new & transitioning farmers find relevant resources that have a real impact on their ability to operate an economically sustainable farm business. These impacts include a projected increase in income that will benefit the employed in their communities.

The NC Farm School program offers eight business-planning seminars taught by Extension specialists, agents, & experienced farmers. These sessions give students the tools to create viable farm business plans. Each business session focuses on different areas of a business plan, including financial management & effective marketing strategies. The goal of NC Farm School is to allow a pathway of success for farmers to generate profitable businesses.

The program also includes field trips to working farms led by innovative, experienced farmers & agricultural professionals. Participants learn economically sustainable farming methods in a range of production systems, including fruits, vegetables, specialty crops, poultry, animal husbandry & agritourism.

NC Farm School students have access to one on one time with an NC State University Agribusiness specialist trained in agricultural business, marketing, production system evaluation, and business startup. In addition, students work with a local Extension agent who can help them follow through with their plans, connect them to valuable resources, & make sure they have a sound production system in place.

The NC Farm School program operates several locations throughout the state. All of the schools utilize Extension agents & farmers from their regions to train students desiring to develop business skills.

USING EXCEL

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Microsoft Excel offers multiple functions that can be utilized in farm and ranch financial management decisions. Oklahoma State University Extension, along with many other extension programs, offer an abundance of designed spreadsheets at the disposal of agriculture producers today to assist with production, marketing, and budgeting decisions. Unfortunately, many producers or managers do not possess the basic computer program literacy to take advantage of these tools. Recognizing this gap in education, in 2014 the Using Excel as a Farm Management Tool curriculum was developed to provide guided information to agriculture producers and more. The objectives of this program were to create interactive workshops to help the attendees understand basic Excel functions, develop spreadsheets, and navigate existing decision tools. Participants were taught how to develop their own chute side cow/calf production record sheet and cash flow statement. While building these spreadsheets the attendees learned how to reformat the page and insert formulas. Participants were then shown how to navigate pre-made Excel programs that would assist them to purchase the most economical supplement based off of a forage analysis, create a budget for a wean-vaccination protocol, and determine the appropriate female replacement cost for their operation's goals. Five workshops were held across OK with a total of 33 participants. Participants indicated an average of a 59.8% increase in ability and confidence with Microsoft Excel and 100% indicated that they would recommend Using Excel as a Farm Management Tool to others.

Search for Excellence in Farm Health and Safety

National Winner

KANSAS PESTICIDE SAFETY

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In the state of Kansas, there are 20,811 commercial and private applicators who need pesticide safety education to maintain their licenses. The license is required for applicators to purchase and use restricted use pesticides. The Kansas Pesticide Safety Education program provides education and information resources for applicators, homeowners, and youth to help improve their quality of life by keeping them safe. The program is responsible for educating these applicators and others to ensure they apply pesticides safely and legally while promoting environmental stewardship. The program also provides objective information on the safe handling of pesticides and pest management strategies. This is completed through individual one-on-one consultations, face-to face presentations, hands on demonstrations, and through media and on-line formats. From October 1, 2014 to September 30, 2015, a total of 2,136 commercial applicators and 2,261 private applicators were either initially certified or recertified through the program. In the same period, the PESP was responsible for training 1,121, occupational training users and 650 homeowners/youth/non-occupational users. The program evaluates the trainings and manuals to improve the program and to provide documentation of overall impacts and outcomes. One participant shared that he learned that adding extra chemical does not necessarily mean more control. The Pesticide Safety program is instrumental in reducing the risk to public health and decreasing the negative effects to the environment while allowing for effective crop production and pest control in the state of Kansas.

National Finalists

LIVING AG CLASSROOM

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Our Cass County Advisory board wanted a reconnection involving the non-rural youth with our food system. They expressed an increased interest in: food security, sustainability, and utilizing locally grown food, and families wanting to grow some of the food that they consume.

A youth friendly training booth was set up for the Living Ag Classroom. Its goal was to teach the youth about the life cycle from manure (from livestock) to compost for plant food to plant food for livestock. I taught about the composting cycle that plants utilize for food and photosynthesis. This hands on training connected the students to our rural agriculture environment that they have not had the opportunity to learn about before.

A total of 2,266 fourth graders from Cass County and the surrounding area had the opportunity to participate in this activity. Of the completed pre and post surveys returned, the following impacts were noted:

- 73% of the students increased their understanding of the whole farm nutrient cycle.
- 73% of the students are more aware that manure compost can be used as plant food.
- 95% increased their knowledge of making compost.

Because of the interest of youth and their teachers in this project, our team will be providing 5 classes in the spring of 2016. We have received an eXtension i3 grant to support the 2016 classes because of the success of this program.

TEACHING GEARING UP FOR SAFETY TO TEENAGERS, NEW FARMERS AND LATINOS IN THE SAME CLASSROOM

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Since the 1980's personnel from WSU Skagit County Extension located in Burlington, Washington have taught a tractor safety course to teenagers in Skagit County, WA. An agricultural community located 60 miles North of Seattle on the West Coast. Beginning in 2008 WSU Skagit County Extension Educators began teaching the five week, Gearing Up for Safety farm safety course in the spring (mid-April – mid-May). The Gearing Up for Safety course participants receive 24 hours of instruction especially designed to meet the current safety training requirements contained in the Agricultural Hazardous Occupations Order (AgHOs). This order set forth by the Federal government applies to youth ages 14-15 that are required to have certification of training prior to performing tasks considered particularly hazardous on farms and ranches. Beginning in 2010 there was an interest by a local incubator farm to include adult Latino participants to the course. The 2010 course was a trial with several changes. This abstract provides a summary of the evaluations of the course located at WSU Skagit County Extension for the 2012, 2013 and 2015 spring Gearing Up for Safety Course.

Search for Excellence in Forestry and Natural Resources

National Winner

WILDLIFE AND INVASIVE SPECIES EDUCATION

Davis, J.E.*[1], Moffis, B.L.*[2], Boughton, R.K.*[3], Daniels, J.C.*[4], Demers, C.*[5], Enloe, S.F.*[6], Hill, J.E.*[7], Johnson, S.A.*[8], Orlando, M.*[9], Pienaar, E.F.*[10], Westervelt, D.*[11], Clothier, A.*[12], Stout, R.*[13], Lester, W.*[14]
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[7] Associate Professor, UF/IFAS School of Forest Resources and Conservation, Ruskin, FL, 33570
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[9] Wildlife Biologist, Florida Fish and Wildlife Conservation Commission, Eustis, FL, 32726
[10] Assistant Professor, UF/IFAS Department of Wildlife Ecology and Conservation, Gainesville, FL, 32611
[11] Assistant Chief, Bureau of Plant & Apiary Inspection, Division of Plant Industry, Gainesville, FL, 32611
[12] Sumter County Forester, Florida Forest Service, Bushnell, FL, 33513
[13] Director, Florida Bass Conservation Center, Florida Fish and Wildlife Conservation Commission, Webster, FL, 33597
[14] Commercial Horticulture Agent/Master Gardener Coordinator, UF/IFAS Hernando County Extension, Brooksville, FL, 34601

Invasive species are threatening Florida's native wildlife and native plant species. After assessing the need for more education on invasive species and native wildlife, the agent developed a symposium that provides continuing education to Florida Master Gardeners and Florida Master Naturalists on native wildlife, native plants and the control of invasive species in Florida. The "Wildlife and Invasive Species Education" or W.I.S.E. symposium was formed. Objectives were to educate and train participants so that they may take the knowledge learned and educate the public. W.I.S.E. consisted of a two-day event. Presentations were delivered by extension faculty, specialists and other attending agencies. Educational booths were present for questions and for participants to become familiar with the agencies that were present. The third day of the symposium consisted of guided field trips to natural areas and a tour of the Florida Bass Conservation Center. Field trips offered to educate through hands-on experiences and reinforced the knowledge of the lessons learned in presentations. There were over 120 attendees that attended W.I.S.E. 70 attendees responded through a post survey by Qualtrics. 88% of the participants stated they will use the information learned from W.I.S.E. to educate clientele about invasive species, native plants and native wildlife species. 58 participants listed three action items they will take to educate others on invasive species. 100% (n=70) participants demonstrated knowledge gain. A monetary gain of $492.00 was achieved and used to enhance other natural resources events.

National Finalists

ECOLOGICAL EDUCATION FIELD DAYS

Weinmann, T.*[1]
[1] CASS COUNTY EXT HORTICULTURIST, , Fargo, ND, 58108

Every fall, Cass County SCD hosts Eco-Ed (ecological education) field days for Cass County 7th and 8th grade students. This event educates students on a variety of conservation topics which support North Dakota State curriculum standards for life science. For the past 3 years I have taught the studnets

prairie rangeland ecosystems, native grass differences, forestry trees, and pollinators portions of this class.

Last year the Central Cass had 108 students

Pretest: 64%

Post test: 75%

Oak Grove had 40 students

Pretest: 75%

Post test: 83%

The students did learn from my being their information they did not know.

RUTGERS VETS PROGRAM

Rowe, A.A.*[1], Zientek, J.*[2]
[1] Environmental and Resource Management Agent, Rutgers Cooperative Extension, Roseland, NJ, 07068
[2] Senior Program Coordinator, Rutgers Cooperative Extension, Roseland, NJ, 07068

The Rutgers Veterans Environmental Technology and Solutions (VETS) program's mission is to improve the lives of unemployed veterans in Newark, NJ, and to work with them to protect the Lower Passaic River watershed. The VETS program provides local, unemployed veterans with environmental training and new green job skills. It promotes trainees' civic engagement and leadership by working with a broad cross-section of the Newark community to revitalize distressed neighborhoods through green infrastructure projects and increases healthy eating lifestyles for families and children in Newark through an active greenhouse and community garden. The green infrastructure practices installed by the veterans are keeping 52,000 gallons of storm water out of Newark's aging combined sewer system. The veteran participants have also implemented the nation's first-ever fish exchange. The exchange is a groundbreaking initiative to reduce immediate health risks to families of subsistence fishermen who eat fish caught in the historically-contaminated Lower Passaic River. It is a pound-for-pound exchange of contaminated fish for clean tilapia. Tilapia are raised in an aquaponics system in a greenhouse run by the veteran participants. The 500 pounds of produce grown in the aquaponics system were donated to the food bank adjacent to the VETS facility. The veterans educated more than 240 members of the Newark community and prevented the consumption of more than 150 fish caught from the Lower Passaic.

WILDFIRE PUBLIC OUTREACH

Warren, B.*[1]
[1] Extension Educator, University of Idaho, Orofino, ID, 83544

The extent and severity of wildfires have increased dramatically in recent years, especially in the west. The wildfire season of 2015 set a new record for total acres burned in the US at 10.1 million. Over 800,000 of those acres burned in Idaho, with 300,000 acres burned in the north-central part of the state that included approximately 60,000 of non-industrial private land. UI Extension responded to the wildfire threat in north-central Idaho by conducting programing that responded to the evolving nature of the situation both before and after the fires. Twelve fire-related public events were held serving almost 500 clients, a special "wildfire recovery edition" of the Extension quarterly newsletter was direct mailed to over 2600 landowners in fire affected communities, and over 500 fire recovery information packets were made and distributed. Extension also assumed a lead role in the coordination of a multi-agency response to post-fire assessment and recovery, leading to the formation of an inter-agency organization to address both short-term and long-term fire recovery. Having a flexible and strategic programing emphasis allowed an effective and timely response to the needs of landowners affected by this natural disaster that could serve as a model for Extension programing response to similar natural disasters in other settings.

State Winners

ART AIDING IN STORM WATER AWARENESS

Anderson, Jr, L.L.*[1]
[1] CEA - Agriculture, , Pine Bluff, AR, 71601

Increasing awareness of how urban storm water impacts urban and rural water systems is growing in Jefferson County. USW drain art is a way to bring visual awareness to USW issues. The murals provide a visual reminder to keep storm drains clean of debris and trash. Robert F. Morehead Middle School's 8th grade art class painted four storm drains on the school campus. The designs were drawn on the storm drain covers then painted and protected with a coat of sealant to prevent damage from the weather. The students, staff and principal were educated about USW and the effects that every day activities can have on plant life and aquatic life in urban environments and down-stream in non-urban areas. To accomplish the USW drain project, a partnership was formed with Robert F. Morehead Middle School to do artistic paintings on storm drains located on their campus.

RIVERS ALIVE

Warren, J.*[1]
[1] County Extension Agent, University of Georgia, Woodbine, GA, 31569

Camden County is comprised of pristine black water rivers and large expanses of salt marsh. These critical and unique habitats not only increase biodiversity, but also provide important ecological services such as flood control, erosion control, and pollution control. These areas also provide essential habitat for species critical to both the state's fishing and ecotourism industries. Residents and tourists heavily utilize our local waterways for boating, fishing, and other water related activities. Due to heavy use, there is often litter and debris left behind from these recreational activities.

Camden County Agriculture and Natural Resources (ANR) Agent Jessica Warren acts as a local Adopt-A-Stream coordinator and trainer in both chemical and bacterial quality assurance/quality control protocols. The ANR program

regularly hosts Adopt-A-Stream workshops and offers support to local volunteers in order to involve community members in citizen science, and educate and involve them in their local environment. In addition, beginning in 2014 Camden County Extension has organized and hosted two Rivers Alive cleanup events per year. Camden County Extension partners with Crooked River State Park to host a cleanup on and within the shores of the park. The cleanup is held as a part of Your State Parks Day, a park community service day on which parking fees are waived for volunteers. Camden County Extension hosts a separate cleanup in downtown Woodbine targeting high need areas.

Search for Excellence in Consumer or Commercial Horticulture

National Winner

POLLINATOR PROGRAMS

Roos, D.*[1]

[1] Agriculture Extension Agent, North Carolina Cooperative Extension, Pittsboro, NC, 27312

The primary goal of this comprehensive educational program was to inspire and teach farmers, gardeners, and beekeepers to create and expand habitat to provide vital forage and nesting sites for pollinators. I employed multiple program activities and teaching methods over the past three years to help me achieve this goal. I conducted 52 pollinator conservation workshops and presentations for a total of 3,050 participants. I created a demonstration pollinator garden and led 48 garden tours for approximately 1,400 visitors from across the state. I organized an annual Pollinator Day celebration that attracted hundreds of visitors annually, conducted Beekeeping Schools and workshops, and engaged the public through social media and a pollinator website (www.carolinapollinatorgarden.org). Program participants increased their knowledge over a wide range of topics and 96% said the programs helped them protect and enhance pollinators. Impacts increase when knowledge leads to action: 66% of program participants reported they expanded an existing garden to make it more pollinator friendly while 43% planted a completely new pollinator garden. Visitors came from across the state to visit the demonstration garden, resulting in the unexpected impact that I call "pollinator tourism": 88% of visitors said they spent money eating out and shopping in town when they came to visit the garden, and 74% reported they bought plants from local nurseries after visiting the garden. Some local nurseries added new species for sale based on my plant lists and saw increased sales from program participants.

National Finalists

INCREDIBLE EDIBLE GARDENING

McQueen, M.*[1]

[1] REGIONAL EXTENSION AGENT, ALABAMA COOPERATIVE EXTENSION SYSTEM, Monroeville, AL, 36460

Many consumers want to grow their own food but have limited space for gardening. Consumers want to know that they are eating and serving the safest, healthiest food available. To help accomplish these needs of consumers, Extension agents have developed a curriculum to teach consumers about growing systems that can be used to incorporate gardening in small spaces and integrated pest management options for these growing systems. These systems include: grow bags, vertical systems, containers, raised bed gardening, and hydroponics. A post evaluation instrument was also developed to measure the impact of the "Incredible Edible Gardening" training curriculum. The "Incredible Edible Gardening" training program has been presented at three different locations in rural southwest Alabama from 2013 - 2015. A sample of the post evaluation results from the 2013 "Incredible Edible Gardening programs presented indicated that 45% of the participants were male and 55% were female, 82% of the participants were White and 18% were African American, 82% of the participants increased their knowledge of growing systems and integrated pest management, 69% of the participants would use one or more of the IPM control methods, 70% of the participants would share information with others, and 100% indicated that the information presented in the "Incredible Edible Gardening program was easy to understand.

FLORIDA FRIENDLY LANDSCAPING

Delvalle, T.*[1], Demorest, D.N.*[2], DeValerio, J.T.*[3], Dukes, M.D.*[4], Fuller, K.D.*[5], Harlow, E.E.*[6], Hunter, M.*[7], Israel, G.D.*[8], Jordi, R.L.*[9], Lamborn, A.R.*[10], Momol, E.*[11], Morie, A.E.*[12], Saft, C.S.*[13], Wilber, W.L.*[14]

[1] Environmental Horticulture Agent, UF/IFAS Duval County Extension, Jacksonville, FL, 32254

[2] Environmental Horticulture Agent, UF/IFAS Columbia County Extension, Lake City, FL, 32025

[3] Horticulture Extension Agent, UF/IFAS Bradford County Extension, Stark, FL, 32091

[4] Extension Specialist, UF/IFAS, Gainesville, FL, 32611

[5] Environmental Horticulture Agent, UF/IFAS St. Johns County Extension, St. Augustine, FL, 32092

[6] Commercial Horticulture Agent, UF/IFAS Duval County Extension, Jacksonville, FL, 32254

[7] Environmental Horticulture Agent, UF/IFAS Flagler County Extension, Bunnell, FL, 32110

[8] Extension Specialist, UF/IFAS, Gainesville, FL, 32611

[9] County Extension Director, UF/IFAS Nassau County Extension, Callahan, FL, 32011

[10] Environmental Horticulture Agent, UF/IFAS Baker County Extension, Macclenny, FL, 32063

[11] Extension Specialist, UF/IFAS, Gainesville, FL, 32611

[12] Environmental Horticulture Agent, UF/IFAS Clay County Extension, Green Cove Springs, FL, 32043
[13] Environmental Horticulture Agent, UF/IFAS Suwannee County Extension, Live Oak, FL, 32064
[14] Florida Statewide Master Gardener Coordinator, UF/IFAS, Gainesville, FL, 32611

Horticulture Extension Agents teach Florida-Friendly Landscaping™ (FFL) principles but often conduct minimal follow-up to determine if attendees adopted practices or made landscape changes. In 2010, members of the Northeast Florida Horticultural Green Team partnered to develop a follow-up survey that could be used to collect information from homeowner clientele who attended FFL programs. Contact information was collected in an exit survey and electronic surveys were sent out three to six months following the program. Over the last three years 712 participants responded to the survey. Of those 381 made one or more landscape changes and 235 had started making changes but were not finished. Participants also indicated changes in fertilizer, irrigation, pesticide and plant selection practices. Changes in irrigation practices indicate that 161 used a rain shutoff device, 292 used a rain gauge to track rainfall, 172 calibrated their irrigation system, 364 manually turned irrigation system off when rainfall was adequate, and 295 adjusted the irrigation run times based on seasonal weather. In addition, 217 participants eliminated some of the irrigated landscape area and 199 converted high volume areas to low volume irrigation. Based on those who provided the square footage of areas changed, the potential for water savings by eliminating irrigation for 362,117 square feet translates to 11,503,370 gallons of water per year. Converting 300,081 square feet to low volume could save between 4,671,961 to 9,532,673 gallons per year. This survey is an effective tool for measuring impacts and is invaluable for use with funding sources and stakeholders.

PLANT DIAGNOSTICS PROGRAM

Singh, R.*[1]
[1] Director, Plant Diagnostic Center, LSU AgCenter, Baton Rouge, LA, 70803

According to Louisiana Agriculture Summary, the total value of consumer and commercial horticulture exceeded $ 500 miliion in 2014. Every year, plant health problems caused by diseases, insect pests, nematodes and nonliving agents account for billions of dollar in losses. Misdiagnosis of plant diseases and insect pests may significantly increase the cost of production and add to these losses. Therefore, early and accurate diagnosis of plant diseases and insect pests is vital in implementing management strategies and minimizing economic losses caused by them. The major objective of my program is to provide accurate and timely diagnoses of plant diseases and other pests and educational programs to the horticultural industries of Louisiana. During the past three years, I have provided numerous extension educational programs and services to the residents of Louisiana. These programs are focused on increasing stakeholder's knowledge about plant diseases, their causal agents, how to diagnose and manage them.

State Winners

THE GOOD, THE BAD, AND THE LOVELY PLANTS

Allsup, K. R.*[1], Black, B. J.*[2], Enroth, C. J.*[3], Ferree, R. J.*[4], Fishburn, J. L.*[5], Holsinger, A. C.*[6], Houle, K. L.*[7], Johnson, K. L.*[8], Smith, M. A.*[9]
[1] Horticulture Educator, University of Illinois Extension, Unit 12, Bloomington, IL, 61704
[2] Horticulture Educator, University of Illinois Extension, Unit 4, Sterling, IL, 61081
[3] Horticulture Educator, University of Illinois Extension, Unit 10, Macomb, IL, 61455
[4] Horticulture Educator, University of Illinois Extension, Unit 11, Havana, IL, 62644
[5] Horticulture Educator, University of Illinois Extension, Unit 16, Springfield, IL, 62707
[6] Horticulture Educator, University of Illinois Extension, Unit 18, Hillsboro, IL, 62049
[7] Horticulture Educator, University of Illinois Extension, Unit 14, Rushville, IL, 62681
[8] Horticulture Educator, University of Illinois Extension, Unit 15, Jacksonville, IL, 62650
[9] Horticulture Educator, University of Illinois Extension, Unit 7, Milan, IL, 61264

University of Illinois Extension Horticulture Educators of Region 2 formed a team to address garden biodiversity with a free webinar series called "The Good, the Bad and the Lovely Plants." Extension educators taught Illinois gardeners about garden biodiversity using four separate modules: (1) addressing invasive qualities of common landscape plants (species of concern), (2) Control strategies, (3) Landscape native alternatives (4) the benefits of native plants to pollinators.

The topics represented issues all team members were being asked to address. Working together they were able to meet the educational programing demands utilizing team member subject matter expertise to reach a greater audience through webinar technology in a fiscally- responsible manner.

Educators volunteered to create and present content based on their horticultural expertise. PowerPoints and accompanying handouts were created and a two-part webinar series was scheduled for February 2015 and repeated in April 2015. The modules were designed to reach Illinois residents, as well as residents of surrounding states.

Due to this program, participants have started making positive changes that not only benefit their personal properties today, but will also enhance the environment of future generations for years to come.

The webinar series is now available on YouTube and, as of March 14, 2016, has been viewed 304 times.

BIOCHAR PROJECT

Weisenhorn, J.E.*[1], Hagen, L.*[2], Haynes, C.*[3], McCormick, Y.*[4], Shrock, D.*[5]
[1] Extension Educator, Horticulture, University of Minnesota Extension, St. Paul, MN, 55108
[2] Project manager, University of Minnesota Extension, Andover, MN, 55304
[3] Professor, Iowa State University, Ames, IA, 50011
[4] Extension Master Gardener, Iowa State University, Ames, IA, 50011
[5] Master Gardener State Coordinator, Iowa State University, Ames, IA, 50011

The purpose of this study (2012-2015) was to answer the question "Is biochar a good soil amendment for home landscapes?" Biochar is a carbon-rich solid byproduct of pyrolysis, the process of converting biomass into biofuel. Fifty Extension Master Gardeners in Minnesota and 25 in Iowa observed and recorded the performance of 15 commonly grown vegetable and flower crops in seven demonstration gardens amended with hardwood biochar. Soil types ranged from sandy to silt loam to clay and provided the opportunity to observe whether biochar had an effect on crop performance, specifically plant growth and in some cases yield. Preliminary results show biochar had some beneficial effect on certain crop performance in poor (low nutrient) soils, and informally, volunteers observed biochar-amended soils were less compacted. Extension outreach was an important component of this project. This project is part of CenUSA Bioenergy Objective 9: Extension and Outreach (https://www.cenusa.iastate.edu/). CenUSA Bioenergy is supported by AFRI Competitive Grant No. 2011-68005-30411 from the USDA NIFA.

RAISED BED GARDENS

Weinmann, T.*[1], Shouldis, B.*[2]
[1] CASS COUNTY EXT HORTICULTURIST, , Fargo, ND, 58108
[2] ANR Extension Agent, NDSU, Wahpeton, ND, 58075

Danielle Flack, RD, LRD, WIC Director Richland County Health, approached Extension and expressed the need for someone to educate county employees for a Lunch/Learn with raised bed gardens.

Two community friendly raised bed gardens were purchased with grant funds and set up in front of the Courthouse entrance for a "hands on" demonstration conducted by Todd Weinmann and Brock Shouldis, Extension Agents. Shouldis taught the process of placement of a raised bed garden, proper fertilization, soil tilth, and the correct way and amount of water to be used in a raised bed garden.

The goal was to teach the employees about the real potential of having one of these gardens at homes for their own consumption. Todd Weinmann, provided hands-on training to employees and provided for the possibility to learn and apply what they learned for their own locally grown food that their families can enjoy.

A total of 34 county employees participated. Of the completed pre and post surveys returned, the following impacts were noted:

- 100% indicated they ate the vegetables that they grow.
- 1% indicated they attempted raised bed gardening.
- 16% indicated they attempted square foot gardening.
- 61% learned the correct watering techniques.
- 10% changed their fertilizing practices to use fertilizer more efficiently.

Because of the interest with this topic we will continue to provide education on this topic into 2016. A Power Point presentation was made outlining the impacts of this program and was presented at the Extension Fall Conference Trainings.

RAISED BED GARDEN DEMONSTRATION

Malone, MS., M*[1], Marsh, MS., K.*[2]
[1] CEA-Family and Consumer Sciences, , Conway, Ar, 72034
[2] CEA-AGRICULTURE, , Conway, AR, 72034

In a recent study done by the National Gardening Association it indicated a 19% rise in food gardening. The NGA reported an increase of 3 million more households participating in do-it-yourself garden activities. 47% of hort calls are related to home gardening, with all these statics it became evident a demonstration garden was needed!

Faulkner County agents implemented a raised bed garden demonstration for clientele with limited gardening space. Various materials were used to construct the beds. Agents and volunteers installed a conservation irrigation system to reduce water consumption and irrigate each bed. A field day focused on what to plant, how to install a conservation irrigation system, how to properly preserve and cook vegetables from the garden and how to use the beds for yearlong vegetable consumption.

Americans are making the connection with growing their own produce to an improved quality in taste and cost savings. Agents received positive responses from participants and determined the program needs to be continued and include handicap accessible beds.

Other results:

- Home garden calls and request increased by 25% over 2014
- Various materials can be used to create the beds
- Must have irrigation
- Soil fertility and soils used to make the beds is vital to vegetable production
- Variety selection is crucial for this production system
- Monitoring of insect is essential to good plant health

RAISED BED GARDENS

Hildabrand, K.G.*[1]
[1] Extension Agent for Horticulture, University of Kentucky Cooperative Extension Service, Glasgow, KY, 42141

In Barren County, several clientele in the community requested educational classes from the Extension Service on growing home fruits and vegetables. To address this need, a raised bed vegetable gardening class was offered through the Gardener's Toolbox Class Series. The Horticulture Extension Agent instructed 50 interested individuals about information related to constructing and growing vegetables in raised bed gardens. Information in the presentation included site selection, materials needed to construct a raised bed garden, soil preparation, planting recommendations, maintenance tips, and the advantages to raised bed gardening.

Since the educational class was well received program in the community, the horticulture extension agent installed 8 raised bed demonstration gardens behind the Extension Office in Glasgow, KY. Master Gardeners assisted with the installation of the project and have spent hours in maintaining the gardens appearance through the seasons. Later, the agent posted a step by step photo book to the Barren County Cooperative Extension Service Facebook page to show the entire project from start to finish.

As a result of this programming, several home gardeners have stopped in the Barren County Extension Office to receive more information about raised bed gardening. When possible, the horticulture extension agent takes clientele to the raised bed demonstration gardens so they can get a better idea of how to build a raised bed to grow small fruit and vegetable crops. Most recently, a teacher from the Middle School toured the gardens and later installed similar raised bed gardens close to their greenhouse to use in their school curriculum. So far, the school has grown and sold 1.5 pounds of a salad mixed lettuce to the cafeteria which was later served to students in the lunch line.

JACKSON COUNTY MASTER GARDENER PROGRAM

Hiller, M.R.*[1]
[1] CEA-AG/NR JACKSON CO., , Edna, TX, 77957

Home landscapes, turfgrass, and fruit & vegetable gardening are important to the quality of life of citizens of Jackson County. Many people enjoy managing home gardens and landscapes. These outdoor activities not only add to the quality of life but also maintain and improve property values. The Jackson County AgriLife Extension Master Gardeners work together to conduct educational programs and demonstrations. They show the people of the county through their Texana Educational Gardens how to benefit with gardening.

Search for Excellence in Livestock Production

National Winner

INDIANA MASTER CATTLEMAN PROGRAM

Brown, A.*[1], Walker, D*[2], Andrew-Richards, J*[3], Claeys, M*[4], Davis, S*[5], Heckaman, K*[6], Johnson, K*[7], Kepler, M*[8], Lemenager, R*[9], Mosiman, A*[10], Reid, P*[11], Shelton, B*[12], Stewart, K*[13], Stierwalt, C*[14], Turner, M*[15], Ulery, M*[16]
[1] Extension Educator, Purdue Extension, Flora, IN, 46929
[2] Extension Educator, Purdue Extension, Salem, IN, 47167
[3] Extension Educator, Purdue Extension, Rising Sun, IN, 47040
[4] Beef Extension Specialist, Purdue University, West Lafayette, IN, 47907
[5] Extension Educator, Purdue Extension, Bloomfield, IN, 47424
[6] Extension Educator, Purdue Extension, Warsaw, IN, 46580
[7] Forage Extension Specialist, Purdue University, West Lafayette, IN, 47907
[8] Extension Educator, Purdue Extension, Rochester, IN, 46975
[9] Purdue Extension Beef Specialist, Purdue University, West Lafayette, IN, 47907
[10] Extension Educator, Purdue Extension, Boonville, IN, 47601
[11] Distance Learning Coordinator, Purdue University, West Lafayette, IN, 47907
[12] Feldun Purdue Ag Center Manager, Purdue University, , IN, 47421
[13] Extension Reproduction Specialist, Purdue University, West Lafayette, IN, 47907
[14] Extension Educator, Purdue Extension, Covington, IN, 47932
[15] Extension Educator, Purdue Extension, Petersburg, IN, 47567
[16] Extension Educator, Purdue Extension, Corydon, IN, 47112

Beef producers in Indiana are in need of in-depth educational programming that will help them increase productivity, efficiency, and profitability of their operations. In order to address these needs, a team of Purdue Extension Educators and Extension Specialists created the Indiana Master Cattleman program and launched it state-wide. This program is designed to help beef producers improve profitability through an increase in production efficiency, forage utilization, reproductive success, genetic selection, herd health, and business management. This advanced, in-depth, 10-week educational experience offers beef producers the opportunity to critically evaluate their cow herd and improve management techniques. Participants created a business plan, evaluated the efficiency of their cow herd, and strengthened their business management skills. The Indiana Master Cattleman program is an innovative, multidisciplinary educational program addressing

issues relevant to Indiana beef producers. After hosting the program in two locations, 40 Indiana beef producers have been certified. 100% of participants had a written business plan, mission, and goals for their operation at the conclusion of the program. After participating in the program: over 75% indicated the marketing information will increase revenue potential; 83% had a better understanding of EPDs and $Indexes; 90% had an increased understanding of calving interval and its effects on profits, over 85% identified new or improved ways of measuring reproductive efficiency; and over 80% indicated they would develop a comprehensive herd health plan. Overall, participants indicated that the program helped increase the revenue potential of their operation from $1,000-$10,000.

National Finalists

VENTILATION PROGRAMMING IN NW IOWA

Stender, D.*[1], Harmon, J.*[2]

[1] Swine Field Specialist, Iowa State University, Cherokee, IA, 51012

[2] Professor of Ag & Biosystems Engineering, Iowa State University, Ames, IA, 50011

The purpose to increase understanding and improve operation of the ventilation systems in swine facilities was achieved. Optimal ventilation will increase herd health, increased profit and reduce carbon footprint. A win-win scenario is possible. Poor functioning ventilation systems are common. Over ventilating uses excessive energy and increases stress on pigs. Under ventilating is harmful to pig health and productivity. Applying proper ventilation principals result in less energy cost and healthier, more productive pigs.

The educational program had significant industry reach and impact through innovative interdisciplinary education. The interdisciplinary team of Animal Science and Ag Engineering hosted 19 level one workshops and 5 level two workshops in Northwest Iowa reaching 394 participants. The participants included producers, territorial managers, regional field staff and consultants. The influence on these key individuals was huge as they managed, owned or consulted for 21,470,527 growing pigs and 539,599 sows. The program was successful for both large and small producers.

Hands on teaching methods using a mobile swine facility lab equipped with controllers, inlets and fans allowed participants to learn by experience. Turning Point clicker technology was used as a teaching tool to engage the audience in high level learning. Results speak for the program as surveys returned from 207 participants reported 242 new ideas learned and 182 changes made. The changes implemented by the participants had a self-reported value totaling $689,200. Per participant value was $3,266.35. If all 394 participants achieved similar results the annual value of the program could be estimated at 1.287 million dollars.

STRATEGIES TO MANAGE PHOSPHORUS ON LIVESTOCK FARMS

Pepin, R.*[1]

[1] Ag Production Systems - Livestock, Crops, Manure, University of Minnesota Extension, Holdingford, MN, 56340

I was involved in a two-year extensive educational program, "Strategies to Manage Phosphorus on Livestock Farms", designed to increase livestock farmer's knowledge of phosphorus issues related to manure. I located several farms with a phosphorus unbalance (imports of phosphorus exceed exports). I created eight case studies and twenty-five PowerPoint presentations illustrating livestock farmer's phosphorus management options and other phosphorus information. I created an integrated PowerPoint system linking PowerPoint presentations to a base PowerPoint, allowing flexibility for audience demographics. I presented 21 two-hour workshops and 10 thirty-minute presentations on phosphorus issues. I held 3 summer two-hour on-farm demonstrations and spoke at seven other summer on-farm events. I had contact with 1001 people at these events. I wrote ten articles focusing on phosphorus issues and manure management. Initial publication of all these articles was in "Dairy Star", a bi-weekly newspaper targeting Minnesota dairy industry with a total distribution of almost 17,000. The University of Minnesota Extension Dairy web page posts these articles and case studies. Surveys taken after the workshops indicated 100% of agency and 98% of producer attendees would recommend the workshop to other people. A survey taken 12 months after completion of the workshops indicated 94% of the respondents were already implementing or planning to implement at least one of the phosphorus management strategies presented; great impact on an important subject.

SPRING RANCHERS FORUM

Mudge, D.M.*[1], Fluke, A.*[2], Walter, J.H.*[3], Jennings, E.*[4], Bosques-Mendez, J.*[5], Shuffitt, M.*[6], Warren, M.*[7], Hersom, M.*[8], Brew, M.*[9], Gamble, S.F.*[10], Wilson, T.*[11]

[1] EXTENSION AGENT III, LIVESTOCK/NATURAL RESOURCES, , Orlando, FL, 32812

[2] Extension Agent I, University of Florida - Osceola County Extension, Kissimmee, FL, 34744

[3] Extension Agent II, University of Florida - Brevard County Extension, Cocoa, FL, 32926

[4] Extension Agent IV, University of Florida - Pasco County Extension, Bushnell, FL, 33513

[5] Extension Agent I, University of Florida - Hardee County Extension, Wauchula, FL, 33873

[6] Extension Agent IV, University of Florida - Marion County Extension, Ocala, FL, 34470

[7] Extension Agent II, University of Florida - Flagler County Extension, Bunnell, FL, 32110

[8] Associate Professor, Ph.D. Beef Cattle Specialist, University of Florida, Gainesville, FL, 32611

[9] Extension Agent II, University of Florida - Lake County Extension, Tavares, FL, 32778

[10] Extension Agent IV, University of Florida - Volusia County

Extension, Deland, FL, 32724
[11] Extension Agent III, University of Florida - St. Johns County Extension, St. Augustine, FL, 32092

In Florida, the livestock industry operates on over five million acres of pastureland generating over $1.5 billion livestock and livestock product sales. Large and small livestock producers need the same University research-based information and best management practices to prosper. A comprehensive approach to extension education resulted in the Spring Ranchers Forum (SRF), a program by the Central Florida Livestock Agents Group. It is the largest on private ranch educational field day in the state. Ranchers from across central Florida travel to Yarborough Ranch (8,500 acres) to attend this popular and successful program. Extension agents and University professors teach hands-on instruction intended to increase production and/or lower costs for beef cattle producers. Past efforts to put a dollar value on savings failed. A decision to survey return ranchers concerning the previous year form yielded vital statistics. Farm Education concerning toxic plants was emphasized at the SRF these last three years. At the 2014 SRF, the 2013 participants were surveyed revealing overwhelming success. 95% improved animal science skills and 95% shared this information with other ranchers. 62% experienced significant economic return as a direct result of last year's forum. These ranchers claimed they had experienced a $98,565 return. Thirty-two ranchers claimed 383 farm animals' lives had been saved through toxic plant education. They were valued at $404,000.00. 2014 participants were similarly surveyed in 2015. In this survey, ranchers claimed $44,500 in economic return. They also claimed 155 animals' lives had been saved from toxic plants. They were valued at $163,498.

State Winners

CATTLE CONFERENCE

Herring, R.*[1]

[1.] Agriculture Agent, University of Arkansas, De Queen ,AR, 71832

Since the late 90's a cattle conference was held at the Southwest Research and Extension Center in Hope, Arkansas. Due to the location we regularly attracted farmers and ranchers from the surrounding states. In 2013 we decided to relocate the conference to Texarkana, Arkansas and start the now 4 States Beef Conference. The conference now is planned and conducted by agriculture agents and specialists from the 4 states region that consisted of Arkansas, Louisiana, Oklahoma and Texas. In the first three years of the conference we had around 600 farmers and ranchers attend the one-day event. It has been held each at the 4 States Fairgrounds in Texarkana in earlier December so far.

FORAGE PROGRAMS SUPPORTING LIVESTOCK PRODUCERS

Smith, W.*[1]
[1] County Extension Coordinator, University of Georgia, Thomaston, GA, 30286

Upson County is primarily a forage and livestock producing county. A large percentage of our Ag income comes from these two enterprises that go hand in hand. Therefore, how we produce forages is extremely important in order for our producers to stay profitable.

PIEDMONT REGIONAL BEEF CONFERENCE

Langley, L.*[1], Chase, B.*[2], Groce, S.*[3], Woods, K.*[4], Black, J.*[5], Knight, J.*[6]
[1] Livestock Extension Agent, North Carolina Cooperative Extension, Burlington, NC, 27217
[2] Livestock Extension Agent, North Carolina Cooperative Extension, Reidsville, NC, 27320
[3] County Extension Director, Livestock, North Carolina Cooperative Extension, Pittsboro, NC, 27312
[4] Livestock Extension Agent, North Carolina Cooperative Extension, Roxboro, NC, 27573
[5] County Extension Director, Livestock, North Carolina Cooperative Extension, Asheboro, NC, 27203
[6] County Extension Director, Livestock, North Carolina Cooperative Extension, Yanceyville, NC, 27379

According to the 2015 NCDA&CS Agricultural Statistics, North Carolina is home to 800,000 head of beef cattle. Of those 800,000, 175,700 head of beef cattle are in the following counties located in the Piedmont Region: Alamance, Chatham, Caswell, Davidson, Forsyth, Guilford, Orange, Person, Randolph, Rockingham, and Stokes. Profitability of a cattle herd depends on good planning, appropriate herd management, getting calves delivered alive, maintaining adequate nutrition, and savvy marketing. During 2013-2015, in an effort to help area cattlemen increase the profitability of their operations, seven North Carolina Cooperative Extension Livestock Extension Agents representing eleven Piedmont counties, along with industry partners, organized & conducted the Piedmont Regional Beef Conferences held in Greensboro, NC. This annual conference over three years has impacted 306 beef cattle producers, with a total economic value of $144,389.

SMITH COUNTY BEEF AND FORAGE MANAGEMENT

Gulley, C.H.*[1]
[1] CEA--Ag/NR, Texas A&M AgriLife Extension Service, Tyler, TX, 75702

Beef cattle production and management is a large portion of the producers livelihood in Smith County. Programming efforts assisted these producers in making important management decisions for their beef herds in order to improve profitability, environmental stewardship, and best management practices for their beef operations. A result

demonstration studying efficacy of commonly used pesticides for horn fly control on beef cattle was conducted. Results from previous year's demonstration were highlighted in educational presentations presented to new and existing beef producers. A series of Cow Business 101 workshops targeted new or beginning beef producers reaching fifty-one producers with beef cattle education for their operation. Continuing education along with environmental stewardship presentations were conducted to teach producers pesticide safety, laws and regulations updates, herbicide updates, and more. Weekly beef cattle market reports sent via email, weekly newspaper articles, a blog, and a monthly newsletter are utilized to market beef and forage programming to local clientele,

Search for Excellence in Sustainable Agriculture USDA SARE/NACAA Recognition Program

National Winners (1 from each Region)

HIGH QUALITY BEVERAGE RAW MATERIALS FOR THE CRAFT BREWING INDUSTRY

Clark, J.*[1], Duley, C.*[2]
[1] AGRICULTURE AGENT, UW-Extension, Chippewa Falls, WI, 54729
[2] Agriculture Agent, UW-Extension Buffalo County, Alma, WI, 54610

The craft brewery industry continues to increase in Wisconsin as new breweries are being built throughout the state. Brewers are looking for locally grown ingredients to reduce the amount of ingredients purchased from outside Wisconsin. The emphasis of this project was to investigate the factors to producing high quality raw materials in Wisconsin, specifically hops and malting barley. The project included replicated on-farm research with malting barley varieties, nitrogen application rates, fungicide efficacy, and impact on quality. The hop component of the project resulted in funding to initiate disease indexing of hop varieties and to develop educational materials to assist growers with decision making. This project was funded through a Sustainable Agriculture Research and Education (SARE) Project grant.

INTEGRATED PEST MANAGMENT FOR STRAWBERRIES WITH THE UNIVERSITY OF MAINE COOPERATIVE EXTENSION

Handley, D.T.*[1]
[1] Vegetable & Small Fruit Specialist, University of Maine Cooperative Extension, Monmouth, ME, 04259

Strawberries are an important retail crop in Maine, due to high consumer demand for fresh, local berries, and the high return on investment this crop can offer. However, an aggressive pest complex, including tarnished plant bug (*Lygus lineolaris*), strawberry bud weevil (*Anthonomus signatus*), two spotted spider mites (*Tetranychus urticae*) and gray mold (*Botrytis cineria)*, combined with very low consumer tolerance for pest damage, can make this crop challenging to grow profitably. Frequent applications of pesticides used in the past to achieve high crop quality are no longer considered economically, environmentally or socially tolerable. The University of Maine Cooperative Extension works with local farmers to develop and support Integrated Pest Management (IPM) practices for strawberry production to improve the long-term sustainability of this crop. This program was the first to introduce pest monitoring techniques and the use of economic action thresholds to Maine strawberry growers. The program now reaches over 100 farms statewide. Eight to twelve volunteer farmers work with Extension each season to provide monitoring sites and pest information, which is shared with over 100 growers via weekly electronic newsletters, web sites and a blog. Farmers have participated in applied research projects through the program to enhance alternative pest control measures. Program evaluations indicate that farmers have modified their pest management practices as a result of their participation, usually reducing the amount of pesticide used significantly. Most have seen an improvement in crop quality, and found that IPM has improved crop profitability.

NATURALLY ESCAROSA (NER)

Stevenson, C. T.*[1], Johnson, L.*[2], O'Connor, L.R.*[3], Thaxton, Blake*[4], Verlinde, Chris*[5]
[1] Coastal Sustainability Agent, UF IFAS Extension, Cantonment, FL, 32533
[2] Agriculture Agent, UF IFAS Extension, Cantonment, FL, 32533
[3] Sea Grant Agent, UF IFAS Extension, Cantonment, FL, 32533
[4] Commercial Horticulture Agent, UF IFAS Extension, Milton, FL, 32570
[5] Sea Grant Agent, UF IFAS Extension, Milton, FL, 32570

EscaRosa (NER) is a multi-disciplinary, multi-county project geared to professional development and promotion of agritourism and ecotourism businesses and destinations. Both professions are dependent upon the proper management of natural resources for continued success and financial sustainability. NER is a venue to provide training towards good stewardship of the land and water while diversifying farm and ecotour operations. Through this effort, we can improve the overall economy and ecology of the region. The objectives of NER include increasing awareness of and visitors to local ecotourism and agritourism businesses, improving relationships between hospitality industry and tour operators, and increasing professional development opportunities for agritourism/ecotourism businesses. Extension agents pursued and were awarded a grant from a BP oil-spill related fund, which was used to expand and update the Naturally EscaRosa website (http://www.naturallyescarosa.com) and brochure. Agents also worked with software and graphics professionals to develop a mobile smartphone application, promotional banners, billboards, metal signs for each location

and promotional materials. The agents coordinated two 2-day conferences for agritourism/ecotourism business owners and hospitality industry networking sessions. Outcomes from the project include growing use of the new website and smartphone app, new working relationships with ag/ecotour operators, and successful execution of two "Gulf Coast Business Development Conferences" attended by 115 business owners and Extension agents from three states. Surveys from the conference indicate attendees are learning and using new techniques. Agriculture and tourism are the leading industries in Florida and the NER program is considered a model for statewide expansion.

State Winners

SUSTAINABLE GARDENING PROGRAMS FOR CITIZENS OF NORTHEAST MISSOURI

Schutter, J.*[1]
[1] HORTICULTURE SPECIALIST, , Kirksville, MO, 63501

In recent years there has been increased interest in sustainable gardening and growing local foods in Northeast Missouri. With this increased interest came the need for programming for citizens in the counties I serve. My objectives were: to develop programs for this audience and provide information on sustainable gardening practices they could implement into their own gardens and the public gardens they help maintain; do on-site visits to help them implement some of the practices taught such as composting, rain barrels, companion planting for pest control, cover crops for weed control, and production of local foods to reduce the carbon footprint, among other sustainable practices; and provide on-going training and programming in these specific areas so they can continue to learn and implement new ideas. I held half day and day long workshops in my counties in Northeast Missouri. Speakers from various organizations gave presentations on sustainable topics. Farm tours were organized to give participants a chance to see sustainable practices in use. Approximately 600 people were reached by these efforts in a three year period. I wrote articles on sustainable gardening practices for newsletters and local newspapers as well as Missouri Gardener Magazine where I had an article featured in the "Conscientious Gardener" column in 2015. Evaluations were given to participants after each individual program and tour. A follow-up evaluation sent to participants of these programs indicated that 82% of those that reported had implemented at least one sustainable practice in their home garden, market garden or landscape.

SOUTH DAKOTA'S SOIL HEALTH CHALLENGE: DON'T GET LEFT IN THE DUST

Beck, R.*[1], Bly, A.*[2]
[1] AGRONOMY FIELD SPECIALIST, South Dakota State University Extension, Pierre, SD, 57501
[2] Soils Field Specialist, South Dakota State University Extension, Sioux Falls, SD, 57103

In 2013, SDSU Extension Field Specialists, Anthony Bly and Ruth Beck, began a major effort to provide education opportunities across South Dakota so landowners, producers, business people and all citizens could learn about the value and care of healthy soils.

This educational effort was a joint effort that included: The South Dakota No Till Association, the NRCS, local conservation districts, private industry and SDSU.

Between the fall of 2013 and the spring of 2016, ten one-day "soil health" events were held. To compliment the winter workshops there have been eight soil health field events held during 2014-15. In addition 4-6 field events are currently being planned for the summer/fall of 2016.

Winter workshops have included speakers from across the United States. Each workshop has also included a farm panel where three local producers share their experiences with cover crops, no till and livestock integration. Field events have been set up to allow interested participants a chance to visit local farms and view these management practices in the field and in their local area.

To date approximately 1800 people have attended South Dakota Soil Health Challenge Events. During the past three years, the South Dakota's Soil Health Challenge series has greatly increased the awareness of soil health. Soil health is now recognized as a valuable resource that will pay dividends both to the operator and to society as a whole through the environmental services it provides.

WEST VIRGINIA URBAN AG CONFERENCE

Porter, J.*[1]
[1] Extension Agent, WVU Extension Service, Charleston, WV, 25304

The West Virginia Urban Ag Conference is an educational program I developed three years ago to serve the needs of local small-scale producers and promote sustainable agriculture practices amongst home gardeners and urban farmers. To ensure the sustainability of the conference, I developed a partnership of organizations including my institution, our other land grant (WV State University), the local conservation district, and the department of agriculture.

The conference has a goal of educating attendees on multiple aspects of sustainable agriculture, including horticulture, livestock, farm management, entrepreneurial development, and sustainable environmental practices. Workshops are selected to meet the needs of the various types of audiences that attend.

The conference successfully attracts 200 or more individuals who are home producers, urban farmers, small-scale farmers, and those interested in beginning production and farming. Each year of the conference, a great majority of attendees indicate through follow-up survey that they gain knowledge and learn practices they will incorporate into their own work.

The conference serves as a conduit to provide sustainable agriculture education to individuals who have traditionally fallen outside of ag extension programming audiences in the state. This conference bridges the gap between home gardeners and small farmers and provides the means for people to grow food to reduce food budgets and for sale to local markets.

COVER CROPS & SOIL HEALTH WORKSHOP

Brown, M.*[1]
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In February, 2014, Mark Brown, Lubbock County (Texas) Extension Agent, attended a National Cover Crops and Soil Health Conference conducted in Omaha, NE. There is a national initiative being led by Natural Resources Conservation Service (NRCS), and Sustainable Agricultural Research & Education (SARE) to increase the number of cover crops acres nationally from 2-3 million to 20 million acres by 2020. Some South Plains producers have already begun utilizing cover crops. There is a need to validate whether the water requirements and planting costs of cover crops are offset by the benefits to soil conservation and health. In response to this issue, the following educational efforts were conducted in Lubbock County in 2015:

- Jan 27 Cover crops listening session utilizing local "Cover Crops champions" (13 attending).
- Feb 4 Cover Crops Session: Hub of the Plains Ag Conference (71 attending).
- Mar 3 Lubbock County Ag Committee Information and Feedback (8 attending).
- Mar 6 Regional Cover Crops Workshop (65 attending).
- Aug Soil Sampling Demonstration.
- Mass media efforts (465,300 estimated listening / viewing audience).

These efforts reached 157 participants who indicated an increased knowledge and intent to adopt these strategies through a retrospective-post survey. In addition, an estimated 465,000 indirect contacts were reached through media efforts. At the Cover Crops and Soil Health Workshop, 11 survey respondents (42%) who could adopt these cover cropping practices anticipated an average economic benefit of $21 per acre from implementing the information provided at this conference.

Search for Excellence in Young, Beginning, or Small Farmers/ Ranchers

National Winner

DRIP IRRIGATION SCHOOLS IMPROVE ADOPTION OF IRRIGATION AND NUTRIENT BEST MANAGEMENT PRACTICES BY SMALL FARMERS IN THE SUWANNEE VALLEY AREA

Bauer, M.*[1], Gazula, A.*[2], Hochmuth, R.*[3], Fenneman, D.*[4], Zotarelli, L.*[5]
[1] Extension Agent, UF/IFAS, Lake City, Fl, 32055
[2] Extension Agent, UF/IFAS, Gainesville, FL, 32609
[3] Regional Specialized Extension Agent, UF/IFAS, Live Oak, FL, 32060
[4] Extension Agent, UF/IFAS, Madison, FL, 32340
[5] State Specialist, UF/IFAS, Gainesville, FL, 32611

Ninety-percent of the farms in Suwannee Valley are small farms and some of these farmers have little to no farming background and need to learn production skills that were once taught by experience on farms. Florida's sandy soils have low water holding capacity and often farmers over irrigate to ensure adequate soil moisture levels to meet the crop water needs. Fertilizers are highly water soluble and mismanagement of irrigation water application can lead to leaching of fertilizers. Therefore, for the last six years, a team of Extension agents assessed the opportunities and challenges related to drip irrigation systems based irrigation and nutrient management, and developed educational programs and activities to meet the growers' needs. The objectives of these educational programs were: 1) Annually, 75% of the small and beginning farmers who attend drip irrigation programs will increase their knowledge of irrigation and nutrient best management practices (BMPs) as measured by post-tests. 2) Annually, 50% of the small and beginning farmers who attend drip irrigation programs will adopt/intend to adopt efficient irrigation and nutrient BMPs as measured by post-surveys. So far, 393 small farmers have attended drip irrigation and nutrient management programs. The average knowledge gain was 89% (n=393, all drip-irrigation programs), and 91% (n=132, drip irrigation schools alone) of the small farmers intend to adopt drip irrigation and nutrient BMPs on their farms. Thirty-five vegetable growers (5000-acres) are verified to have adopted irrigation and nutrient BMPs resulting in cost savings of $90/acre, and nearly $450,000 total for cooperative producers.

National Finalists

UNIVERSITY OF MARYLAND EXTENSION'S ENTREPRENEURIAL COACHING PROGRAM FOR AG ENTREPRENEURS AND BEGINNING FARMERS

Myers, G.*[1]
[1] Associate Agent, Extension Specialist, Marketing, Director MREDC, University of Maryland Extension, Keedysville, MD, 21756

Budding entrepreneurs and new and beginning farmers need to have a sounding board for their ideas and dreams- a trustworthy "reality check" for their business planning process. This helps them avoid wasting time and resources. They need a "coach".

To fulfill this need, the University of Maryland Extension (UME) , with assistance from a NESARE Community Development grant, developed the Agricultural Entrepreneurship Coaching Assistance Program positioning material on UME's Maryland Rural Enterprise Development Center's (MREDC) website at http://extension.umd.edu/mredc/business-modules/cutivating-entrepreneurship. In addition to the participants coached, entrepreneurial information and videos were designed and posted, a Coaches' training manual was written, and a Coaches' Directory and resource section were added to the website.

The program has three major components:

1. The identification and training of entrepreneurial coaches from across the state.

2. Coordinating venues for coaching. These include regular farm meetings, conferences, and workshops where a private space is made available for coaches and entrepreneurs to meet. Individual consultations can also be provided upon request.

3. Encouraging participants to follow-up with business development professionals and the the resources on MREDC to develop a business plan and launch their business.

Participants receive a wide variety of resources and specific information on the enterprise they are pursuing. Follow-up support is provided through a "Coaching Network". Over the past three years, 132 clients were coached with 47 of them being new or beginning farmers. Since the program's inception in 2010, almost 200 entrepreneurs have received one-on-one business development coaching. All of these have been small farms.

FARM WOMEN IN SOUTHWEST GEORGIA INCREASE BUSINESS AND FARM PRODUCTION SKILLS THROUGH ANNIE'S PROJECT

Morgan, J.L.*[1], Suzanne Williams*[2], Meeks, C. L*[3], Scarrow, A.*[4], Utley, S.*[5]
[1] County Extension Coordinator, University of Georgia, Albany, GA, 31701
[2] County Extension Agent, University of Georgia, Albany, GA, 31701
[3] County Extension Coordinator, University of Georgia, Perry, GA, 31069
[4] Program Development Coordinator, University of Georgia, Tifton, GA, 31793
[5] Program Development Coordinator, University of Georgia, Tifton, GA, 31793

UGA Extension agents, UGA Extension Specialists, USDA Agencies, Fort Valley State University Extension Specialist, and University of Georgia Southwest District Program Development Coordinators conducted Annie's Project in Dougherty and Houston Counties for farm/ranch women. It is a comprehensive educational agriculture program designed to deliver training to farm women to help enhance their business skills and to develop a support network. The workshops were attended by 38 women farmers who were taught farm and money management skills, crop production, livestock production, estate planning, inter-personal relationships, recordkeeping, and they expressed a desire for the opportunity to network with other women in agriculture.

The United States Department of Agriculture (USDA) records that 29% of Georgia›s farmers (17,779) are women responsible for 2,437,070 acres and contributing 535.8 million dollars in economic impact to Georgia each year. The USDA also recognizes that women in farming are often underserved; lacking educational resources and the opportunities to be mentored and networked with other farmers.

UNIVERSITY OF KENTUCKY GRAIN MARKETING AND RISK MANAGEMENT PROGRAM SERIES VIA SKYPE FOR BUSINESS

Drake, Jr., G.K.*[1], Davis. T.D.*[2], Phillips, J.R.*[3]
[1] County Extension Agent for Agriculture and Natural Resources, University of Kentucky, Morgantown, KY, 42261
[2] Assistant Extension Professor for Ag. Economics, University of Kentucky, Princeton, KY, 42445
[3] Extension Agent, University of Kentucky, Franklin, KY, 42134

The UK Grain Marketing Series via Skype for Business program was designed to provide clients an introduction to using risk management and grain marketing tools. The course was divided into five, one hour sessions that were delivered via the Skype for Business web conferencing system. Sessions were held on the following topics: risk management overview, using futures and options, understanding the cash market, tools that have worked in the past, and developing a marketing plan. There is a risk management tour scheduled for the summer of 2016. Participants were also encouraged to play the Commodity Challenge online trading game and use a dedicated online discussion board. Dr. Todd Davis, UK Grain Marketing Specialist was the instructor for each session. Dr. Davis used informational slides and the web conferencing software. The county agents assisted producers in getting Skype for Business on their computer. The participants joined each session on their home or office computer or their cell phone. The county agents participated on their home or office computer. Each session was evaluated using the online polling capabilities of Skype for Business. There were 7 participants

from 2 counties. Delivering the program over the internet allowed participants to join wherever they happened to be. The class never met at a physical location. Participants reported increased knowledge after each session. An overall program evaluation will be completed during the risk management tour.

Sustainable Agriculture Research Education (SARE) Seminar USDA SARE/NACAA Fellows Program

National Winners

Michael O'Donnell
Extension Educator
Purdue Extension
Delaware County

Sustainable agriculture is a continuous process of improvement applied to farms and agricultural systems to enhance economic, social, and environmental sustainability. That is, we work to ensure financial viability, social equity, and human and environmental well-being over the long term. With this concept in mind, it is important to recognize the need to move beyond a concept that some may interpret as simply "sustaining" our agriculture resources (natural and human). The only way to ensure that our agriculture is sustained for current and future generations is by restoring the degraded resources upon which it relies. Moving agriculture in a regenerative direction will rebuild struggling rural and local economies, strengthen the social fabric and culture of agriculture and food communities, and restore ecosystem function across diverse landscapes. I wish to participate in the SARE Fellows Program to further develop my knowledge of sustainable and regenerative agriculture, and in turn share this knowledge with Extension professionals, other professionals/stakeholders/farmers in Indiana agriculture, and my own community of Delaware County.

My interest in sustainable agriculture developed while attending the University of Texas at Austin and working on MS in Mechanical Engineering with an interdisciplinary research group focused at the intersection of sustainable energy technology and policy. I was conducting a policy analysis of the Federal Renewable Fuels Standard and lifecycle analyses to compare biofuels (e.g., corn ethanol) to conventional fossil-derived transportation fuels. This required me to study lifecycles of commodity crops, examining land use, water consumption, emissions, and greenhouse gas emissions. As I studied conventional, industrial-based production, I became concerned about the sustainability of these systems, and the implications of substituting fossil fuels with fuels derived from a system of agriculture that results in significant losses of soil, degradation of water supplies, decline of rural communities, etc. While completing my studies, I interned at a mid-scale organic vegetable farm. Upon completion of my degree, my family and I returned to Indiana where I worked as farm assistant on a family owned, vertically integrated, diversified livestock and grain farm. After gaining 2 years of sustainable farming experience, my family and I moved to my wife's family farm in Delaware County. A passion for sustainable agriculture that was sparked 8 years ago has stuck with me, and only grown, as I have served my community and state as Extension educator in Delaware County for nearly 4 years.

Sustainable agriculture serves as the backbone of my Extension programs. In field crops, programs focus on increasing awareness and adoption of conservation and soil health practices. I work with local and statewide partners (e.g., the Indiana Conservation Cropping Systems Initiative) to deliver programs on cover crops, reduced and no tillage, integrated pest management, nutrient management, and diversification of production systems. In small farms and local foods, programs focus on increasing awareness and adoption of food safety and season extension practices in fresh produce operations. I have worked to initiate a local farmer network to increase collaboration amongst farmers and other stakeholders to (re) develop the local food system in the East Central Indiana region. This effort was recently expanded through a 3 year project with Ball State University to explore the feasibility and development of a food hub.

I coordinate the Purdue Small Farms Team, chair the Indiana Small Farm Conference, and collaborate on a USDA Beginning Farmer and Rancher Development Program grant. These efforts focus on providing educational and networking opportunities for small-acreage, beginning, and military veteran farmers in Indiana. I am Co-PI on a SARE Partnership grant with a Purdue commercial vegetable specialist, along with three Indiana farmers, to enhance understanding of environmental conditions in protected growing structures for production of fall and winter vegetables and to develop scheduling recommendations for these crops in Indiana. I collaborate with Purdue Agricultural Center (PAC) staff on a multi-year research trial of no-till soybean production using cover crops to reduce (or eliminate) herbicide use. In Delaware County, I have helped develop and currently serve on the board of a non-profit that is converting an 11-acre brownfield in a Muncie "food desert" neighborhood into an urban incubator farm, composting facility, and to improve food access for low-income community members.

The Fellows experience will enhance my existing programs and inspire me to develop new, innovative programs. For example, at the local level, I would improve field crops programming and assessment with concepts gleaned from fellow Extension professionals. Impact could be assessed by the number of farmers adopting conservation practices (measured by acres of cover crops, no till, diversified crop rotations) in Delaware County and East Central Indiana. At the state level, as coordinator of the Purdue Small Farm Team, I would identify ways to increase our capacity to support the educational needs of Indiana's existing and beginning farmers to produce more food for Indiana communities, thereby decreasing the state's reliance on imported food (90% of Indiana's food dollars are currently

estimated to leave the state, http://www.crcworks.org/infood.pdf). Although Indiana serves as a major commodity grain and livestock producer, these commodity products are most often exported from the state at low margins, with much of the high margin food consumed by Indiana residents being imported. With a decreasing number of large commodity farmers, the fabric of rural communities in the state is strained. Increasing the number of sustainable farmers raising goods for local markets will serve to reinvigorate rural communities and bridge the growing divide between rural and urban areas (from an agricultural sustainability perspective, neighboring rural and urban communities should not be treated as separate, but rather as indivisible).

After nearly four years of experience in Extension, I have developed working relationships with professionals in Extension and partnering agencies to leverage limited time and financial resources efficiently and to reach wider audiences. A program exhibiting this collaborative spirit is the Indiana Small Farm Conference. As chair of this annual educational and networking event, I see collaboration as central to the sustainable of the program and fulfillment of its original purpose—to serve as *the*annual gathering of the Indiana small farm community. Although the planning committee is comprised of Extension staff, it represents a diversity of Extension from around the state and the College of Agriculture. We engage partnering agencies, businesses, and small farmers in developing session content and serving as conference speakers, for financial support through sponsorships and advertising, and to engage conference goers through the conference trade show. Moving forward, I will work with the conference committee to engage farmers and other stakeholders more directly onto the planning committee to develop a true sense of "ownership" of this event by the Indiana small farm community.

A collaborative spirit is desperately needed to overcome the polarization that exists in agriculture today. Finding common values that bridge differing viewpoints is crucial (e.g., principles of soil health apply to all agricultural enterprises, scales, and production systems). Rather than the all-to-easy approach of focusing on differences, my experience in the SARE Fellows Program would improve my ability to identify these common values—which I believe are rooted in sustainable agriculture—and play a strong role in creating an agriculture that provides more opportunities for current Indiana citizens while maintaining or improving these opportunities, and quality of life, for future generations.

Olivia Saunders
Extension Field Specialist, Food & Agriculture
UNH Cooperative Extension
Carroll County

When I joined the extension system in 2013, I was fresh from the farm. Indeed I still had dirt under my nails, a tired back, and the ability to lift half my weight without much thought. When I came to extension I had a strong soil microbiology background, a passion for integration of cover crops and interest in delivering sustainable agriculture focused programing.

I was initially interested in agriculture because I saw it as a leverage point for a more sustainable future. If we can farm better, we can have a more environmentally responsible future. When I finished graduate school though, I knew little of the realities of farm life. I felt little confidence to instruct farmers on how to manage their land having never truly been in their shoes. Being an hourly farm hand wasn't enough, I wanted to dive deep. And so, I became a recovering academic, and worked on diversified farms throughout New England. From dairy and cheese on a Vermont hillside, to rotational grazing of Kathadin hair sheep on Maine's coast, from intensive vegetable production on one of Maine's largest CSA farms to seed production and plant breeding. I emboldened myself to explore all avenues of production agriculture. To this day I use these shared experiences as a grower to connect with farmers. Those years as a grower continue to challenge me in my Extension career to do field research, and to see the challenges faced by farmers as a farmer. At my root I am both a scientist with a thirst for information, and a farmer looking to do things better under the constraints of the operation. My academic and research background in soil microbiology, nutrient cycling and soil fertility now serve as the foundation to teach basic principles to farmers about the practical benefits of soil health; a tenet at the core of the sustainable agriculture.

To achieve the goals I have set for myself in my Extension work, I have taken on leadership roles within my organization and in my state to forward the basic principles and philosophies of sustainable agriculture. I have done this through becoming a board member with our state Association of County Agriculture Agents, serving on the strategy team of the NH Food Alliance, being an invited delegate at two New England Food Summits, founding a beekeepers association, serving as vice president and being an active member of my county Farm Bureau chapter, serving on the steering committee for the New England Vegetable and Fruit Conference, and becoming a respected agriculture leader within my county.

I will have additionally responsibilities as I take over the SARE-state coordinator position in the fall of 2017. Through these leadership roles as well as many other day-to-day activities required of an Extension educator, I try to take a different approach.

As a member of the Fruit and Vegetable Production team, I have taken a lead role in developing a research program in my county to address challenges of growing in New Hampshire's "North Country". In three years, I have led four research trials, including a SARE funded partnership grant. I have also implemented an IPM program for growers on hot-water treatment of seeds prior to planting. I have collaborated with NH-NRCS, local Conservation Districts, and University faculty to deliver soil health workshops and education programs including field days. Through this work I have been identified as a soil health leader and will attend the "Cover Crops for Soil Health" professional development conference in MD through North East SARE. Other examples of my programming in sustainable agriculture have included hands-on tomato grafting as a technique to enhance production, and on-farm seed production workshops.

I have found great success implementing effective adult education methods in my programs, techniques that go beyond lecture and PowerPoint format. I have learned these skills through participation in SARE workshops at both the state level as well as the winter SARE PDP meeting this year. This has resulted in greater adoption of new ideas and new skills by the farmers with whom I work. I continue to develop and create programs which can be used as model examples. I know the training I receive as a SARE fellow will be fed directly back into my programming as I work to bring new ideas and new educational delivery methods to farmers with whom I work.

Training I receive and learning models I observe through the SARE Fellows will be directly and immediately applied to programming back in New Hampshire. This will be multifaceted through both "schools" which we offer on a yearly basis (tree-fruit school, raspberry school, greenhouse school, etc. in past years), and through revamping the current model of on-farm summer "twilight" type meetings. With the new knowledge and exposure to new practices, technologies, crops and livestock mixes through the SARE Fellows program I will be able to transfer these experiences to NH producers. Additionally, I will create and deliver a new on-farm "twilight" type meeting for the 30 extension-agriculture staff in NH and others in surrounding states to teach them the reading the farm principles gained from my experience as a SARE Fellow.

I enjoy innovative and effective programs and my evaluations would assess both the effectiveness of the educational methods, as well as the impacts of the program. I traditionally use end-of-session questionnaires to assess effectiveness of teaching, in-session learning, and suggestions for improvement. I have used electronic surveys or phone interviews to assess impacts months after my programs have concluded. I would use similar approaches and tools to assess the impacts from the programs I implement as a result of SARE Fellows. To assess impacts on my colleagues, I would use electronic clickers at our Food and Agriculture program staff meetings to determine skills and knowledge changes and also any programs they conducted. Additionally, I would put together a series of written essays posted to our internal newsletter which is shared with all of our staff.

I hope I have demonstrated why I believe the SARE Fellows program would be so impactful on me, the farmers I work with, and my colleagues and peers. I will not however only take away from this program, instead I believe that I can add a great deal to the program and also enhance the experience of the other Fellows. I have experience working on farms who implemented innovative sustainable practices. I have always been recognized as a team player, as a person who is fun and participatory. My aim is to both learn and to give to others through my participation.

I am very excited about this Program and if I am selected for this amazing opportunity, I will enthusiastically give it my full dedication and energy.

Laura M Miller
County Extension Agent-Commercial Horticulture
Texas A&M AgriLife Extension
Tarrant County

I would like to be considered for the USDA SARE/NACAA Fellows Program because it offers a unique opportunity to learn about environmentally friendly, socially responsible, economically viable agriculture as it is practiced around the country and to bring that information back to share with my community.

The population of Tarrant County for 2014 was estimated to be 1.9 million by the US Census Bureau. That equals around 6 million meals per day. Most of this food must travel some distance. One food distributor estimates that it takes around 250,000 truckloads of food each year to keep Fort Worth fed. Many people would like to see this change. Locally grown food was identified as a top five priority for Agriculture and Natural Resources programming by participants a county wide Extension online issue identification forum in 2010. The demand for fresh locally produced food in this urban area far exceeds the supply, and I find myself answering lots of questions about why that is so as well as offering assistance to the farmers in this and surrounding counties who would like to meet that demand directly.

Since graduating from Texas A&M University with degrees in Horticulture and Agricultural Education, I have worked in a variety of positions in schools and for local and national land trusts, but really found my place in the world when I accepted a job as a horticulture Extension Agent with the University of Florida/IFAS in Hillsborough and Polk Counties in 2001. My primary responsibility was ornamental plant production. I had the good fortune to be able to work on applied nutrient and water management research in a tree nursery with Dr. Tom Yeager that was eventually used in the development of Best Management Practices for Florida Container Nurseries. I also eventually served as Agriculture Program Leader in Hillsborough County and enjoyed working with other agents and audiences, including putting together tours for decision makers and an annual small acreage production conference. I applied for another Extension job, my current position, here in Texas in 2008 and was happy to return to my home state and to broaden my experiences with programs in landscape management and urban agricultural production. Living in Texas has also allowed me to become a more active participant in the management of the farm that has been in my family since the 1860's.

One of the main ways I would like to use the program information that I would gain as a fellow is to put together virtual tours. There's nothing quite like seeing a farming operation in action for learning, but a slideshow given by someone who has been there and seen it is not a bad substitute. I am not a great videographer but I could create simple presentations and blog posts that would share those experiences with my local clientele. I also host and provide educational programs for the annual meeting of our producers' only farmers' market association, the North Central Texas Farmers Market Association, and am always looking for new information to

share with that diverse group. I regularly ask retrospective post knowledge gained and intention to adopt questions in surveys after group educational events and have a wonderful program committee that goes through that evaluation data with me to look for opportunities to improve both programs and impacts. I am experimenting with online follow up surveys and have really come to appreciate people who respond to them. I often find that am inspired by new experiences to try new things and certainly hope that I'll be able to use what I learn in ways I haven't yet imagined.

I also have a personal interest in working with female farmers. Along with one of my colleagues in Family and Consumer Sciences and our regional Agricultural Economist, I coordinated a successful Annie's Project for the first time in this area beginning in April and May 2015. Each week, I was inspired by a participant who had taken an action based upon what we had learned the week before. It was so rewarding to see that immediate impact in programming.

In 2014 and 2015, I had an opportunity to work with a statewide team to increase strawberry production in Texas. I worked with three growers and with funding from the Wal-Mart Foundation, we were able to provide plants for variety trials and to develop a Texas Strawberry Production Guide, as well as a Facebook page,https://www.facebook.com/texasstrawberryproject/ Two of the growers are continuing to produce strawberries this season, and with the North Central Texas Farmers Market Association, the team has applied for another grant from the Texas Department of Agriculture to continue developing sustainable strawberry production in this state.

As I mentioned in my first paragraph, there is a great deal of interest in locally produced foods in my community. In fact an employee of a large restaurant distribution company recently told me "I kept wishing the demand for locally produced food would go away because it is so much harder to source, but it is not going to happen." I think the impact of more and better Extension programming in this area could be very significant. This is not the easiest place to get things growing, but if I can help people do that in a way that meets customer expectations for both quality and environmental and social responsibility, the market is ready for them.

As a member of the statewide Small Acreage Horticultural Crops planning team, I could easily share information with the group of agents across the state who regularly participate in the series of hosted webinar based programs on a variety of topics. As member of my Extension District Ag and Natural Resources planning committee and the current TCAAA District Director, I have opportunities to work on the development of programs for the 26 agents in our district. The best things about working as an Extension Agent are having the opportunity to learn and to help others. As a USDA SARE/NACAA fellow, I could do both.

Seth Swanson
Extension Agent
Montana State University Extension
Missoula County

1. Why you wish to attend

I am pursuing the participation in the SARE/NACAA Fellows Program, as this would be a great opportunity to further my capacity to strengthen sustainable agriculture in Montana. This unique program would provide an opportunity to intimately investigate sustainable agriculture systems and successful educational programs in other regions, so that I can further contribute to the development of sustainable agriculture system here in Montana.

2. Details of your experience and past activities

I have been in my current role as a Montana State University Horticulture Extension Agent for nearly five years. In this time, I have worked with producers, non-profits, and various other agencies and stakeholders to develop comprehensive resources for beginning farmers. Through a partnership with a local non-profit (the Community Food & Agriculture Coalition, CFAC), we have developed a curriculum and workshop series to guide beginning farmers through the process of business planning. We have since refined the curriculum and developed a trainer guide and hosted a train-the-trainer program with the goal of expanding the workshop series in other counties across the state. From the original workshop series in 2014, in 2016 MSU Extension agents will host the series in seven different counties across Montana. We started this program to address some roadblocks that beginning farmers faced, and are striving to address others, such as land access and financing. We recently developed and launched a website that serves as a clearinghouse for resources as well as connecting beginning farmers with opportunities on the land: internships, mentorships, and available land leases/sales. Our group continues to identify and address challenges that beginning farmers face.

In addition to my work with developing beginning farmer resources, I have initiated some on farm research trials to investigate opportunities for regional specialty crop producers. Through the Specialty Crop Block Grant, I am investigating annual strawberry production as means to increase adoption of this crop by regional producers. Through the seven participating farms and MSU research station, we are comparing the yield, quality, and timing of three June-bearing strawberry varieties in three different production systems: annual hightunnel, annual outdoor, and the grower's standard of perennial matted row. We are postulating that annual hightunnel production of June-bearing varieties will allow for producers to integrate this high value crop into their existing production matrix with minimal challenges. This could provide a great opportunity for small acreage, specialty crop producers in Montana to diversify their production.

Additionally, as is likely the case with most Extension agents, I spend a large amount of my time providing technical assistance to regional producers. These interactions are largely two way providing a learning experience for all parties. The partnerships and relationships I have established with regional producers

have helped to strengthen the work that I am able to do by understanding the challenges faced and identifying means to overcome them. My role as a board member of the Montana Organic Association helps me to stay in tune with some of the greater challenges face by the organic agricultural community of Montana.

3. Plan on how you intend to use the Fellows program and the evaluation program

The SARE/NACAA Sustainable Agriculture Fellows program would be a valuable opportunity to strengthen my understanding of sustainable agriculture, to network with leaders in agricultural research and education, and be exposed to new ideas. Much of the resources for sustainable production in Montana is simply at the infancy stage and is just developing. The Fellows program would help me to integrate new ideas and experiences of other regions into the developing programs here to further strengthen and ensure the success of these programs.

4. Potential impacts and expected results

Small acreage, specialty crop production, is one of, if not the fastest growing sector in Montana agriculture. Most of these producers are either certified organic, transitioning to organics, or implement organic practices on their farm. The growing number of small farms is most certainly associated with a growing demand for local foods. Various resources are just now being developed to assist regional producers in the success of their agriculture enterprises. Though these opportunities are just arising here in Montana, many are currently established and flourishing in other regions around the nation. Incorporating the ideas or processes of various outreach, education, and research programs from other regions into those developing in Western Montana would be invaluable. Helping to expand available resources for small to mid-scale agriculture enterprises (developing and established) in Western Montana could really ensure the viability and success of our region's agriculture system. The desire to grow and expand the regional food and agriculture system exists, but the resources are lacking. Available resources (contemporary and applied research, education, finances, land access, market awareness, etc.) need to be further developed to assist in the growth of this system. The Fellows program would provide new information and ideas to facilitate this process in this region.

Any additional programmatic advances, additional resources, or contributions made as a result of the Fellows Program will be captured through Extension reporting as well as individual program evaluations.

5. Potential benefits to other professionals and clientele

I work closely with a variety of non-profits, agencies, Extension Agents, and faculty from the MSU Research Centers to develop resources, investigate challenges, and provide information for specialty crop producers in Montana. Our network is strengthened by the contributions of others, often building upon ideas from other regions. Experiences provided by the Fellows Program would result in an influx of new ideas and potential opportunities for our collective work in Montana.

2016 Service to American/World Agriculture

Lloyd Murdock

University of Kentucky Extension

Soils Specialist

Dr. Lloyd Murdock is, and has always been, a farmer's scientist. His career of over forty-five years as Extension Soils Specialist at the University of Kentucky (UK) College of Agriculture's Research and Education Center at Princeton has been devoted to conducting applied research focused on farmers' most significant production problems. His research projects and Extension educational efforts have helped farmers develop and maintain sustainable farms by adopting cropping and soil management methods that conserve topsoil, increase yields, improve water quality, and enhance profitability. Dr. Murdock's efforts have benefitted tens of thousands of producers; particularly in mid-western and southeastern states, but also in countries around the world.

Murdock's soil and crops-related research serves as a foundation for many agronomic practices currently used by modern farmers. The efforts discussed in this nomination have had major impacts on agriculture; yet they are only the "tip of the iceberg" in terms of his agricultural accomplishments.

In the early 1970's, Dr. Murdock worked with three other UK specialists to investigate causes and possible solutions to grass tetany in beef cows. This group of scientists was the first to intentionally produce grass tetany symptoms in a field trial in the United States. They learned that grass tetany was caused by low levels of magnesium and high levels of potassium in fast-growing pastures. They also discovered that the disorder could be prevented by feeding a magnesium supplement in late winter and early spring. They documented that proper magnesium supplementation could result in a 90% reduction in the occurrence of this disorder; and this work has saved thousands of beef cows in Kentucky and surrounding states since 1975.

The utilization of larger and heavier farm equipment has increased the incidence of soil compaction on many American farms. When Dr. Murdock began studying compaction in 1978, there were no inexpensive, easy-to-use tools for measuring soil compaction. He collaborated with a local machinist who designed, built, and patented a relatively inexpensive hydraulic soil penetrometer. This penetrometer design has been in use since the 1980's, and is still the one most commonly used by farmers and crop advisors across the country. Dr. Murdock conducted research trials which allowed penetrometer readings to be translated into practical predictors of compaction-related yield losses. He then developed compaction-reducing deep-tillage recommendations tied to expected economic returns.

Dr. Murdock conducted research from 1980-1995 on the use of urease inhibitors with urea fertilizers to reduce or prevent volatilization of the fertilizer. This work was utilized to help develop recommendations for when and how urease inhibitors should be used with urea. The proper use of these products has helped reduce nitrogen losses and improve the efficacy of urea fertilizers applied to millions of acres in this country.

Kentucky was an early leader in the development and adoption of no-till cropping for corn and soybeans. Although Kentucky's first no-till wheat was planted in 1980, farmers were slow to adopt no-till wheat due to inconsistent yields. Over a period of 15 years, Murdock led the UK Wheat Science Group in investigating virtually every practice involved in no-till wheat production. As a result of these long-term studies, UK no-till wheat recommendations were developed and disseminated (planting methods, seeding rates, weed control, and nitrogen management, etc.) Adoption of no-till wheat production has since grown significantly in Kentucky and in other mid-western states.

Planter row cleaner attachments were invented by a Kentucky farmer who practiced no-till farming on cool, wet-natured soils that were difficult to plant. Dr. Murdock conducted the first research to study the effects of row cleaners on no-till corn. The research measured soil temperature, seedling emergence, growth, and yields under different conditions and crops. Research results proved the worth of these attachments; and hundreds of thousands of row cleaners are now utilized worldwide to allow no-till planting on soils that may not otherwise be successfully no-tilled.

Some of Dr. Murdock's other research and education efforts have included understanding major nutrient and micronutrient fertilizer needs of grain crops and forages; developing a protocol for how to lime no-till crop fields; developing production practices for growing canola in Kentucky; and using chlorophyll meters and variable-rate technology to make nitrogen applications on wheat. His current research is focused on reducing or eliminating drainage-related problems caused by fragipans that are found under millions of acres of U.S. soils. Although much work remains to be done, he has already identified some materials that tend to break up fragipans.

In addition to his extensive applied research and education efforts, Dr. Murdock has served in dozens of roles with regional and national academic, government, and industry groups. Many of his collaborative efforts have been with industry scientists and university specialists in the North Central and Southern Extension regions. He has been heavily involved with the Certified Crop Advisor (CCA) program on both state and national levels. Murdock has also worked with thousands of Kentucky 4-H and FFA youth in land judging trainings and contests, with some of his teams winning on the national level.

Dr. Murdock has served as a consultant to agricultural groups for soil and soil fertility improvements in Thailand, Ecuador, and Bangladesh. He has presented his research findings at international symposiums on minimum tillage in China, Mexico, Bangladesh, England, France, and Thailand. Additionally, he has hosted dozens of groups of foreign farmers and scientists who have come to Kentucky to learn practical no-till cropping techniques.

Lloyd Murdock has received numerous awards from professional groups and farm organizations over the years. His most recent recognition came in January 2016 as he was named the Research and Education No-Till Innovator at the National No-Tillage Conference.

It is a privilege for Kentucky Agricultural Extension Agents to have nominated Dr. Lloyd Murdock for this prestigious award. He has tirelessly served farmers for more than four decades; and there are few modern crop producers who have not benefitted from his applied research discoveries.

2016 Achievement Award Winners

North Central Region

Illinois - W. Travis Meteer
Indiana - Danielle Walker
Iowa - Ryan Drollette
Kansas - Holly Dickman
Kansas - Abbie Powell
Michigan - Frank Gublo
Minnesota - Randy Pepin
Missouri - Sarah Denkler
Nebraska - Katie Pekarek
North Dakota - Sheldon Gerhardt
Ohio - Emily G. Adams
South Dakota - Laura Edwards
Wisconsin - Heidi Johnson

Northeast Region

Maryland - Paul Goeringer
New Hampshire - Olivia Saunders
New Jersey - Michele Bakacs
New York - Daniel Welch
West Virginia - Gregory Hamons

Southern Region

Alabama - Ellen K. Huckabay
Alabama - Danny B. McWilliams, Jr.
Arkansas - Lance Blythe
Arkansas - Mike Mcclintock
Arkansas - Trenton Roberts
Florida - Daniel K Fenneman
Florida - Mary Elizabeth Henry
Florida - Shawn T. Steed
Georgia - Carole Knight
Georgia - Amanda R. Smith
Kentucky - Shannon Farrell
Kentucky - Kristin G Hildabrand
Kentucky - Courtney Jenkins
Louisiana - Jeremy P Hebert
Louisiana - Dr. Sara Shields
Mississippi - Darrin Dodds
Mississippi - Ross Overstreet
Mississippi - Brady Self
Mississippi - Steven Tucker
North Carolina - Tim Britton
North Carolina - Paige Burns
North Carolina - Randy Fulk
North Carolina - Teresa Herman
Oklahoma - Dana Bay
South Carolina - Alana W. West
Tennessee - Janie J. Becker
Tennessee - Jason De Koff
Tennessee - Justin Rhinehart
Texas - Caleb Eaton
Texas - Cody Maxwell
Texas - Michael W. Potter
Texas - John Villalba
Texas - Scott Willey
Virginia - Peter L. Callan
Virginia - Neil A. Clark

West Region

Arizona - William K Brandau
Colorado - Robin Young
Idaho - Lance T. Ellis
Montana - Tracy Mosley
New Mexico - John Rilinger Allen
Oregon - Nicole Anderson
Utah - Britney Hunter
Washington - Nicole Martini
Wyoming - Jeff M. Edwards

2016 Distinguished Service Award Winners

North Central Region

Illinois - Stanley Solomon, Jr.
Indiana - William Horan
Iowa - Russ Euken
Kansas - Stacy Campbell
Kansas - Darren Hibdon
Michigan - James Isleib
Minnesota - Nathan Winter
Missouri - Jim Crawford
Nebraska - Michael D Rethwisch
North Dakota - Karl Hoppe
Ohio - Clif Little
South Dakota - Jack Davis
Wisconsin - Barbara Larson

Northeast Region

Maine - Caragh Fitzgerald
Maryland - Ronald David Myers
New Jersey - Stephen John Komar, Jr.
New York - Roberta Harrison Severson
Pennsylvania - Andrew D Frankenfield
Vermont - Wendy M Sorrell
West Virginia - Rakesh Chandran

Southern Region

Alabama - William East
Alabama - W. Kenneth "Ken" Kelley
Arkansas - Dave Freeze
Arkansas - Joe Moore
Arkansas - Chad Norton
Florida - Stephen H. Futch
Florida - Carrie Stevenson
Florida - J Stacy Strickland
Georgia - James L. Morgan
Georgia - Jake Price
Kentucky - David Appelman
Kentucky - Keith Hackworth
Kentucky - Jason Phillips
Louisiana - Donna S. Morgan
Louisiana - Terry L. Washington
Mississippi - Patrick Poindexter
North Carolina - Al Cochran
North Carolina - Charlotte D. Glen
North Carolina - Norman E. Harrell, Jr.
North Carolina - Taylor Williams
Oklahoma - Donna Patterson
South Carolina - Joe Varn
Tennessee - Michael Barry
Tennessee - Jerry Lamb
Tennessee - Jeremy H. West
Texas - Scott A. Anderson
Texas - Jay M. Kingston
Texas - Julie Massey
Texas - Cary Sims
Texas - Stephen Zoeller
Virginia - Adam Downing
Virginia - Glenn Slade

West Region

Arizona - Monica Kilcullen Pastor
Colorado - Curtis J. Utley
Idaho - K. Scott Jensen
Montana - George Haynes
New Mexico - Patrick Kircher
Oregon - Darrin L. Walenta
Utah - Jody A. Gale
Washington - Stephen M. Van Vleet
Wyoming - Hudson Hill

NACAA Hall of Fame Award

The NACAA Recognition and Awards Committee is proud to present these three recipients with the NACAA Hall of Fame Award. The Hall of Fame Award recognizes one member or life member from each NACAA region. Each state can nominate one individual. Based on a 500 word summary and three letters of support, the state nominees are evaluated on their Extension programming, state and national association activities and humanitarian efforts beyond the normal call of duty.

Our thanks to Pipeline Ag Safety Alliance for sponsorship of the NACAA Hall of Fame Awards

PIPELINE AG
SAFETY ALLIANCE

2016
North Central Region
Hall of Fame Award

Stuart Hawbaker

Illinois
35 Years - Retired

Stuart Hawbaker was raised on a farm in Central Illinois. He graduated with a Bachelors degree in agriculture, and Masters of Extension Education degree from the University of Illinois.

Upon graduation he was commissioned a 2 Lt. in the US Army and served as a company commander overseas. Later, as a member of the Illinois National Guard he served as an instructor at the Illinois Military Academy, and Commanded the 123rd Infantry Battalion in Urbana. A graduate of the Army Command and General Staff College, he also served as Executive Officer of the 101st Airborne Division. He retired in 1992 at the rank of Colonel.

Stuart's humanitarian efforts have stretched far beyond Decatur, Illinois, and the United States through his dedication to Mission Love Seeds, an organization that supports a poverty-stricken area in the Philippines. Through that organization, Stuart funded the education of two young girls for ten years and was responsible for construction of a church and a library in memory of his mother and wife.

Stuart spent his career working with the Cooperative Extension Service of the University of Illinois. He served as Assistant Farm Adviser in Marshall-Putnam Counties for 2 years, Farm Adviser in Mason County for 8 years, and Farm Adviser in Macon County for 25 years.

In Mason County he was instrumental in starting the University of Illinois Research Sand Farm, promoting the expansion of irrigation from 15,000 acres to over 50,000 acres, and worked to improve the quality of life in small communities.

In Macon County he conducted extensive agronomic programs, including a nationally recognized tillage conference, farmland value programs, and organized the first unused pesticide collection program in Illinois. He hosted two World Affairs Conferences in Decatur, one featuring Dr. Jonas Salk on health issues. Temporarily assigned to Champaign County Extension, he brought it out of severe financial difficulties by organizing the passage of a tax referendum. He is the only Illinois Extension staff member to have organized successful Extension tax referenda in three different counties.

He was active in community affairs, serving Boy Scouts, 4-H, Heart Fund, United Way, Fair Board, Ag Boosters, Chamber, School board, service clubs, and his church.

An outstanding communicator, he provided a daily radio program for 20 years, created an Extension newspaper, produced a 30-minute television program for 5 years, and has written a nationally acclaimed newspaper column for the Decatur Herald and Review since 1987. He has authored articles in Farming Magazine, Grain Journal, Prairie Farmer, and written over 350 agricultural articles for a national calendar company. He currently is writing a book entitled "Call of the Week," which shares some of his fascinating calls he received over his career.

He served as President of the Illinois Extension Advisers Association in 1985, and represented it on the Illinois Farm Bureau Board in 1986, as well as serving on the Illinois Soybean Operating Board from 1982-85. In 1991 he was elected President of NACAA and hosted the 1991 national meeting in Peoria. He served on numerous USDA national committees and task forces. He is the recipient of numerous awards, including the NACAA Achievement Award, Distinguished Service Award, and numerous NACAA communication awards

In retirement Stuart continues to write his newspaper column, and serves on the Salvation Army Board, Grace United Methodist Church Board, Sertoma, and numerous committees.

Year DSA Awarded: 1979

2016
Northeast Region
Hall of Fame Award

Robert Leiby

Pennsylvania
36 Years - Retired

Robert E. Leiby grew up in Extension. His grandfather helped organize the Lehigh County Extension Office and served on its first Executive Committee. His parents were 4-H leaders and Bob was an active 4-H'er. As part of his Agronomy degree requirements, he was a summer intern in the local Extension Office. He began work as an Assistant County Agent (1975). He retired as County Extension Director and Senior Extension Agent (June 2012).

After six years as 4-H agent, he earned a Master's Degree and concentrated on agriculture. He developed an extension philosophy focusing to meet local client-farmer needs.

He is best known for his comprehensive program for potato farmers, including training and supervising pest monitoring scouts (1982-1997), producing communications with farmers on pest control and sustainable practices, and naming a variety 'Lehigh'.

Potato information and on-farm variety trials were featured at meetings (1982-2014). The Lehigh Valley Potato Growers Association supports these efforts financially and in planning and conducting programs.

He delivered presentations on safety to pesticide applicators and consumers since 1982.

In 1989, Leiby persuaded the County of Lehigh to expend $863,000 for an Agricultural Center, managing the budget and operation until retiring.

A Crops Day program was expanded to include a regional series of meetings and eventually a statewide meeting rotation.

Leiby developed "Living on a Few Acres" for new and beginning farmers. This evolved into hiring an extension educator, expanding the program further.

The Lehigh Valley contains diverse agriculture and an urban/suburban population. Leiby worked to have the general public understand agriculture, managing the Open Gate Farm Tour annually attracting 8,000+ visitors to Lehigh County farms. He wrote a weekly Morning Call newspaper column (1992-2002) and produced a quarterly TV program on WLVT- TV to address agricultural and consumer issues. He created an extension educator position to serve the horticultural audience.

Association Involvement Leiby has been a member of NACAA since 1976. He served as president of PACAA when Pennsylvania co-hosted NACAA AM/PIC (2005.) He attended several PILD meetings in Washington D.C. and presented on involving county government in extension.

He served as President of Pennsylvania State Council of Farm Organizations, representing 70 organizations seeking common ground in establishing statewide agricultural policies.

Humanitarian Leiby served on the Board of Casa Guadalupe, Inc. and continues to serve as Secretary-Treasurer of The Spanish Center of Allentown, Inc.

He is a member of St. John's UCC where he served as Deacon.

Leiby took multiple international assignments to further agricultural development and education. During two trips to Swaziland, he helped establish their first research farm and extension system. He provided assistance and lectures to farmers and agricultural professionals in Russia, Kyrgyzstan, and Zimbabwe. In the U.S., Leiby hosted Swazi and Nigerian agricultural professionals. Since retiring, he traveled twice to China giving presentations to 1,100+ agriculture technicians on potato production.

He serves on Penn State Ag Council and Pennsylvania Council of Farm Organizations representing the potato industry.

Year DSA Awarded: 1993

2016
Southern Region
Hall of Fame Award

Frank FitzSimons

South Carolina
26 Years - Retired

The South Carolina Association of County Agricultural Agents is proud to have nominated Frank L. FitzSimons, III for the NACAA Hall of Fame Award. Frank began working with Clemson University Cooperative Extension Service in 1978 as a County Extension Agent in Dorchester County. His responsibilities included implementation for crop production, program planning for livestock, and 4-H programming. In 1984, Frank was promoted to County Extension Director in Georgetown County, South Carolina. Through the Extension Director position, he assumed administrative duties that included supervision of a five county area, budget development, and management of agents and programs in those counties. In 1989, Frank took another promotion that transferred him to Richland County, South Carolina as the Director. During his time in this position he was responsible for twelve agents, program assistants, volunteers and support staff in a large county. He maintained similar duties of creating and maintaining budgets while working with local government to ensure Clemson Extension was providing education to the public. In 1995, Frank transferred to Berkeley County, South Carolina to

become an area agent. He was responsible for program planning in the areas of livestock, forages, and natural resources for Berkeley, Dorchester, and Charleston Counties. In 2003 Frank retired from Clemson University Cooperative Extension Service as County Extension Emeritus, but remained active in the organization through the South Carolina Association of County Agricultural Agents.

Frank was an active member in the South Carolina Association of County Agricultural Agents as well as the National Association of County Agricultural Agents. He served on various committees as well as director in the state association throughout his career. 1990-1991, Frank served as President of the state association. In 1993 he received the honor of representing his state association as the Distinguished Service Award Winner. Frank was also active in the national association leadership. He began by serving on the Public Relations Committee. He followed that up in 1998 by being elected as the NACAA Secretary and serving three one year terms. He continued his role in leadership by serving as Vice President and President- Elect before serving as President of the association in 2004. His leadership did not end with his term as President. He has gone on to serve as Past President (2004-2005), NACAA representative to Joint Council of Extension Professionals (2004-2005), Trustee on NACAA Educational Foundation Board of Trustees (2010), Vice President/ Secretary for NACAA Educational Foundation Board of Trustees (2010-2012) and President of that board in 2013-2015. Frank continues to remain active in both the National and State Associations throughout his retirement. He was co-chair for the 2012 NACAA AMPIC planning committee and has attended 28 consecutive NACAA AMPICS.

Through his Extension career and personal life Frank has touched those around him. He has served in the US Navy (1968-1972), served as a member and President of Homeowners Associations, and worked with numerous committees throughout his career and retirement.

Year DSA Awarded: 1993

2016
Western Region
Hall of Fame Award

Mir-Mohammad Seyedbagheri

Idaho
32 Years

Mir's participatory and experiential learning methods increase the impact of his Extension programs. Growers rely on Mir to provide unbiased, research-based updates to ensure their profitability. Mir conducts farm and ranch cooperative demonstration field trials in: soil fertility, irrigation management, plant disease control, and integrated pest management. He further conducts multi-faceted research and extension projects in: rangeland fire restoration, biological control of invasive species and noxious weeds, planter and tilling equipment performance, and humic and fertilizer use efficiency. His successful collaborations with government agencies and private industry has garnered significant resources and funding for these studies. Mir published and presented his results through refereed journals, peer reviewed Extension publications, and at local and international meetings, conferences, workshops and field days. Mir twice received the Idaho Governor's Award for Environmental Stewardship and Excellence in Agriculture! He also was honored with the ESP Early and Mid-Career Awards, the University of Idaho's (UI) Excellence in Outreach Award, the UI Diversity Award, and the Mountain Home Air Force Base's Citizen of the Year Award. Mir provides leadership to over 500 youth in his 4-H Youth Development Program and 4-H Operation Military Kids Program. For the past 10 years he has conducted a county fair 4-H Tractor Driving Safety Contest to reduce loss of life and serious injury to farm and ranch youth.

Association involvement: Mir has been active in NACAA and IACAA since 1985. He served as IACAA Junior Director (1985-86); IACAA Senior Director (1987-88) and IACAA President (1993). He chaired the Program Development Committee (1987-88); chaired the NACAA Future Visioning Committee (1992-93); served on the Committee for Extension Marketing (1993); and chaired the IACAA Award Committee (1994-2016). Over the last 30 plus years, Mir has attended nearly all IACAA annual meetings and summer tours, and conferences. He organized and hosted the 2002 IACAA summer meeting and tour. He completed the NACAA Western Leadership Workshop (Boise, ID 1994), the NACAA Public Issues/ Leadership Development Training (Burlington, VT 1997), and attended NACAA AM/PIC Meetings throughout his career. Mir received the NACAA Achievement Award for Idaho (1988) and NACAA Distinguished Service Award for Idaho (1996).

Humanitarian activities and leadership: In addition to serving as the Elmore County Extension Office administrative chair for his entire career, Mir also serves as director for the county's Noxious Weed Control Department, the Pest Control Department, and the Mosquito Abatement Program. Mir has served in over 25 community organizations including: the Youth Gang Prevention Task Force, the Elmore County Hot Line for Suicide Prevention, and the Mountain Home Air Force Base's Restoration Committee and Appreciation Day Board. He's been a member on Elmore County's Revitalization, Recycling, Disaster Response, and Community Pride and Awareness committees. Mir currently chairs the Mountain Home Chamber of Commerce Agribusiness Committee and is an active member of the Mountain Home Rotary and Lions Clubs, and the Glenns Ferry Chamber of Commerce.

Year DSA Awarded: 1996

2016 ABSTRACTS OF THE NATIONAL WINNERS AND FINALISTS COMMUNICATIONS AWARDS CONTEST

Audio Recording

National Winner

Ludlow, J.*[1]

[1] County Extension Director/Ag & Natural Resources, UF/IFAS, Blounstown, FL, 32424

The Calhoun County Extension News is an educational radio program recorded at, and aired by WYBT AM 1000 and FM 98.1 twice each day, Monday through Thursday at 7:00 a.m. and 4:00 p.m. The agent writes a script then pre-records the 1-3 minute broadcasts at the radio station. Between February 12, 2015 and February 19, 2016, the agent recorded 91 original segments related to Agriculture, Natural Resources, and Horticulture. Each segment is aired an average of 2 times during the year. The radio station is located in rural Calhoun County which has a population of 14,500. The radio station listener base is estimated at 500-1000 and expanding under the station's new management. The agent's objective, in concert and partnership with the goals of the local radio station, is to educate the public on topics that are current and relevant to the community in the listening area. In this rural county the radio station is another channel of information we have to disseminate UF/IFAS research-based data to existing and potential Extension clientele. Listeners are provided the Extension office phone number at the end of each segment to call for additional information. Reactions from client feedback to the agent personally, and from radio station staff, have been positive. The segment submitted is about the importance, biology, and ecology of pollination, and aired on February 10, 2016.

NATIONAL FINALISTS

Higgins, R.*[1], Hentschel, R*[2]

[1] Extension Educator, Commercial Ag., University of Illinois Extension, Morris, IL, 60450

[2] Extension Educator, Horticulture, University of Illinois Extension, St. Charles, IL, 60174

My coworker in northern Illinois (Richard Hentschel, Horticulture Educator) hosts a weekly radio gardening program titled "Green Side Up" in conjunction with WDCB (College of DuPage) in densely populated northeastern Illinois. As a Commercial Agriculture Educator, I have been asked to participate as a guest in preceding years on topics ranging from entomology to integrated pest management. This year we agreed there would be value in sharing traditional agriculture topics for this audience. Its purpose was to enlighten the audience of farming activities taking place on 22 million acres of Illinois, and share that Extension is more than just Horticulture for this audience. An interesting reversal from when many thought Extension was only Agriculture!

Several pre-recording planning sessions took place where topics of interest were finalized. Because of the quality of recording, Richard and I met at the College of DuPage to utilize their recording studios on August 27th and recorded three programs that would air on September 3rd, 10th and 17th.

The program format is conversational with Richard serving as host and I as guest.

General topics included

September 3rd - 8 minutes 5 seconds

- International agriculture, German agriculture exchange
- Soil health and nutrient management
- Crop update for corn and soybean

September 10th - 8 minutes 24 seconds

- Cover crops
- Illinois nutrient loss reduction strategy
- Hypoxia zone
- Cover crop research and adaptability to northern Illinois

September 17th - 9 minutes 47 seconds

- Harvest process on farms
- Weeds in a wet year
- Weed management
- Aerial seeding
- http://web.extension.illinois.edu/podcasts/greensideup/201509.html

Miller, W.*[1]

[1] Community and Urban Horticulture Extension Agent, Oregon State University Extension, Oregon City, OR, 97045

Grow PDX is a weekly, call-in radio show (30-minute, live broadcast format) hosted by Weston Miller, Community and Urban Horticulturist for Oregon State University (OSU) Extension Service on XRAY.fm, a new radio station in Portland, Oregon. XRAY is broadcasted as KXRY over the airwaves and also online where people can listen to live shows and also download podcasts from the Grow PDX website: https://xray.fm/shows/growpdx. From this web page, there have

been 3,110 page views from 1,416 unique users since January 2015. As an upstart radio station, XRAY.fm does not provide other information regarding the listenership for the show.

The attached audio file is an edited interview focused on the Asian Gypsy Moth with an entomologist from Oregon Department of Agriculture (ODA). This segment aired on February 24, 2016. As part of regular monitoring, ODA detected three Asian Gypsy Moths in 2015 and have commenced a management plan for 2016, which includes spraying *Bacillus thuringiensis kurstaki* by helicopter over the Port of Portland, a surrounding neighborhood and nearby forested areas. This radio interview was conducted as part of ODA's community outreach to inform the public about the management plan and to solicit feedback and support from interested community members.

Caron, M.*[1], Beddes, T.*[2]
[1] Extension Assistant Professor, Horticulture, Utah State University, Lehi, UT, 84043
[2] Associate Professor, Utah State University, Provo, UT, 84606

The underlying purpose of this non-denominational radio program was to expand the reach of Utah State University Extension and fulfil the mission of sharing research-based information to a wide audience. This program is hosted by Julie Rose, host and producer of the Top of Mind series on Brigham Young University Radio. The program is broadcast on the Sirius/XM satellite radio channel 143 to a national audience, as well as broadcast online at BYUradio.org, and locally at KBYU 89.1 FM. This gardening program, initially a one-time show, has been expanded and now airs twice per year - spring and fall, and highlights timely garden activities and answers questions gardeners often have at the ends of the gardening season. The included segments are from March 27, 2015 and October 23, 2015. Both were edited to remove show segments we were not directly involved with. According to research done by BYU Broadcasting, BYU Radio broadcasts to a nationwide audience of potentially more than 56 million listeners on SiriusXM Satellite Radio. Please access the recordings using the following link: https://usu.box.com/s/flj9otgvuzwce8akxcyvf2rsua1j88ri

Bound Book

National Winner

Chalker-Scott, L.*[1]
[1] Extension Specialist and Associate Professor, Washington State University, Puyallup, WA, 98371

Witten by Dr. Linda Chalker-Scott (WSU's Urban Horticulture Extension Specialist), this book explains practical plant physiology in terms that any gardener will understand. The need for this science-based book is explained best in the publisher's description for it on Amazon (http://www.amazon.com/How-Plants-Work-Science-Gardeners/dp/160469338X/ref=asap_bc?ie=UTF8):

> "*How Plants Work* brings the stranger-than-fiction science of the plant world to vivid life! It explains how plants tell time, how they move to follow the sun and capture food, and why they change color…By revealing the science behind what plants do every day, this book arms you with information that will change the way you garden. You'll learn how to fertilize and prune more effectively, how to weed less than you ever have, and how to determine which garden products are worth your time and money."

The target audience for this book includes home and Master Gardeners, nursery owners, certified horticulturists and arborists, plant science teachers, landscape architects, and government employees. The typical reader of this book might have a college education in a field outside of the sciences, but is not familiar with practical plant and soil sciences as applied to gardens and landscapes.

Based on reader reviews on the Amazon link above, it has been successful in increasing the public's understanding of basic plant physiology as they see it play out in their landscaped surroundings. It recently received a book award from the American Horticultural lSociety.

The first printing of 8,000 copies was made available April 22, 2015. Of those, approximately 6,700 have been purchased.

NATIONAL FINALISTS

Davis, J*[1], Gessner, H*[2], Harty, A.*[3], Salverson, R. R.*[4]
[1] Economics Field Specialist, SDSU Extension, Mitchell, SD,
[2] Livestock Business Management Field Specialist, SDSU Extension, Sioux Falls, SD,
[3] Cow-Calf-Field Specialist, SDSU Extension, Rapid City, SD, 57703
[4] Cow-Calf Field Specialist, SDSU Extension, Lemmon, SD,

iGrow Beef: Best Management Practices for Cow-Calf Production was developed by SDSU Extension Personnel and South Dakota State University Faculty. The development of the book took the time and dedication of 27 authors and 11 peer reviewers. This book contains 58 chapters to discuss all facets of cow/calf production and is useful for all producers, from those just beginning to those who are well-established.

This comprehensive book provides producers with insight and education into the latest reproductive technologies, low-stress livestock handling, health programs, understanding DNA testing, breeding programs, feeding strategies and nutrition, marketing options, budgets and the role of beef quality assurance (BQA) in the cow-calf industry, just to name a few of the topics. The handbook educates producers on best management practices to ensure they produce the highest quality beef products for consumers. This is a true "from pasture to plate" publication that will guide production of beef that is affordable, safe and wholesome; all while ensuring the most efficient use of resources. With ever changing input costs and volatile markets, it is critical for established and beginning producers to understand the strategies available to help them

ensure success. The final publication was completed in August 2015. iGrow Beef is available for purchase through iBooks for iPad or as a PDF for $39.99.

Here is a link to the book on iTunes: https://itunes.apple.com/us/book/igrow-beef/id1028666449?mt=13. A free sample can be downloaded through iBooks. A full PDF version for this nomination has been posted for a limited time period to Box: https://sdsu.box.com/iGrowBeef-NACAA.

Fish, Jeannette*[1], Jacobs, Bonnie Apperson*[2], Mainwaring, Terri*[3], Pastor, M.K.*[4]
[1] Executive Director, retired, Maricopa County Farm Bureau, Phoenix, AZ,
[2] Co-Author, Retired Educator, , AZ,
[3] Co-Author, Retired Educator, , AZ,
[4] Area Associate Agent, University of Arizona College of Ag and Life Sciences, Phoenix, AZ, 85040

Arizona Agriculture: Bee's Amazing Adventure is an exciting collaborative between its authors, The University of Arizona College of Agriculture and Life Sciences Cooperative Extension (CALS-CE), and Maricopa County Farm Bureau (MCFB). Monica Kilcullen Pastor, Associate Area Agent, Ag and Natural Resources of CALS-CE, and Jeannette Fish, Executve Director of MCFB (retired), provided the authors with the vision, technical expertise and 100% of the financial investment to publish this children's book. Educating students about the vast impact of agriculture on Arizona's economy, the story both educates and entertains young readers with fun facts, vibrant photography and captivating illustrations. Incorporating extensive research, phonemic awareness, and rich vocabulary into an engaging storyline, Pee Wee Bee's adventure showcases Arizona's diverse agricultural products and services. The book also includes an accurate accounting of the use of farm and ranch technology, highlighting an intrinsic love of the land that draws farmers and ranchers to agribusiness and emphasizes the value of preserving the environment and caring for the earth. *Arizona Agriculture: Bee's Amazing Adventure* is funded, in part, by the Arizona Department of Agriculture, Agriculture Consultation and Training Program using Specialty Crop Block Grant funds from USDA›s Agricultural Marketing Service.

Singletary, L.*[1], Emm, S. K.*[2], Loma'omvaya, M.*[3], Livingston, M.*[4], Michael Kotutwa Johnson*[5], Oden, R.*[6]
[1] Extension Educator, Yerington, NV, 89447
[2] Extension Educator, University of Nevada Cooperative Extension, Hawthorne, NV, 89415
[3] Natiural Reources Planner, Hopi Tribe, Kykotsmovi Village, AZ, 86039
[4] Extension Educator, University of Arizona FRTEP, Kykotsmovi Village, AZ, 86039
[5] Doctoral Student, University of Arizona American Indian Studies, Kykotsmovi Village, AZ, 86039
[6] Media Productin Specialist, University of Nevada Cooperative Extension, Hawthorne, NV, 89415

The HOPI: People of the Land bound-book curricula is the result of a collaboration between the University of Nevada Cooperative Extension, the University of Arizona and the Hopi Tribe. The curricula teaches the unique story of the Hopi people through historical and future agriculture production. It explores and identifies the knowledge gap that exists when trying to implement USDA assistance programs on the reservation. This knowledge gap exists between the religious and historical practices of the Hopi Tribe and modern day agriculture practices and beliefs. The seven chapters within the book discuss American Indian land tenure, water rights, historical agriculture, natural resource challenges and how to successfully implement USDA programs on the Hopi reservation.

Computer Generated Graphics Presentation

National Winner

Badurek, T.*[1]
[1] Extension Agent II, UF/IFAS, Tarpon Springs, FL, 34688

The "Summer in the Florida Vegetable Garden" computer generated graphics presentation was created as part of an education program to teach local residents to grow their own food. Summer is the most difficult time of year to grow vegetables in Florida and required a special presentation to address those challenges. The objective of this presentation was to provide a better understanding of summer conditions, what to grow in summer, and what else a gardener can do in summer if not using the garden for production. The "Summer in the Florida Vegetable Garden" computer generated graphics presentation was delivered to 63 Pinellas County residents during 2 separate classes in 2015. Evaluations were given at the end of class to measure knowledge gained. One hundred percent (n=57, evaluations returned) of participants indicated knowledge gain in summer vegetable gardening skills. The "Summer in the Florida Vegetable Garden" module was created using Microsoft Powerpoint®.

NATIONAL FINALISTS

Falk - Jones, J.S.*[1]
[1] Multi-County Specialist, Crops and Soils, K-State Research & Extension, Colby, KS, 67701

Every year, forage sampling questions come from farmers. To help address the basic questions on collecting a proper forage sample, K-State agronomist Jeanne Falk Jones put together a presentation with a basic step-by-step sampling procedure. In some cases, it is first important to impress on producers the importance of forage sampling. It can be used for a feed test analysis, so the producer can put together a balanced ration to meet the rate of gain goals. It is also used to test for forage toxicity, especially for nitrate concentration. Nitrate poisoning is nearly always on producers' minds when feeding forage sorghum or oats, but can especially be a problem in drought years. It is especially important to impress upon farmers

that a good sample equals reliable results. It is important to take the time to collect a representative sample from a lot of forage. This presentation was initially given by Falk Jones as a 15 minute presentation at the Cover Your Acres Winter Conference in January 2015. Approximately 85 producers attended this session at the conference. She also presented it at a field day and a forage production meeting in late 2015 and early 2016 to nearly 60 producers total. Finally, another Extension agent in western Kansas has used this PowerPoint slide set and script at his forage sorghum production school in February 2016.

Mills-Lloyd, S.*[1]
[1] Agriculture Agent, UW-Extension, Oconto, WI, 54153

Due to improved bovine husbandry and nutritional applications, bovine clinical parasitism in the United States is not as apparent as it was in previous generations. The major impact of gastrointestinal parasitism is related to subclinical losses.

Calves and young cattle are most susceptible to parasitism, and there is economic evidence to support anthelmintic treatment of this portion of the bovine population. It is important for producers to carefully consider their anthelmintic investment. Understanding and adopting integrated parasite management strategies will, in the long run, have the greatest impact on their farm operation's bottom line.

Conversations with colleagues and producers indicated that producer knowledge of these complex issues was lacking. Agriculture Educators Sandy Stuttgen and Sarah Mills-Lloyd completed a literature review of bovine gastrointestinal parasitism. A PowerPoint presentation of the findings was developed for the University of Wisconsin-Extension Cow Calf meeting held across nine Wisconsin counties from August –October, 2015. The information was also given to all participants (250) through paper copies printed in local UW-Extension county offices.

Written pre-post evaluations were completed by every site. Participants significantly improved their knowledge or understanding of the topic 'Deworming: Relationships, Resistance and Refugia' developed by Mills-Lloyd (1=low and 5=high) +1.5. Participants commented on written evaluations that they would use the information obtained in this presentation to address developing protocols for deworming.

Only a small portion of the entire presentation is included to be judged. This PowerPoint presentation was cooperatively created by both Mills-Lloyd & Stuttgen.

Gohil, H.*[1]
[1] Agriculture and Resource Management Agent, Rutgers Cooperative Extension, Clayton, NJ, 08312

Vineyards often struggle with viral and bacterial diseases, caused by pre-existing pathogens in the sourced material, often from the non-certified nurseries. A power point presentation on *Clean Planting Material- an Effective Strategy to Prevent Vineyard diseases* was developed to educate beginners and established grape growers on how to ensure clean and healthy grapevines. The best way to begin ensuring that grower has good, healthy and productive grapevines is to source planting materials from nurseries that provide clean or certified planting material. Presentation explains the inherent problems of virus pathogens in non-certified material, how the certification process works, the role of National Clean Plant Network and Foundation Plant Services and Certified nurseries, verifying the quality assurance from the origin of planting material, inspecting the physical attributes of planting material upon arrival and paying close attention to grafted material and insistence on dormant bench grafted over green grafted planting materials.

In 2016, entrant delivered this presentation at Mid-Atlantic Fruit and Vegetable convention in Hershey, PA and at New Jersey Agricultural Convention in Atlantic City, NJ with total participation of 88. This material will be provided at future grape meetings. The follow up learning survey indicated that the wine grape growers improved their understanding of clean or certified planting material at various degrees.

Fact Sheet

National Winner

Elsner, E.*[1]

[1]Consumer Horticulture Educator, Michigan State University, Traverse City, MI, 49684

The intended use of this fact sheet was for educating consumers about plant choices to support monarch butterflies, with the primary distribution to occur at nurseries and other retail plant outlets in Michigan. I prepared the text and supplies all but one of the photographs used in the fact sheet. The final layout and editing services were provided by communications specialists at Michigan State University. The fact sheet can be found on-line at:

http://msue.anr.msu.edu/uploads/files/AABI/Milkweeds_Monarchs.pdf

The same textual material and photographs were released in an electronic article through the Michigan State University Extension News and has generated over 4,000 page views:

http://msue.anr.msu.edu/news/growing_milkweeds_for_monarch_butterflies

NATIONAL FINALISTS

Gohil, H.*[1]
[1] Agriculture and Resource Management Agent, Rutgers Cooperative Extension, Clayton, NJ, 08312

Vineyards often struggle with virus and bacterial diseases caused by pre-existing pathogens in the sourced material, often from the non-certified nurseries. *Evaluate Your wine Grape Planting Material Before Planting* was developed to educate beginners and established grape growers on how to ensure clean and healthy grapevines. The best way to begin ensuring that grower has good, healthy and productive grapevines is to source planting materials from nurseries that provide clean or certified planting material. Publication focuses on verifying the quality assurance from the origin of planting material, inspecting the physical attributes of planting material upon arrival and paying close attention to grafted material. The fact sheet has been distributed to growers at twilight meetings (40) and at agricultural conventions (38). Entrant wrote the publication, took the photos, and formatted the publication for the print. The content of the publication is also shared as blog articles, posted athttp://plant-pest-advisory.rutgers.edu/performing-a-detailed-inspection-of-wine-grape-planting-material/#more-13109 and athttp://njvines.rutgers.edu/assessing-grape-vine-quality/. The fact sheet (FS1252) is published at Rutgers New Jersey Agriculture Experiment Station.

Gailor, L.R.*[1], Gailor, Laurel R.*[2]
[1] Capital/ Mohawk PRISM Coordinator, Cornell Cooperative Extension, Ballston Spa, NY, 12020

This is a all-purpose informational brochure/fact sheet developed to provide an educational tool to woodland owners, hikers, and nature lovers in general, as a quick identification of woodland invasive species. The brochure has been used at County Fairs (5); Forest Owner Chapter programs, woodswalks, and Master Forest Owner volunteers; general distribution to master gardener groups, and cooperative extension offices. Over the past year, an estimated 480 have been distributed

Kerr, S.*[1], Tuck, B.*[2], Olson, S.*[3], Hammond, E.*[4], Annala, D.*[5], Hino, J.*[6], Ginsburg, A.*[7]
[1] WSU NW Regional Livestock and Dairy Extension Specialist, Washington State University, Mount Vernon, WA, 98273
[2] Regional Extension Director, Oregon State University Extension Service, The Dalles, OR, 97058
[3] Soil and Water Conservationist, Wasco County Soil and Water Conservation District, The Dalles, OR, 97058
[4] Water Quality Specialist, Oregon Department of Agriculture, Bend, OR, 97701
[5] Former 4-H County Youth Development Educator, Oregon State University Extension Service, Hood River, OR, 97031
[6] Communication Specialist, Oregon State University Extension & Experiment Station Communications, Corvallis, OR, 97331
[7] Communication Specialist, Oregon State University Extension & Experiment Station Communications, Corvallis, OR, 97331

"Getting Started with Sheep and Goats" (EC 1646; April 2015) is part of the Oregon State University Extension Service's online "Living on the Land" educational series for new/small acreage owners. The series addresses issues of concern to new rural landowners such as livestock care, pasture management, environmental issues, etc. To increase accessibility to the target audience, each document in the series has been developed into an audio file. In both formats, the information is concise and addresses the basics of each topic. For example, Getting Started with Sheep and Goats informs small acreage livestock owners about animal selection, protection, housing, record keeping, legal matters, and recommendations of sources for detailed information; it is the first part of a series on this topic. The short format and online/audio file delivery were designed to fit essential land and livestock management information into the busy lives of new small acreage owners. Authors of the publications in this series include three Extension educators, a soil and water district conservationist, and a state department of agriculture water quality specialist. They were assisted by two Extension communication specialists. The first author of the abstract was the primary author of this fact sheet. Both the pdf and audio files of Getting Started with Sheep and Goats are available at https://catalog.extension.oregonstate.edu/ec1646. The site was visited 990 times in nine months by visitors from 33 countries; the pdf was downloaded 109 times by visitors from 11 countries; the audio files were accessed 91 times in 11 months.

Feature Story
National Winner

Stevens, M.*[1]
[1] Agriculture Agent- Horticulture, Nash County Cooperative Extension, Nashville, NC, 27856

"How to Grow Strawberries in Less Space" is an original feature article submitted to Fine Gardening Magazine for publication in their April 2015 issue. The article discusses a series of alternate methods home gardeners can use to grow strawberries rather than the typical backyard garden patch. These methods are suitable for gardeners with limited space available as well as those simply looking to try something new. Pros and cons of each method are discussed, along with estimated costs of establishment and recommended varieties. Fine Gardening is a nationally distributed, bimonthly garden publication, with 85,968 paid subscriptions and 24,706 average single-copy issue sales on newsstands, for a total average circulation of 110,674 per issue.

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NATIONAL FINALISTS

Arora, K.*[1]
[1] Field Agricultural Engineer, Iowa State University Extension, Nevada, IA, 50201

Opportunities exist for harvesting corn stover in Central and North-central Iowa region to support the biomass feedstock

needs of two cellulosic ethanol plants in Emmetsburg and Nevada. As stover is harvested and baled, it can be stacked at the edge of the field prior to transportation to the storage site and finally to the plant for conversion to ethanol. Baling density, stover moisture, and amount of dirt/soil addition during the baling process can cause the bale weight to be different for both square and round bales. For the same dimensions, over time, addition of moisture due to rain and snow, and subsequent drying due to elements of weather and microbial degradation can further cause the weights to change. The purpose of this story is to caution the producers engaged in this supply chain to check the gross weight rather than the number of bales that can be safely transported within the weight and dimension limits. The same number of bales, if they gain moisture, can cause the trailer to be over the weight limits. To follow all the transportation rules (federal, state, and county) is the responsibility of the person operating the equipment. Over 7,000 producers in 23 counties are potentially affected by this supply chain. This story was written in a word document by the author and submitted to Penton Media for printing in their monthly publication called Wallaces Farmer. Wallaces Farmers has a monthly circulation of 55,000 subscribers in Iowa and neighboring states.

Barkley, M.*[1]
[1] Extension Educator, Penn State University, Bedford, PA, 15522

The "Using EBV Date to Promote Parasite Resistance" feature story was developed for the commercial breeder section of the Dorset Connection magazine. The purpose of the feature story is to help sheep producers make better management decisions related to sheep production. The story discusses how producers can utilize estimated breeding values developed through the National Sheep Improvement Program to improve genetic resistance to parasites within a sheep flock. This magazine is published by the Continental Dorset Club, the national registry organization for Dorset sheep. The magazine is published three times per year and sent to over 1,500 members of the registry association as well as buyers who purchased registered Dorset sheep in the past year. The feature story was prepared using Microsoft Word. Entrant reviewed research information, wrote the feature story, formatted the publication for submission to the Continental Dorset Club, and sent it electronically to the Executive Director of the registry association. Entrant also took photo that was printed with story.

Dismukes, A.L.*[1]
[1] Extension Agent, UT/TSU Extension, Franklin, TN, 37064

Upon request by Dr. Sue Hamilton and with pure pleasure, "Coleus, who cares about the flower when the foliage is to die for?" was written with the intention of informing the citizens of Tennessee (and other interested horticulturalists) about the potentials of the Coleus plant. The article was prepared by the author, submitted for approval in July of 2015 and published within the Fall/Winter 2015 edition of Cultivate, the magazine of the state botanical garden of Tennessee.

With an amazing range of color and texture, coleus can transform a once monotonous planting into the Emerland City of landscapes. Traditionally considered a shade-loving plant, there are now many sun and drought tolerant varieties, making it almost a necessity for every gardener. A plant that boasts many talents other than glorious color - be it a garden deterrent for our favorite critters or as a dye or pigment for a painter's brush - it's safe to say, Coleus is here to stay.

Learning Module
National Winner

Maccini, R.*[1], Bryant, Heather*[2], Cragin, Faye*[3], Gladders, Dode*[4], Majewski, Carl*[5], Papineau, Amy*[6], Smith, Cheryl*[7]
[1] Program Coordinator, Pesticide Safety Education Program, UNH Cooperative Extension, Goffstown, NH, 03045
[2] Extension Field Specialist, Food and Agriculture Grafton County, UNH Cooperative Extension, North Haverhill, NH, 03774
[3] Extension Specialist, Distance Education and Media, UNH Cooperative Extension, Durham, NH, 03824
[4] Extension Field Specialist, Natural Resources Sullivan County, UNH Cooperative Extension, Newport, NH, 03773
[5] Extension Field Specialist, Food and Agriculture Cheshire County, UNH Cooperative Extension, Keene, NH, 03431
[6] Extension Field Specialist, Food and Agriculture Merrimack County, UNH Cooperative Extension, Boscawen, NH, 03303
[7] Extension Professor/Specialist, Plant Health, UNH Cooperative Extension, Durham, NH, 03824

It is with great pleasure that I nominate the UNH Cooperative Extension, Pesticide Safety Program for consideration for the 2016 Communication Award in recognition of their outstanding team work and tireless efforts in addressing and reacting to the needs of their clientele in New Hampshire.

In the state of New Hampshire pesticide applicators are required to earn recertification credits in order to remain certified. Responding to the needs of NH pesticide applicators, the PSEP Committee began an initiative in 2009, to create an online recertification program. These new online courses provide applicators a more convenient and timely method of obtaining credits.

Since its launch in October of 2013, the program has provided 97 applicators with at least 146 recertification credits. This initiative has made a huge and positive difference in the lives of many pesticide applicators. Since the first online courses were

released in 2013, the committee has actively worked to release 9 additional courses, with completion of all courses expected during 2016.

In this nomination we would like to showcase the Storage and Disposal course. Carl Majewski designed the Storage, and Disposal course content using a number of adult learning concepts. The storage facility used as an example is a real facility bringing the concepts to life for the applicator. Each course includes videos, power-point presentations with audio, and interactive materials as well as appropriate articles, plus other written material for review. An online quiz is administered at the completion of each course to measure competencies.

NATIONAL FINALISTS

Wollaeger, H.*[1], Runkle, E.*[2], Lopez, R.*[3]
[1] Greenhouse and Nursery Extension Educator, Michigan State University Extension, Nazareth, MI, 49074
[2] Professor of Horticulture, Michigan State University, East Lansing, MI, 48824
[3] Associate Professor of Horticulture, Purdue University, West Lafayette, IN, 47907

Greenhouse and Horticultural Lighting Course is a non-credit pre-recorded online learning module that is the second course in the College of Knowledge Online series offered by Michigan State University Extension on the eXtension campus (Group enrollment key: msue2015). The course is intended for greenhouse and ornamental plant growers and others interested in learning about the fundamental concepts about how plants respond to light quality, quantity, and in duration, which all affect plant quality and production efficiency. It provides introductory to moderately-challenging content based on a substantial amount of research performed at Michigan State and Purdue Universities. Students evaluate their progress through the three hours of pre-recorded content by taking a pre-test, quizzes, and a final exam. The course also provides links to 36 trade articles published on pertinent lighting topics. Wollaeger is the primary author of the course and recorded all of the videos, maintains the content, follows up with students, and performs evaluations of impacts. The course has been available for 6 months and 58 students from 15 states and 8 countries (Canada, Costa Rica, Chile, Finland, Norway, Sweden, Thailand, Taiwan), who represent 445 acres of production, are currently in the course. The average pre-test score is 74% (n=52), while the post-test score is 90% (n=18). 100% of the respondents to the post-course evaluation intend to change production practices in their facility. 80% of people intend to implement the changes within the next 3 months. The intended changes will affect 128 acres of greenhouse and screenhouse production.

Fielder, K.*[1]
[1] County Extension Coordinator, University of Georgia, Eatonton, GA, 31024

Interest in beekeeping has increased tremendously in recent years due to demand for locally produced foods and widely expanded pollination needs. Apiculture is also extremely attractive as an agricultural production system for those with limited land resources. As such, client inquiries concerning beekeeping to local cooperative extension agents has increased in parallel with this surge in interest. This has created a dilemma in satisfying information requests as comparatively few cooperative extension agents are well versed in apicultural matters. In addition budget constraints have forced many land grant universities to minimize and or eliminate extension apicultural programs as personnel retire. Such cuts have broken the critical agent/specialist link in the information dissemination process. Most land grant institutions do have resource materials available; however, agents without beekeeping experience find it difficult to sort through unfamiliar terminology in an effort to provide useful information to the client. The author has developed an understandable updatable indexed resource manual that will provide agents with a basic knowledge of beekeeping terminology and methodology to adequately advise the beginning beekeeper. The manual is divided into sections covering basic honey bee information, equipment types, honey bee acquisition, hive placement, sourcing, association links and training sources. The manual is presently available in a beta format.

Henderson, J.*[1], Dicke, Stephen*[2], Gordon, Jason*[3], Hughes, Glenn*[4], Kushla, John*[5], Self, Brady*[6], Siegert, Courtney*[7], Willis, John*[8]
[1] Associate Extension Professor, Mississippi State University, Mississippi State, MS, 39762
[2] Extension Professor, Mississippi State University, Raymond, MS, 39154
[3] Assistant Extension Professor, Mississippi State University, Mississippi State, MS, 39762
[4] Extension Professor, Mississippi State University, Biloxi, MS, 39532
[5] Extension Professor, Mississippi State University, Verona, MS, 38879
[6] Assistant Extension Professor, Mississippi State University, Grenada, MS, 38901
[7] Assistant Professor, Mississippi State University, Mississippi State, MS, 39762
[8] Assistant Professor, Mississippi State University, Mississippi State, MS, 39762

A team of eight MSU Department of Forestry faculty developed the curriculum and short course materials for a new course titled Extreme Weather Events and Risk Management Options for Family Forests. A total of 9 courses were conducted in 2015 at 9 unique locations across Mississippi for 278 participates owning or managing 1,834,580 acres of forestland. Participants (timber producers and forestry

professionals) valued the courses at $2,137,500 in potential savings. Each course was 6 hours in duration and conducted in the following Mississippi locations. Beldon, Biloxi, Brandon, Coffeeville, Grenada, Magnolia, Quitman, Senatobia, and Starkville. Course participants were provided with a short course notebook (printed) containing lecture presentation slides and supporting materials for each section of the course which included: Introduction to Forest Risk Management; Timber Casualty Loss; Species Selection, Seedling Survival, and Drought; Timber Salvage: Manage or Regenerate; Thinning for Forest Health; Invasive Species Control; Even- and Uneven-Aged Management; and Preparing for the Future: Weather and Climate Trends in Mississippi. Each team member made an invaluable contribution to the course curriculum and the course notebook. A copy of the course notebook can accessed at the following URL. http://www.cfr.msstate.edu/forestry/docs/Course%20Notebook1.1.pdf

Newsletter, Individual

National Winner

Sandy Stuttgen
Agriculture Educator
UW-Extension
Taylor

Three different issues (Spring, Summer, Fall) of the newsletter were mailed to 1,139 Taylor County agriculturists in 2015, for a total of 3,417 distributed. Mailing addresses were derived from the 2014 WI DATCP dairy producers list, Taylor County landowners provided by the Taylor County Land Conservation office and addresses of those served by Taylor County Farm Service Agency in Taylor County and immediately adjacent areas. The newsletter is mailed with both male and female operators included on the address label.

NATIONAL FINALISTS

Jeff Fisher
Extension Educator

The "Ag NEWs" is a quarterly publication of this educator that provides current information regarding new developments, technology, and management information in the fields of Agriculture and Natural Resources. Over 300 farmers and landowners are directed towards new approaches and educational events at the local level. Articles are a combination of self-authored and resourced materials that are written and edited to also be utilized in other media outlets that can cover a ten county area. Office support assists with newsletter layout and duplication on office equipment. The majority of recipients receive the newsletter by mail with some clients and peers receiving the newsletter in electronic format. Readers report the usefulness of the information received through adoption of new ideas and attendance at educational events.

Libby Eiholzer
Bilingual Dairy Specialist
Cornell Cooperative Extension
NWNY Dairy, Livestock & Field Crops

The Dairy Culture Coach is a bilingual newsletter created to better serve dairy farm managers and their Hispanic employees in New York State. Included in the quarterly issues are articles offering tips to help employers and employees with language learning, educational materials to teach employees about the many aspects of working on a dairy farm, information to support managers' understanding of the cultures and countries that their employees come from, and dairy-related vocabulary. Readers frequently suggest topics for future articles, which helps to keep the content relevant and timely. The newsletter is distributed via email to 93 dairy producers as well being offered on the website of Cornell Cooperative Extension's Northwest New York Dairy, Livestock and Field Crop Team, www.nwnyteam.cce.cornell.edu.

Note: *The Dairy Culture Coach* was previously published as *El Sostento.* The name was changed to help English-speakers better remember the newsletter's title!

James J. Barrett
Ag & Natural Resources Extension Agent
WVU Extension Service
Wood

The Wood County Connection is distibuted to over 300 agriculture producers in Wood County, West Virgina. The newsletter is also distributed at the local Farm Service Agency Office, Natural Resource Conservation Office and Little Kanawha Conservation Office as well as at local agriculture meetings and workshops. The Connection Newsletter includes updates and information on agriculture related workshops, conferences and meetings in Wood County and the surrounding Mid-Ohio Valley. The Connection also has research based information on growing vegetalbes in the "Gardening Corner" and timely recommendations for hay and pature production and grazing in "Power in the Pastures". Forage production accounts for 96% of farmland use and a majority of land is used for livestock production with beef cattle. Many fact filled articles in the Connection are geared toward beef cattle production and management. The newsletter is distibuted quarterly and also includes information on other WVU Extension programs including 4-H Livestock, Families and Health and available scholarships.

Farmer feedback has been excellent for information updates and timely articles. Agriculture Newletter was started by Agent

BArret in 2010. The newsletter also contacts the local Farm Burea, FSA and NRCS to include information from those organizations in the Wood County Connection.

Newsletter, Team

National Winner

Wycoff, C.L.*[1], Burns, M.G.*[2], Beer, B.L.*[3], Craig, L.D.*[4], Starnes, A.R.*[5], Barnes, J.M.*[6], Hall, M.A.*[7], LeMaster, C.T.*[8], Van Vlake, R.L.*[9], Warner, M.B.*[10], Smith, W.B.*[11], Helm, J.D.*[12], Horn, T.M*[13], Krugler, C.A.*[14]

[1] Area Livestock and Forage Agent, Clemson Extension, Laurens, SC, 29360
[2] State Beef Specialist, Clemson Cooperative Extension, Clemson, SC, 29634
[3] Area Livestock and Forage Agent, Clemson Cooperative Extension, Lancaster, SC, 29720
[4] Area Livestock and Forage Agent, Clemson Cooperative Extension, Pickens, SC, 29671
[5] Area Livestock and Forage Agent, Clemson Cooperative Extension, Chesterfield, SC, 29709
[6] Senior County Extension Agent, Clemson Cooperative Extension, Hampton, SC, 29924
[7] Extension Associate, Clemson Cooperative Extension, Clemson, SC, 29634
[8] Area Livestock and Forage Agent, Clemson Cooperative Extension, Gaffney, SC, 29341
[9] Area Livestock and Forage Agent, Clemson Cooperative Extension, Florence, SC, 29505
[10] Senior Extension Agent, Clemson Cooperative Extension, Walhalla, SC, 29691
[11] Senior Extension Agent, Clemson Cooperative Extension, Laurens, SC, 29360
[12] Extension Veterinarian, Clemson Livestock Poultry Health, Columbia, SC, 29229
[13] State Extension Dairy Specialist, Clemson Cooperative Extension, Newberry, SC, 29108
[14] Extension Veterinarian, Clemson Livestock Poultry Health, Columbia, SC, 29229

A team newsletter was developed for the purpose of distributing timely educational articles and announcements to Extension clientele with interests in subject matter pertaining to the production of livestock, hay and pastures. Articles for the electronic newsletter are prepared by Clemson Livestock and Forage Agents, Specialists, and State Livestock and Poultry Health Veterinarians and assembled by agent and newsletter editor, Cassie Wycoff. Program Team Leader and State Beef Specialist, Dr. Matthew Burns, conceived the concept for the collaborative email newsletter, and encourages participation among agents while contributing regularly. The newsletter is emailed to a list of approximately 1,037 people throughout South Carolina and surrounding states and shared with the 830 social media followers, through the use of an online email marketing software. The software allows for a sign-up form, so those interested can 'subscribe' to future email distributions. The number of "clicks" the email generated, also tracked by the software, identifies the number of times the newsletter was opened, even when forwarded to a non-subscriber. 'Clicks' for the first two newsletters totaled 2,171 and 2,396, respectively. The newsletter archives are also housed in PDF format on the team's webpage for clients to locate and reference. Articles from the first two editions were re-printed and appeared in the Southern Livestock Standard's Special Edition magazine and the Angus Beef Bulletin EXTRA, extending the impact far beyond the initial reach.

Buehl, Eric*[1], Dindinger, Jennifer*[2], Rockler, Amanda*[3],

NATIONAL FINALISTS

Fishburn, J.L.*[1], Allsup, K.*[2], Black, B.*[3], Ellson, K.*[4], Enroth, C.*[5], Ferree, R.*[6], Hentschel, R.*[7], Holsinger, A.*[8], Johnson, K. L.*[9], Kreith, N.*[10], Miller, C.*[11], Nelson, J.S.*[12], Smith, M.A.*[13], Wahle, E.*[14]

[1] Horticulture Educator, Logan-Menard-Sangamon Unit, Springfield, IL, 62707
[2] Horticulture Educator, Livingston-McLean-Woodford Unit, Bloomington, IL, 61704
[3] Horticulture Educator, Carroll-Lee-Whiteside Unit, Sterling, IL, 61081
[4] Horticulture Educator, Cook County Unit, Rolling Meadows, IL, 60008
[5] Horticulture Educator, Henerson-Knox-McDonough-Warren Unit, Macomb, IL, 61455
[6] Horticulture Educator, Fulton-Mason-Peoria-Tazewell Unit, Havana, IL, 62644
[7] Horticulture Educator, DuPage-Kane-Kendall Unit, St. Charles, IL, 60174
[8] Horticulture Educator, Christian-Jersey-Macoupin-Montgomery Unit, Hillsboro, IL, 62049
[9] Horticulture Educator, Calhoun-Cass-Greene-Morgan-Scott Unit, Jacksonville, IL, 62650
[10] Horticulture Educator, Cook County Unit, Matteson, Il, 60443
[11] Horticulture Educator, Boone-DeKalb-Ogle Unit, Oregon, IL, 61061
[12] Horticulture Educator, DeWitt-Macon-Piatt Unit, Decatur, IL, 62521
[13] Horticulture Educator, Henry-Mercer-Rock Island-Stark Unit, Milan, IL, 61264
[14] Horticulture Educactor, Madison-Monroe-St. Clair Unit, Collinsville, IL, 62234

Gardener's Corner is a quarterly print newsletter written, edited and published by University of Illinois Extension. The purpose of the newsletter is to provide timely, relevant statewide home gardening information to interested clientele. Horticulture educators across the state contribute articles on a rotating basis. Articles are reviewed by fellow educators or campus specialist for content and information technology staff provide design and editing service for the newsletter. The newsletter is professionally printed in full

color, including photos to support each article. The *Gardener's Corner* newsletter was relaunched on a larger state-wide basis with volume 11, issue 1 in August 2015. The fall 2015 issue included six articles with 20,200 copies distributed state-wide including more than 500 copies handout out by educators at the University of Illinois Extension booth at the Illinois State Fair. The winter 2015 issue included seven articles with 16,700 copies distributed state-wide. The spring 2016 issue included seven articles, with 20,200 copies distributed state-wide. Each Extension Unit is provided 100 copies of the newsletter and has the option to order additional copies from a designated campus coordinator. County offices share the newsletter with clientele by direct mail or distribute at garden programs.

Rhodes, J.*[1], Behnke, D.*[2], Richards, N.*[3]
[1] Agent, Agriculture & Natural Resources, University of Maryland Extension, Centreville, MD, 21617
[2] Faculty Extension Assistant, University of Maryland Extension, Elkton, MD, 21921
[3] Faculty Extension Assistant, University of Maryland Extension, Chestertown, MD, 21620

Communication is a very important component of Extension. The vehicle of communication for the Upper Shore Cluster, Cecil, Kent, and Queen Anne's Counties Agriculture and Natural Resources programs is in the form of a newsletter. The newsletter contains a calendar of educational workshops and events, short pieces of writing on university and extension meetings/workshops, articles from the county extension educators. The target audience includes the following: farmers, producers, land owners, citizens of the community, non-profit organizations, governmental agencies, university staff and private industry. 1350 newsletters are distributed monthly, 758 of which are mailed through the postal system and 682 are sent through an email listserv. The listserv is available through the University of Maryland and maintained by the Agriculture & Natural Resources Administrative Assistant. The newsletters are also posted to the state and county extension websites:http://extension.umd.edu/news/newsletters/agline-upper-shore-cluster-newsletter-1

Bertoldo, J.*[1], Eiholzer, Libby*[2], Petzen, Joan*[3]
[1] Area Dairy Specialist, Cornell University Cooperative Extension, Batavia, NY, 14020
[2] Dairy Specialist, Cornell Cooperative Extension, Canandaigua, NY, 14424
[3] Area Farm Buiness Management Specialist, Cornell University Cooperative Extension, Warsaw, NY, 14569

Libby Eiholzer, Joan Petzen and Jerry Bertoldo are three of seven members of the Northwest New York Dairy, Livestock and Field Crops Team of Cornell Cooperative Extension covering ten heavily agricultural counties in the western part of New York State. The team publishes a 20-24 page (inclusive of advertising), monthly newsletter called AgFocus. Layout and editing are done in house. Printing is provided by a local business. The majority of articles are written by team members. Topics include health and husbandry for dairy and beef producers, small farms, agronomy, pest management, farm business management, employee training, farmstead planning, new technologies and field research.

The NWNY Team region covers nearly 1.5 million of New York's 7.2 million acres of cropland or 22% of the state total. Dairy represents the majority of agricultural receipts in the area at $650 million. The newsletter's producer audience is represented primarily by dairy farmers and their employees, corn and small grain growers and hay forage enterprises. County Extension offices within the region, consultants, nutritionists, veterinarians, Extension agents and industry personnel receive the newsletter as well.

Libby Eiholzer, a bilingual dairy specialist, writes about managing employees both local and Hispanic, safety training, public perception isssues and updates on internet education. Joan Petzen, a farm business management specialist, pens articles on dairy markets, risk management, farm acounting and financial opportunites. Jerry Bertoldo, a veterinarian and dairy specialist, covers health issues, antibiotic regulatory concerns, heifer management and forages. .

Approximately 720 individuals receive the newsletter every month, about half as a mailed hard copy and half electronically.

Personal Column

National Winner

Moore, S. *[1]

[1]Senior Extension Dairy and Human Resource Management Educator, Michigan State University, Bellaire, MI, 49615

The purpose of this column is to share employee management principles with dairy owners and managers. The column seeks to help managers build employee management skills and leadership skills that will help move the business forward and help employees succeed on the farm. The editor of Dairy Business East approached the author after seeing news releases in major media publications. The column was published every other month in 2015, with Phil Durst (MSU Extension) providing three articles and Stan Moore providing three articles. Two of the articles written by Moore included "Are you being fair with all of your employees" and "How are you communicating with your employees and your management team". The latter article was also included in Dairy Business West. Circulation for Dairy Business East is 15,000. Circulation for Dairy Business West is 10,000.

Research conducted by Moore and Durst over the past two years heavily influenced the articles. The research involved 13 farms across four states, and included anonymous input from over 170 employees. Outcomes from the research included management reports back to producers, several speaking opportunities in-state, out of state, and internationally, as well as this personal column. Through columns such as this, the author seeks to elevate the discussion of employee management principles, and encourage owner/managers to develop their skills in this management area.

NATIONAL FINALISTS

Karen Anderson
Extension Educator
University of Minnesota Extension
Rice & Steele Counties

The purpose of these two articles is to bring to light several topics that dairy producers in Minnesota should be aware of. I accomplished this task by pinpointing topics that are both timely and informative. In a time with aging farmers, additional information about where to start when transition and estate planning is essential to help transfer the farm to the next generation. The other article was written to emphasize the importance of responsible use of antibiotics on dairy farms due to the increase in consumer awareness and antibiotic resistance issues. These articles are part of the "U of M Dairy Connection" articles contributed to the Dairy Star for print & digital online release from the University of Minnesota Extension Dairy team. The Dairy Star reaches approx. 17,000 dairy producers and businesses in MN and part of SD, WI and IA. Overall, articles such as these provide dairy producers needed information to make educated decisions on their dairy operations.

Heather A. Weeks
Extension Educator 4
Penn State Extension
Cumberland County

This monthly column is a feature in the "Market Moovements" section of Lancaster Farming edited by Jessica Rose Spangler. Lancaster Farming is a weekly print publication with a circulation of 57,750 online and in print. According to Spangler, "Market reporting is growing and changing to meet the needs of today's agriculturalists. 'Market Moovements Monthly' will provide readers more information they can use in their businesses." The column is published monthly along with other pieces contributed by faculty from Cornell University and the University of Vermont. The goal of the section is to expand on the weekly agricultural market reports to help readers understand where the dairy market is headed. This column focuses on Pennsylvania dairy perspectives and trends in the industry. Each column aims to bring the market conditions to the farm level, and give producers tools to better manage their farms. Each column is 500-800 words and uses examples, tables and graphs to help make sense of the market reports. Website: http://www.lancasterfarming.com/market-moovements January Column: http://www.lancasterfarming.com/news/Pa--Milk-Prices-Look-to-Stay-low-Through-2016 February Column: http://www.lancasterfarming.com/agriculturalinformation/Managing-Milk-Income-at-Home

Jeffrey E Banks
Agriculture/4-H Youth Agent
Utah State University
Juab County

In as a regular feature in the weekly published "The Times News". The news column provides information on a variety of topics and is distributed to 1700 households in Juab County, which covers nearly all of the county residents. In addition to the printed newspaper version, the news column is also available on the Juab County Extension website: www.extension.usu.edu/juab. Some of the 26 news column titles published during this past year include: "Dormant Sprays 101", "Making Grow Boxes", "Don't Lose Your Green Thumb", How to Battle Your Yard Safely", "Conserving Water in the Home Yard", "Thanks For The Support"," Why Do We Eat Turkey on Thanksgiving", "Winter Driving Safety", and "Longing for Spring". Since the author is the only agent with an Agriculture and Horticulture assignment, the agent has the responsibility of providing the information in these areas. In addition to providing information, the news column has increased the visibility of USU Extension in the county and informed readers of resources and staff support available to assist them. Through the years, the author has received many thanks from county residents for providing these helpful news release.

Program Promotional Piece

National Winner

Miller, D.L.*[1]
[1] Extension Educator, Penn State Cooperative Extension, Pottsville, PA, 17901

This promotional flyer was developed by the candidate for the 2016 Schuylkill County Ag Day. This meeting features cooperation between 4 agricultural related agencies within Schuylkill County. The meeting focuses on topics relevant to various types of agribusinesses within the county and beyond. 23 local agribusinesses participated in the trade show, along with 5 local agricultural agencies. Reproduced in full color, approximately 650 copies of the flyer were distributed through direct mail, and another 100 copies at local educational meetings. The PDF was also emailed to local email lists through

Extension, Farm Bureau, and the Conservation District. The meeting was attended by 142 participants across a 4-county area.

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NATIONAL FINALISTS

Sanders, C.*[1]
[1] County Extension Director, Gainesville, FL, 32609

The purpose of this promotional piece was to market a 2-part workshop. This workshop focused on 4-H and FFA exhibitors in the morning session, and homestead poultry in the afternoon. This promotional piece was developed in Publisher at the Alachua County Extension Office. This marketing piece was e-mailed to 2000 citizens through the Extension list serve, Alachua County Extension website, and television channel 12. This piece was also included in the Gainesville Sun's calendar of events, circulation 95,000. In addition, the promotional piece was placed in about 15 different agri-businesses around Alachua County. The promotional piece was also sent out to all 4-H agents in the Northeast Extension District. The purpose of the workshop was to increase knowledge in the areas of poultry selection, health, nutrition, housing, and preparing birds for show. The workshop was attended by 35 4-H and FFA youth, and 30 citizens interested in backyard poultry. As a result of the workshop, 92% of attendees both youth and citizens expressed an increase in knowledge in the areas of poultry production.

Tedrow, A.*[1]
[1] County Extension Agent, University of Georgia, Athens, GA, 30606

In 2015, Athens-Clarke County Extension wanted to attract new Extension clientele and introduce them to its educational programming. Unfamiliar with Cooperative Extension, more and more county residents were turning to the Internet for often unreliable lawn and garden information. In order to engage this population, the Extension agent designed a promotional poster to advertise the Athens-Clarke County Extension 2015 Monthly Gardening Class Series. Taught by Athens Area Master Gardener Extension Volunteers, these free classes were open to home gardeners of all levels. The letter-size promotional poster was suitable for print and electronic media outlets, featuring a balance of vibrant image, text, and whitespace. The tagline, "Let Your Home Gardening Knowledge GROW!" identified the target audience as home gardeners. The poster included the complete 2015 series schedule and registration information. Support staff posted the printed version at local garden centers, cafes, and public spaces. Staff reduced the poster size by half, and Master Gardeners distributed the smaller version to hundreds of farmers market and community event attendees. As a PDF, the poster appeared on community event websites, multiple Facebook pages, and the UGA Extension calendar. It was also included in the monthly Athens-Clarke County Extension e-newsletter, which is distributed to 1,200 local subscribers. The poster was successful in drawing new Extension clientele: the series attendance increased by 41% from 181 individuals in 2014 to 224 individuals in 2015. Of the attendees surveyed, an estimated 44% learned of the classes through the promotional poster, either in the print or online format.

Long, T.*[1], Deitch, U.*[2]
[1] Extension Agent, ANR, Virginia Cooperative Extension, Accomack, VA, 23301
[2] Extension Agent, ANR, Virginia Cooperative Extension, Machipongo, VA, 23405

Pollinator Habitat Fall Workshop, Dec. 2015. Pollinators are important to all aspects of agriculture production. With the increased use of pesticide products and other environmental changes pollinator populations are decreasing. In order to build the pollinator population, habitats need to be established and growers need to be educated of this process. VCE, and other local cooperators have come together to establish a 3-part series on pollinator habitat establishment. Local efforts are focused on educating the public, landowners as well as local growers on how to increase attempts to build pollinator habitat as well as protection of biological pollinators. The result was a local working group with cooperation between multiple partners and a three part series of workshops that spans 2015 and 2016. Marketing efforts through email, advertisements, newsletters, social media and other marketing efforts resulted in over 200 advertisements dispersed and 38 participants registered for the Workshop.

Publication

National Winner

Wollaeger, H.M.*[1], Cloyd, R.*[2], Smitley, D.*[3]
[1] Greenhouse Extension Educator, Michigan State University Extension, Nazareth, MI, 49074
[2] Professor and Extension Specialist in Horticultural Entomology, Kansas State University, Manhattan, KS, 66506
[3] Professor of Entomology, Michigan State University Extension, East Lansing, MI, 48824

Greenhouse growers in the United States are increasingly using biological control as their primary insect management strategy due to increasing pest resistance to insecticides and increasing social and political pressures to decrease pesticide use. There are 4,849 producers (that sell over $10,000 worth of crops) of floriculture crops that contribute $4.07 billion to the United States' economy. Only approximately 15% of greenhouse growers in Michigan, which is the third largest floriculture producing state, are currently using biological

control. As growers begin to adopt these new practices, there will be a need for a practical identification guide and recommendations on how to use the 29 commercially-available beneficial insects in an insect biological control program. This bulletin presents key facts, photos, and descriptions of the management strategies for western flower thrips, whitefly, aphids, two spotted spider mites, mealybugs, and fungus gnats. Within two months, it has had 92 downloads off of the Michigan State University Extension website. Over 200 have been distributed at the 2015 regional event "Greenhouse Growers Expo," which drew approximately 325 people to attend the 16 greenhouse educational sessions.

NATIONAL FINALISTS

Bakacs, Michele*[1], Melendez, Meredith*[2]
[1] Environmental Resource Management Agent, Rutgers Cooperative Extension, North Brunswick, NJ, 08902
[2] Agriculture and Resource Management Agent, Rutgers Cooperative Extension of Mercer County, Trenton, NJ, 08648

In January 2014, legislation was adopted in New Jersey authorizing public schools to serve students the produce grown in community gardens. The legislation requires that the soil and water used in the garden be tested for contaminants. In addition, the produce must have been handled, stored, transported, and prepared in accordance with applicable health and sanitation requirements.

In light of these new rules, Ms. Bakacs and Ms. Melendez wrote this publication to provide gardeners with guidance on meeting testing and food safety requirements. The average community/school garden leader may not know where to start when it comes to figuring out *whether* they need to be testing, *what kind* of testing to conduct, or the food safety best practices to implement. This publication summarizes those complicated details in one document.

Guidance is included on determining which soil contaminants to test for in new verses older gardens, in addition to soil objectives for comparing test results. Recommendations for *E. coli* testing frequency and timing for different sources of irrigation water are detailed. Lastly, good gardening practices are outlined such as hand washing, animal manure based composts, wildlife and pets, and post-harvest handling.

This publication has been distributed 1,250 times via school garden and urban agriculture conferences, Master Gardener (MG) lectures, and social media networks. It will be used as a part of a new state-wide MG training curriculum aimed at teaching MGs how to provide assistance to groups in starting school and community gardens. This publication is available for download at http://njaes.rutgers.edu/pubs/publication.asp?pid=E350.

Banks, S. N.*[1], Bradley, L. K.*[2]

[1] County Extension Director/Agriculture Agent, North Carolina Cooperative Extension, Carteret County, NC, 28557

[2] Extension Specialist, Urban Horticulture, North Carolina State University, Raleigh, NC, 27607

The reason for producing this publication on vegetable gardening was the other publication was nearly 30 years old and it was produced for a more advanced gardener. With more people wanting to get back into gardening there was a need for something simple to help them choose a good site for the garden and learn some of the basics to getting started with planning, preparing, planting, caring for the garden and knowing when to harvest. Lucy and I wrote the publication, had it reviewed by other horticulture agents and Specialists, then it was sent to the communications department for final editing and assembly. This publication was distributed to all 100 counties in North Carolina through email and with a link to the website so they could print the publication on their own office printers (http://content.ces.ncsu.edu/home-vegetable-gardening-a-quick-reference-guide). I have used 132 copies when teaching gardening classes and Extension Master Gardener Volunteer training classes. Another 1,560 have been sent to other offices around the state for distribution. The website has been viewed 1,516 times since publication in September 2015.

Rader, H.*[1], McGuinness, Julianne*[2], Lewis, Sarah R-P*[3]
[1] Tribes Extension Educator, UAF Cooperative Extension Service, Fairbanks, AK, 99701
[2] former Executive Director of The Alaska Botanical Garden,
[3] Extension Faculty, Family and Community Development, University of Alaska Fairbanks Cooperative Extension Service, Juneau, AK, 99802

Perhaps due to warmer winters in recent years, there seems to have been more and more interest in growing garlic in Alaska, yet the University of Alaska Cooperative Extension Service had not published any information on garlic. I learned there was interest in garlic because a post on growing garlic in Alaska was the most popular one on the Alaska Master Gardener blog. This publication was a collaborative effort with the former director at the Alaska botanical gardener as well as with a specialist from our Home, Healthy, and Family Development Program who contributed garlic recipes. The publication can be found here: http://www.uaf.edu/ces/garlic/

Published Photo & Caption

National Winner

Danelle Mcknight Cutting
EXTENSION AGENT
NC COOPERATIVE EXTENSION
ROWAN

The caption of the photo reads: This is not a space alien feeding on a tree, it's a cedar apple rust gall.

The local Rowan County newspaper, Salisbury Post allows the Rowan County Cooperative Extension office to write weekly columns in Friday's Home and Garden section of the newspaper. The Salisbury Post reader base is always intrigued by odd or outer worldly photos about plants, diseases, insects and molds. This photo was during the prime season of Cedar Apple Rust and Quince Rust for Rowan County. The Extension office had received numerous calls and emails about what was attacking their trees so a timely article was needed.

Once the photo and article was submitted the Cooperative Extension office received additional calls about the cedar apple rust fungus and if that was the only thing affecting their beloved apple trees. This photo made a great connection to readers in the county because it was something they were interested in and it also encouraged them to contact the Cooperative Extension office for additional assistance. Great photos and timely articles aide agents with gardening questions and build rapport with the community.

NATIONAL FINALISTS

Curtis E Young
EXT EDUCATOR/Assistant Professor
The Ohio State University
Van Wert

This image was the lead image of seven published with an article entitled, "Leafminers "Flaming" Host Trees" in the Buckeye Yard and Garden onLine Newsletter, Issue 2015-18, August 6, 2015, Bug Bytes (http://bygl.osu.edu/bygl_archive2015/content/leafminers-flaming-host-trees-0). The emphasis of the article was the feeding damage by three species of insects on their host trees causing the trees to turn prematurely brown in NW Ohio. Two of the insects were closely related beetles, the basswood leafminer and locust leafminer, whose larval stages are leafminers on linden trees and black locust trees respectively. The third insect covered in the article was the mimosa webworm. All seven photos can be viewed at the above web address.

John Porter
Extension Agent
WVU Extension Service
Kanawha

This photo was one that I shot the first time I encountered houseplants at the local big box home store that had been dipped in paint. I made this photo the focus of one of my newspaper articles discussing how the paint would lead to health issues in the plant due to lack of photosynthesis and blocking of stomato for gas exchange. This photo and article illicited much discussion online about the practice. I even heard from a Master Gardener that works at this store that customers were commenting about the article and the practics as they were shopping in the garden center and looking at the plants.

Amy L Dismukes
Extension Agent
UT/TSU Extension
Williamson

How much damage can a bagworm really do? The bagworm, *Thyridopteryx ephemeraeformis,* is a very interesting landscape pest. The actual damage to trees and shrubs is caused when the caterpillar feeds on the foliage. In severe cases, these caterpillars can decimate a tree, causing severe if not complete defoliation, which often results in death. **photo caption: baby bagworm, just beginning to build its bag**

I was contacted by a landscape company last year in regards to a Weeping Cedar of Lebanon Tree, with concern about a slight browning of needles. This immature bagworm almost went unnoticed due to its inconspicuous size. About one-eighth of an inch in length, the bag looked like a broken peice of pine straw. To my amazement, a microscopic bagworm was just beginning to form its bag. The photo was utilized in an article for the Franklin Homepage on July 12, 2015 (reach of 1,400,000 residents annually in Williamson County, TN).

Video Presentation

National Winner

Handley, D.T.*[1]
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Red raspberries are a popular crop with home gardeners in Maine. Commercial acreage is also expanding, and the UMaine Extension bulletin "How to Grow Raspberries and Blackberries" is one of our most popular hard copy and most frequently viewed on-line publications. In an effort to enhance the educational value of our information and to expand its

accessibility, we have produced a series of YouTube videos regarding raspberry growing. The "How to Plant Raspberries" video was filmed at the Highmoor Farm Maine Agricultural and Forest Experiment Station in Monmouth in the spring of 2015. The script and staging were developed by the author with an informal "friendly advice" atmosphere coupled with scientifically sound information. We wanted the video to be short and relevant for both home gardeners and small commercial growers. The ten minute video was produced by the University of Maine and posted on YouTube and UMaine's YouTube.edu channel in May of 2015 (https://www.youtube.com/watch?v=Xju6QmusCJo). The video was also embedded within our on-line raspberry growing factsheet (http://umaine.edu/publications/2066e/) to give readers an alternate method of learning about the topic. They can simply click on the video within the fact sheet to see a demonstration. In just over ten months, the video has received over 13,500 hits. It is also being used to train Master Gardener Volunteers, and will be used by them to educate home gardeners.

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NATIONAL FINALISTS

Thompson, L.J.*[1], Ferguson, Richard*[2], Krienke, Brian*[3], Parrish, John*[4], Glewen, Keith*[5], Ingram, T.*[6], Krull, D.*[7], Luck, J.*[8], Mueller, N.*[9], Shaver, T.*[10]
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[9] Cropping Systems and Ag Technologies Extension Educator, University of Nebraska Lincoln, Lincoln, NE, 68583
[10] Associate Professor, University of Nebraska Lincoln, North Platte, NE, 69101

Project SENSE (Sensors for Efficient Nitrogen Use and Stewardship of the Environment) is a collaborative effort of University of Nebraska-Extension, Nebraska Corn Board, Natural Resource Districts, and USDA. The goal of the project is to encourage adoption of in-season nitrogen (N) application for corn. Through this practice we expect N use efficiency (NUE) will increase, reducing nitrate loss to groundwater. In year one of the project, 17 on-farm research experiment sites were completed, 5 field demonstration days were held, and 250 attended annual results meetings. This video was produced to extend our audience of crop producers, consultants, stakeholders, and policy makers by presenting material in accordance with the "any-time, any-pace, any-path, any-place" model of next-generation extension programming. The video serves to promote the project and educate the viewer on how crop canopy sensors can be used for in-season N management. In the 5 months the video has been available, county extension offices and NRD offices statewide looped the video over 10,000 times and the video was viewed on YouTube over 225 times. The video was also utilized by extension educators as they presented various winter programming related to nutrient management.

My contribution to this project was to prepare the video script, film field activities, and create the sensor animation. Members of our team also contributed to filming and were interviewed for the video. Final video assembly and production was completed through university media services.

Video on YouTube without captions: https://www.youtube.com/watch?v=gfAInZDdyfU

Video on YouTube with captions: https://www.youtube.com/watch?v=wY153OQMtCE

Rhodes, J.*[1], Moyle, J.R*[2], Tablante, N.L*[3]
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[3] Associate Professor/Extension Poultry Veterinarian, University of Maryland, College Park, MD, 20740

The 2014-2015 highly pathogenic avian influenza (HPAI) outbreak in the U.S. is the largest animal health emergency in the country's history. Avian influenza (AI) affects various species of poultry and outbreaks have resulted in severe economic losses to the poultry industry worldwide. In less than six months, over 48 million birds on 219 premises from the Pacific Northwest to the Midwest either died or were depopulated due to infection. While the disease was initially introduced by wild birds, the majority of farms were infected by people and equipment traveling between farms. This example shows the importance of biosecurity. Biosecurity can be defined as any and or all procedures used to prevent the introduction and spread of disease-causing organisms.

The University of Maryland Extension (UME) poultry action team, consisting of the three above authors applied for and received a USDA- NIFA Special Needs Grant. One of the seven objectives of the grant was to develop short (2-minute) biosecurity Vimeo videos demonstrating clear and concise step-by-step biosecurity procedures before entering and upon leaving a live poultry facility. One of the short videos was

created to educate backyard poultry producers. The script was written and edited by the three authors. Pictures for the video were also supplied by the authors. This video was part of a series of three biosecurity videos.

https://vimeo.com/154930147

Bakacs, Michele*[1], Smela, David*[2], Hlubik, William T.*[3], Weidman, Richard B.*[4]
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[4] Agricultural Program Associate, Rutgers Cooperative Extension of Middlesex County, North Brunswick, NJ, 08902

Rutgers Cooperative Extension (RCE) of Middlesex County has developed the first in a series of videos describing the restoration efforts within the Manalapan Brook watershed. The video titled "Restoring the Manalapan Brook Watershed: An Introduction" starts by describing urban watershed problems throughout New Jersey such as polluted stormwater runoff and flooding. Solutions such as naturalizing detention basins, shoreline restoration, and floating wetland islands are presented. The video was developed for NJ municipalities, residents, and schools. The primary objectives of the video are: 1- to inform local watershed communities about the restoration projects they are seeing in their neighborhoods; 2- to inform communities across the state about factors that impact our water resources and the importance of watershed planning and protection. Ms. Bakacs wrote and narrated the script and Mr. Smela was the videographer and editor. The video was funded by the NJ Department of Environmental Protection. It was played continuously at the 2015 Middlesex County Fair and local environmental festivals. It was a feature video on the RCE website, and has been viewed 416 times on https://www.youtube.com/watch?v=XaOlzRIGyXE. The video was used to teach approximately 100 Rutgers Master Gardeners, Environmental Stewards, and other volunteers about best practices for water quality protection. Results of evaluations (n= 49) indicated that these volunteers felt the video helped them understand the importance of watershed protection and specific actions they could implement at home to reduce stormwater runoff and improve water quality (mean= 4.4, Likert scale out of 5= strongly agree).

Website

National Winner

Siegle, L.*[1]
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Many consumers lack significant exposure to agricultural production and some hold adverse attitudes towards agriculture in response to misinformation they have encountered. Most consumers have limited opportunities to engage directly with farmers. In 2013, the Amelia agriculture agent determined that a blog with a "Meet Your Farmer" premise could effectively bridge the consumer-farmer connection gap and bring outreach to local and long-distance consumers seeking information about modern agricultural practices. The blog, titled "Central Virginia Ag Spotlight," features monthly illustrated stories about Virginia farmers. 40 stories have been shared to date. The blog is marketed via social media, webpages, and newsletters. Impact is tracked via Google Analytics, conversations, site comments, and social media. By January 2016, the site had 28,638 views by 14,034 users. 20% of traffic comes from returning visitors. Social media links to the stories garnered hundreds of likes, shares, and comments, and 24 people left comments directly on the blog website. In 2015, over 30 people contacted agents for help or information as a direct result of reading the blog. Several readers sought follow-up tours of featured farms. Four blog stories were reprinted in *Virginia Cattleman*. One was reprinted in *The Virginia Forager* and one was reblogged by the Farm Credit Knowledge Center. Three were used as feature stories in two newspapers.

Blog Sample: http://blogs.ext.vt.edu/central-virginia-ag-spotlight/2016/01/01/meet-bobby-maass/

NATIONAL FINALISTS

Kluchinski, D.*[1]
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The Rutgers NJAES Program Evaluation Resources website (www.njaes.rutgers.edu/evaluation/resources/) was created and developed to provide information and resources on program assessment and evaluation. As a Department Chair, my clientele – field faculty and staff – indicated via a needs assessment the desire for such a resource. The goal is to help the user learn skills and techniques to better evaluate educational programs and assess their impact on personal, social, environmental or financial parameters. Although intended for novice program evaluators who are learning, and novice or competent program evaluators who are honing

their skills, the site offers a wide range of informational and educational materials that can enhance anyone's knowledge and skill levels. The over 160 resources are grouped by 12 strategies and skills involved with program development, implementation, assessment and evaluation, and analysis and reporting of findings. The resources include practical tools such as how to guides, fact sheets and other self-help and training materials for individuals or groups. Journal articles that provide evaluation theory and research on methodologies as well as real world examples of evaluation in practice are also included. A description of the contents of each resource was created to provide a quick overview of the contents. Included is a hyperlink to the publically accessible document, and an indication of the file type, if appropriate. The site was conceived and created by the author and is maintained with assistance of an internal web designer.

Connelly, R.*[1], Weeks, H.A.*[2]
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The Penn State Extension Dairy Team Facebook Page was created in May of 2010. It is used to promote upcoming Dairy Extension events including workshops and webinars, promote new resources, sharing of pictures and video from extension activities, and sharing of important and timely information. The page can be found here:https://www.facebook.com/PennStateExtensionDairyTeam. As of March 15th, 2016, total page likes for the Penn State Extension Dairy Team Facebook page was 2,131. The two top posts with the highest engagements were "The Penn State Particle Separator" developed and used by Penn State extension with a reach of 4,315 people with 95 reactions comments and shares (https://www.facebook.com/PennStateExtensionDairyTeam/posts/1016752225014358) and "SAFE TIP SATURDAY!" warning of the dangers of noise induced hearing loss in agriculture with a reach of 3,555 people, 216 clicks, and 161 reactions comments and shares (https://www.facebook.com/PennStateExtensionDairyTeam/posts/996102933745954). Most fans of the Penn State Extension Dairy Team Facebook Page are located in the US (1,212) followed by Egypt (138), Pakistan (83), and India (72) plus 41 other countries. Facebook has allowed the team to share information with a broader audience across Pennsylvania and the world.

Porter, J.*[1]
[1] Extension Agent, WVU Extension Service, Charleston, WV, 25304

www.wvgardenguru.com

The WV Garden Guru website is an online repository for articles that I write for the Charleston Gazette-Mail, the state's largest and most widely distributed newspaper. This website gives access to the articles outside of newspaper subscribers and makes content easily shareable on social media, including the National Extension Master Gardener Facebook Page and my work Facebook Page. Content on the site is automatically shared to Facebook, Twitter, and LinkedIn. This allows the work to reach both older, traditional audiences and emerging extension audiences. In 2015, the page was viewed 19,934 times by people in 101 countries. So far in 2016, the site has received 2,649 views from 53 countries.

NACAA Member Presentations

2016 NACAA

101st
Annual Meeting
and
Professional Improvement Conference

Little Rock, Arkansas

4-H & Youth

DOG BITE PREVENTION

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According to the CDC (Center for Disease Control), over 4.7 million dog-bite incidents occur in the U.S. every year, 800,000 of those will need medical attention. Half of those 4.7 million dog bite incidents involve children, and 386,000 will need emergency treatment. 20-30 of these dog bites will result in death.

As a new Agriculture and Natural Resources Agent as of Jan. 2015, I started a dog bite prevention program in Towner County, ND. In March of 2015, I was able to reach 100 students from ages 7 to 14 before school ended for the year.

I always start the program with a raise of hands of "who has ever been bitten by a dog?", and I watch as the hands shoot up in the air. Some might ask what this has to do with agriculture? 90% of the time, a dog is the first animal you see when you step foot on the farm, it is part of farm animal safety. Most of us in rural neighborhoods are visited by free running dogs with no owner and no leash. Finally, a lot of county fairs have a "pets" category, and there are multiple dogs that attend that are not trained!

I am lucky to have been trained in this program, along with my dog for the past 5 years. I start the presentation with the statistics of dog bites every year, then we discuss how kids should know what dogs are safe to pet in different situations. I follow this discussion with how to "ask for permission", and then finally, using a safety procedure I show them how to approach a dog to pet them safely. They are shown many scenarios and are able to practice what to do if a strange dog runs up to them, they do this by "stand like a tree" or "lay like a log". I walk my dog around them as they practice so they know what it might be like in the ideal situation. At the end of the program they get to practice how to safely pet a dog.

I am able to use my love for animals through different programs, but this is my favorite. It would be easy for other agents to take back to their county and incorporate dog bite prevention into their ag. safety programs!

40 YEARS OF EDUCATION THROUGH THE JUAB COUNTY FAIR STEER CARCASS CONTEST

*Banks, J. E.[1]
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Evaluation of beef quality is important to producers, meat packers and retailers, and consumers. Consumers desire cuts of beef that are lean, nutritious, and possess desirable eating characteristics. Researchers have developed methods for measuring factors that influence eating characteristics and yield of lean cuts. Using these evaluation techniques, beef carcasses can be produced that meet consumer demand. For the past 40 years, Juab County has conducted a steer carcass contest for 4-H and FFA members exhibiting steers at the county fair. The purpose of the steer carcass contest is to assist youth, leaders, and parents in: 1) learning cattle grading basics, 2) learning the correlation between live cattle quality and carcass quality, 3) producing high quality and high yielding carcasses and 4) promoting a desirable, marketable product. During the 40-year period, 1279 head of steers have been entered in carcass contests. Carcass data during the first 37 years was gathered from local independent processing plants. For the past 3 years, the data has been collected by ultra-sound. The results are used by members to evaluate each year's steer project, and by cattle producers to keep or cull bulls or cows. Because of the excellent reputation the members have for raising steers for the county fair and carcass contest, over 95% of the steers have been purchased by individuals for locker beef during the past ten years. As a result of the 40 years of contests, over 1200 youth and 2400 adults have received training in beef carcass evaluation.

CAREER EXPO SHOWS AG ISN'T JUST COWS AND CORN

*Burdine, B.[1]
1. Regional Agronomy Specialist, Mississippi State University, New Albany, MS, 38652

Young people rarely think about their future and they often think agriculture means corn or cattle. To help with both issues, I helped develop the career expo «Imagine the Possibilities» for Northeast MS. This expo was different than most as it was designed to be hands-on, interactive and unforgettable. We had over 1000 professionals assist over 3300 8th graders to show them careers they never imagined. Agriculture played a large role in the expo as I solicited fellow experts from agronomy, entomology, animal science, horticulture, food science GeoResources and others to show young people that agriculture leads the way in technology discoveries. They were surprised to see how we change the world and what we mean to their daily lives. Numerous students indicated a desire to pursue an education in the ag field after high school. The best time to share our positive story and to lead bright young minds toward agriculture is while they are young and open-minded.

4-H YOUTH ADVENTURE CAMP

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Wyoming is a state rich in natural resources. These consumptive and non-consumptive resources diversify our economy. Therefore, the University of Wyoming (UW) Extension has a vested interest in promoting natural resource education. Educating young citizens enables them to make informed decisions for Wyoming's lands and natural resources while

becoming better stewards of our great state's natural resources.

Additionally, 4-H has a mission to promote learning through Science, Technology, Engineering, and, Mathematics (STEM) leading to non-traditional STEM lessons for youth outside the classroom. Presently, natural resources skill development in Wyoming 4-H is lacking. Traditional 4-H projects like livestock husbandry and horse judging typically take center stage in many Wyoming 4-H programs. According to the 2011 UW Combined Research and Extension Plan of Work, "Despite the many natural resources-related opportunities, many Wyomingites are not directly tied to natural resources and agriculture. This results in lack of knowledge and experience regarding natural resource systems, their management and the industries they support (pg. 56)."

A Team of UW Extension Educators with various natural resource topical expertise; organized with the goal of addressing the need to encourage youth from within our state to select career track choices in natural resources throughout the state. This team hopes to encourage these youth to select educational tracks that will lead to careers in renewable and non-renewable natural resource fields, within the state, once they reach college. The team has also partnered with professionals from natural resource agencies to share about career opportunities in these topics.

IMPACTS OF HOG SHOW PROGRAM ON 4-H YOUTH

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The purpose of the Union County Hog Show Program was to increase the 4-H participation in Livestock Projects which started with one participant in 2013. By 2015, participation grew to seventeen participants, five of which were second generation 4-H members. Showing livestock teaches responsibility, compassion for animals, sportsmanship, and awareness of food animal husbandry. The Hog Show Project provided an affordable, short term project requiring resources many families in a rural community already possess. Educational meetings, hands on demonstrations, and skillathon practices were held weekly to enhance the learning process. As a result, seventeen 4-H members participated in the project showing twenty-three hogs in a Multi-County Hog Show Program at the County, Region, and State Level in 2015. This is 150% increase in the number of 4-Hers involved in Livestock Showing, which concurrently increased participation in other 4-H programs, events, & contests. Swine Skillathon scores from 2014 to 2015 increased at the Region and State Level. Creative fundraising, education, program promotion via newspaper and social media, and advertising the sale of show animals made a financial impact of $4,000 in fundraising for awards and supplies, $3500 in the sale of show animals, and increasing 4-H participation in Judging Teams, Honor Club, Contests, and Portfolios. Skills learned by participation in 4-H Youth Development Programs are invaluable to small, rural communities with limited resources for developing leadership, responsibility, communication, and problem solving skills.

GROWING FROM THE ASHES: OVERCOMING FAILURE

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Fifty years ago kids spent their days working on the farm, doing jobs around the house, and spending all their free time out in the open world. They had a freedom that few youth experience today. With that freedom came many opportunities to make choices, some good, some not so good. From these experiences youth developed an appreciation of, and learned from the consequences of their action. They learned how to improve upon success and overcome disappointment and failure. Today, well-meaning parents often "hover" over and around their children, trying to protect them from the chance of "failure". Failure is viewed by many as a negative experience that will impede their child's development. This presentation will explore this issue of "Failure" and how the opportunity, or the lack thereof, potentially impacts our youth today. The presentation will entail some power point, small group discussion, and small and large group activities that will teach the principles and tools they can use to provide an environment where youth can feel safe to make mistakes, grow and learn from them and move on. Participants will receive a full set of the activities we will do along with other helpful tips.

THE 6-12 AMERICAN CHESTNUT EDUCATION PROJECT

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The American chestnut (*Castanea dentata*) offers a compelling story of how forests change and why some management is needed to maintain native forests. Prior to 1900, American chestnuts and oaks predominated in over 200 million acres of forest from Maine to Florida and west to the Ohio Valley and were integral to everyday life in the United States. In 1904 the Blight was first discovered on the American chestnut at the Bronx Zoological Park. Within 60 years, having no resistance to the blight, an estimated 40 billion American chestnuts were wiped out. The American chestnut is a key species for engaging students from middle to high school in hands-on scientific exploration, project-based learning, civic tree plantings, and environmental awareness.

The 6-12 American chestnut education project is multi-partner collaborative lead by University of Maryland Sea Grant (MDSG) and University of Maryland Extension (UME) that engages students in hands-on scientific exploration and project-based learning through: 1) an enhanced online curriculum with explicit connections to Next Generation Science Standards (NGSS), Common Core State Standards, and Maryland Environmental Literacy Standards; 2) teacher professional development; and 3) chestnut grove research and restoration.

During summer 2015, a team of teachers, administrators

and university faculty participated in a curriculum-writing workshop and professional development training. Teachers, with support from MDSG/UME, implemented both the curriculum and chestnut grove student-driven projects during Fall 2015. Early outputs and impacts of the project include:

* A new online teaching resources
* 2 new student planted American chestnut groves on school campus
* Total of a new half acre of forest planting that will remove 2.36 lbs of nitrogen, .10 lbs of phosphorus and 15.50 lbs of total suspended solids per year, along with sequestering ~4000 lbs of carbon per year.

An analysis of effectiveness of the curriculum and projects in meeting STEM and ELit goals is ongoing (anticipated summer 2016).

Administrative Skills

BREAKFAST ON THE FARM, AN EDUCATIONAL FARM TOUR, IMPROVES CONSUMER TRUST FOR ENVIRONMENTAL STEWARDSHIP, ANIMAL CARE, AND WATER QUALITY

*Richer, E. A.[1]; Ferris, T.A.[2]; Dunckel, M.K.[3]; Stone, A.K.[4]; Kuschel, A.E.[5]
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3. Extension Educator, Michigan State University Extension, Alpena, MI, 49707
4. Extension Educator, Ohio State University Extension, Toledo, OH, 43615
5. Program Coordinator, Michigan State University Extension, Clinton Township, MI, 48036

In 2015, five Breakfast on the Farm educational dairy tours were held in Michigan (MI) with 12,068 participants and one in Ohio (OH) with 3,009 participants. Exit surveys were collected from 1,406 and 578 participants from MI and OH, respectively, to determine the impact of educational farm tours on consumer trust. Thirty-seven and 60 percent of participants from MI and OH, respectively, had not visited a dairy farm in the past 20 years (first-time visitors). Upon exiting the tour, participants were asked what they felt their level of trust was on topics before and after the tour on a 5-point scale from 1 being very low to 5 being very high trust. First-time visitors' level of trust that dairy farmers will do the right thing with regard to caring for the environment had a mean of 3.98 before and 4.70 after with an increase of 0.72 for MI, values for before, after and change (after-before), respectively, were 4.06, 4.64, and 0.58 for OH. First-time visitors level of trust that dairy farmers will do the right thing with regard to caring for food-producing animals for before, after and change, respectively, were 3.94, 4.69, and 0.75 for MI; and 4.00, 4.64, and 0.64 for OH. First-time visitors' level of trust that dairy farmers will do the right thing with regard to protecting water quality for before, after and change, respectively, were 3.80, 4.65, and 0.85 for MI and 3.92, 4.60, and 0.68 for OH. Mean increases for all questions were significant at < 0.001 using a paired-t test. Before values for all respondents tended to be higher than for first-time visitors. Forty-six percent and 47% of all participants for MI and OH, respectively, rated the openness of the tour as a major factor for increasing their trust, with 42% and 44% of MI and OH participants, respectively, rating how the environment is being protected as a major factor and 42% and 44% of MI and OH participants, respectively, rating their comfort with how animals are housed and managed as a major factor.

ENSURING AGRICULTURAL SUPPORT BY LOCAL AGENCIES THROUGH EDUCATION OF LOCAL CANDIDATES

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The purpose of this educational dinner was to increase the awareness by local elected officials of agricultural support agencies` importance to the farming community in Powhatan County. This was accomplished by working with the local Farm Bureau Federation Board and Monacan Soil & Water Conservation District (SWCD) on an Agriculture Awareness Dinner for all 32 of the candidates in the November election. A 7 minute movie was created and shown to provide the candidates with testimonials from local producers about items which support or hinder their ability to successfully farm. A presentation with information from the most recent Census of Agriculture was provided to show the economic impact of Virginia's number one sector on the County of Powhatan. This was a follow up to the first Agriculture Awareness dinner held in 2012 for the Board of Supervisors and Planning Commission following drastic budget cuts which eliminated Monacan SWCD, over $80,000, from the county budget and the Family and Consumer Science (FCS) part-time Extension position. Currently the SWCD has received half of their funding following years of zero funding and the Extension office now splits an FCS position with another county and has a full-time Agriculture Extension Agent instead of the shared county position. The true indicator of success has become the increase in awareness of the importance of these local agencies for the farming community by the candidates who became elected, who now have a working relationship to better address important needs for all constituents in the county.

RECRUITING, RETAINING AND DISMISSING VOLUNTEERS

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Volunteers are one of the most valuable resources that an Extension Agent can have. Agents who effectively recruit, train and lead volunteers develop a willing work corps that can result in huge successes in the agent's career. For agents who do not recruit well or provide effective management, volunteers can create more problems than solutions. Many volunteer issues

can be prevented with personnel skills and strong leadership. A formal screening and selection process should be used to include; interviews, job descriptions, expectation reviews and strong guidelines. During the actual volunteer training, expectations should be reinforced, and volunteer goal setting should begin. Understanding what motivates volunteers can help an agent match the volunteer to the job. Knowing the 3 distinct motivational types; achievers, affliators, and influencers helps agents understand their volunteers and how they best can work for the organization. Volunteer retention is enhanced by providing meaningful work, good communication, letting them know why they are important in the organization, providing leadership opportunities and recognizing their efforts and success. With all our efforts occasionally and hopefully rarely problems arise. Recognizing volunteer burnout and providing a leave of absence can be an option. Though, if there is a reoccurring breach of policies or unprofessional behavior, dismissal of a volunteer becomes the hard decision that an agent has to make. Dismissing a volunteer is an uncomfortable process at best. With good preparation dismissal can be done in a professional manner that doesn't reflect poorly on the Extension Service.

Agricultural Economics & Community Development

THE OHIO FARM EMPLOYMENT HANDBOOK: USING TECHNOLOGY TO CREATE AN ONLINE BULLETIN

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Keeping up to date on farm employment laws is a challenge for all farm businesses. After an analysis of a two decade old, out-of-date bulletin for Ohio and the realization that no comprehensive bulletin is available, for farm businesses, a decision was made to develop a new format and compilation of information to meet the needs of today's farm management teams. The result is the Ohio Farm Employment Handbook, a web-based resource to help agricultural employers manage compliance with federal and state labor laws, workplace regulations and human resource issues. This online bulletin is accessible to Ohio agricultural businesses and includes sections on hiring, termination, wage and hours, benefits, taxes, health, safety, civil rights, migrant workers, bargaining and record keeping. For each chapter, the project team included a module containing explanations, laws, regulations, forms, checklists, compliance timelines and more. The authors will share the process to create the online bulletin, along with the "bones" of the handbook. Other states can adapt the bones by adding the details of the employment laws of their state and local area to create similar handbook for their state's agricultural employers.

AG CEOS LENDER'S CONFERENCE

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The SDSU Extension Ag CEOs Lender›s Conference is planning for it's third year of presentations to be held in the fall of 2016.

The conference is geared for Agricultural Lender's to interact with SDSU Extension at Regional Extension Centers. It is a one day seminar to discuss concerns and economic topics with Ag Lender's and professional farm managers and appraisers.

The conference has been held at various Extension Regional Centers with sponsorship from agricultural companies and organizations. Topics of the days discussion include, land values and rent trends, cost of production, farm financial trends, commodity price outlooks, and general economic outlook.

The conference has been held at Regional Centers to facilitate faculty from campus and introduce lender's to the Extension Regional Centers.

Ag lender's have enjoyed the presentations and discussions with SDSU Extension and faculty with some facilities sold out. Ag Lender's provide input for topics to be discussed and feed back has been excellent.

DESIGN YOUR SUCCESSION PLAN - PILOT PROJECT AND BEYOND

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Succession planning is one of the most critical needs facing farm and ranch families as they attempt to transfer their business to a successive generation; either family or non-family. Data reveals that about 77% of all farm assets are currently owned by those age 70 years or older. Further, in ND an estimated 50% of all agricultural lands are now operated under some type of lease agreement between an owner and operator. Based upon recent surveys, it is also estimated that less than 50% of ND farms and ranches have a current succession plan in place.

NDSU Extension has developed and piloted an educational program titled "Design Your Succession Plan" that helps farm and ranch families get started on developing a succession plan for their business. The curriculum consists of five modules that provide for a great deal of interaction between the presenters and the audience. Module titles are: "Starting Your Succession Plan", "Determining What You Want", "The Next Generation and Your Legacy", "Family Meetings and Conversations", and "Choosing and Working With Professionals".

The materials consist of a presenter's binder, participant's binder and a participant's workbook. Following the pilot sessions in the winter of 2015, the materials were revised based upon

recommendations from presenters and participants. During the fall/winter of 2015/2016, the course was offered at 20 locations throughout ND. Total attendance was just under 200 participants.

Initial evaluation, compiled using qualtrics, reveal a significant positive change in knowledge, confidence and intended behavior change between the beginning and conclusion of the course for over 80% of the participants.

YOUR FARM, YOUR BUSINESS, YOUR FUTURE: NEW MISSOURI EXTENSION CURRICULUM FOR TRANSFERRING ASSETS ACROSS GENERATIONS

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In Missouri, 99,000 farms own land assets valued at $65 billion dollars based on the 2012 Census of Agriculture. Farm numbers are declining and farm operator population is aging. There is a growing awareness among farm families that they must make thoughtful plans with their life's farming assets before they die. MU Extension has developed a new, interdisciplinary curriculum to provide business and farm families with the tools to navigate family business succession, estate, and retirement planning. The curriculum development team included ag business, family financial education, and small business development extension specialists and was coordinated through the ag education department. The class itself is 12 hours in length and is taught in four, 3-hour sessions. The first class session covers initial planning goals, communication and intergenerational differences. Session two is on succession business planning and entity selection. Session three is on estate planning and covers probate fees, wills, trusts, and titling. The final session on retirement addresses pre-retirement investments and monetizing farm assets. An innovation to the technical information is the inclusion of a fictional farm family case study. The Biggins family story spans a 60-year family history and includes examples for calculating capital gains and shared appreciation agreements. In addition to providing a familiar context for the technical material, the Biggins example provides a safe context in which the class participants can ask personal questions. Evaluations from the initial classes indicate increased understanding by property owners for reviewing real estate titles and communicating their wishes to their heirs.

EXTENSION'S ROLE IN THE DEVELOPEMENT OF URBAN AGRICULTURE SOCIAL ENTERPRISES

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As interest in urban agriculture continues to gain traction, particularly in Rust Belt cities where land re-use is a critical priority for city planners, many organizations are developing social enterprises and job training programs around urban agriculture projects. Often projects will not mirror the traditional development of farms due to the overall goals of the partnering organizations involved, and/or because of the unique challenges facing urban spaces. Farm workers and managers of social enterprise projects are usually also new and beginning farmers. This presents new opportunities for Extension to connect with new audiences who many not have had previous experience with Extension and offer support through varying levels of engagement. The objectives of this presentation are to: 1) present three social enterprise models that Extension in Cuyahoga County (Cleveland), Ohio has been involved with 2) describe characteristics of different models of urban agriculture, 3) discuss successes and unique challenges around labor, soil quality and marketing, and 4) to examine best practices for Extension collaboration with urban agriculture social enterprise projects.

EDUCATION BEYOND ANNIE'S PROJECT CLASS

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Various agriculture risk management topics have been the focus of Annie's Project classes in Missouri since 2004. Many past participants have requested additional training on risk related issues. Past participants have also expressed a desire to network with other Annie's graduates. These requests indicated a need for additional education but also a challenge of how to meet the widespread wishes. MU Extension specialists met two years ago with past Annie's Project graduates for suggestions and guidance to meet these needs. As a result of the discussion, a risk management conference called Annie's

Project Conference began. Many of the ideas and suggestions from the farmwomen were encompassed into the conference. Two statewide conferences have been held in the Missouri Ozarks and each time the extension specialists take risks and learn lessons for improvement. Risk management continues to be the focus of the conference including keynote speakers and a variety of concurrent sessions. The types of agriculture within the state are diverse, so the concurrent sessions contain a wide range of topics from crops and livestock to horticultural and ag tourism enterprises. The program format is a day and a half at an Ozarks retreat center, for a short time away from the farm to focus on the risk management education and networking with other farmwomen. An evaluation tool has been used to gather feedback at each conference conclusion. These findings have been used to modify the conference.

EXPLORATORY STUDY TO IDENTIFY BUSINESS INTEREST IN LOCAL FOODS IN THE SOMERSET COUNTY REGION

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This exploratory study in Somerset County, Maine researched the local food expenditures of businesses appealing to the rafting, ski, and hiking tourists in the Kennebec Valley region. The factors that influenced local food purchase decisions including: desired use of local foods, types of produce and quantities demanded by buyers, and preferred time of year were explored. Other requirements including: quality of product, food safety certification requirements, price, client preference, and consistency were investigated as well. The research was conducted qualitatively using in-person interview techniques. The local food questionnaire contained twelve questions about local food use and preferences. The questions were open-ended and allowed interviewees to offer their opinions on the feasibility of using local foods at their business. One surprising finding was that the definition of local food was broadly diverse. The majority of businesses expressed a desire to purchase more locally raised foods and this study explored the barriers to doing so.

WHOLE FARM ANALYSIS WITH CROP ENTERPRISE BUDGETS

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Crop enterprise budgets require data for production technology that represents costs on a per acre basis. Whole farm analysis can be achieved by applying enterprise budgets to a representative scale of production. Variable costs are computed as a multiplicative factor of total acres for each crop. Depreciation and other fixed costs for equipment present a situation of "lumpiness" for fixed inputs that are calculated on a per acre basis. Applying methods of capital recovery for fixed costs in conjunction with selecting a farm scale that appropriately represents typical farm size leads to improved estimates for whole farm analysis. The research incorporates total crop acreage, yield and price, as well as share of revenue for rented crop acreage. Financial results for combined crop production are calculated as a whole farm result. A separate component of the research estimates receipts from government programs for Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC).

MARKETING LOCALLY RAISED BEEF

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In recent years, an increasing number of Tennessee cattle producers have considered or have begun finishing cattle to harvest weights and adding value through harvesting, processing and marketing beef. The number of retail meat sales permits issued by the Tennessee Department of Agriculture has increased by more than 75 percent in the past two years. Census data confirms more farms are producing value-added products and directly marketing farm products to consumers for human consumption, and the value of sales from farm products marketed directly to consumers has also increased significantly.

UT Extension conducted three focus groups to explore Tennessee beef producers' experiences with marketing locally raised beef. The purpose of these focus groups was to gather information about market opportunities and constraints faced by value-added beef producers in order to develop educational materials for interested farmers and industry partners. A total of 26 individuals representing 18 farms participated in the focus groups. Leffew will discuss lessons learned including advantages and disadvantages of market channels used, customer characteristics and preferences, promotional methods used, pricing techniques, payment methods accepted and barriers faced when selling value-added beef.

DEMONSTRATING ECONOMIC IMPACT BY IMPLEMENTING SNAP/EBT AT YOUR FARMERS MARKET

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By implementing Supplement Nutrition Assistance Program (SNAP)/ Electronic Benefit Transfer (EBT) terminals at the Sumter County Farmers Markets, SNAP/EBT transactions will increase revenue to local produce vendors by $750.00 in the first year. A presentation was made to the market board on the benefits SNAP/EBT at the local market. The presentation covered: SNAP/EBT contributions to the market and the community, guidelines, how transactions work, funding opportunities and application process. A needs assessment was created and vendors were surveyed to gauge interest. The market made the application to start accepting

SNAP/EBT cards. Creative works created to promote and advertise include: three power-points, vendor signs, a webinar and 4 other promotional pieces. The markets application was accepted and on September 8, 2014 the Sumter County Farmers Market started accepting EBT cards. The economic impact over a three month period was $1,100 and in one year was $2,995 with SNAP/EBT sales to 40 families. This is a 172% increase in revenue from 2014 to 2015. This program has brought a previously untapped customer base to local farmers, increased sales, and provided consumer education while providing families with fresh/local fruits and vegetables. Since the launch three other local farmers have been interested in applying and making application for SNAP/EBT at their location. Application is being made to partner with Florida Organic Growers to receive Fresh Access Bucks an incentive program that will increase sales of Florida grown fruits and vegetables to Florida customers receiving SNAP at Farmers Markets.

COMMUNITY GARDEN DEVELOPMENT AND EXTENSION EFFORT

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The purpose of this educational program was to increase access to fresh vegetables, increase environmental awareness in regards to pesticide use and beneficial insects and provide social and recreational space for those interested in gardening. I accomplished this by working with a team of Master Gardeners, County Parks and Recreation, Food Nutrition Program Assistant and county business to develop what has become a 100 plot garden with 7 ft. fencing, water, walkways, and plots sized 10ft.x15ft. each. All plots have been used each year by paying gardeners, and by the Plant A Row project. This is a national program encouraging gardeners to plant a row of vegetables and donate that produce to are food banks. Each year the Fluvanna Community Garden has donated over 1100 lbs. of produce to the Monticello Area Community Action Association/Blue Ridge Area Food Bank. We have developed 8 reference binders for gardener information regarding best practices, email dialogues, an informational kiosk for publications, and a note sent out ahead of anticipated pest outbreaks based on the previous year's pest observations. This is a programmatic and community effort that can be duplicated if the interest in a community exists.

COUNTY PROFILE: COMMUNITY DEVELOPMENT IN HIGH DEFINITION

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As Extension continues to be progressive with interactive media for programming, promotion, and engaging our constituents, the ability to embrace top-shelf production technology and services is becoming more and more important for our agricultural and rural communities that are already faced with a variety of economic challenges. Appreciative inquiry and the essence of storytelling merge in the creation of a high definition, top-shelf, county profile video that Extension professionals leverage to seek grants, conduct economic development activities, and spawn further community development.

Story telling is an important aspect when enhancing economic development as well as marketing programs in agriculture, as well as showcasing Extension opportunities or simply wanting to promote other community development activities in our rural communities with a personal touch of class. Bringing agricultural or rural boiler plate language to life that is found in our county profiles can be challenging, too. The challenge of telling a good story about our rural communities is especially tough when attempting to speak to diverse audiences. This session will aid Extension professionals in community and economic development geared toward promoting the County and showcasing various rural or natural resources that make each of our communities unique.

Quality video production is often quite expensive, especially when hiring contractors or professional production companies. In order to tell your story, however, there are methods and tactics for reducing costs and streamlining production to economize the production process that makes it more affordable for our agricultural and rural communities. Presenters will cover pre-production, production, and post-production methods for funding, and tips to offset costs while achieving top shelf High Definition quality video.

Ag Issues & Public Relations

GROWER TRAINING ON THE FOOD SAFETY MODERNIZATION ACT

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The Food Safety Modernization Act was signed into law in 2011 and the final version for the Produce Rule portion became effect January, 2016. Depending on the operation's size, the rule will be phased in over the next two to four years. This rule will impact fruit and vegetable growers who grow, pack or hold raw products. The Rutgers On-Farm Food Safety Team trains growers and industry partners on how to comply with the rule. The team wrote articles for the statewide Plant and Pest Advisory Newsletter; wrote two factsheets; held two webinars; provided in-depth training workshops and did one-on-one critiques for growers. During 2015, 44 hours of training were provided to 219 individuals during eight sessions. The audience was diverse in the fact that some growers had not been involved in food safety in the past. Sessions were divided between beginner and advanced growers. This allowed the team to better tailor the program to the group. Also, a

session was held for organic growers who are new to food safety issues. As part of the training, 28 mock audits (second party audits) were carried out which was 53% more than 2014. The team carried out pre and post surveys to evaluate the effectiveness of training sessions. Results from those surveys were overwhelmingly positive with 100% of the participants going to recommend the workshops to another person. Comments were received such as "Very informative and helpful session by two very knowledgeable and helpful instructors" and "The only thing better would be to have a one-on-one-session.:"

AG CAREERS: MILK COWS AND FLYING UAV DRONES

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Young people rarely think about their future and they often think agriculture means corn or cattle. To help with both issues, I helped develop the career expo «Imagine the Possibilities» for Northeast MS. This expo was different than most as it was designed to be hands-on, interactive and unforgettable. We had over 1000 professionals work with over 3300 8th graders to show them careers they never imagined. Agriculture played a large role in the expo as I solicited fellow experts from agronomy, entomology, animal science, horticulture, food science GeoResources and others to show young people that agriculture leads the way in technology discoveries. They were surprised to see how we change the world and what we mean to their daily lives. Numerous students indicated a desire to pursue an education in the ag field after high school. The best time to share our positive story and to lead bright young minds toward agriculture is while they are young and open-minded.

THE CHALLENGE OF MARKETING EXTENSION PROGRAMS IN A DENSELY POPULATED SUBURBAN COUNTY

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According to the 2010 U. S. Census, Gwinnett County, GA, a suburb of Atlanta, GA, has a population of 805,000, the second largest county in Georgia. The county has a large number of residential and commercial developments. Gwinnett County Extension has employed a variety of techniques to market programs and services to the county's growing population. Extension educational programs along are frequently advertised on residential water bills. Extension has utilized the county's cable TV to broadcast educational presentations several times a week. Extension has educational exhibits at local farmers markets, garden centers and the yearly home and garden show at the county's civic center. From these events, we have developed an extensive e-mail list-serve where we send people information on programs as well as newsletters. A local radio personality that has a weekly home and garden show encourages callers to contact our office with their questions. The county has hundreds of landscapers, lawn care companies, and other related businesses, and Extension offers training programs geared toward their needs. Extension has obtained a list of these enterprises with their contact information from the County's business license division. This allows us to send out announcements of Extension programs geared toward their industry. Using creative marketing methods have been beneficial in letting the people of Gwinnett County about the resource Extension has to offer them.

CENTRAL VIRGINIA AG SPOTLIGHT BRINGS THE FARM TO READERS

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Consumers are increasingly concerned with agricultural issues but most rarely interact with farmers. The Central Virginia Ag Spotlight blog was created in 2013 to engage readers with monthly stories about local farms in order to improve agricultural awareness. 40 stories have been shared to date. The site had 28,638 page views by 14,034 users as of January 2016. Stories garnered hundreds of social media engagements since 2013. Dozens of client calls resulted from encounters with the site. Several readers sought follow-up information and tours of featured farms. Four blog stories were reprinted in Virginia Cattleman. One was reprinted in The Virginia Forager, one was reblogged by the Farm Credit Knowledge Center, and three were featured in local newspapers. The blog was the National Finalist website in the 2014 National Association of County Agricultural Agents communications contest, and a blog photo was National Winner in 2015. After creating and maintaining this blog for over two years, the author learned to improve the site by utilizing feedback and techniques which increase production quality and market the stories more effectively. This presentation will review the process and methods used to develop high-quality writing and photographs for this blog and will provide agents with an overview of lessons learned, techniques for using blogs for outreach, and tips for successful online agricultural literacy efforts. Agents will receive take-home ideas for using online agricultural outreach to enhance their own programming.

LIVESTOCK EDUCATION AND CERTIFICATION FOR AGRICULTURAL LAW ENFORCEMENT (LECALE)

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Many law enforcement agencies in Florida have dedicated law enforcement officers (LEOs) who respond to crime in agricultural areas, urban/rural interface issues, and potential livestock neglect cases. These LEOs have presented themselves as potential Extension clients with educational needs. Objectives: To develop and implement a training and certification program for Florida LEOs in the field of animal science to better prepare them to do their jobs. Methods:

Participants are taught using a combination of classroom work and experiential learning sessions utilizing applicable equipment and live animals. Benefits: The LECALE training program addresses Florida specific conditions and it will enable LEOs to do their jobs more efficiently and uniformly. The training will also equip LEOs with the ability to be vigilant for threats to our food supply system by natural and man-made causes. The accompanying certification program will add to the credibility of this clientele group when they present their testimony in a court of law and make difficult decisions in cases. Conclusion: A pilot program was taught to a group of veteran LEOs in July 2014. Utilizing survey and focus group data obtained from pilot participants, the program was modified and taught in courses offered to a total of 47 participants in the spring and fall of 2015. 87% of the participants passed the certification requirements of the program and overall knowledge was increased by 39%. Utilization of the LECALE program by Florida LEOs could result in a savings of nearly $2,500 per client compared to other national certifying services.

UTILIZATION OF COMMUNITY RESOURCES FOR AN AGRICULTURAL EVENT

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The purpose of this educational program was to increase knowledge in 100% of the elected officials about the importance of agriculture to the economy of Sumter County. Empower elected officials to make more informed agriculture decisions. Attract 2,000 Villages residents to the Farm-City Event. While Sumter County is primarily rural, it also has the fastest growing metropolitan population in the United States (The Villages). There are 1,367 farms on 183,246 acres. 1.3% of the 101,620 citizens are farm operators. The method used was targeting two distinct populations for agricultural education: The Villages residents and elected officials in consecutive years. The program execution was 38 exhibitors educated Villages residents about agricultural operations in conjunction with the elected official tour focused on livestock industry, commercial horticulture and natural resources. The results as measured for the Farm-City event in 2013 attracted 73% of elected officials. Three month follow-up surveys were sent to elected officials that attended. As a result of this event, 100% (n=11) self-indicated knowledge gain. Also as a result of attending the Brownwood event and Farm Tour, 80% (n=11) of the elected officials indicated that this event and tour helps them make more informed decisions regarding agriculture. At the 2014 event The Villages Entertainment estimates attendance at 2,500 for the event. The event in 2015 attracted over 5,000 in attendance. In conclusion the committee successfully organized and carried out three educational events showcasing agricultural commodities in the community, emphasized stability, and empowered elected officials to make more informed agriculture decisions.

Agronomy & Pest Management

GROWERS RESPOND TO NITROGEN FERTILIZER LOSSES WITH IN-SEASON APPLICATIONS

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Growers were losing corn yield through the loss of fertilizer nitrogen by leaching or denitrification. The objective of this program was to educate growers on understanding and diagnosing corn nitrogen losses and strategies to add nitrogen to maintain corn yields. Our program used corn color as a strategy for growers to determine if corn was lacking nitrogen. Growers were taught to examine corn color and if color indicated nitrogen lacking, we promoted an additional 30 to 50 pounds of nitrogen per acre. Initially, a dealer purchased equipment to apply nitrogen then other dealers started adding equipment. Aerial applicators also added equipment to apply nitrogen. Adoption of adding supplemental nitrogen occurred by many growers. One Holt County aerial applicator applied over 3 million pounds of urea nitrogen fertilizer or on an acre basis, over 27,000 corn acres in 2015. During the season, 6 planes were applying nitrogen from his business. Also, all six local fertilizer dealers are all equipped to apply nitrogen to growing corn.

SENSOR-BASED N FERTILIZATION FOR RICE PRODUCTION IN SOUTHEAST MISSOURI

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A small plot experiment was conducted at the Missouri Rice Research Farm to evaluate the use of remote sensing technology in making midseason N application. The experiment design was a randomized complete block design with three replications. The treatments in the study were two rice varieties (Jupiter a medium grain and Roy J a long grain) and three N application strategies and a check. Nitrogen management strategies use in 2014 were check (no fertilizer), application all N at preflood (120 lb.N/A) without a midseason [AP1], preflood application of 120 lb.N/A with 30 lb.N/A of midseason N [MS], preflood application of 120 lb.N/A with midseason N based on sensor recommendation [SB]. In 2015, another level of AP was included, a preflood

application of 150 lb.N/A with no midseason [AP2] and preflood applications of 180 lb.N/A with no midseason to be used as a reference strip [RS]. Remote sensing measurements using a GreenSeeker® sensor were collect at stem elongation. Midseason N was applied based on the recommendation of the GreenSeeker handheld crop sensor fertilizer estimation chart. Results from the small plot replicated study found no effect of rice variety on yield and nitrogen use efficiency (NUE). The AP1 strategy (preflood application of 120 lb.N/A) was found to be the optimal strategy for N application maximizing both yield and efficiency. The MS strategy was the least efficient. While, the SB strategy provided decision support to maximize the use of a midseason application and was between the AP1 and MS in terms of maximizing NUE. These results indicate that application of adequate (120 lb.N/A) preflood N in combination with using a sensor to determined midseason N rate offers great potential for increasing NUE and maximizing profitability in Southeast Missouri.

APPLICATION TIME MAY AFFECT YIELDS WHEN USING UREA-AMMONIUM NITRATE FOR CORN PRODUCTION

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Producers are wanting information to better utilize nitrogen and to reduce the risk of nutrients leaving the field. Urea-ammonium nitrate (UAN) is a common nitrogen source used in corn production in northwestern Ohio. Producers have asked whether a split application of UAN would increase corn yields and diminish the risk of nitrogen loss compared to a single application at planting. To address this question, a four year study looking at application time was completed using UAN on the OARDC Northwest Agriculture Research Station near Custar, OH from 2012 - 15. Three applications times were compared: at planting, at growth stage V4, and a split with 10 - 30 pounds starter UAN-nitrogen per acre followed by the remainder at growth stage V4. All applications received a total nitrogen amount of 180 pounds per acre. Yields were significantly larger for the single application at growth stage V4 and the split application compared to the single application at planting for three out of the four years. Yields were similar between the single application at growth stage V4 and the split application, suggesting no yield benefit from the starter nitrogen at planting. Only in 2013 were yields similar among all application times. Results of this study would suggest that producers may increase yields and reduce nitrogen loss by using a split application or delaying application of UAN until corn plants are actively growing rather than applying a single application at planting.

A COLLABORATIVE APPROACH TO NITROGEN AND WATER CERTIFICATION

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Contamination of groundwater with nitrate nitrogen is an ongoing concern for production agriculture in the Lower Platte North Natural Resource District (LPNNRD) in eastern Nebraska. Since 1998, Nebraska Extension has partnered with the LPNNRD to educate all operators of irrigation well systems as well as operators who use any type of fertilizer on best management practices. Operators are required to attend certification training or pass an online test every four years to be eligible for cost share and to certify irrigated acres. Developed to fulfill a district wide requirement for Groundwater Water Area certification, the program has focused on nitrogen management and application, water quality, water conservation and quantity, and updates on NRD rules. A team of extension educators works with the LPNNRD staff to develop and co-present the certification program. Special emphasis is put on highlighting timely topics, such as irrigation practices after the drought of 2012, or current demonstration projects being conducted within the LPNNRD. A variety of teaching methods have been used including paper quizzes on best management practices, the use of TurningPoint response devices to poll the group and collect data, and demonstration of smart phone apps and irrigation scheduling tools. Over the life of the program, a total of 6,681 certification cards have been issued. When surveyed using TurningPoint response devices during 2013-2015, 91% of respondents (n=455) indicated they had adopted management practices that improved their nitrogen fertilizer application after previously attending a certification class.

SUSTAINING RURAL FARM COMMUNITIES IN VERMONT

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The goal of this project is to improve crop production and financial management decision-making by rural families in the Champlain Valley of Vermont who operate small dairy, livestock and cash crop farms. In FY 2016, The Champlain

Valley Crop, Soil and Pasture Team conducted an outreach and education program that provided 618 individual farm technical assistance consultations; collaborated with them on 83 field demonstrations involving no-till, manure injection, cover crop, grazing management and alternative crop systems; and established a replicated research project "Evaluating the Use of Forage Radish to Enhance Winter Rye Cover Crop Performance" on four different farms. Educational messages and field trial results were disseminated at 19 field days or workshops attended by 704 farmers and agricultural professionals, through our quarterly team newsletter mailed to 1,152 contacts, posted on our website, bog and Facebook sites, and published in six Extension fact sheets for farmers. As a result, the farmers who have participated in this program are asking that we increase these activities to help them continue with their decision-making process in adopting new practices on their farm.

SOIL DISTURBANCE ON PRESERVED FARMLAND: WHAT IS ACCEPTABLE?

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Twenty-seven states and the federal government have farmland protection programs. Preserved farmland provides us with an abundance of locally grown farm products, limits urban sprawl, protects our water and soils, and maintains our connection to agricultural traditions. New Jersey›s Farmland Preservation Program began in 1983 with the passage of the Agriculture Retention and Development Act. The State Agriculture Development Committee (SADC) has overseen the preservation of over 220,000 acres at a total cost of $1.657 billion dollars. Applications are reviewed and quality scores determined based on factors including soil quality and proportion of tillable acres. Acquired farms are forever protected for agricultural use. Preserved landowners can sell their land, but future owners are required to comply with deed restrictions on non-agricultural development. The public has no right to access or use the land, however, they approved an investment of public dollars. The lessee is encouraged to maintain soil quality and use acceptable agricultural management practices. The SADC has been grappling with issues of how acceptable are practices that disturb the soil, and to what disturbance level is acceptable. While common practices such as plowing or temporary hoop houses may be acceptable if considered a temporary disturbance, what of permanent disturbances such as building permanent greenhouses or paved parking lots for a farm market? This presentation will address the contentious agronomic, social and legal intersection of soil disturbance while asking the audience "how acceptable is a practice if it negatively affects soil quality and limits options for future generations" use?

LOCAL GEORGIA RESEARCH SUPPORTS PESTICIDE LABEL CHANGE THAT ALLOWS BLUEBERRY GROWERS TO MANAGE DISEASE AND AID FUNGICIDE RESISTANCE MANAGEMENT

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Cultivated blueberry acreage in Georgia has increased tremendously over the years, and Georgia blueberries now have a farm gate value of over $330 million, making it the number one fruit crop in Georgia. With increase in cultivated blueberry acreage, this valuable crop now faces a corresponding increase in disease pressure. Exobasidium leaf and fruit spot is an emerging disease of blueberries throughout the Southeast. It is caused by fungus Exobasidium maculosum, which is often resistant to one of the commonly used fungicides, Pristine. Mummy berry disease, another important disease of blueberry which infects simultaneously with Exobasidium, is still effectively controlled by Pristine while providing an important rotation partner to the oft overused demethylation inhibitor fungicides (DMIs). However, Pristine could not be used where resistant E. maculosum populations were present. There was therefore a need for a tank-mix partner for Pristine which would control Exobasdium, but Pristine pesticide label did not allow tank-mixing with other Exobasdium-active products (such as Captan), rendering Pristine useless for mummy berry management when resistant E. maculosum populations are present. In order to amend Pristine pesticide label to allow a Captan tank mix, it was necessary to conduct phytotoxicity studies on tank mixes of Pristine and Captan to verify no damage to plant tissue. Based on lack of phytotoxicity observed in a research trial in 2015, BASF modified Pristine label to allow application of Captan products and Pristine in tank mixes which provide efficacy against both mummy berry and Exobasidium , while also strengthening fungicide resistance management.

IMPROVING ADOPTION OF IRRIGATION AND NUTRIENT BEST MANAGEMENT PRACTICES: DRIP IRRIGATION SCHOOLS/NUTRIENT AND WATER MANAGEMENT

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Ninety-percent of the farms in the Suwannee Valley are small farms and some of these farmers have little to no farming background and need to learn production skills that

were once taught by experience on farms. Florida's sandy soils have low water holding capacity and often farmers over irrigate to ensure adequate soil moisture levels to meet the crop water needs. Fertilizers are highly water soluble and mismanagement of irrigation water application can lead to leaching of fertilizers. Therefore, for the last six years, a team of Extension agents assessed the opportunities and challenges related to drip system based irrigation and nutrient management, and developed educational programs and activities to meet the growers' needs. The objectives of these educational programs were: 1) Annually, 75% of the small and beginning farmers who attend drip irrigation programs will increase their knowledge of irrigation and nutrient management practices as measured by post-tests. 2) Annually, 50% of the small and beginning farmers who attend drip irrigation programs will adopt/intend to adopt efficient irrigation and nutrient management practices as measured by post-surveys. So far, 386 small farmers have attended drip irrigation and nutrient management programs. The average knowledge gain was 84% (n=386), and 88% (n=109) of the small farmers intend to adopt drip irrigation and nutrient management BMPs on their farms. Thirty-five vegetable growers (2000-acres) are verified to have adopted irrigation and nutrient management BMPs resulting in cost savings of $90/acre, and nearly $180,000 total for cooperative producers.

EFFECT OF HEADLINE APPLICATIONS ON TARGET SPOT IN COTTON

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Extended periods of wet weather and high humidity often occur during the cotton growing season in Georgia. Fields with these conditions and a dense canopy can lead to development and spread of leaf spot diseases, such as Target Spot. Research was conducted at five locations in east Georgia during 2013, 2014 and 2015. Three locations consisted of on-farm sites utilizing large plots (eight rows, at least 500 feet long) in Jenkins County during 2013, 2014 and 2015. Two additional locations consisted of small-plot sites on the University of Georgia Southeast Georgia Research and Education Center in Midville during 2013. In all locations four treatments were utilized and they included (1) cotton not treated any Headline [UNTREATED], (2) cotton treated with Headline applied at the 1st and 3rd week of bloom [1st & 3rd], (3) cotton treated with Headline applied upon initial sign of Target Spot presence [INITIAL], (4) cotton with Headline applied to provide more extensive protection with applications made prior to bloom and at the 1st and 3rd weeks of bloom [SEASON-LONG]. All Headline applications were 6 oz/A. Results from this study follow similar work with Headline and management of Target Spot in cotton. Often, Headline lowered disease severity and leaf defoliation, yet significant differences in yield were less often observed. However, the two locations which fungicides impacted yield contained the most rank cotton (Midville No PGR and Jenkins 2015), which is a condition where the canopy is thicker and more conducive for disease development.

WHAT IS THE MOST COST-EFFECTIVE MANAGEMENT STRATEGY FOR FOLIAGE-FEEDING LEPIDOPTERANS IN ALABAMA SOYBEANS?

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The purpose of this project was to conduct insecticide trials to ascertain which insecticides provide the most cost-effective control of the 3 main foliage-feeding caterpillars in Alabama. Studies were conducted at two research stations located in central and south AL.Plots were planted in May or June. Plot sizes were 6 to 8 rows x 25 to 30 feet long. Test treatments were arranged in a randomized complete block design with at least 4 replications of each treatment. Treatments were applied when caterpillar pests began to cause noticeable levels of defoliation. Lepidopteran population densities were determined by using a 3 foot shake-cloth or a 15 inch diameter sweep net. Plots were harvested at maturity and yields were converted to 13% moisture. Insecticides and their lowest evaluated application rates which (under test conditions) provided a significant reduction in numbers of soybean loopers (SBL's), green clover worms (GCW's) and velvetbean caterpillars (VBC's) at 7 to 11 DAA in comparison to untreated plots were Intrepid Edge-4 oz/ac, Belt- 2 oz/ac, Prevathon- 14 oz/ac, and Besiege-7 oz/ac. Brigade-6.4 oz/ac and Dimilin-2 oz/ac provided a significant reduction in GCW and VBC numbers but not SBL numbers. However all these treatments provided a significant reduction in SBL, GCW and VBC defoliation at 20 DAA. The study indicated that Alabama soybean producers who monitor defoliation levels closely may, under certain conditions, be able to reduce their lepidopteran control costs by using less expensive chemistry to reduce SBL feeding.

2015 BULLOCH COUNTY PEANUT TRIAL RESEARCH RESULTS

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The impact of soilborne diseases on peanut production in Bulloch County is a problem that has been addressed with on-farm research. Peanuts produced experience severe outbreaks of southern stem rot (white mold). The current management involves a combination of growing resistant varieties and the application of fungicides.

In this on-farm research, the effectiveness of 7 different fungicide treatments was evaluated for the management of white mold disease. The experimental design was a randomized complete block with 3 replications. Peanut, "Georgia Greener", was planted on May 4 and inverted on September 18. Fungicides included Proline, Provost, Muscle, Echo 720, Fontelis, Convoy, Artisan, Abound, Alto and Tilt-Bravo. There is a strong relationship between white mold and yield. Artisan/Convoy, Abound/Alto and Proline/Provost applications

yielded well. The difference in yields is possibly due to dryland conditions and emergence of late season white mold.

Two other on-farm research trials evaluated the effectiveness of Abound and Proline on soilborne diseases. Velum Total was also evaluated for its effectiveness on controlling nematodes and soilborne diseases. These 2 trials contained 3 replications in a standard randomized block design. All treatments were applied in-furrow at planting. The Proline treatment exhibited 488 lbs/ac yield increase and the Proline plus Velum Total treatment had a 695 lbs/ac yield increase. Such information is helpful to growers in Southeastern Georgia as they work to improve management of soilborne diseases and nematodes.

HAMILTON COUNTY EXTENSION OFFERS PEANUT PRODUCTION EDUCATION IN THE SUWANNEE RIVER VALLEY OF NORTH FLORIDA

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Peanut production has become an important commodity crop for Hamilton County and the surrounding counties over the past ten years. In North Florida, throughout the Suwannee River Valley, peanut producers generated approximately $56,482,000 from the 70,603 acres of peanuts produced. Often the only data producers have to determine the best peanut cultivar or spray program comes from small plot trials conducted at research stations some distance from their fields. While this data provides quality insight into cultivar and fungicide selection, it neglects to account for the variability associated with farm equipment and differing production techniques. To assist peanut producers in determining best peanut practices, an annual program consisting of two peanut production meetings and two peanut on-farm trials were conducted during the past five years. Through this platform, University of Florida peanut specialists and the Hamilton County Agricultural Agent were able to help producers increase quality and yields. Producers have incorporated new cultivars that possess disease resistance in their production areas which have a history of disease. They have also integrated spray programs patterned by the ones evaluated in the on-farm trials. In Hamilton County 100 percent of peanut producers (n = 45) now use fungicide spray programs consisting of biweekly sprays adopted from the Hamilton County peanut on-farm trial. Adopting one of the recommended fungicide programs increased input costs $38.00 per acre (5600 acres) but increased yields over 1,000 pounds per acre resulting in an additional $963,200 in Hamilton County.

CALCIUM CARBONATE APPLICATION ON LOW PH SOIL

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Farmers across eastern Washington have experienced decreased soil pH and increased aluminum toxicity. This is mostly created by the application of acid based fertilizers such as anhydrous ammonia. Farmers in this region who have incorporated no-till conservation farming systems into their operation also experience soil pH stratification between 2-5 inches into the soil profile where fertilizer is predominately applied. An on-farm trial (OFT) was established near Rosalia, WA examining the feasibility of NuCal calcium carbonate application over time. The OFT is in a no-till field that soil pH averaged 4.9 in the top 0-6 inches, and it ranged from 4.7 to 5.4. Three treatments were established in the spring of 2015 prior to seeding spring wheat (Triticum aestivum L.); a no application check, 31.5 gal/ac NuCal (378 lbs. calcium carbonate costing $86.65/ac with application), and 58.5 gal/ac NuCal (702 lbs. calcium carbonate costing $150.64/ac with application). The OFT is a RCBD with 3 replications and long-term data will be collected including chickpea (Cicer arietinum) in 2016 and winter wheat in 2017. Overall no significant differences were detected in spring wheat yield (46 bu/ac), test weight (58.0 lb/bu), and grain protein (13.3%). Differences were detected in economic return over calcium carbonate costs. The check was the greatest at $311/ac., the 31.5 gal/ac treatment was $221/ac and the 58.5 gal/ac treatment was only $124/ac. In conclusion this study is just getting started and additional soil pH understanding and mitigation work needs to be completed across the region.

CUTTING IRRIGATED HAY COSTS BY USING SOYBEANS

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Producers have limited impact on prices received for hay. However, producers can have large impact on expenses through creativity and detailed planning. In Washington State, producers spend approximately $256 per acre for cutting, raking and baling alfalfa (Medicago sativa L.). Part of this expense is moving from field to field and the labor that is required for haying all summer long. Growing soybeans (Glycine max (L.) Merr.) for hay has the benefit of nitrogen fixation similar to alfalfa but unlike alfalfa it requires only one cutting, which

would eliminate some haying expenses. For soybean hay to be successful it must yield well and hay must be of good quality. Irrigated soybean hay research conducted at Othello, WA and Logan, UT produced 5.0, 5.8 and 6.5 tons per acre, averaged over three years and locations, when harvested on September 1st, 15th, and 30th, respectively. Maturity group of soybean for hay production needs to be later than for grain production as large seeds are hard to dry down and will likely cause molding problems in the bale. In Washington State a maturity group 4 or later provides full season hay production with only small seeds produced at haying time. In contrast, for seed production a maturity group 1.5 is optimum. Producers in WA State have successfully grown soybean hay yielding with yields as high as 4.7 tons/acre with no drying problems. Soybean hay typically has 16 to 22 percent protein and relative feed value (RFV) ranging from 100 to 174.

Animal Science

AN EFFECTIVE APPROACH TO AN ADVISORY TEAM

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Using advisory groups is a standard practice in Extension work. However, as standard as it is, it is also often superficial and less than effective. In 2010, the MSU Extension Dairy Team had a problem with credibility among some dairy industry leaders. Among the steps taken by the Team to deal with the situation and chart a new course, we established an Advisory Team that would be active and involved. The author took the lead at that time and continues to lead in working with the Advisory Team. The Extension Dairy Advisory Team is composed of approximately 20-24 progressive producers and professionals selected by Extension Educators. Advisory Team members serve two-year terms that are staggered to rotate half the Team off each year. The Team meets twice a year with Extension Dairy Educators and faculty for an all-day meeting that is meant to be as beneficial to the participants as it is to the MSU staff and faculty. In addition, the team meets monthly by conference call with the dairy Extension faculty and staff. During the calls and the meetings, Advisory Team members are encouraged to share things they have learned, questions they have, and experiences from their work. Our objective is to help them develop a close network among their Advisory Teammates and to learn from each other as much as they learn from Extension. In the process they share how we can best reach their peers in the industry.

BEEF PRODUCERS SEMINAR HELPS ENHANCE BEEF PRODUCERS OPERATIONS

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Beef production is an important component of our economy and our consumers expect a high-quality, consistent beef product with every bite and purchase. Therefore it is essential for beef producers to understand the full impact the decisions they make on their operations can have on consumers and our industry. Continual producer education is imperative to ensure proper management decisions and priorities are made by area beef producers every time. For over twenty years the Beef Producers Seminar has provided beef producers the opportunity to increase their knowledge and understanding of new and innovative technologies from experts throughout the beef industry. Based on post evaluation results 100% of attendees will be making business and/or management changes on their operations, with one-third of attendees expecting more than $2,500 in additional revenue as a result of attending the Beef Producers Seminar. University of Missouri Extension must continue to provide relevant and reliable educational opportunities for beef producers.

UKRAINE DAIRY EXPERIENCE

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These NACAA member educators were invited to speak at both the 2014 and 2015 Ukrainian Dairy Congress, an international conference with 700-800 attendees held in Kiev, Ukraine. A NACAA scholarship was applied for and awarded for all three educators to attend the congress in 2014. Due to political turbulence, and resulting scheduling changes, only Durst was able to utilize the scholarship for the 2014 trip, but all three educators were able to attend and present in 2015. Presentations included: Choosing forages for high producing dairies; Soil fertility for forages; Forages in the cows ration; DCAD's for pre and post fresh cows; Managing the dry period to get cows started right for the next lactation; and Integrity in the management of the dairy business. These presentations were simultaneously translated for attendees. The educators were also able to participate and provide input during conference farm tours to two large dairy herds, and attend a separate farm tour with Ukrainian consultants, providing input to both the producer as well as the consultants. The educators have had numerous opportunities to interact with the Ukrainian consultants after returning to the U.S.

This continuing relationship will help Ukraine's dairy industry continue to move forward as producers there develop an industry for world markets. This NACAA presentation will provide an opportunity to share the impacts of this NACAA scholarship investment on both the Ukraine dairy industry and the Extension Educators that participated.

IGROW BEEF: BEST MANAGEMENT PRACTICES FOR COW-CALF PRODUCTION

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The iGrow Beef: Best Management Practices for Cow-Calf Production book was written in cooperation with the South Dakota State University faculty and SDSU Extension staff, and strengthened by the input of beef industry professionals throughout the northern Great Plains. The process to develop the book took the time and dedication of 27 authors and 11 peer reviewers.

The book is a comprehensive, best management practices tool for cow-calf operations that is useful to the beginning farmer/rancher, as well as the experienced stockman. Designed as a quick reference guide, it provides many decision-making tools to educate and answer questions producers encounter on a regular basis, as well as those not so common questions. It further provides the scientific based information to aid in making management decisions. Grouping the chapters by topic area and discipline allows for quick reference by any user. The 58 peer reviewed chapters make it a reliable source for producers, students and professionals. Additionally, iGrow Beef is endorsed by the South Dakota Beef Industry Council.

This comprehensive book provides producers with insight and education into the latest reproductive technologies, low-stress livestock handling, health programs, understanding DNA testing, breeding programs, feeding strategies and nutrition, marketing options, budgets and the role of beef quality assurance (BQA) in the cow-calf industry, just to name a few of the topics.

The book was completed in August 2015 and is available for purchase through iBooks for iPad or as a PDF for $39.99 at www.igrow.org.

PREPARING SWINE PRODUCERS FOR THE UPCOMING COMMON SWINE INDUSTRY AUDIT

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Pork packing plants have implemented swine welfare audits to verify swine producer compliance with industry welfare and food safety standards. To avoid multiple audits (one from each plant), the Pork Board helped the industry develop a ‹common audit› that will start sometime in 2016. The common swine industry audit (CSIA) is a 34 page booklet that can be downloaded at pork.org along with resources available to help producers prepare for the audit. There are 92 questions on the common audit in 27 different areas. Five of the questions are pass/fail, the remaining 87 questions are worth 469 points. Twenty-five written documents and/or records are required including 10 SOPs, a VCPR, a welfare abuse phone number and a written welfare policy statement. Some producers have reported it can take about 3 weeks of work to download, understand, organize records and write the SOPs. The preparation workshop can shorten that time for producers to about 4 hours.

The presentation will discuss CSIA preparation workshops (over 50 workshops to date) that Iowa State University Extension host to help swine producers get ready for the audit. The presentation will teach how to correctly answer audit pass/fail questions, how to use an audit checklist and how to help producers write SOPs/welfare policy statements. Additionally, you will learn how to develop an organizing notebook. Audit standards will be discussed and you will learn how to teach a swine producer to conduct an internal audit. Highlights regarding correctly answering the audit questions will also be covered. The goal of this presentation is to help you become more swine welfare audit knowledgeable so you are empowered to help swine producers prepare for the Common Swine Industry Audit.

EQUINE OWNERS RESEARCH AND EDUCATION NEEDS TO IMPROVE GASTRO-INTESTINAL HEALTH IN THEIR EQUINES

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Gastrointestinal (GI) health is central to avoiding many equine diseases and disorders. Horses are an increasingly important agricultural commodity in this country, particularly the Northeast US. Horse owners spend millions of dollars on

horse health support to treat and/or prevent common equine diseases. However, very few horse owners may be adequately informed about this topic. Horse owners demand increasingly high standards of equine athletic performance, quality longevity of their horses lives, and better well-being overall. Education about GI health is essential for horse owners.

An online survey of 246 northeast US horse owners about their most common equine health issues and their level of interest in learning more to reduce colic through changes in horse management practices was conducted. 60% of the owners feed a supplement to influence GI health that was based on their own research (63%) or information from a veterinarian (49%), a nutritionist (20%), a trainer (13%) or a friend (16%) to determine what to use. While over 50% of respondents feel they are knowledgeable about equine GI health, 95% indicated they were interested in learning more about this topic. 87% feel research and education on equine GI health is the most or a very important long-term objective to improving the overall health and performance of horses. As a result of this survey the Equine Clinical Studies Coordinating Committee for the Northeastern US will develop research proposals to investigate the equine intestinal biome and its relevance to all aspects of health, but especially equine gastrointestinal health.

BASIC BIOSECURITY FOR EXTENSION AGENTS

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In 2014-2015, an outbreak of highly pathogenic avian influenza (HPAI) caused the largest animal health emergency in the history of the United States. In total, over 48 million birds on 219 premises, ranging from the Pacific Northwest to the Midwest, either died or were depopulated due to infection. While the disease was initially introduced by wild birds, the majority of farms were infected by people and equipment traveling between farms. This example shows the importance of biosecurity. Biosecurity can be defined as any and or all procedures used to prevent the introduction and spread of disease-causing organisms. Other examples of the need to improve biosecurity include; the Porcine Epidemic Diarrhea Virus (PEDv) in swine and Foot and Mouth Disease in Britain.

Extension agents and other government employees are often on farms and, therefore, can potentially spread diseases to new farms. Previous education efforts have shown that when properly instructed government employees and others that visit farms will adopt good practices to help prevent the spread of disease. Therefore, this talk will focus on training educators about biosecurity and how it should be an important part of their daily practices whether they visit livestock or crops.

MEASURING DAIRY HEIFER GROWTH ON FARMS IN THE NEW YORK CITY WATERSHED

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The majority of dairy farms in the New York City Watershed raise their own heifers for replacement. How the heifer is managed has substantial impact on performance as an adult milking cow. Previous local programmatic focus on the care and management of the un-weaned dairy calf has resulted in improved growth and health of calves. The objective of this heifer study is to provide increased education and support on the management of the weaned dairy calves to ensure that these calves remain on a positive trajectory towards joining the milking herd as healthy, productive, and profitable cows. Over 1000 female dairy animals from birth through first freshening were measured for both weight and wither height on over 30 dairy farms. Each farm received a set of graphs of its heifers showing current growth trajectories compared to recommended growth trajectories for their breed. From this data, a set of farm specific recommendations were provided to correct any identified challenges or opportunities to improve their heifer growth programs. The most common challenges identified were nutrition or housing and the most common opportunity was to shorten the age to first calving. Most participating farms are now making adjustments to their heifer raising programs to correct identified shortfalls and achieve earlier age to first calving target dates.

CORN SILAGE, FEEDING MANAGEMENT, AND CASH FLOW EFFECTS

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Feeding and cropping management practices are critical to a profitable dairy business. In a 2015 cash flow plans summary, dairy farm breakeven milk price ranged from $12.23/cwt to $38.72/cwt (n=107). An indicator of a successful dairy farm is achieving profitable milk production with quality forages within an economical feed cost. Between 2013 and 2015, 60 farms were sampled four times over two years for corn silage, fecal starch, and milk urea nitrogen (MUN), and surveyed about best management practices. 48 farms were analyzed using data envelopment analysis (DEA) to assess corn silage quality and management effects on farm profitability. Farms that adjusted corn silage harvest particle size produced an average of 82.8 ± 9 pounds of milk per cow per day compared to 73.8 ± 8 pounds on farms that do not adjust for particle size (t=1.94, p˂0.05). Farms that tested corn silage dry matters daily/weekly averaged 78.4 ± 9 lbs milk/cow/day compared to 74.8 ± 9 lbs milk/cow/day on farms that monitor monthly or "as needed" (t=2.59, p˂0.01). Corn silage hybrids and storage structures were recorded at sampling. Farms that fed the same hybrid from the same structure from Fall 2014 to Spring 2015 showed a 6.7% increase in 7-hour starch digestibility compared to 0.2% increase on farms that

fed a blend of hybrids in the same structure or 2.7% increase on farms that changed the hybrid, structure or both ($F=4.09$, $p<0.05$). Farms also reported their past three years' actual income and expense data that are currently being analyzed.

ORGANIZING DEMO AND TOURS FOR THE 5TH SYMPOSIUM ON ANIMAL MORTALITY MANAGEMENT

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This presentation will highlight the committee cooperation of working on a multi-state and multi-country committee, and highlight the set up and execution of the Tours and Demonstrations that occurred at this 4 day event.

http://animalmortmgmt.org/symposium/schedule/

The agent participated on a multi-state and multi country steering committee to organize and host an international symposium on Animal Mortality and Disposal Management. This was the 5th symposium and had 179 registered attendees from 11 different countries: Australia, Canada, China, Georgia, Korea, New Zealand, Nigeria, the UK, the US, Tunisia, and Vietnam.

The agent served as the Host State coordinator(Penn), the 3 bus Tour coordinator and the Demonstrations chairperson. Demonstrations included High density Foaming, Compost pile building and turning, Environmental grinder processors, Clean Harbor Industries and Truck wash stations, and Proper Euthanasia with cap and bolt guns. The agent will list the success and challenges of this type of demonstrations and educational events. The 5th International Symposium on Managing Animal Mortality, Products, and By-products, and Associated Health Risk: Connecting Research, Regulations and Response at the Southeast Agricultural Research and Extension Center on Wednesday, September 30, 2015.

http://animalmortmgmt.org/symposium/demonstrations/

SHIFTING THE PARADIGM: A SYSTEMS APPROACH TO SOLVING TOXIC TALL FESCUE PROBLEMS

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Toxic tall fescue [Schedonorus phoenix (Scop.) Holub] is the predominate cool-season forage used in beef cattle production in the southern U.S. The current experiment was conducted on a producer operation in upstate South Carolina. Fourteen days prior to the initiation of synchronization, Brangus x Angus cows, stratified by breed and age, were allocated to graze wildtype endophyte-infected tall fescue (E+; n = 50) or novel endophyte-infected fescue (NE+; n = 31) throughout the remainder of the breeding season. Cattle grazing E+ were subjected to a standard CO-Synch+CIDR estrous synchronization protocol followed 64 h later by timed artificial insemination (TAI); NE+ cattle did not undergo the synchronization protocol or TAI. Natural Service sires were turned out with E+ and NE+ cattle 10 d post TAI of the E+ group. Although no NE+ TAI control was present in this study, cattle grazing E+ had lower final pregnancy rates than industry standard. Interestingly, 2 and 3 yr old cattle grazing E+ tended ($P = 0.07$) to have lower TAI pregnancy rate than mature cows grazing E+. Additionally, although not significant, 2 and 3 yr old cattle grazing E+ experienced numerically lower natural service and final pregnancy rates than mature cattle grazing E+. Cattle grazing E+ had lower natural service and final pregnancy rates than cattle grazing NE+ ($P < 0.05$). Therefore, moving cows to E+ 14 d prior to the breeding season negatively impacts reproductive performance of beef cows. In addition, the effect tends to be more detrimental on 2 and 3 yr old cattle compared with mature cows. Data from this Extension-based research is translating into a true Extension program to educate producers about wildtype endophyte-infected fescue, promote best management practices to reduce negative effects, and encourage producers to consider pasture renovation with alternative forages.

YOUNG BEEF PRODUCERS LEARN SUSTAINABILITY

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Livestock production has long been recognized as the major contributor to the agricultural income in the Warren County area. Agriculture is still the number one contributor to the tax base in the area as well. As a result, there is a great need for varied types and levels of programming for livestock producers to maximize their profitability and in some cases sustain their farming operations. The needs assessment process identified programming for young producers as a specific need as a means to permanently sustain the agricultural community.

Warren County Extension Agent, Tammy Cheely formed a young beef producers group that included 18 producers between the ages of 11 and 18. Educational objectives for the young producers were to learn:

Economics of raising beef cattle
Writing a farm plan/business plan and completing loan applications
Choosing livestock to fit farm needs
Decision making
Record keeping
Herd development
Marketing beef cattle basics
Herd health basics
Nutrition basics
Basic facilities

Mrs.Cheely had a monthly program for this group which included an educational program, a group discussion on each producer's progress and a question and answer session. Each of these programs was held at a working farm and eventually at the young producers' farms. Hands-on demonstrations were included with all programs. These were more effective

than all lecturing and classroom activities. These young producers, even the ones o them that grew up on farms still did not have the base to learn from a lecture like most adults do. Mrs. Cheely also guided these producers through writing farm plans to obtain Farm Service Agency Youth Loans and traditional bank loans, obtaining starter herds, keeping necessary records and making sound decision based on economics and herd development.

Thirty eight programs/field days/ educational events were held. There was 100% attendance of the young beef producers group at all of these but three. A pre and post evaluation was conducted at all programs. Measurable knowledge was increased by at least 36% each time with a high increase in knowledge of 71%. All members of this group obtained loans, started a herd and are maintaining a herd of beef cattle. These herds range from 8 brood cows to 46 brood cows. Each year, the young producer who made the most profit per head received free herd health products as a reward.

This young group of producers was started three years ago. It began with twelve participants; three of these have since graduated from high school. Two of these sold their herds and used the money to finance college. The other one applied for and got a first time farmer loan from the Farm Service Agency, expanded his operation and is now a full time farmer with 160 brood cows. Six new young producers joined the program last year. They have marketed their first set of calves, made their first yearly loan payment, retained heifers to build their herd and have enough money to operate through another production cycle including savings for unexpected events. Their brood cows are all rebred and their farms plans are in place. The remaining nine young producers have marketed two sets of calves, made their loan payments and are well on their way to owning a profitable cow herd. These young producers are building their operations from the ground up and are involved in a hands-on educational program that will continually build their knowledge of the beef cattle industry.

All programs were evaluated by the participants. These findings were used to improve programming and teaching methods as it progressed. The local program development team included area farmers, parents of these young producers and the loan officers from the Farm Service Agency. The local program development team also used these evaluations to tweak things as the program progressed. The award for profitability was added as a result. Each young producer goes through and interview about their farming operation, future plans and past profitability with the loan officers. Information from these loan officers is used for future program ideas as well. These loan officers say that the kids that have been through this program are by far the most profitable of all of their young clients that have youth loans.

PRINCIPLES OF PASTURE PRODUCTIVITY IN THE CLASSROOM AND ON THE FARM

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Lack of proper management causes pastures to loose productivity, develop weed issues, and eventually decline to the point where replanting becomes necessary. Lack of forage production, weed control, and reestablishment costs are unnecessary burdens on livestock producers in NW Florida. Principles of Pasture Productivity, a three part series, was planned and presented as part of an effort to address these issues and improve the economic viability of livestock production in NW Florida. The series consisted of three sessions; 1) Fertility Management 2) Grazing Management 3) Weed Management. In addition to the classroom style sessions the agent conducted field consultations with individual attendees relating to the topics discussed in the sessions. These consultations included soil sampling, stocking rate evaluation, weed identification, and sprayer calibration. The classroom component resulted in knowledge gains; 100% (n=37) of survey respondents indicated that their knowledge of pasture management techniques increased as a result of the attending the series. The on-farm component resulted in practice change. Examples include; the agent assisting six cattle producers with calibration their sprayers. None of the producers knew the actual spray volume they were applying prior to the calibration. The agent assisting four individuals that had never submitted a soil sample for analysis with the collection and submittal of samples. It is impossible to calculate the long term economic benefits associated with these types of behavior changes but when the improved pasture performance, mitigation of environmental risks, and possible cost savings are considered it is easy to see the benefits are great.

MATCHMAKING 101: SELECTING THE RIGHT BULL FOR THE COWHERD

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Selecting a bull is one of the most important genetic decisions a beef producer will make. Yet many producers lack a systematic approach to the selection process and consequently arrive at the bull sale poorly equipped to select the best bull for their particular cowherd and production goals. A two session workshop was developed and conducted in multiple counties which took producers through the preparatory steps of bull selection and purchase. This session will discuss the workshop topics which included the step by step processes of: Evaluating the Cow Herd, Determining Bull EPD Parameters, Pedigree Evaluation Including EPDs and Related Accuracies, Bull Phenotypic Evaluation, and Bull Sale Strategies.

RESULTS OF THE 2014-2015 NAHMS DAIRY STUDY

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The National Animal Health Monitoring System (NAHMS) Program is a unit of the USDA's Animal and Plant Health Inspection Service. It conducts national studies on the health and management practices on U.S. livestock and poultry farms, focusing on a different industry each year. The resulting data is used extensively in benchmarking, generating best practices, creating educational documents, and identifying areas most in need of improvement. A 2014 Dairy Cattle Study collected data from 1,261 dairy operations in 17 states. Surveys provided insight into current dairy herd information and management practices; biosecurity, movement, and off-site rearing practices; pre-weaned heifer management; weaned and pregnant heifer management; cow management; and use of veterinarians. Study objectives were determined by input from University/Extension faculty, veterinarians, consultants, producers, government employees, and allied professionals. These objectives included:

1. Describe trends in dairy cattle health and management practices.
2. Describe management practices and production measures related to animal welfare.
3. Estimate within-herd prevalence of lameness and evaluate housing and management factors associated with lameness.
4. Evaluate heifer calf health from birth to weaning.
5. Describe antibiotic use and residue-prevention methods used to ensure milk and meat quality.
6. Estimate prevalence and describe antimicrobial resistance patterns of select food-borne pathogens.

On-farm data collection focused on hock, lameness, and body condition scores; fecal samples; and milk samples. A Dairy Calf Study was conducted from 2014-2015, focusing on pre-weaning management practices, growth, and health. NAHMS is generating fact sheets to disseminate study results.

Early Career Development

REACHING OUT: CONDUCTING A NEEDS ASSESSMENT SURVEY

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How do we connect with various audiences to provide quality Extension programming that fits the need. In 2015 University of Illinois Extension Unit 18 conducted a horticulture needs assessment that reached out to all of the counties we serve.

The purpose of the survey was to seek feedback from the public on program planning. Input from this survey was used to help us determine the need for horticulture programming. Results revealed what the current condition is and guided goals for program delivery. Conduction of a needs assessment is an important in prioritizing programs based on feedback from the community. Get an early start in your career and develop a needs assessment.

HOW TO REPLACE "WINGING IT" WITH "WINNING IT" WHEN PLANNING PROGRAMS

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It is easy to get caught up in busy-work, leading you to always feel like you are just "winging it" or barely getting by at work. Finding time to plan an educational program properly can be challenging for those of us who seem to be shouldering ever-increasing workloads. Likewise, new educators may find themselves wondering how or when to start specific tasks that are critical to a "winning" program. The idea of planning, advertising, conducting, evaluating and publishing a program can be overwhelming to any of us on occasion. Performing each of these steps in a timely manner, however, is critical to our program and our participants' success. During this presentation I will share my program planning checklist which combines a list of necessary activities with appropriate timeframes. I have integrated the entire program cycle into the timeline which helps the educator to stay on track and have confidence that their actions are on target for offering a quality program beneficial to their clients, themselves, their community and administration.

HOW TO GET THE MOST OUT OF YOUR PERFORMANCE APPRAISAL

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The dreaded performance appraisal! We all have experienced required reviews of our work and accomplishments, whether in the form of an annual performance or promotion/tenure review. Psychological, social and institutional processes influence the management and measurement of employee performance. What can you do to enhance your experience and outcomes? Organizational psychology and occupational management research shows specific practices and strategies can be employed to enhance the experience of the appraisee. As the appraisee, focus on what you can influence, such as adjusting your mindset, motivations, engagement and expectations. Appraisals should be a win-win situation for both individual and organization. Approach your review as a yearlong process, not just a single annual event. To get the most from it, appraisals should be viewed as a personnel development activity rather than solely an opportunity to be evaluated on past accomplishments. Provide reliable, valid and fair data to tell your story; make sure the reviewer can base their judgment on facts and evidence, rather than their beliefs or hearsay. The more an appraisee participates the greater the satisfaction, especially when one is able to voice opinions irrespective of the influence that may have. Engage the reviewer

on positive and productive topics while expressing needs and concerns. Share your aspirations and training needs. Realize that you may not have significant impact on the institutional process your employer uses, but you can impact the outcomes of that process.

ENGAGING NEW MEMBERS IN YOUR STATE ASSOCIATION ACTIVITIES: PROGRAMS AND IDEAS

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The most challenging years of an Agent's career are probably the early ones, and learning the ropes at any Extension system takes time. New agents are encouraged to get involved in the state association, attend the NACAA Annual Meeting and Professional Improvement Conference (AMPIC), submit abstracts for presentations and posters, apply for awards, and make the most out of the professional development opportunities. However without a good mentor, knowledge of expectations, or an understanding of the application process, the demands of a State Association and the AMPIC can be a daunting experience. To address these needs, the FACAA (Florida Association of County Agricultural Agents) New Members Relations committee makes a presentation during New Agent Training to provide an overview of the association and benefits of membership. To encourage participation to the AMPIC, FACAA committee chairs of the Early career development and New member relations started an annual videoconference session in 2014. The videoconference covers the following topics: Writing a quality abstract, award opportunities, communication awards, entering a poster, presenting abstracts, how to upload submissions to the NACAA site, and a message from the NACAA Southern Region Director. Various committee chairs serve as presenters and share helpful hints for successful submissions. For the continued growth of NACAA, new members need to be encouraged and developed. Through outreach efforts, early career members are becoming more engaged with the state and national association and becoming more connected with agents throughout the state that can serve as mentors.

PAINLESSLY PUBLISHING IN THE JOURNAL OF THE NACAA

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Whether you are in a tenure track, tenured or non-tenure track position, getting published in a peer reviewed journal will have a tremendous positive impact on your resume for the rest of your career. Practically any successful Extension professional is conducting research and/or programming that is worthy of publication in the Journal of the National Association of County Agricultural Agents. The Journal of the NACAA publishes articles on research, case studies of Extension programs and innovative ideas. Because the Journal of the NACAA only accepts articles in which at least one author must be a member of NACAA, it has a low submission rate. Consequently, it can be very friendly for the first-time journal author. This presentation will teach you what you need to know to become a successfully published author in the Journal of the NACAA. Topics will include potential article ideas, submission requirements, navigating the online submission process, the peer review process and more.

DEEP WORK VS SHALLOW WORK: A TIME MANAGEMENT METHOD

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As Extension budgets continually tight and expectations abound with programs, grant writing and publishing each days' time allotment at work becomes more and more valuable. Yet there are days, and weeks that we look up from what we are doing and wonder 'where did the time go?' "Deep Work vs Shallow Work: A time management method" is based on the 2016 book by Cal Newport, writer and assistant professor at Georgetown University.

Many of his concepts apply directly to extension work. We will explore how to harness time and use it to our best advantage to accomplish our goals. The "four-rule guide" will be introduced to help minimize distractions and focus on thoughtful deep work to allow our best efforts and still have time for other life activities (outside of work!). This presentation will introduce concepts and provide an opportunity for participants to engage in a brain storming session and a hands-on exercise to begin to apply this method to their individual work lives.

FINDING PEACE IN THE PROMOTION AND TENURE PROCESS: GUIDANCE FOR THE NEW EXTENSION PROFESSIONAL

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Each new Extension professional has to gain control of the Promotion and Tenure (P & T) process. For some, P & T is arduous. For others who have planned effectively and have developed a strategy for success, the P & T process can be a source of inspiration and satisfaction. Each institution has its own guidelines, but generally the P & T process can be divided into three key components along a defined timeline: 1) a foundational period in which the new faculty member sets forth a plan for work and success in Extension; 2) the mid-term review (sometimes referred to as the third-year review) in which progress is evaluated; and 3) the final submission of a P & T portfolio and presentation. The new Extension professional must be able to methodically navigate stakeholder needs and institutional expectations during the early career.

For new Extension faculty looking for success in the P & T process, it is essential to immediately start assessing stakeholder needs, acquiring funding, developing and evaluating programs, and being creative in cultivating scholarly activity. In doing so, it will be possible to build a compelling story highlighting successes and accomplishments throughout the P & T period that can be effectively delivered in written and presentation form to colleagues and administrators.

Horticulture & Turfgrass

EXTENSION MASTER GARDENER NATIONAL PROGRAM EVALUATION AND DATA COLLECTION

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The Extension Master Gardener (EMG) program exists in 49 states, the District of Columbia as well as Canada and South Korea. However, it is not clearly known how many EMGs there are in the U.S. or how many hours of service are given in a years time. In the U.S. the collection of impact data for the EMG program is up to each individual state. There is no yearly data collection for the national EMG program. The last national data collection survey was completed in 2009 with 40 states responding; the EMG CSREES liaison provided leadership for this effort.

In March 2015, the EMG National Committee, composed of representatives from five regions, distributed a survey in attempt to update the 2009 report. The report was completed and distributed in March 2015. This report shows only 38 of the 49 state programs reporting, indicating more than 80,000 EMGs donating more than 5,292,130 hours of service nationwide.

Because of the fact that there is no consistent data collection tool for the U.S., the reported data doesn't completely represent the EMG program in terms of number of volunteers, hours donated, etc. This session will discuss the challenges in national data collection and impact reporting and the need for a national data collection tool. Reporting impact is critical to the strength of the program nationally. The EMG has developed a task force to address this issue; the task force will create a consistent data collection instrument that can be adopted by each state EMG program. The EMG will be responsible for implementing this data collection and impact reporting.

TEACHING GARDENERS ABOUT PRODUCING, PREPARING, AND PRESERVING TOMATOES AT THE BUCHANAN COUNTY TOMATO FEST!

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Home gardeners usually have their favorite tomatoes which they have grown for years. While Extension Specialist encourage gardeners to try new cultivars, they often lack an opportunity to taste new cultivars without actually growing them. For many years, there has been a trial demonstration garden at the Buchanan County Missouri Extension Center. The trial includes over fifty varieties of tomatoes, many of them heirloom varieties. The regional horticulture specialists and Master Gardener volunteers decided to have a Tomato Fest! For the past three years they opened the trial garden to the public, so that area gardeners could see the cultivars, growing methods and have an opportunity to taste them. Master Gardeners grow and manage the demonstration garden. At Tomato Fest! participants can take notes on specific cultivars and rate them as they taste them. Extension Specialists and Master Gardeners give talks and demonstrations on growing, preparing and preserving tomatoes. This event has been a great success, averaging nearly 200 people per year attending and learning more about producing, preparing and preserving tomatoes.

A TALE OF TWO BEETLES: ARE YOU READY FOR INVASION?

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Invasion by and destruction of natural resources by exotic, invasive organisms were nothing new to Ohio. However, recently Ohio was invaded by two species of non-native, wood-boring beetles, the emerald ash borer (EAB) and the Asian longhorned beetle (ALB) that presented some similar and unique challenges to Extension Educators in Ohio. The rapidness of the spread and the thoroughness of the near-complete destruction of native American ashes by EAB caught many off-guard. Woodlot owners suffered losses of potential lumber sales, ecological changes in the woodlots and increased risks of injury by branch/tree falls. Some businesses lost a source of raw materials (e.g. tool handle makers), while some businesses gained through tree removals, insecticide treatments, and sales of replacement trees. Municipalities may have suffered the most from the onslaught of EAB. Numerous towns, villages and cities owned high percentages of ash street trees. Some municipalities nearly went bankrupt under the burden of the expense of having to remove hundreds to thousands of hazardous EAB-killed trees in a very short period of time. ALB appeared in Ohio after EAB

and Extension thought we would be prepared to easily handle this new invader. Some of the same issues did arise, but also new unexpected issues appear. What can others learn from Ohio's EAB and ALB experiences that could be applied to the continued spread of these and future invasive organisms? Don't wait for the inevitable to start, be proactive and plan ahead. Actions to consider include: educate yourselves and your citizens; conduct a tree inventory/assessment; prioritize; begin removal program early; replace with diversity of trees; protect historic/significant trees; determine in advance which trees are privately owned and which are owned by the municipality; and educate your citizens as to that ownership. Preparedness and being proactive is evidence of leadership, not being prepared is not. Transparency about actions taken and education and involvement of the public is essential to a successful program. However, one's credibility quotient may fall precipitously in an instant when dealing with the public with one misstep in handling an invasion. Thus, proceed with caution and be sure to use reliable resources.

A MASTER GARDENER ADVISORY COMMITTEE CAN EXPLODE YOUR PROGRAM AND HELP YOU RETAIN YOUR SANITY

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You are running a Master Gardener Volunteer program on your own. You see potential for improvement and expansion, but are stretched too thin to make any substantive changes. Learn how to start a Master Gardener Advisory Committee and empower your volunteers to share ownership, responsibility, and leadership of the program. See how in Hancock County, Maine, the MG Advisory Committee helped make MG volunteer projects more meaningful and impactful, improved MG volunteer retention rates, created advanced learning opportunities for seasoned MGVs, and bolstered volunteer recognition. Consider how you might use this model in your own region to strengthen your program while keeping your own work load manageable!

THE SPOTTED LANTERNFLY, LYCORMA DELICATULA: A NEW INVASIVE INSECT THAT THREATENS AGRICULTURE IN PENNSYLVANIA

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The spotted lanternfly, Lycorma delicatula (White), an invasive fulgorid planthopper, was first discovered in September 2014 in eastern Pennsylvania. It has potential to impact grapes, stone fruits, ornamental plants, and forest product industries. Early detection is vital for the protection of Pennsylvania businesses and agriculture. Spotted lanternfly completed one generation in 2015 in Pennsylvania. Extension is providing programming to help residents learn to identify the distinctive egg masses, four instar stages and adults, as well as a preferred host tree, Ailanthus altissima. A quarantine has been issued by the Pennsylvania Department of Agriculture (PDA) to try to prevent the spotted lanternfly from being introduced into additional areas. Residents and businesses need to know how to be compliant with the quarantine order. There is an on-going collaborative effort between Penn State Extension, the Pennsylvania Department of Agriculture, local governments, and community groups to provide education about this insect and the quarantine. An eradication effort is underway which relies on PDA personnel and trained community volunteers. Management efforts are on-going and Penn State Extension continues to provide educational support for industry stakeholders, community volunteers, Master Gardener volunteers, and residents.

ESTABLISHING AN EARTHBOX DEMONSTRATION IN SOUTH MISSISSIPPI

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The interest in vegetable gardening in south Mississippi has been increasing for last several years. But a common misconception is that a large amount of land is required for the vegetable garden. In fact, more home gardeners with limited backyards are becoming interested in growing vegetables in containers. Growing vegetables in containers is a way for those with limited space, maybe only a porch or patio, to have a fresh harvest. This is especially true in the urban areas of Mississippi where many homeowners have never gardened before. An effort at the Coastal Research and Extension Center for several years has been to provide home gardeners with examples of vegetable gardens suitable for typical small urban yards. One of the easiest ways for novice gardeners to get started is with sub-irrigated containers. Coastal Research and Extension Center is using a commercial product called EarthBox for our demonstration area. This demonstration area will highlight seasonal homeowner crops grown in sub-irrigated containers and be a trial site for state-wide vegetable and ornamental plant trials.

EVALUATION OF NOVEL DISEASE RESISTANT WINEGRAPE VARIETIES AND TRAINING SYSTEMS FOR GEORGIA

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The demand for disease tolerant hybrid winegrape varieties in Georgia has significantly increased in recent years. Varieties Blanc Du Bois, Lenoir, Norton and Villard Blanc have been successfully grown in the southern US with excellent resistance to Pierce's disease and powdery mildew for over 20 years. The success of these varieties is well established for vineyard productivity and wine quality; however, there is currently no information available regarding the yield, quality, and training systems best suited for growing conditions in Georgia. In 2013, a research demonstration block was established at a two-acre commercial vineyard site to investigate these common questions and in 2016 the third year of data will be collected.

Working in conjunction with the vineyard owner, a vineyard consultant, and the UGA Agricultural and Environmental Services Laboratories, results from this study will provide vital information to the growing Georgia winegrape industry for training and establishing vineyards for continued growth and success.

THE DEVELOPMENT AND EFFECTIVE UTILIZATION OF AN EXTENSION MASTER GARDENER VOLUNTEER HOME HORT TEAM

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Staff downsizing and an ever burgeoning list of home horticulture related site visit requests has led to the extended use of qualified Extension Master Gardener Volunteers to conduct fact finding home visits. The Home Hort Team members are trained in sample collection techniques, taking effective digital photographs and conducting meaningful interviews with Extension home horticulture clientele. They are supplied with a field kit containing necessary items to conduct home visits effectively and collect viable samples. These trained volunteers have provided a useful Extension presence and interface in routine home horticulture matters allowing for a more focused application of County Extension resources.

COMPARISON OF DEER REPELLENTS APPLIED TO AZALEAS

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An integrated pest management (IPM) strategy is recommended for reducing white-tailed deer (Odocoileus virginianus) damage to crops, gardens, and ornamental plantings. Fencing, deer population management, vegetation management, and repellents are recommended. A demonstration trial assessed four deer repellent products on Encore Autumn Empress azaleas (Rhododendron x hybrid Conles PP12109). Selected repellents were Plantskydd (blood protein), Deer Stopper (putrid egg solids), Milorganite (human sludge), and Repels-All (dried blood, putrescent whole egg solids, garlic oil, cloves, onions, meat meal, fish oil, seaweed, acetic acid). Five-gallon evergreen azaleas were re-potted into 15-gallon containers to retain moisture and protect the root zone from freezing during October 2013 - April 2014. Six replicates were placed at sites where deer grazing seemed probable. Each replicate consisted of one azalea treated with each repellent and two untreated azaleas, of which one was protected in a wire cage. At the end of the trial, leaves were stripped, dried, and weighed. Evidence of deer grazing was observed at two replicates: Plantskydd (7.0 g, 62.8 g), Deer Stopper (6.1 g., 20.2 g), Milorganite (5.5 g., 4.8 g), Repels-All-(8.4 g, 6.2 g), uncaged control (5.0 g, 3.0 g) and caged control (16.4g, 91.1 g). Results indicated none of the deer repellents were 100% effective, but Plantskydd was slightly more effective than others. Some evidence indicated Deer Stopper which was applied every 30 days may have produced a phytotoxic effect resulting in leaf loss to azaleas.

COMPARISON OF FALL ESTABLISHMENT OF PLUGS OF ZOYSIA AND ST. AUGUSTINE GRASS IN CENTRAL FLORIDA

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Objective: Zoysiagrass and St. Augustinegrass are warm season grasses. The 2015-2016 fall/winter was mild with temperature's averaging 55 degrees Fahrenheit. Since there is no information on the establishment of different varieties of turf grass in Central Florida, sod producers and residents of Central Florida depend on information from North and South Florida. A turf grass applied demonstration site specific to Central Florida was planted to evaluate cultivars. Methods: Ten cultivars of zoysiagrass and ten cultivars of St. Augustinegrasses (n= 600) were established by plugs in early November. The shoots and roots (30 St. Augustinegrass and 30 zoysiagrass (n=60)) were measured every 30 days over a three month period to record growth rate. Results: All ten St. Augustinegrass cultivars established at a faster rate than all ten Zoysiagrass cultivars. At an average temperature of 55 degree Fahrenheit, the St Augustinegrass cultivars runners increased in length between 4 inches and 14 inches while zoysiagrass cultivars showed very insignificant increase in shoot growth. At the end of the study, roots and shoots of zoysiagrass and St. Augustinegrass were evaluated, all cultivars of St. Augustinegrass roots grew about 4" while zoysiagrass roots increased by about an inch. Conclusion: Central Florida sod producers have access to information that is specific to their location. St. Augustine cultivars are more actively growing in winter compared to zoysiagrass. During the mild winter, although zoysiagrass cultivars did not show much signs of active shoot growth, the roots were actively growing.

RISK MANAGEMENT: A NECESSARY TOOL FOR PROGRAM SUCCESS

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Master Gardeners sometimes conduct activities which from a risk manager›s perspective are considered high impact with a high likelihood of occurrence. Examples of activities include: volunteering in extreme weather conditions; using dangerous garden implements; transporting heavy items; food preparation, and handling money. The Marion County Master Gardener Program developed a risk management plan to diminish potential negative risks to the organization. A group of Master Gardeners met and conducted a risk analysis of all the activities conducted by the organization and identified risk management

strategies for each potential risk. Input was received from the risk management coordinators at the University of Florida and Marion County. Changes implemented as part of the plan included: providing water or Gatorade for Master Gardeners to stay hydrated during the summer; installation of an eyewash station; a sign in sheet for office staff to be aware of who's onsite; and regular inspection of work areas for possible safety hazards. The risk management plan allows us to provide a safe environment for the volunteers and clientele participating in Master Gardener activities; thereby, safeguarding our reputation in the community.

ADVANCED LOUISIANA MASTER GARDENER PROGRAM PROVIDES ADDITIONAL HORTICULTURE TRAINING

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Since 1994, the Louisiana Master Gardener (LMG) Program has provided trained volunteers to increase the capacity of the Louisiana Cooperative Extension Service to deliver basic horticulture information. As the demand for research-based information continues to increase and nutrient management and water quality related concerns rise, Extension Agents and LMG Program participants identified a need for advanced state-wide horticulture training.

The Advanced LMG Program, broken into three phases, was conducted over a two year period. Regional Horticulture Coordinators, the State LMG Coordinator, and State Specialists worked together to plan, develop, and offer over twenty hours of advanced training on relevant horticulture topics. The majority of trainings were made available in-person and online. After completion of all three phases participants were recognized at a graduation ceremony held in conjunction with the Louisiana Master Gardener Convention.

74 of 75 students completed the inaugural Advanced LMG Program, a graduation rate of 98%. An average passing grade of 94% was earned on tests administered during Phase II of the program. Final overall evaluation results are currently being analyzed. These results, coupled with evaluation results from specific courses, will be used to make improvements to future Advanced LMG Programs.

PROGRAM EVALUATION OF THE COLORADO MASTER GARDENER PROGRAM

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The Colorado Master Gardener program boasts approximately 1,300 volunteers that provide valuable outreach programming and information to Colorado's residents. In the population centers, the class is taught traditionally, with live instructors teaching subjects before a live audience in a traveling circuit. In the mountain counties and in rural areas, classes are taught live through a blended course design which includes webinars mixed with local laboratory activities that are facilitated locally by agents and experienced Master Gardener volunteers. The instructor often teaches via webinar to multiple locations simultaneously, while local facilitators assist with student questions, lab activities and guided discussions. After twelve years of teaching this blended (live and distance education) format, Colorado Master Gardener volunteers were surveyed to gather feedback about their volunteer experience and level of satisfaction with the program at the local and state levels. Data was analyzed via multiple regression to determine whether difference exist in volunteer longevity and satisfaction were related to the method in which they were trained (distance education or traditional teaching methods), and what factors were important in retaining master gardener volunteers. Data from the survey and follow-up analysis will be presented.

KEY STEPS FOR BUILDING A SUCCESSFUL JAIL GARDEN PROGRAM - IT CAN TAKE LESS OF YOUR TIME THAN YOU THINK!

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Building a successful jail garden program can be a daunting task, but with the right partnerships in place, jail gardens can be high impact programs without absorbing too much time from Extension staff. USU Extension in Salt Lake County has partnered with the Salt Lake County Jail Horticulture program for the past 6 years. Participating prisoners maintain a 1.5 acre garden on the jail grounds and man a vendor booth at 2 local farmers' markets. The jail horticulture program also incorporates in class training to reinforce field instruction and provide prisoners information on green industry employment opportunities. A post-event survey of class participants found 86% of respondents (n=145) were interested in seeking a green industry job after release from incarceration (Wagner, 2015 - Journal of NACAA). This program has been successful due to combined support from jail administration, jail staff, civilian employees, and civilian volunteers. Highlights will cover program details, lessons learned, and tips for starting a successful jail garden program.

USING SOIL TEST KITS AS A TEACHING TOOL

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Soil test kits can be a valuable and fun teaching tool for horticulture classes. In addition, they can be used with clientele in the field to quickly assess basic soil nutrient levels. They are relatively affordable and most kits come with enough supplies to conduct multiple tests. I purchased five soil test kits from different manufactures and evaluated them for both ease of use and accuracy. All kits can be used to test for nitrogen, phosphorus, potassium, and pH by adding reagents to a mixture of soil and water and matching the change in color to the charts provided. The kits used for this project are available at many garden centers and online retailers and cost less than $30 each. To expand the kits for use with large groups, inexpensive and readily available materials like drinking straws and medicine cups were used. By using, evaluating, and expanding several soil test kits, I developed a set of tools and protocols that work well in both the classroom and the field.

Natural Resources & Aquaculture

AQUAPONICS SYSTEMS EVALUATIONS FOR PRODUCTION, SUSTAINABILITY AND ENVIRONMENTAL EFFECTS.

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Aquaponics is a growing area of interest for Ohio citizens in both urban and rural areas driven by the demand for locally grown food. Seventy-five percent of current Aquaculture Boot Camp participants, new and beginning farmers, expressed interest in aquaponics. Unfortunately, research-based data to share with the interested clients is limited. One of the main advantages of the system is a potential year around harvest providing a competitive edge in the market place relative to conventional production systems. Other potential advantages include higher yield and reduced environmental impact from a simpler pest management system, enhance food safety and crop quality issues and reduced harvest labor costs due to increased harvesting efficiency. Challenges include: lack of experience with the system among growers, Extension personnel and researchers; higher production costs; nutrient management concerns and a lack of proven production techniques. To address these needs, an aquaponics research system was constructed at the OSU Piketon Research & Extension Center in Piketon, Ohio. Objectives of this research were to investigate 1) potential aquaponics production systems, 2) investigate fish and plant production, quality and yield under Fall and Spring production cycles and 3) Develop a curriculum for training. Results of this three year greenhouse research study included; total marketable pounds of specialty lettuce harvested ranged from 1.15 to 19.11 ounces per square foot among treatments, development of a low cost aquaponics system and comparison of three media treatments.

EASTERN OHIO OIL AND GAS ROYALTIES WORKSHOP

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During the last five years eastern Ohio landowners have leased thousands of acres of their land to oil and gas companies for production of shale deposits deep beneath the surface. Billions of dollars have been invested by large companies to lease the acreage for drilling horizontal wells. Numerous wells have been drilled and royalties are now being received by a few landowners. While this has brought a tremendous amount of money and infrastructure into the area, drilling has slowed considerably the last year due to falling oil and gas prices. The recent lull in production has increased landowner interests in sale of mineral rights and royalties for immediate cash and many companies are eager to purchase the valuable minerals. Landowners often receive multiple offers each week from prospective buyers to purchase minerals or royalty rights. This can be confusing for landowners who have not dealt with this in the past or if they have not educated themselves on the differences these possibilities offer. The decisions made would affect families, their heirs and subsequent landowners for generations. Extension Educators in the area saw the need to create a way landowners could pull data together to estimate production and make informed decisions about selling their mineral interests. The Oil and Gas Royalties Workshop was a new topic of shale energy programs that was developed to keep up with the rapid development in eastern Ohio. Using data from the Ohio Department of Natural Resources, Division of Oil and Gas website, published oil and gas prices and landowner lease percentages Educators were able to construct a model to estimate royalty values per acre. The model was intended to compile the known factors into a tangible number. The workshop also discussed the unknown factors so that the attendees would be able to evaluate their situation and make the best decision for themselves and their families. A local lawyer was also a speaker at the event, he discussed different scenarios landowners were faced with and what he advised in specific situations. Using all this information, clientele could evaluate their position with more confidence. Forty-one participants came to the workshop. Most participants were local; however some came from western OH as well as neighboring states (WV and PA) to the event. Evaluation data was collected approximately two months after the meeting and the some of the results were as follows:

All participants that answered a survey report stated that they have a better understanding of the value of the oil and gas minerals in eastern Ohio, and would be more comfortable negotiating the sale of their minerals if they chose to do so.

All participants would recommend the workshop to a friend, and be interested in attending a follow-up presentation with new production numbers.

NATIVE MEADOW HABITATS IN STORMWATER DETENTION BASINS: AN URBAN POLLINATOR REFUGE

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This program examined habitat use by pollinator species between a mowed turf and an unmowed naturalized area within a dry stormwater detention basin. Stormwater detention basins are primarily designed for flood control and typically vegetated and maintained with turf type vegetation. Threatened by habitat loss, disease and pesticide use the numbers of native pollinators and commercial bee populations have been in decline. Naturalizing basins using native herbaceous wildflower vegetation can provide an increase in pollinator habitat while also incorporating storm water quality benefits. Allowing the native vegetation to grow and flower enables pollinators to utilize this small scale urban/suburban pollinator urban refuge, for feeding, habitat, and for some species, reproduction. In this study we compared two 600 square foot plots within a 1-acre mowed detention basin, laid out at opposite ends. One plot is planted with native herbaceous meadow vegetation, mowed once in the fall, while the other plot is fescue turf grass, mowed down to 2 inches every two weeks during the growing season. Pollinator samples were collected every two weeks using pan traps and sweep nets on alternate days. Pollinators were identified to genus or species level, and enumerated; plot type usage was compared and typical forage distance estimated by genus. Results after two years show foraging in our basin by the honey bee and 4 genera of native bees. The naturalized area vegetation was preferred (90%, n = 194), versus mowed turf (10%, n = 22). Foraging distance was calculated using intertegular distance, and ranged from 7.8 m to 9766 m for all genera combined.

INITIAL ASSESSMENT OF E. COLI AND DISSOLVED OXYGEN IN A RECENTLY RE-FILLED LAKE

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Sunset Lake in Bridgeton, NJ, remained drained for nearly four years, from August 2011 to June 2015 due to a breach of its dam. During that period, the lake's basin filled in with relatively dense woody and herbaceous vegetation. The re-filling of the lake represented an opportunity to investigate the changes in water quality that would result. Water samples were taken weekly at three locations in the lake from June 22, 2015 to March 12, 2016 and analyzed for E. coli bacteria. In situ measurements of dissolved oxygen, pH, electrical conductivity, and temperature were taken, as well as subjective assessments of water appearance and odor. At the swimming beach location, daytime dissolved oxygen concentrations were generally good with median concentrations above 5 mg/L for all months, and above 8 mg/L for all months except June and July. Dissolved oxygen concentrations at sunrise, which indicate oxygen depletion during the night were above 5 mg/L. However these samples were not taken in June or July when daytime dissolved oxygen levels were lowest. At the swimming beach location, E. coli bacteria concentrations showed seasonal variations with low counts in winter months, but with concentrations in June, July, and August consistently exceeding state benchmark values for primary contact recreation. The visual appearance and odor of the water were generally good. These results suggest that at least initially, the water quality of the lake was not impaired unusually after re-filling, but that conditions do favor the harboring of E. coli bacteria.

COMMUNITY PROGRAMMING AND STORMWATER

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Currently, stormwater management in the U.S. is predominately a non-point source pollution issue, especially in suburban areas. To address this issue successfully requires changing behaviors at the community level. This may start with technical modeling and social media outreach but the answers for several N.J. programs were found to lie in personal relationships and community based educational programs, the Extension essentials. Twenty-seven community-focused educational workshops for rain gardens and rain barrels were conducted (2010 to 2015) with 627 participants.

Rain barrel workshops were conducted in parks, with the stream of concern as the backdrop. Survey results indicated that community based venues had a high influence in participation of residential clientele (67% of respondents rated it a high influence). Early data from the surveys indicated that only 12% disconnected a downspout that released to the driveway or underground (impervious surface); after introducing the concept the average for disconnection was 65%. Follow up surveys of participants indicated 92% installed their rain barrel (statewide average 71%).

Cluster neighborhood rain garden programs were conducted in 2010 and in 2014. The programs included education on rain gardens and installation of residential rain gardens. There are similarities with the classic Extension adoption model despite a lack of personal economic incentive. This is one of the few environmental studies of its type, in a field where understanding how residential homeowners may adopt stormwater best practices is important to changing behavior and affecting non-point source pollution.

The interaction between technical planning and on the ground community implementation and adoption will be discussed.

WHAT IS THE ROLE OF NATURAL RESOURCE PROFESSIONALS IN LANDOWNER LEGACY PLANNING?

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Forestland owners 65 years and older own 41% of Virginia's 10 million acres of private forestland. High land values and taxes cause many heirs to sell land to meet financial obligations; a major force behind an annual loss of 27,000 forested acres. Virginia is on the cusp of the largest intergenerational transfer of family forests ever and landowners need to know how to protect their land. A common barrier to estate planning is using planning tools and having confidence in knowing where to start.

Focusing on Land Transfer to Generation "NEXT", a 12-hour in-depth short course, was piloted in 2009 and has been offered each year since. Program design draws from national curricula and utilized local experts to develop new material. Nearly 190 individuals, representing 103 family units, have completed the course which uses private legal and financial professionals, conservation specialists and extension agents.

Following short-course participation, landowners better articulate land transfer goals and have begun planning. Participants indicated the program would increase the likelihood of their property staying in the family (75 %) and staying in woodland (74 %). Six month follow-up surveys reveal that over 75% have begun estate planning and estimate an average family savings of $500,000. As these landowners continue executing their plans, approximately 51,972 acres of land is expected to remain open and family owned. The program has been recognized as one of the most successful land-transition programs by Virginia Department of Agriculture and Consumer Services and fellow educators have adopted this model.

EDUCATING NATURAL RESOURCE PROFESSIONALS THROUGH AGENCY COLLABORATION IN ARKANSAS

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Universities and natural resource agencies in Arkansas have a history of partnering on projects which promote voluntary habitat improvements on private lands. Several agencies identified a need to educate natural resource professionals about partnership opportunities, new and innovative habitat restoration practices, and state/regional/national policies and initiatives which impact their work. A multi-agency planning committee met in April 2009 comprised of the Arkansas Association of Conservation Districts, Arkansas Forestry Commission, Arkansas Game and Fish Commission, Natural Resources Conservation Service Arkansas, U.S. Fish and Wildlife Service, and the University of Arkansas Cooperative Extension Service & Arkansas Forest Resources Center. Four biennial conferences have had a mix of topics and formats: February 2-3, 2010 (110 attendees, presentations only), May 8-10, 2012 (150 attendees, presentations & field trip), May 6-7, 2014 (80 attendees, presentations & field trip), and May 2-5, 2016 (TBD, two field days, presentations & field demonstrations). Post-conference evaluations indicated participants (2010, n=64; 2012, n=29, 2014, n=35) were very interested (2010) or highly likely (2012) to attend a conference with themes of wetland management and restoration (37%, 74%), grazing management/prairie restoration (32%, 52%), and riparian restoration (44%, 44%). An open-ended question in 2014 indicated interest in prescribed burning, native plants, and glades. Participants reported benefiting mostly from networking with professionals who they plan to work with on habitat restoration (66%, 79%, 91%) and developing potential partnerships (62%, 90%, 90%). Currently seven Arkansas county Extension agents (9%) are registered to attend a portion of the 2016 conference as an in-service training.

A MULTIDISCIPLINARY INVASIVE SPECIES WORKSHOP

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Invasive species pose a myriad of problems for land managers, natural resources managers, agronomic producers, fruit and vegetable producers, property owners and home gardeners. Research based scientific methods are often not used to control invasive species. This can result in invasive species surviving treatment, or pollutants unintentionally released into the environment. To address these problems, UF / IFAS Extension Washington County offered a Panhandle Invasive Species Workshop . Speakers included a multidisciplinary line up of Extension Agents, Extension Specialists, and Department of Environmental Protection (DEP) / State Park Employees. The 48 attendees included land & right of way managers, farmers, homeowners, DEP employees, state park employees and biological scientists. Class curriculum consisted of invasive species biology, plant identification, aquatic and terrestrial plant control products and methods, personal protective equipment. The hands on demonstration components included plant identification, herbicide selection and a variety of specialized control techniques at two different locations: municipal and state park. Eighty one percent (n=29) of survey respondents indicated that they plan to change their control practices as a result of the program. Ninety Seven (n=35) of survey respondents indicated that they will be more likely, to accurately identify invasive species as a result of the program. Average acreage represented by those attending the Workshop was 786 acres. Twenty-nine of the attendees reported that they were planning on making a change to their current invasive species control efforts based on what they learned. This translates into approximately 23,000 acres that will now be better protected from invasive species. Control efforts on these lands can potentially prevent to the spread of invasive species to countless acres of adjacent properties.

RESTORING THE HEALTH OF SILVER LAKE

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Silver Lake, the largest recreational lake in Cowlitz Co. is used for fishing, swimming and water skiing; and is home to fish, waterfowl, and other wildlife. Water quality problems including: elevated coliform counts, the presence of Blue-green algae, and fish kills have periodically closing the lake to all recreation. In 2010, a series of public meeting facilitated by WSU Extension resulted in the County Commissioners forming the Silver Lake Watershed Advisory Council. Their mission is to minimize all health risks to people and wildlife from degrading water quality. Council representatives were from multiple agencies including: WA Dept. of Fish and Wildlife, Weyerhaeuser, Conservation District, Silver Lake Flood Control District, Cowlitz Co. Health Dept., Dept. of Ecology, Cowlitz Co. Environmental Health, WA Dept. of Natural Resources, Cowlitz Co. Commissioners, WSU Extension, and local citizens. Problems potentially impacting water quality include: a near-by landfill, failed septic systems, invasive grass carp, and livestock access to the lake. To determine which problems to focus on local citizens created a water quality testing program and collected samples monthly with funding secured through Cowlitz County. WSU Extension facilitated the council to apply and received a $92,000 grant from DOE to expanded testing. Possible solutions identified by SLWAC include: removing grass carp, reintroduce native vegetation, using aluminum sulfate treatments to control phosphate, lake flushing, and educating property owners to reduce nutrients entering the lake. The council is working with state agencies to initiate grass carp removal and lake flushing.

TARGETED GRAZING APPLIED TO REDUCE FIRE BEHAVIOR METRICS AND WILDFIRE SPREAD

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Increasing wildfire occurrence is a growing concern in many regions throughout the world, with wildfires increasing in size and suppression cost. Targeted grazing has been suggested as a tool to create and maintain strategic fire breaks by reducing the fine herbaceous fuel load and subsequently fire behavior metrics. We evaluated the effect of domestic cattle grazing at two seasons (summer and fall) and two utilization levels (low and moderate) on fire behavior metrics, flame height and rate of spread, in big sagebrush (Artimesia tridentata L.) communities. Cattle grazed six blocks with 30x30 m treatment plots within each block grazed at their respective season and targeted utilization. Shrub cover and herbaceous biomass before and after grazing were estimated in 2014 and 2015. Shrub canopy cover ranged from 0% to 78% with plots and dry matter herbaceous biomass ranged from 74 to 1,190 kg/ha. Prescribed burns were applied in September of 2015 where fire behavior metrics were recorded by observers and video cameras. Statistical analysis of variance revealed that grazing was an effective tool at reducing flame height and rate of spread when shrub cover was low. However, at higher shrub canopy cover, cattle grazing for fine fuel reduction may be limited due to the wildfire's potential to carrying though the shrub canopy.

THE COLOR COUNTRY NATURAL RESOURCE EXPERIENCE: ENHANCING EDUCATION THROUGH CREATIVE PARTNERSHIPS

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There are many Environmental Education programs. Some have staff formally trained in the subject they are teaching, but most programs lack the resources to bring in professionals from the field with real life experience to teach and mentor youth. The Color Country Natural Resource Camp is an annual, week long outdoor experience where high school students learn about nature through fun hands-on activities, field trips, and outdoor recreation opportunities, all from natural resource professionals and educators. This intensive camp teaches youth about natural resource careers, while focusing on soils, plant systems, wildlife habitat, and stream ecology. While one of the main goals is to increase interest in Natural Resource careers, an equally important goal is to develop a passion for lifelong learning and engagement as users of our wildlands. Participant's gain a greater awareness of natural resources issues surrounding human interaction (land use management) and the science and tools scientists use to monitor and manage the land. The camp is a mobile station that changes locations allowing for the study of various systems, from high desert to sub-alpine conifer. A partnership between local Forest Service, Bureau of Land Management, Extension 4-H, Division of Wildlife Resources, local school districts, and volunteers develops the camp programming and curriculum. This special partnership of experts enhances the campers educational experience, giving them access to the equipment and tools used in the field. These partnerships also allow for several student internships where top participants are hired for the summer. This experience takes education of our Natural Resources to the next level. It combines intensive study with a practical understanding of how the science works and the jobs that our land manages are required to do. Some of our graduates have gone on to college study in these fields, while others have just improved their understanding and are better stewards and decision makers of the natural resources we hold in trust. This presentation will share data about the impacts of this program, along with shared plans and ideas for replication.

Sustainable Agriculture

RESEARCH AND EXTENSION PROGRAMS ON SOIL HEALTH AND COVER CROPS PROVIDE KNOWLEDGE TO NEBRASKA FARMERS AND AGRICULTURAL ADVISORS.

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On-farm and experiment station research from 2013-2015 provided varing results on the impact of cover crops on subsequent crop yields. When cover crops were incorporated into cropping systems in south central and southwest Nebraska, cover crops had more of an influence on subsequent crop yields under dryland cropping systems. When cover crops were grazed, these systems were more profitable than cropping systems that included cover crops that were ungrazed or did not include cover crops. Nebraska Extension received a Conservation Innovative Grant from Nebraska NRCS. We worked with 34 farmers, sampling their fields to determine how practices such as no-till, use of manure and cover crops improved soil health. Three workshops, with 50 in attendance were conducted during the summer of 2015 to help cooperating farmers better understand soil health, understand the Haney Test and share what they are seeing in their fields. In the fall of 2015, three field days were held with 141 farmers and ag advisors participating. The focus of these field days was using cover crops to improve soil health as well as the opportunity to provide forage, producers discussing their experiences, and multiple experts present to answer questions. A survey following one of the field days indicated 71% (n=43) had a significant improvement in knowledge of the benefits of cover crops. This survey also indicated knowledge gained from the field day and/or anticipated practice change on a per acre basis: (n=33) for an average of $15.13/acre or a total impact of $3,351,200 on 221,494 acres.

DEVELOPING AN ORGANIC GROWER ADVISORY

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The number of farmers using organic practices in New Jersey has increased steadily over the past ten years. Many of these farmers can be classified as beginning farmers with less than ten years of experience. Often the assumption is made that Extension is not relevant to organic production, and as a result organic producers were missing out on pertinent information and outreach. The Organic Grower Advisory began in 2012 in the kitchen of a prominent farmer who utilizes both organic and conventional practices. The goal of this first meeting was to glean information on why there was little contact between Extension and organic producers, twelve farmers participated. This Advisory has met annually since then to discuss grower needs, Extension research and future collaboration efforts. These roundtable discussions have evolved over time, but are informal in their format with the focus on grower led discussions. The Advisory has forty-nine farmer participants from throughout the state with ten regularly attending Extension Agents and Specialists. These annual meetings have proven to be an excellent way to help guide the direction of Extension programming and research. Participants have recognized the increased inclusion of Organic Materials Review Institute(OMRI) approved pesticides in research trials, OMRI approved pesticides in disease and insect state alerts and the inclusion of an organic session at the annual Agricultural Convention. Regular dialog dedicated to the needs of organic producers has shifted their perception of Extension, guided the development of research trials, and has made Extension outreach in New Jersey more inclusive of organic producers.

ADVISING THE BEGINNING BEEKEEPER: A RESOURCE GUIDE FOR THE COUNTY AGENT

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Interest in beekeeping has increased tremendously in recent years due to demand for locally produced foods and widely expanded pollination needs. Apiculture is also extremely attractive as an agricultural production system for those with limited land resources. As such, client inquiries concerning beekeeping to local cooperative extension agents has increased in parallel with this surge in interest. This has created a dilemma in satisfying information requests as comparatively few cooperative extension agents are well versed in apicultural matters. In addition budget constraints have forced many land grant universities to minimize and or eliminate extension apicultural programs as personnel retire. Such cuts have broken the critical agent/specialist link in the information dissemination process. Most land grant institutions do have resource materials available; however, agents without beekeeping experience find it difficult to sort through unfamiliar terminology in an effort to provide useful information to the client. The author has

developed an understandable updatable indexed resource manual that will provide agents with a basic knowledge of beekeeping terminology and methodology to adequately advise the beginning beekeeper. The manual is divided into sections covering basic honey bee information, equipment types, honey bee acquisition, hive placement, sourcing, association links and training sources. The manual is presently available in a beta format.

EXPANDING BEEKEEPING AS A PROFITABLE AGRICULTURAL ENTERPRISE THROUGH EXTENSION EDUCATION

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The need for beekeeping education has become particularly relevant in recent years with rapidly growing interest in beekeeping and increased awareness of the decline of honey bees and their value as pollinators. Goal: Promote beekeeping as a profitable agricultural enterprise in Osceola County, Florida. Objectives: 1) Increase knowledge and application of Beekeeping Best Management Practices and regulations; 2) Increase the number of registered beekeepers in the county; 3) Provide support to new and established beekeepers. To accomplish these objectives, the Agent created and regularly taught a three-part educational series, established a beekeeping association, became a beekeeper, offered consultations, and educated the general public. Five-hundred-twenty-eight (528) aspiring beekeepers participated in educational programs (2012-present), increasing knowledge 24% through introductory programming. Local, state-registered beekeepers increased by 238% (N=44). Education participants who became beekeepers generated a combined estimate of $400,000 in honey sales (2013-2016). Extension education successfully supported beekeeping as a hobby and business, increasing beekeepers' knowledge of regulations and responsible practices, and increasing the number of local beekeepers.

BIRDSFOOT TREFOIL: AN UNDERUTILIZED LIVESTOCK FORAGE

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Birdsfoot trefoil (BFT) is a highly palatable perennial legume. It has condensed tannins purported to help control intestinal parasites. It is a high-protein forage that can be made into hay or haylage and even grazed without concern about livestock mortalities from bloat. So why is BFT not a more common forage throughout the U.S.? It is supposedly difficult to establish, but results from two years of BFT demonstration plot trials in northwestern Washington State beg otherwise. This presentation will share results to date about BFT research at the Washington State University Northwestern Research and Extension Center in Mount Vernon, WA, including planting protocols, production records, and chemical analysis. Given BFT's success in very wet and heavy soils, there is increasing interest in this overlooked legume from livestock owners in areas with significant rainfall, such as western Washington.

THE URBAN RESEARCH CENTER IN SOUTHERN NEVADA

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An urban research center is a unique idea, one that can benefit both urban and rural agricultural communities. The center began over 20 years ago as a collaborative effort among the city of North Las Vegas, the University of Nevada Las Vegas and the University of Nevada Cooperative Extension. The center has concentrated on testing various cultivars of deciduous fruit trees and vines for the desert climate. Hands-on classes are taught to the public. New fruit varieties are selected each year and added to the orchard and vineyard. Outreach was made to farmers' markets, chefs, and breweries for use of products.

Over the past few years, changes in leadership of Extension at all levels have improved the direction of research and teaching at the center. As the center continues to develop new avenues for research and teaching projects, such as testing of new grapevine rootstocks (new USDA grant) and hops. A major goal of the center is to test new crops that can be grown on small urban farms (a third of an acre to 3 acres). New crops being tested this fall include pumpkins and sweet potatoes. We are extending our educational outreach more into the community. The goal of this center is to continue bringing research-based sustainable crop production concepts and methods to both urban and rural communities for sustainable crop production in southern Nevada.

ON-FARM RESEACH VALIDATES THE BENEFITS OF APPLYING FUNCTIONAL CARBON TO ENHANCE SOIL HEALTH

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[1]. Extension Educator, University Of Idaho, Mountain Home, ID, 83647

In the last 30 years as a University of Idaho Extension Professor and Agronomist, we have conducted on-farm studies. Our research has long focused on the benefits of applying liquid functional carbon to the growers normal fertilizer routine. These studies have in improving soil's water-holding capacity, as well as the use of Water-Mark Sensors to document water-use efficiency. It has shown documented quantitative improvements in yield, quality, soil health, and water-use efficiency. In addition, in this study, we established replicated research trials and conducted hundreds of field demonstrations to evaluate the efficacy of different commercial humate products (derived from lignite and leonardite) in crop production, as well as documenting the ability of soil organic matter to bind water, thus decreasing the amount of water need in irrigation management and provide significant protection in the case of drought. Irrigation Management is an important factor in

determining crop yield and quality, as well as nutrient leaching.

The use of functional carbon(humic and fulvic acid, or humin) creates strong organo-mineral complexes therefore aiding in a healthy aggregate. Other documented benefits include chelation and buffering capacities. We evaluated the influence of liquid functional carbon products on sugar beet and potato fields, assessing water infiltration and tare dirt. The data from humic acid (HA) trial outcomes varied, depending on various soil mineralogy, cropping systems, and the groweers' cultural practices, as well as the use of different products in relation to yield and quality. The consistent use of good quality functional carbon in our replicated plots resulted in a yield increase from 6% to 30% over three decades. Furthermore, our data has documented increases in water sequestration, at an average of 11.2%. In many cases, according to our data, observation, fieldmen/growers' feedback, etc, quality and uniformity created as much income as high yield.

Teaching & Educational Technologies

A COMPANION FOR THE HANDBOOK OF BIOLOGICAL STATISTICS USES R FOR FREE STATISTICAL ANALYSIS

*Mangiafico, S.[1]
[1]. Environmental And Resource Management Agent, Rutgers Cooperative Extension, Millville, NJ, 08332

Professionals, paraprofessionals, and clientele in natural resources often need to summarize, plot, and analyze data for various purposes. R-project for Statistical Computing, or simply R or R-project is a free, powerful, and well-respected software package for statistical analysis. An R Companion for the Handbook of Biological Statistics gives clear examples of common statistical analyses in R, assuming no background in statistics or programming. It provides code for examples given in The Handbook of Biological Statistics by John H. McDonald, as well as for original examples. The R Companion book is available both as a as website with each chapter as its own webpage, and as a pdf. Some included analyses are chi-square, G-test, descriptive statistics, t-test, anova, non-parametric analyses, regression, logistic regression, non-linear regression, post-hoc tests, and multiple comparisons. The website (49 webpages) is available at rcompanion.org/rcompanion/, and the pdf (269 pages, 8 MB) is available at rcompanion.org/documents/RCompanionBioStatistics.pdf.

INTERACTIVE GAMES FOR ADULT AUDIENCES

*Mcconnell, J.[1]
[1]. Extension Agent, Uf/ifas Extension Bay County, Panama City, FL, 32401

One of the responsibilities of horticulture agents with commercial clientele is to offer pesticide continuing education units for license renewal. Although there are new updates to share from time to time, many times similar material is used repeatedly in order to comply with state standards. The objective of incorporating interactive games for adult audiences into pesticide training was to increase knowledge and provide an immediate assessment of knowledge gained with active participation. Agent prepared presentations in pairs; one as a lecture, the second in a quiz show format covering material from the lecture portion. Both presentations were prepared using Microsoft PowerPoint®, the game utilized a free online template called Quiz Show. Attendees were awarded "bug bucks" for correct answers in points that match answers to the 25 questions and prizes were awarded to highest scorers. Some classes broke into competing groups while others worked as individuals. Participation in the interactive games have been high and learners enthusiastically competed for prizes. Immediate feedback was very positive and five months after the initial class utilizing this method, the agent is still receiving positive feedback and requests for more classes in this style. This teaching method has been well received by commercial horticulture clientele and the agent is looking for more ways to use technology to engage learners in future classes.

FROM START TO FINISH: EFFECTIVE EDUCATION USING WEBINARS

*Robinson, J. C., Poling, R.L.[1]
[1]. Assistant Professor, University of Arkansas Division Of Agriculture, Little Rock, AR, 72204

In the constantly changing area of digital communication, we need to utilize the technology and resources available in order to reach internal and external audiences. In the current climate of Extension financial reality (i.e., reduced travel budgets, time, personnel and a growing clientele), it is increasingly important for Extension educators, at both the county and state level, to utilize tools that extend the reach of Extension in the most efficient way possible. One of the growing resources of communication for the University of Arkansas (U of A) Cooperative Extension Service is the use of webinars as an effective teaching tool. A webinar is defined as a seminar or presentation that takes place live over the internet, allowing participants in different locations to see and hear the presenter(s) and interact with the presenter(s) to ask questions or provide feedback. The U of A Cooperative Extension Service has used different web-based video conferencing programs over the years to integrate the use of webinars into the organization as a tool for both educational and organizational meeting efforts. In the last year, U of A Extension has produced and hosted 37 webinars. As the use of the webinar format has increased, we have been learning, through reviews of the existing literature and research and from practical trial and error experience, and refining best practices for planning, delivering, and evaluating webinars.

DEVELOPMENT AND EVALUATION OF AN ONLINE SOIL SAMPLING COURSE

*Robinson, J. C.[1]
[1]. Assistant Professor, University of Arkansas Division of Agriculture, Little Rock, AR, 72204

In 2014, an online course was launched to educate participants about how and when to survey soybean fields for nematodes. The Arkansas Soybean Promotion Board, in partnership with the Arkansas Nematode Diagnostic Laboratory, offered a no cost opportunity for County Agents, consultants, and growers to survey Arkansas soybean fields during the summer and fall for nematodes. In order to qualify for the free nematode assays, interested participants were required to enroll in an online course, complete the course lesson, pass the course quiz, and complete the course evaluation. The concept was to inform participants how to properly collect samples as a way of improving the accuracy and reliability of the results. A self-paced interactive course was developed, and hosted on a Moodle platform accessible via the Internet. Interactive narrated lessons, videos, and print materials were developed to be used in the course. In the first two years 88 participants enrolled in the course. Using online learning as the format was rated favorably, with a majority of the participants reporting the course format was just as effective as a traditional face-to-face course 4.2 (1= Strongly Disagree, 5= Strongly Agree). When asked for general comments, the students reported that they would like to see an online learning format used more often and that participating in the course should save time and money on samples that are not collected and stored properly. Due to the positive feedback from the course evaluations, the online course will continue to be made available indefinitely.

WSU EXTENSION TREE STEWARDS ONLINE TRAINING

*Martini, N.[1]
[1]. Extension Educator, Washington State University, Puyallup, WA, 98371

While there is an abundance of information available to the public and Master Gardeners on trees for the private residence, there is very little on the stewardship of community trees. WSU Extension partnered with WA State Department of Natural Resources (WSDNR) to develop online trainings on this topic to fill that need. The main objective of the training is to teach people to become educated advocates for trees and tree care in their communities.

A statewide team of WSU Extension faculty and staff was formed to produce the training. They met monthly via Zoom Video Conferencing. The course was designed in Blackboard by Global Campus (WSU's distance learning center) in collaboration with the Tree Stewards Team. Quizzes were included to insure a basic level of knowledge would be acquired by the student. Upon successful completion of the training, students receive a certificate acknowledging they've taken and passed the training.

WSU Extension now has a noncredit peer-reviewed course available to those who want to learn more about tree stewardship and how to be an advocate for trees in their community. These advocates can play an important role in urban and community forest health management. Master Gardeners who have taken the training record the volunteer hours they spend on tree stewardship education in the WSU Online Volunteer Database. Other evaluation tools to be developed will show the impact of the training. The training is available as a self-paced course that does not require instructor facilitation.

TEACHING DIVERSE AUDIENCES IN THE SAME CLASSROOM

*Mcmoran, D. W.[1]
[1]. Agriculture And Natural Resources Extension Educator-Director, Washington State University, Burlington, WA, 98233

Extension serves an increasingly diverse community with a number of program participants who are new farmers, minority farmers and low income farmers. Since the 1980s, Skagit County Extension has provided a tractor safety course to young adult farmers, ages 12 to 15. In 2008, several retired females inquired about learning how to operate farm machinery. In 2009, adults were allowed to join the WSU Skagit County Extension Gearing Up for Safety course. Early in 2010, a non-profit farm incubator showed interest in having their members participate in the Extension's farm safety course. This introduced new adult farmers and Hispanic farmers to a classroom of young adults. Meeting the needs of these distinct farming cohorts in a single classroom requires a multimodal approach replicable in other Extension education programs. The following presentation will contain the results of the 2012, 2013 and 2015 WSU Skagit County Extension Gearing Up for Safety Program and how we educated three diverse audiences in the same classroom.

2016 AM/PIC SPEAKER PROFILES

William Hoffman
Chief of Staff, NIFA

Bill serves as Chief of Staff, supporting the Director and working closely with the NIFA leadership group to:

- Serve as a central point of contact and coordination for information requests;
- Strengthen and inform relationships with internal and external agencies, partners, stakeholders, and the public;
- Stay apprised of hot topics or action items/issues impacting NIFA, REE, and USDA;
- Serve as the NIFA liaison to the Office of Chief Scientist (OCS);
- Coordinate a number of high-level activities that cut across NIFA programs and functional lines;
- Manage strategic scheduling of meetings and travel for the NIFA Director; and
- Identify opportunities to provide information to department, mission, and agency leadership.

Bill came to the agency in 2002 and has served as a specialist, National Program Leader, and Program and Analysis Officer. Prior to joining NIFA, he worked for five years with Penn State Cooperative Extension, and before that he worked for five years as a sales representative for two different agro industries.

Bill received his Doctor of Education degree in Higher Education Administration from George Washington University in 2009. He holds a Master of Education degree in Instructional Systems (2002) and a Master of Business Administration degree (1992), both from Penn State. He earned his Bachelor of Science degree in Agricultural Economics and Rural Sociology from Penn State in 1989.

John Dillard
Attorney, OFW Law

John Dillard is an attorney with OFW Law, a boutique agricultural and food law firm in Washington, DC. John focuses his practice on solving legal and policy issues for clients ranging from small farmers and food manufacturers, leading agricultural trade associations, as well as numerous Fortune 500 companies. John divides his practice between advising clients on regulatory compliance matters and litigation before federal, state, and administrative courts. John's practice areas include environmental litigation and compliance matters involving farmers, food safety, food labeling, Native American agriculture, and antitrust compliance.

John has an extensive educational and hands-on background in agriculture. He grew up on a beef cattle farm in Amelia, Virginia and received bachelor's of science degrees in Animal and Poultry Sciences and Agricultural and Applied Economics from Virginia Tech. He also earned a master's degree in Agricultural Economics from Purdue University. John worked as an agribusiness consultant and a USDA economist prior to attending law school at the University of Richmond.

John is also a prolific writer on legal issues affecting agriculture. His blog, Ag in the Courtroom, is featured on AgWeb.com. He also writes a monthly column for Farm Journal on legal and policy matters affecting agriculture. He also speaks extensively on agricultural law and policy matters for producer groups, policymakers, and fellow attorneys.
John credits much of his interest in agriculture to his participation in various 4-H programs during his youth. He showed sheep and heifers in a number of local and statewide competitions. He also participated in livestock and meats judging competitions. John still admires and appreciates the dedication of his local county agent, Mike Henry, and agents from surrounding counties, that went above and beyond to help him and his fellow 4-H members succeed.

In particular, John carries over many of the lessons learned in livestock judging to his professional life. On this point, John notes: "standing in court to argue your client's case and field a judges questions requires extensive preparation and confidence. I think that livestock judging is excellent preparation for a courtroom setting. While the stakes may be lower, you are required to commit to a position and argue your case during 'reasons.' I strive to always be a better lawyer than I was a livestock judge, but I am always grateful for the lessons I learned in 4-H."

Walt Coleman
NFL Referee

Walt Coleman has been applauded by hundreds and booed by millions. Thanks to television, he has annually visited nearly every home in America between August and February since 1989. He is one of the most publicly maligned yet profoundly anonymous men in the world.

Walt is a National Football League Referee wearing number 65. In addition to 26 years of pre-season and regular season

games, he has officiated in 9 divisional playoffs, 6 wild card playoffs, and 2 conference championships and been an alternate in 2 Super Bowls. After 41 years on high school, collegiate and professional gridirons, Walt has a vast collection of humorous and meaningful experiences and observations to share about the game and about life.

Despite what some sports analyst and fans think, when he's not officiating, Walt is a loving husband and father and a respected businessman. Walt resides in Little Rock, Arkansas with his wife, Cynthia. He has two grown children. Since 1974, he has been a fifth-generation participant in the dairy business, and currently serves as Controller in between NFL games and during the off-season.

Walt holds a BS Degree in Business Administration with Honors from the University of Arkansas Fayetteville. He is active in the Little Rock community and serves on many boards and associations. He was past President of the Major Sports Association of Greater Little Rock Chamber of Commerce and the Arkansas Dairy Products Association. He was past Chairman of the Arkansas Area Council of Boys & Girls Clubs of America and past Board Member of the Milk Industry Foundation-Washington DC. Walt is currently a Board Member of the Little Rock Boys & Girls Club.

For Walt, when it comes to life, it's not just about winning or losing, it's about playing by the rules and being confident in how you 'call the game'.

Jerry Nelson
Freelance Writer & Former Dairy Farmer

Jerry Nelson's works have been published in the nation's top farm magazines, including Successful Farming, Farm Journal, Progressive Farmer, and Living the Country Life. For nearly twenty years, he has penned a weekly newspaper column called Dear County Agent Guy. Jerry's column reaches 250,000 readers each week. In addition to the print media, Jerry's column is published on numerous newspaper websites. Successful Farming also posts his column on their website, agriculture.com. Dear County Agent Guy: Calf Pulling, Husband Training, and Other Curious Dispatches from a Midwestern Dairy Farmer is his first book, published by Workman in May 2016.

Garrison Keillor has used several of Jerry's scripts on the nationally syndicated radio program A Prairie Home Companion. Jerry also wrote background material for Keillor's radio show prior to its broadcast from the Corn Palace in Mitchell, South Dakota. Jerry has been featured on South Dakota Public Radio and Television.

After leaving the dairy farming business in 2002, Jerry took a position as a writer/ad salesman for the Dairy Star, a bimonthly newspaper that is received by dairy operators all across the Midwest. Jerry and his wife, Julie, live in Volga, South Dakota, on the farm that Jerry's great-grandfather homesteaded in the 1880s.

Warren Carter
Arkansas Farm Bureau
Executive Vice President

Warren Carter is Arkansas Farm Bureau's executive vice president, appointed to that role in January after 28 years with the state's largest agricultural advocacy organization. In his role, he has management responsibilities for the Farm Bureau Federation staff, where his commitment to collaboration and cooperation are evident.

Before his promotion to EVP, Carter was ArFB's vice president of Commodity & Regulatory Affairs. He first joined Farm Bureau in 1987 and for 10 years was director of the Wheat and Feed Grains, Aquaculture, and Forestry divisions, and was the administrator of the state Wheat Promotion Board. For six years, he was the department's associate director of commodity and public policy, and coordinator of the Soybean and Rice divisions. He was also the administrator for the state Soybean and Rice Promotion boards during that time.

A Mississippi native, Carter grew up on a soybean, cotton and cattle farm near Mantee. He has a bachelor's and master's degree in agriculture economics from MSU. He's served on the board of directors of Arkansas Foundation for Agriculture since 2002. He also serves on the board of the Arkansas State Fair, the Arkansas 4-H Foundation, the Arkansas Agriculture Hall of Fame, the Arkansas State Chamber of Commerce and the Greater Little Rock Chamber of Commerce.

He and wife Michele have one daughter, Catherine.

Mr. Carter will be conducting a presentation titled "A Lasting Partnership" which speaks to the common threads of Arkansas Farm Bureau and Arkansas Extension at a luncheon on Wednesday, July 27 from 11:45-1:15 in the Caraway room.

ANNUAL MEETING AND

PROFESSIONAL IMPROVEMENT FUTURE CONFERENCE DATES

2017

Salt Lake City, Utah....July 9-13

2018

Chattanooga, Tennessee...July 29-Aug 2.

2019

Fort Wayne, Indiana....Sept. 8-12

2020

Virginia Beach, Virginia....July 19-24

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