

National Association of County Agricultural Agents



"Discover Our Southern Charm"

Proceedings

**99th Annual Meeting and
Professional Improvement Conference**

July 20-24, 2014

Mobile, Alabama

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2013-2014 NACAA Report to the Membership

President

Henry D. Dorough, Alabama

Robert Frost once wrote a poem that ended with these three lines:

“...Two roads diverged in a wood, and I – I took the one less traveled by, And that has made all the difference.”



How can I begin to describe the path I have taken with NACAA? Several words come to mind. Exciting. Challenging. Inspiring. Motivating. Career-Changing. Engaging. Encouraging. Life-Altering. The list can go on and on. All in all, this has been the most thrilling time in my career.

While writing this report, word came across the news that the famous poet, Maya Angelou had passed away. I am always inspired to read her work and routinely look for a quote from her writings that fit particular situations. She once wrote: “You are the sum total of everything you’ve ever seen, heard, eaten, smelled, been told, forgot – it’s all there. Everything influences each of us, and because of that I try to make sure that my experiences are positive.” How true these words ring in my ear. My goal is to always strive to ensure every soul I come upon shares in that positive experience as the result of our encountering.

The role of NACAA President is really a very easy one considering all of the committed professionals engaged in the mission of our association. My colleagues in Alabama are the perfect example. They undertook a massive challenge to host the 99th Annual Meeting & Professional Improvement Conference in Mobile, AL. Over the course of more than four years, this team of remarkable individuals has planned an incredible conference that is certain to positively impact the careers of every Extension professional who attends. Arriving on Sunday, participants will experience a special presentation from southern gardening, design and television personality Mr. P. Allen Smith. Following the “Welcome to Alabama” meal, the opening session on Sunday evening will feature a once-in-a-lifetime performance by Randy Owen, lead singer of the music group Alabama.

The 4-H Talent Revue on Monday evening will be like none you have ever witnessed in the past. RFD-TV personality Kevin Sport and his band will work with the talented youth to produce an extraordinary event that will be broadcast on Kevin’s show on RFD-TV in the future. As a result of Kevin’s participation, RFD is sending their production vehicle

to Mobile to broadcast their Rural Radio show live from our AM/PIC for the first time in the history of our association.

Tour day on Wednesday will showcase a wide selection of Gulf coast agriculture and agribusiness and finish with a fantastic feast of seafood at Battleship Park on Mobile Bay featuring the USS Alabama as well as other impressive historical naval and aviation displays. The entire park will be reserved for AM/PIC participants and will surely inspire youth and adult alike.

The NACAA committees have had a busy spring selecting award recipients and planning professional development sessions throughout the conference. These oral and poster sessions feature outstanding, unique and impactful programs conducted by Extension professionals from across the country. Special in-depth sessions featuring Climate Science, the 2014 Farm Bill, Farm Business Transfer, Soil Health and Cover Crops are also planned during the week.

All of the remarkable activities associated with the conference are the result of the dedicated work of the women and men volunteering for leadership roles in our association. While the role of President is an important one, the full body of work of this association would not be complete were it not for the time and talent of the entire group of volunteer leaders on the state and national level. Thank you all for your devotion to NACAA.

I have had the privilege of leading the board of directors through the Post-Galaxy meeting in Pittsburgh, PA, Winter Board meeting in Mobile, AL and a Spring Board meeting in Portland, Maine, in addition to monthly conference calls. I attended the NACAA Western Region Professional Improvement Conference in Ft. Collins, CO, where my reception was unexpected and quite humbling. The professional development was as high in quality as any experienced at our annual meeting.

As your President, I have had the honor of representing NACAA on the Joint Council of Extension Professionals (JCEP) board, participating in monthly conference calls and two face-to-face board meetings. I served on the planning committee for the JCEP Leadership Conference in Memphis, TN, and accepted the position of Policy Committee Chair for JCEP. Additionally, I participated in the JCEP PILD conference in Alexandria, VA. While there, Past-President Paul Craig, Vice-President Cynthia Gregg and I met with various officials in USDA and NIFA to build a common understanding of mission links between local Cooperative Extension offices and USDA, and to build future professional development partnerships between USDA/NIFA and NACAA.

The NACAA Committee on Diversity was established this year with the charge of making a comprehensive review of diversity within the association membership and leadership structure and to examine our relationships with 1890, 1994 and Hispanic programs. NACAA has changed considerably during the past 99 years of our history and we owe it to our membership to continually evaluate and ensure we are meeting every need associated with our mission. We need to have a clear understanding of the perceptions of our membership and others about the association and how these perceptions effect active participation. Anthony Tuggle from Tennessee chairs this committee representing a diverse makeup of our membership and I know their findings and recommendations will help enrich the careers of our members and position NACAA as a model professional association in our second century.

Serving as your President has been a great experience for me but I cannot take credit for all of our accomplishments. Each member of your elected Board of Directors plays a unique and significant role in ensuring the smooth functioning of this association. Many thanks to all of the officers and directors for your sincerity and work ethic for your role in NACAA. A special thank you goes to our Policy Chair Chuck Otte for always being available, actively listening, thinking ahead and spending an enormous amount of time interpreting policy for the many discussions that float around during board meetings.

I cannot boast enough about the dedication of our Executive Director Scott Hawbaker. In years past, many of Scott's responsibilities for this association were handled by the President. With the workload I have realized between NACAA and my Extension position, I cannot begin to fathom the amount of time this year would have required from me had Scott not been hired by the association. I am deeply grateful to Scott for his counsel and friendship during the year, especially as the monthly phone calls turned into weekly and then daily as the AM/PIC approached.

I want to thank my Alabama coworkers for their exhaustive efforts to put together a world-class event for our membership. For them I offer this quote from Maya Angelou: "Love life, engage in it, give it all you've got. Love it with a passion, because life truly does give back, many times over, what you put into it." The passion you demonstrated the past four years for hosting the 2014 NACAA AM/PIC has resulted in an incredible professional development experience for our members and their families. Thanks for a job well done! My co-workers and the ACES Leadership Team have provided me with unbelievable support during my entire tenure on the NACAA Board and for that I am eternally grateful!

Often during the course of planning the 2014 annual meeting, my good friend Kent Stanford talked about relationships; connections built during your entire life. You never know when someone from your distant past or even a recent client contact will become an important link to your success with any endeavor. Take time to build positive relationships with everyone you meet. With that I'll close with one last quote from Maya Angelou, my favorite and most used quote: "People

will forget what you said, people will forget what you did, but people will never forget how you made them feel." I look forward to seeing everyone in Mobile. Thank you for a great year!

President-Elect

Mike Hogan, Ohio



NACAA has nearly completed its first century of existence, a milestone which few organizations accomplish. Next year in South Dakota we will celebrate our 100th AMPIC. And celebrate we will! NACAA is a very unique professional association, one steeped in tradition yet constantly changing to meet the needs of our members. Involvement of families and life members in our AMPIC set NACAA apart from most of our peer associations. Our professional development programs such as the professional improvement tours at the AMPIC and our professional journal are the envy of other professional associations.

It has been a privilege and an honor to serve as your President-Elect during this past year and I look forward to serving as your President during the Centennial Year of NACAA in 2015. It has been a joy to work with our dedicated NACAA Board, Council Chairs, and committee members this past year.

One of the roles of the NACAA President-Elect is to work with our Executive Director to strengthen relationships with donors and cultivate new donor relationships. The current climate for philanthropy certainly has challenged many organizations, and NACAA is no different than any other organization which relies on corporate support and donations to carry out its mission. Despite the current climate, NACAA has been able to maintain its current level of support from corporate partners.

Much of our organization's success in this area is due to the extraordinary work of our Executive Director, Scott Hawbaker. Scott is responsible for maintaining the positive ongoing relationships which NACAA enjoys with our corporate donor partners. The President-Elect of our organization changes each year, but the constant in our ongoing relationships with donors is Scott.

You as an NACAA member also have a role to play with donor development. Don't forget that every potential corporate donor decision-maker lives in some county agent's county! I challenge you to identify individuals in your community with whom you might develop a donor relationship with on behalf of NACAA. And don't forget about the financial incentives for NACAA members who are successful in this area. Outstanding donor support from our corporate partners is yet another dimension which sets NACAA apart from other professional organizations.

I look forward to seeing you at what promises to be an incredible AMPIC in Mobile in just a few short weeks, and especially look forward to NACAA's Centennial Year in 2015!

Vice-President

Cynthia L. Gregg, Virginia

It has truly been an amazing, fast paced year. I am humbled by the amount of work the Committees for NACAA accomplish during the year and this year is certainly no different. The three NACAA Councils: Extension Development, Professional Improvement, and Program Recognition have been very busy in this “short” year. The Council Chairs: Dan Kluchinski, Mary Sobba, and Richard Brozowski have put in many hours and have done a wonderful job. The National Chairs and Regional Vice Chairs went to work immediately after Galaxy and have done a fantastic job. There will be some great Super Seminars, Posters, Peer Presentations and Trade Talks during AMPIC in addition to Webinars before and after. The time and efforts the Committees put into helping NACAA Members is unparalleled.



Below are some items I would like to share with you:

The Committee Handbook has been updated; almost completely overhauled, so hopefully future changes will be minimal. This has been a major work in progress as the Committee Handbook is a fluid document. The NACAA Policy Handbook, Chapter 6, which deals with Committee Work, has been updated. This has been a great opportunity to have the Policy updated with the Committee Handbook. Now that we have a good policy guideline for committee members in Chapter 6 and the Committee Handbook has updated job descriptions, reports and more for committee members. I would like to say another thank you to Retiring Senior Council Chair Dan Kluchinski and his committee for their work on the Handbook and Chuck Otte and his committee for their work on Chapter 6 of the NACAA Policy Handbook. These updates will hopefully make Committee Member’s jobs easier to understand and more streamlined.

Communication is paramount to committees. It is also very important to have State Committee contacts for the Committees to communicate with during the year. If there is not a State Chair/Contact then the State President gets the information to share with others. State Presidents can get on the NACAA Website and update State Chair/Contacts. Even if the State Chair/Contact has a multiple year term, the page needs to be updated annually.

The various programs represented by NACAA Committees are a way for NACAA Members to help fellow members achieve goals of presenting workshops or posters, winning awards, and facilitating network opportunities. Many of these endeavors are needed for promotion of our members for their jobs. Committee members also have a chance to develop more leadership skills, communication skills, and a chance to network with Colleagues from across the country. There are openings every year in a rotation across regions. Keep an eye

out for an opening in your Region on a Committee you are interested in serving on. Many will tell you that serving on a committee is rewarding and you do learn quite a bit. Please consider applying.

If you have not had a chance to submit anything to any of the committees and are thinking about it, please contact your Regional Vice Chair for the Program you are in submitting to next year and for many more. They are a wealth of information and can assist you with the process. Also there are some Quick Start Guides on the NACAA Website; these may help answer some of your questions.

This year we will have a NACAA National Committee Member Workshop and Luncheon on Sunday along with a NACAA National Committee Recognition Breakfast on Thursday. These events are by invitation. If you are currently serving as a State Chair/Contact and will be attending the 2014 AMPIC in Mobile, mark your calendar for the Committee Meetings on Monday afternoon. Your input is valuable and will insure we continue with high quality presentations, posters and awards.

Now please indulge me as I would like to take this opportunity to say Thank you to all of you for your support this past year. I have a few special “Thank You’s”, if you will allow. To the Virginia Membership, other Virginia Cooperative Extension Organizations and Administration: Thank you can never truly express my gratitude and appreciation for all of your support. I would also like to Thank the NACAA Council Chairs, Committee State Chairs, Regional Vice Chairs and National Chairs; you all are amazing doing your committee jobs. I have served as a State Chair/Contact, Regional Vice Chair and National Chair on a Committee; I truly appreciate all you do for NACAA Members. I thought I knew quite a bit about how NACAA Committee’s work. Some things I know but there is so much more going on that I do not know and have been able to learn. I would like to say it has been a privilege to learn more about all of your efforts on your committees.

A Very Big Thank you to all of you, NACAA Members, for all you do. It has truly been an honor to serve you this year as Vice-President. I look forward to seeing you in Mobile, Alabama July 20-24 for the Ninety-Ninth Annual NACAA Annual Meeting and Professional Improvement Conference.

Secretary

Richard Fechter, Kansas



What an incredible three years this has been! Serving the third and final year of my term as NACAA Secretary has been full of many rewarding challenges and moments.

Many colleagues have asked me why I wanted to be NACAA Secretary three years ago, because it sounded like a lot of work. Yes it is, but there is not a better way to learn everything about an

organization than to be the secretary. As secretary, my primary job is to maintain accurate records of board and association activities and to keep the membership informed. Board meeting minutes are approved and posted on the NACAA website as soon as Policy review requirements are met. Also, there is a link of all board meeting documents, with the exception of financial reports, as attachments to the minutes posted online. Posting of the minutes and all the attachments is a tedious and time consuming process. However, to keep our membership informed it is what is needed to be done. Financial security with the internet is of major concern so the board agreed in March 2010 to classify all financial documents and withhold them from the website. However, all members are entitled to a copy of association fiscal reports and may receive a copy by submitting a request to the NACAA Treasurer.

The NACAA Secretary serves as chair of the internal Publications Committee which provides oversight for content of the NACAA website, The County Agent magazine, the e-County Agent blog and the Journal of NACAA. Stephen Brown of Alaska was reappointed to the Journal of NACAA Chair position for another term and has done an excellent job. The Journal of NACAA Chair is now treated like any other National Committee Chair in regards to expenses to the AM/PIC being paid. Also, the retiring peer reviewers for the Journal of NACAA will be recognized at the National Committee Members Breakfast, like other retiring committee chairs and vice chairs. With Stephen's leadership, the Journal is now publishing two volumes on June 1 and December 1 of each year. The Journal is a great place for members to publish peer reviewed articles. For more information about the Journal of NACAA, refer to Stephen's report or contact him directly.

The history of any organization is very important for many reasons and NACAA is no different. In past years, the secretary was charged with collecting annual historically significant documents for storage at the USDA Agricultural Library. However, this has not been done for several years because of costs and other issues related to the USDA Agricultural Library. Currently our records are not up to date, but the groundwork has been laid to bring the records up to date. Many items have been collected over the last few years, so we are closer than we have ever been to having this process completed. We are looking at potential venues or resources in which to store our historical documents. A couple of options are being explored for storage of NACAA historical records and I feel we are close to making a decision. Hopefully my successor will be able to get this task completed and get our records updated and stored properly.

Electronic communication tools have made the job of the Secretary easier in some ways. However, a big thanks goes to Scott Hawbaker, NACAA Executive Director. Without all of his work and efforts, my job would be much harder.

The many hours I spend reviewing recordings and proofing the write up of minutes prior to posting them to the NACAA website has taught me a lot about our association, but also about each of the individuals that make up the board. The

passion and dedication that each of them has for NACAA is truly amazing. What a great group of people to have the privilege of working with this past year and it's an honor to call them friends.

Thank you for the opportunity to serve as your NACAA Secretary these past three years. It has been a wonderful experience and one of the best things I have done in my 20 years of Extension. I am a better Extension Professional and more important a better person because of serving as NACAA Secretary. I am deeply grateful to my Kansas colleagues for their support and encouragement and for all of the lifelong friendships I have made along the way. I look forward to seeing you in Mobile.

Treasurer

Alan B. Galloway, Tennessee



It is my pleasure to report the financial condition of NACAA remains strong. Through the development of the annual budget approved by the voting delegates each year NACAA has stayed on the path of solid fiscal condition. As treasurer I have strived to maintain accurate records, report at least monthly to the NACAA Board and process all payments in a timely manner. In most cases, expense vouchers have been paid within two days of being received, many in the same day.

To assist our budgeting process, the fiscal committee has reviewed the changes in expenses over the last few years. Thanks to the continuity of record keeping by previous treasurers the data was both available and consistent in quality. This investigation has provided insights for developing the budget for future years and highlighted those areas needing the most attention. On the good side financially, membership numbers were up slightly in 2014 and our investments which did well in 2013 and have continued growing in 2014.

While participation in the Galaxy IV meeting was expensive for NACAA. Officers and directors from previous years had made plans for the negative financial impact of Galaxy by setting aside funds to minimize the effect. Part of these funds are covering the registration voucher incentive provided to those who paid the high cost of attending Galaxy IV to reduce registration costs to attend the 2014, 2015 or 2016 NACAA annual meeting and professional improvement conference (AM/PIC). Many members registering to attend in Mobile put their voucher to use.

Since the Galaxy year was my first full calendar year as treasurer, 2014 brought a return to a normal planning and financial year as it relates to the AM/PIC. Working with the Alabama members developing and revising the AM/PIC budget, has been an educational but pleasant experience. The many programs and committees involved in holding an AM/PIC requires everyone to keep a close eye on expenses to insure our members receive a high quality professional improvement program while we

provide entertaining and educational options for the spouses, sons and daughters and life members.

The NACAA Board continues to remain careful, conservative stewards of our association's funds. The policies and procedures in place guide the officers, directors and committee chairs and help NACAA to remain a financially strong association.

I sincerely appreciate the trust placed in me by the members of NACAA and I will strive to keep "watching the road" financially during the remainder of my time as NACAA treasurer.

Past President

Paul H. Craig, Pennsylvania



Where do I begin? First, a word of thanks to all of you, the members of NACAA, for providing me with the most memorable experience throughout my career as a county agent. As I have stated many times before, this leadership opportunity has made me a better county agent for my peers and my clientele. Second, I would like to thank all of the board members and council and committee chairs who I have had the honor to serve with and to our executive director, Scott Hawbaker for your leadership and contributions to NACAA. Your support, guidance and encouragement have been invaluable to me and to our association. And your friendship will last me my lifetime.

I would also like to express my thanks to the members of my state association, Pennsylvania, for all of the extra efforts and contributions you made from my campaign as vice president to the Galaxy IV Conference in Pittsburgh last year. I can only hope that I have made you as proud representing PA as I am of you. I would also like to thank the administration of Cooperative Extension at Penn State University for the providing me with the opportunity to contribute to the advancement of county agents from across the United States.

And my utmost thanks to my wife, Carol, for her encouragement and patience. Her support and opinions frequently provided me with an understanding ear to listen and discuss issues during all of my years as county agent. Thank you all again!

In my role of Past President I represented NACAA on the Joint Council of Extension Professionals board. This is a three year term as the board is comprised of the President elect, President and Past President of the 6 Extension professional associations: NACAA, ANREP, NACDEP, NAE4-HA, NEAFCS and ESP. In addition JCEP also has representatives from the National Institute of Food and Agriculture (NIFA), the Association of Public and Land Grant Universities (APLU) and the Extension Committee on Organization and Planning (ECOP). This, too, provided me with opportunities to work with outstanding leaders from these associations from across the US. JCEP conducts professional development opportunities for Extension agents on leadership at the Leadership Conference and public issues during the PILD conference. In addition the JCEP group

provided coordination for the Galaxy IV Conference for all association members.

As a result of the JCEP role I was able to participate in the Centennial Celebration of the Smith Lever Act in Washington DC on May 8. Being in Washington with the leadership of Extension from across the US was very invigorating to me. In addition while I was there I was invited to give a webinar to the staff at NIFA reflecting on the changes that I have experienced and observed throughout my career. It was a great chance to share the evolving story of county agents and the vital role you serve to agriculture and youth.

Probably the highlight for me this past year was the chance to serve as a judge and attend the 2014 Outstanding Young Farmers (OYF) Annual Meeting in Rapid City SD. Scott Gabbard, IN, Chair of the NACAA Ag Issues and Public Relations Committee and Wes Smith, GA, NACAA Special Assignment to the OYF organization have worked diligently to build a strong relationship for NACAA with the OYF Fraternity. John Deere is their national sponsor. The OYF members recognize the contributions county agents make supporting agriculture. The conference was outstanding and the 4 national winners are truly leaders and contributors to the future of agriculture across the United States.

I would encourage you to nominate one of your outstanding young farmers (< 40 years of age) for this recognition. Deadline for nominations is August 1. Check out the OYF website for additional information. I guarantee that your nominees will have an experience unlike anything they have ever had.

Finally, Galaxy IV. I will forever remember the times spent planning, encouraging and finally completing this conference last year. From the time when I was on the board as a director from the NE region and the leadership from PACAA proposed the idea of NACAA becoming a full participant to the board and the voting delegates agreeing to participate to the actual committee work to join forces with the JCEP planning committee to the actual conference Galaxy IV will forever be a part of my NACAA leadership experience. I am proud of the contributions NACAA, PACAA and the NE Ag Agents made to the success of this conference. Though challenging at times, you all made this a memorable experience for everyone in attendance.

And finally in closing my term on the board I would like to thank all of the Life Members of NACAA and PACAA for your guidance throughout my career. The many agents, who are now Life members who I have met and learned from, I will be forever in your debt. From across our great county there are too many Life Members to shout out to but a special thanks to the leaders from PA: Duane Duncan, Bill Kelly, Les Firth, and Ed Woods who hired me 35 years ago. Who would have ever imagined?

Policy Chair

Chuck Otte, Kansas



The policy Committee has the responsibility of safeguarding the intent of the NACAA By-laws, assist in the preservation of the NACAA professional standards, review reports and proposed actions before they are presented to the Board of Directors and to offer an opinion (when requested) on new measures before action by the Board of Directors and membership. We also try to offer a historical perspective, to clarify/interpret policy and propose measures to meet the challenge of change, as well as revise the pages of the NACAA Policy Manual as needed. This may sound like an easy job, but it keeps one busy and on your toes!

Policy Chairs serve for two years and are past National Presidents. I have the privilege of following a long line of excellent Policy Chairs which has made my first year in this position a little easier. As Policy Chair I receive questions weekly, and sometimes multiple times a week, from officers and committee chairs checking to make sure that they are interpreting policy correctly. Many of these questions are fairly routine such that I can offer insight fairly quickly. Other questions cover areas that may not be well addressed in policy or policy has become dated and not up to current practice. At these times I poll the policy committee (made up of past national presidents) to garner a variety of opinions and to offer consensus opinions to the Board of Directors and committee chairs.

Every year a chapter of the NACAA Policy Handbook is to be reviewed and updated based on a schedule set in the Policy Handbook. This past year we have been working on Chapter 6, Committees. This has been the largest chapter in the Policy Handbook and was in need of a lot of revision and updating. The Handbook Review Committee worked very closely with the Council Chairs in an effort to streamline Chapter 6 by utilizing the NACAA Website and the NACAA Committee Members Handbook to move much of the routine month to month committee activity structure out of the Policy Handbook and to the website or Committee Members Handbook. Many of the forms that were in the Policy Handbook were no longer being used, or the current version was on the website. Items that dealt with fiscal issues and true policy stayed in the handbook, but the operational items were removed. While time consuming to work through, the Policy Review Committee (Cynthia Gregg, Paul Craig, Mark Nelson and myself) are very appreciative of the Council Chairs (Dan Kluchinski, Mary Sobba and Richard Brzozowski) for all of their hard work in getting the website, Committee Members Handbook and Policy Handbook synchronized! While much work was done on Chapter 6, there

are still items that need some attention, especially in the awards program and that work, along with a new chapter review, are in process already!

In addition to the annual review of a full chapter of the Policy Handbook, the Policy Chair is regularly assisting the board in updating and amending existing policies to reflect how the association is conducting business. Often this is as simple as putting on paper what has historically been practice. This past year the board also tackled the actual structure of the Policy Committee which resulted in a proposed By-laws change that was presented to the voting delegates. I thank the board and the voting delegates for their attention to this matter.

I look forward to my second year as Policy Chair and the challenges and opportunities that the Policy Committee will face. For the past year your Policy Committee has been: Gary Hall, Rick Gibson, Stan Moore, Paul Craig and myself.

North Central Region Director

**Bradley Brummond,
North Dakota**



I can't believe it has been almost a year since becoming your North Central Region District Director. It has given me a whole new respect for those men and women that serve you on the national board. It has often been said that life is a series of choices. I have been making choices in my career that has led me to this point. I would encourage you as a member of NACAA to start making those choices by becoming active as vice chair in a national committee or if your are vice chair to become a national chair and progress up the leadership scale. History has proven that our membership likes to elect people with known leadership to national offices. If you aspire to a national office someday start early.

The theme that I see constantly in NACAA is change. NACAA is changing as the needs and diverse backgrounds of our members change. We are going to need help from our new Extension professionals to make this happen and remain relevant.

We are taking action on recommendations by our Futuring Committee. We now have a very fine group of men and women looking at diversity issues within our organization. While self-reflection can sometimes make us feel uncomfortable, it is necessary for growth. I stand firmly behind the self-reflection and growth. I will make this pledge to the membership; I am firmly committed to change and support any effort that makes our organization a more welcoming place to be a member. I have attended all of the states' meetings with the exception

of Kansas and Ohio. Chris Bruynis, North Central Region vice Director, has handled those I have been unable to attend. You have given me so much hope for the future when I see the great young professionals in each of your states. I think the challenge is to get them active in NACAA and have them attend AM/PICs early in their career and work them into leadership. The future does not belong to me it belongs to them and I think we are in good hands.

In conclusion, I must say that change seems to be our main issue right now. We must embrace this change while building on past traditions. I hope you will help us in this important endeavor.

Northeast Region

Director

Peter Nitzsche, New Jersey



My term as Director began at the end of a very busy time for the Northeast Region upon the completion of the Galaxy IV Conference. There was a tremendous amount of work by agents in Pennsylvania and throughout the Northeast in order to make this event a success. I would like to thank all of those agents who stepped up and helped out. One particular aspect of Galaxy IV I would like to highlight is the Professional Improvement Tours. Agents in the Northeast Region decided to add tours as an additional educational opportunity for Galaxy participants and it was a rousing success. I heard nothing but favorable comments about the educational and monetary value of the tours. This was one more example of the strength of agents in the Northeast Region working together as a team.

Another team I had the opportunity to serve on this past year was the Public Issues Leadership Development Conference Planning Committee. This committee is composed of members of the six Extension Associations utilized the Conference to both celebrate the past with the 100th Anniversary of the Smith Lever Act, as well as examine leadership skills needed to move Extension through the future. NACAA members in attendance had very productive interactions with Robert Hedberg, Director of Sustainable Agriculture Research and Education (SARE) and overall attendees raved about the quality of the event.

While I have interacted with agents in the region at these large events I have also been able to attend a few state association meetings and have several more on my schedule. All the association meetings I have attended so far have combined some form of professional improvement opportunity with their business meeting. What a privilege it is to be able to interact with agents from the region and see how they are improving the lives of people in their communities. I look forward to many more of these interactions during my term as Director and look to gather input on how NACAA can serve

its' membership even better.

I want to thank my fellow agents from New Jersey for giving me this opportunity to serve NACAA. This is a once in a career opportunity that I was initially hesitant to take on but has already rewarded me tremendously. I look forward to seeing everyone in Mobile.

Southern Region

Director

Gene McAvoy, Florida



As this year's Annual Meeting and Professional Improvement Conference comes to an end so will my two year term as Southern Region Director. I am humbled to have had the honor of serving the members of the National Association of County Agricultural Agents in this capacity and cannot sufficiently express my gratitude for having been chosen for this opportunity.

It has truly been an inspiration to work alongside the extremely dedicated and talented group of men and women who have served as the Officers and Board of Directors of NACAA during my time on the Board and has instilled in me a new awareness of what it takes to make NACAA go. Serving as Regional Director has helped me grow both professionally and personally and has bought a new and rewarding dimension to my experience as a county agent.

My time as Southern Regional Director also enabled me to develop close friendships with great people on the Board and across this great land and has provided me an even greater appreciation for the great Extension work that each of you is doing in your home states.

It has been a real pleasure to represent NACAA at the many state association meetings that I have been privileged to attend over the past two years as I had the opportunity to travel across the South. Every trip not only reinforced the fact that we are all blessed to live in such a beautiful and diverse country but also provided the opportunity to make new friends, reconnect with old acquaintances and witness firsthand the professionalism and dedication that defines county agricultural agents across this great nation.

Each time I come away from each state's meeting impressed with the professional can-do attitude that the agents have not only for their own state association, but also for the national association especially in these trying times where budgets and resources have been slashed. As Extension celebrates its 100th Anniversary this year, the professionalism and dedication that I have witnessed has filled me with optimism about the next

100 years and I am certain that Extension educators across this great land will continue to act as agents for change and empower their clients and communities by bring them unbiased researched based solutions for their lives.

I once again would like to thank the Florida Association for their confidence in me and for nominating me to serve as Southern Region Vice-Director in Overland Park, Kansas in 2011 as well as thank the other Southern Region states for their support and help during my term as Southern Region Director. I would also like to take this opportunity to acknowledge and thank my wife Donna for her patience and loving support throughout the past few years. It has been much easier with her at my side and knowing she has my back.

The past year has reinvigorated my commitment to NACAA and I would like to urge every member to take advantage of the opportunities that the association can provide to them. Our association remains unique in providing members with numerous professional improvement opportunities while incorporating love of country and family values into our meetings and professional activities. I would also encourage our members to become more involved in their state and national associations in whatever way possible as I am certain that they will find that their investment in time and effort will be repaid in multiple ways over the course of their careers as a County Agricultural Extension Agent.

As I complete my final year, I am proud to have served on the Board of Directors of this fine organization. While I sincerely hope that my service to NACAA and the Southern Region has helped advance the mission and goals of the Association, the greatest reward to date has been the enrichment and friendships it has bought into my life.

Southern Region Director

Michael Heimer, Texas

It has been an honor and a privilege to serve the membership of the Southern Region and work with the NACAA Board. I have been a member of NACAA for over 35 years and served in a variety of roles with TCAAA and NACAA during those 35 years. The opportunity to serve as Southern Region Director has bought a new and rewarding dimension to my experience as a county agent.

It has been a real pleasure to represent NACAA at state association meetings that I have been privileged to attend this year. There are many good members giving leadership to great programs across this nation. The opportunity to travel across the South and witness the programs, volunteer cooperators,



and the impacts our members have made is rewarding. Our members make the state associations strong which makes NACAA strong. The professionalism and dedication that defines county agricultural agents across this great nation is alive an well.

I would like to thank the Texas Association for their confidence in me and for nominating me to serve as Southern Region Vice-Director in Charleston, SC in 2012 as well as thank the other Southern Region states for their support and help during my first year as Director. I also want to extend special thanks to Jerry Clemons and Gene McAvoy for mentoring me and helping to prepare me for my term as Southern Region Director. It has been my pleasure to represent NACAA at the state association meetings. Each and every time I come away from each state's meeting impressed with the professional can-do attitude that the agents have not only for their own state association, but also for the national association especially in these trying times where budgets and resources have been slashed.

These state visits have allowed me to update members on board actions and NACAA business. State visits provide a better opportunity to get an insight into needs and concerns of our members, that has better prepared me to represent their opinions to the NACAA Board.

The past year has strengthened my commitment to NACAA and I would like to urge every member to take advantage of the opportunities that the association can provide to them. I would also encourage our members to become more involved in their state and national associations in whatever way possible as I am certain that they will find that their investment in time and effort will be repaid in multiple ways over the course of their careers as a County Agricultural Extension Agent.

The Cooperative Extension program is celebrating 100 years of service to the residents of this great Nation. The mission of each and every Extension Agent is to help make the lives of our clientele the best that it can be. If we continue to work together, we can make those goals a reality.

Western Region Director

Mark Nelson, Utah

As I complete my second and final year as the Western Region Director, it is hard to believe how fast the last four years have gone by. I am proud to have had the opportunity to represent the western region these past two years.

I have had many past directors tell me that this is the best position that you can have in NACAA and I think that they are right. You learn so much and receive so much in gaining friendship and knowledge by visiting the states in your region.



It has been fantastic getting to know members of the different states in the west. These past two years I have had a chance to meet a large number of outstanding County Extension Agents, not only from the west but from all over the United States.

Things are really going great in the west. A couple of states continue to struggling with budget problems but overall most agents are upbeat and excited to do the work they do. Utah is really excited to be hosting the 2017 Am/Pic. Utah is a beautiful state and we are really looking forward to sharing it with all the NACAA members.

I want to thank my fellow Utah membership for giving me this opportunity to serve NACAA. If you want to know more about your national association the best way to do this is to get busy and serve on a committee. We are always looking for Vice Chairs and Chairs to serve on the many committees that keep NACAA running properly.

I would like to thank the Utah Extension Administration, the office staff in Beaver County, the county residents and of course, my wife and family for allowing me this opportunity to serve you and our association. I look forward to seeing everyone in Mobile, Alabama this summer.

Professional Improvement Council Chair

Mary Sobba, Missouri



The Professional Improvement Council (PIC) is one of the three Councils that make up the committee structure of NACAA. The Council consists of six committees: Ag Economics & Community Development, Agronomy & Pest Management, Animal Science, Horticulture & Turfgrass, Natural Resources/Aquaculture and Sustainable Agriculture. The purpose of this council is to further the professional improvement of our members.

Many of the activities of this council focus on presentations and seminars at the annual AM/PIC and educational tours. There will be excellent variety of presentations in Mobile. Sixty-six presentations are planned, so there should be something of interest for everyone.

Animal Science and Natural Resources committees have planned educational and fun pre-tour educational opportunities. This is the first time Natural Resources has planned and coordinated this type of event and even found one new sponsor to help with costs. The animal science tour will include a vast geographical portion of Alabama encompassing various livestock species.

Sustainable Agriculture has chosen four new fellows, from a record high twenty-nine applications. The committee is planning a hospitality function for members to learn more are

the SARE Fellowship program. This will be an opportunity to talk with past and current fellows.

New this year is a Sunday afternoon horticulture super seminar featuring television personality and horticulturist P. Allen Smith. There will be two additional super seminars on Thursday afternoon. The ag economics committee has planned "Resources for Farm Business Transfer and Crop Insurance Changes in the 2014 Farm Bill". The agronomy committee has planned "Soil Health and Cover Crops". All of these seminars should be excellent sources of information, so please plan to attend.

NACAA is an organization that has numerous ways to be involved. 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 our organization. If you have never been involved with a committee, I encourage you to consider it. This is an excellent way to learn about our organization and share your skills.

Finally, with sincere gratitude, thank you to the committee chairs and vice chairs and state chairs. Your hard work and dedication is greatly appreciated. Your attention to details, extra effort and communications is what makes this committee structure successful, which benefits our organization. I am looking forward to seeing the results of a hard year of work and the people doing the work in Mobile.

Agronomy & Pest Management Joni Harper, Missouri



Agronomy/Pest Management Committee Members:

North Central Vice-Chair and National Chair – Joni Harper (Missouri)

West Vice-Chair – Jeff Anderson (New Mexico)

Northeast Vice-Chair – Paul Cerosaletti (New York)

Southern Vice-Chair - Wade Parker (Georgia)

On Thursday, July 24 at 1:00 pm we will be hosting a "Super Seminar" discussing Soil Health & Cover Crops.

Dr. Danielle Treadwell with University of Florida will talk about what soil health is, how to assess it and new tools to measure Soil Health.

Dr. Charles Mitchell with Auburn University will discuss cover crops and soil quality in the Deep South. He will share information from their historic cover crop experiment (circa

1896), the oldest cotton experiment in the world. Dr. Mitchell will discuss how information for this experiment will be put to practical use by the Auburn University Soil Testing Laboratory to measure soil quality.

Also featured will be NACAA members Wayne Flanary (Missouri) and Wade Parker (Georgia) talking about their respective projects “Effect of Aerial Seeded Cover Crops on Soil Health Degraded by Flood in a Corn and Soybean Rotation” and “The Life and Times of Cover Crops in the Southeast”.

We are excited about the lineup of presenters we have made available for you in the regular Agronomy/Pest Management category this year. We have seventeen presenters covering a wide variety of topics. I would like to encourage all of you to attend and support these presenters. It is a great opportunity to learn more about the outstanding programming your colleagues are doing across the nation.

As we look ahead to the 2015 AM/PIC in South Dakota, our committee is promoting presentations on Nutrient Management and Seed Treatments. Submission of an abstract in one of these two categories will increase the chances of being accepted over a submission related to other agronomy topics. At this year’s meeting we will also be deciding on the topics to feature at the AM/PIC in Arkansas in 2016. If there is a topic you would like to see included, do not hesitate to contact one of the regional vice-chairs.

I would like to thank Jeff Anderson, Paul Cerosaletti, Wade Parker and Mary Sobba for their support and all the hard work they’ve done getting ready for the conference.

Agricultural Economics and Community Development

Megan Bruch, Tennessee

The Agricultural Economics and Community Development committee is pleased to help further the professional improvement of NACAA members. This year’s AM/PIC will include a Super Seminar and member presentations on a variety of topics important to Extension professionals.

We are looking forward to offering another Super Seminar at this year’s AM/PIC based on member needs discussed at the committee meeting held at Galaxy IV. The Super Seminar, called Issues in Agricultural Economics: Resources for Farm Business Transfer and Crop Insurance Changes in the 2014 Farm Bill, will be offered on Thursday afternoon from 1:00 pm to 4:00 pm. The seminar will feature Mr. John Baker, attorney at law for the Beginning Farmer Center at Iowa State University, and Dr. Laurence Crane, Vice President of Program Outreach and Risk Management Education for National Crop Insurance



Services. This seminar is made possible by the generous sponsorship of the National Crop Insurance Services (NCIS).

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

- Training Agritourism Managers and Employees in Emergency Preparedness by Eric Barrett
- An Overview of Alaskan Agriculture by Stephen Brown
- Using Mini-grants for Cooling Space to Foster Economic Development by Sandra Buxton
- Tough Funding Decisions for Outcomes-Based Farm Business Programs by Mark Cannella
- Kaizen in Conduction of Annie’s Project by Jenny Carleo
- Connecting Cash Flow Plans with Feed Management Practices by Robert Goodling
- Lessons Learned-The Top Ten Things to do When Developing an Urban Agriculture Project by Jacqueline Kowalski
- South Dakota Annie’s Project Taking it to the Next Level by Robin Salverson

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

Southern Region Vice Chair and National Chair – Megan Bruch Leffew

North East Region Vice Chair – Sandra Buxton, NY

North Central Region Vice Chair – Willie Huot, ND

Western Region Vice Chair – Del Jimenez, NM

Animal Science

Tammy Cheely, Georgia

Committee Members:

National Chair – Tammy Cheely

Southern Region Vice-Chair – Brian Beer

North Central Region Vice-Chair – Eldon Cole

Western Region Vice-Chair – Scott Jensen

Northeast Region Vice-Chair – Bruce Loyd



Each year the Animal Science Committee is responsible for planning and conducting the two-day Animal Science Seminar and Tour leading up to the AM/PIC. This is a tremendous professional improvement opportunity for our members and a great way to network with colleagues from across the county having similar interests. This year Auburn Associate Professor Lisa Kriese-Anderson organized the tour and served as our host.

The tour will begin in Huntsville, Alabama. It will make stops throughout the state and end with participants being dropped off in Mobile to start off the week at the AM/PIC. The tour will include stops at: Clay Kennamar Farm's stocker operation, Tennessee River Music's purebred Angus and Hereford operation, Miller Farms which includes poultry with a cow/calf operation and row crops, Wright's Dairy and retail outlet, Chilton County Research and Extension Center, a tour of historic Montgomery, the Alabama Cattlemen's Association Headquarters, Double O Farms which includes Katahdin sheep, poultry and cattle, Kaiser Cattle and Catfish and Dixon's cattle and timber. We had great interest in the tour this year with 30 participants from 17 states participating.

Please join us Monday afternoon for a full committee meeting. We will introduce the new committee leadership and begin planning next year's committee activities.

Ten of our co-workers will share the results of successful research and extension programs during the Tuesday afternoon seminars. Topics will focus on beef reproduction, nutrition and marketing as well as meat goat education and grazing schools. Plan to take advantage of this opportunity.

The committee has worked hard to offer other professional improvement opportunities throughout the year. One method has been to develop electronic training via webinars in collaboration with other professional tools.

Thank you to each of the vice-chairs! Each of you contributed great suggestions and ideas and willingly provided leadership, time and lots of effort over this past year. I have thoroughly enjoyed my time as Chair of the Animal Science Committee. It has been a rewarding experience.

I will close by welcoming the new Chair and Regional Vice-Chairs. Ron Graber is the new Animal Science Committee Chair. Kellie Chichester will represent the Western Region as Vice-Chair and Elizabeth Claypoole will represent the Northeast Region as Vice-Chair. I know they will all do a great job!

Natural Resources/ Aquaculture/Seagrant

Dan Downing, Missouri



The Natural Resources and Aquaculture committee has had a very busy, good, and successful year with lots of accomplishments including some new activities. During the year the committee filled vacancies, solicited and screened proposals for professional development presentations, planned the first ever tour for the committee, and began working on next year's tour in South Dakota.

Steven Patrick, GA. rotated off of the committee and was replaced as the Southern Region Vice Chair by Libbie Johnson, FL. Katie Wagner, UT was approved for her second term as the Western Vice Chair, Laurel Gailor, NY, Eastern Vice Chair will assume the role of committee chair at the end of the 2014 AM/PIC, and Todd Lorenz, MO will replace Dan Downing, MO, as the North Central Region Vice Chair.

Libbie and Steven have done an outstanding job of organizing the committee's first ever tour. They have recruited additional assistance from Shelia Dunning, FL., solicited sponsorships, and have made all of the logistical arrangements for the 10 of us that will be participating in the tour. The tour will focus on experiencing first-hand the unique flora, fauna, and historic culture of the Mobile-Tensas River Delta system, including the carnivorous pitcher plant, Splinter Hill Bog, and Bottle Creek Indian mounds.

Katie Wagner is taking the lead in organizing a two day educational tour from Sioux Falls, SD to the Black Hills/Rapid City area and return to Sioux Fall as part of the 2015 AM/PIC preliminary activities. Potential educational stops include, gold mining and reclamation efforts, The Badland, Black Hills National Forrest, National Grasslands, Mt. Rushmore, the Crazy Horse monument and more.

You don't have to be a regional Vice Chair or formal committee member to assist with the committee. Everyone interested in assisting with the committees efforts is invited to attend the Natural Resources and Aquaculture committee meeting being held during AM/PIC.

Horticulture & Turfgrass

Stacey Bealmear, Arizona

Committee Members-

Stacey Bealmear- Committee Chair

Sara Denkler- North Central Region Vice Chair

Annette Meyer Heisdorffer- Southern Region Vice Chair

Ronald Patterson- Western Region Vice Chair

William Sciarappa- North East Region Vice Chair



The Horticulture and Turfgrass committee provides members with excellent professional improvement in all areas of horticulture, from landscaping, turf, commercial production, home horticulture and Master Gardeners. We also provide networking with other horticulture agents. No other organization gives you the type of educational and networking opportunities that have direct application for cooperative extension professionals.

At this year's conference we will present a Horticulture Super Seminar on Sunday July 20th from 1-4:30pm. The main speaker is P. Alan Smith who is a gardening expert, television host, and designer. Mr. Smith will talk about Moss Mountain Farm and Home where he has test gardens for organic gardening, food production and urban homesteading. He also will discuss the inspiration behind this project, on both the green buildings and ground. Mr. Smith will share both his success and lesson learned in developing his farm. Thanks to Bonnie Plants for sponsoring Mr. Smith's presentation. After Mr. Smith's excellent presentation, Alabama Master Gardeners will give seven presentations, highlighting successful projects.

The Horticulture and Turfgrass Committee will have their committee meeting on Monday July 21st from 3-5pm. On Tuesday July 22nd from 1:30-4:00pm we will offer thirteen professional improvement presentations.

1. Gardening questions online via ask a Master Gardener
2. Organizational structure and training of new volunteers for growth and retention in a rural Master Gardener program
3. Harnessing volunteer skills to build an effective Master Gardener program
4. A Guide To Common Organic Garden Questions
5. School Garden Support: Success Stories and Lessons Learned
6. The Buckeye yard and garden line newsletter: a newsletter with multiple impacts

7. Constructing horticulture for stormwater management and costal lake protection
8. Engaging homeowner associations to reduce nutrient runoff in stormwater ponds
9. Improving Water Quality Through Fertilizer And Irrigation Education: My Brevard Yard For The Protection Of The Indian River
10. Elderberry cultivar development in Missouri
11. A Do-It Yourself High Tunnel For High Winds and Space Utility
12. Learning Farm- Teaching Agents and Producers
13. Hands-on Workshops And Demonstration Plots help Ornamental Container Growers Fight Noxious Weeds: A Growing Concern

Sustainable Agriculture

Steve Van Vleet, Washington



What an exciting time to be part of the Sustainable Agriculture Committee. Sustainable agriculture has been on a steady increase for many years and the support by USDA-SARE makes the sustainable agriculture programs run by NACAA in a collaborative partnership with USDA-SARE only that much stronger. The Sustainable Agriculture Committee not only has professional presentations on sustainable agriculture presented at the NACAA Conference but is also in charge of the SARE Fellows program. This year was exceptional for the SARE Fellows program with over 40 applicants. With this large number of quality applicants it brought some new challenges, however, those challenges were gladly accepted and adjusted for. The committee will look forward to even more applicants in 2015.

After long hours reviewing the 44 applications for the 2014 SARE Fellows program, four Fellows have been selected, one from each of the four NACAA regions. The 2014 Fellows are:

Mark Hutchinson (ME), Northeast Region

Patrick Byers (MO), Northcentral Region

Yvette Goodiel (FL), Southern Region

Susan Kerr (WA), Western Region

Each group of four Fellows participates in four sustainable agriculture tours, rotated among the four regions, over a two-year period. Travel costs to the seminar tours are covered by USDA-SARE. In addition to the educational experiences, successful participants of the Fellows Program receive a USDA-SARE library courtesy of the Sustainable Agriculture Network (SAN) in Washington, DC, and a \$1,500 stipend to be used for

program support, materials or hardware after completing the entire two-year program. Before completion of the fellowship, each participant will be expected to conduct an educational or research program within their home state discussing or exploring some element of sustainable agriculture.

The exiting SARE Fellows from 2011 will present on their experiences at the SARE Fellows luncheon on Tuesday, July 22, 2014, at the NACAA Conference in Mobile, Alabama. The luncheon is sponsored by SARE and the 2014 SARE Fellows will be recognized at the luncheon.

The committee spends a great deal of time reviewing abstracts to be presented at the sustainable agriculture professional improvement seminars in Alabama. This is the sixth year that we have provided professional improvement seminars under the topic of "Sustainable Agriculture." The Sustainable Agriculture presentations will also be held the afternoon of Tuesday July 22.

It is my pleasure to serve as the National Chair for the Sustainable Agriculture Committee; much of the success of the Committee would not be possible without the hard work and dedication of its regional vice-chairs. The Sustainable Agriculture Committee work, the SARE Fellows Program and the collaborative partnerships I have established through NACAA has made a positive impact on me and my career.

The Sustainable Agriculture Committee looks forward to upcoming NACAA conferences and the continued success of the SARE Fellows Program and sustainable agriculture seminars. I would like to give a special Thank You to all the individuals involved in the guidance of the Sustainable Agriculture Committee, the support of its programs and make these programs a huge success. We look forward to continuing this outstanding program for many years to come.

**Extension Development
Council Chair
Daniel Kluchinski,
New Jersey**



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 2014 AMPIC include 15 informational seminars on Tuesday morning, July 22. The presentations are part of four concurrent sessions featuring 12 hours of training. The selected papers have 37 authors, of

which 24 are NACAA members. 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 session is archived and available for those who missed the live broadcasts (see the Committee Report or NACAA website for the URL).

Our relationship as a supporter of the National Outstanding Young Farmers program continues to grow. The Agricultural Issues and Public Relations Committee has historically been a liaison with the program. Founded by Jaycees and sponsored John Deere, NACAA assists by encouraging applications of eligible farmers. To provide additional continuity, Wes Smith from Georgia has a three-year special assignment to work with the committee, seek applicants, develop press for the program, and connect with our friends at the Outstanding Young Farmer Fraternity.

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 our Committee Workshops on Monday afternoon, July 21 at the AM/PIC.

Finally, I offer my sincere appreciation to our committee chairs, regional vice-chairs and state chairs as well as Vice President Gregg for their individual and collective leadership and guidance during the past year. Since this is my final year of service in this capacity, I want to extend thanks to everyone who has shared his or her wisdom, advice and expertise to help me in this role. Thank you!

**Ag Issues & Public
Relations**

Scott Gabbard, Indiana



The AI&PR committee had a productive year thanks to the efforts of the committee members including Stephen Komar, New Jersey, Donald McMoran, State of Washington and Dr. Bill Burdine, Mississippi; respectively. We are fortunate to have excellent leadership from Dan Kluchinski, Rutgers University, as our Extension Development Council Chair.

The 2013 Galaxy Conference included four outstanding professional development presentations focusing on issues and challenges facing extension agricultural and how they relate to our communities now and in the future. Each program highlighted a novel way that Agricultural Extension agent provides impact within the communities they live and serve from disaster planning to retaining intellectuals within the extension agent system.

The OYF program continues to be one of the core programmatic responsibilities of the AI&PRC. This past year I had the privilege of attending the Outstanding Young Farmers Fraternity (OYF) annual meeting in Rapid City, South Dakota with Past President Paul Craig, Pennsylvania.

NACAA sent an expanded delegation this year. At the request of the OYF board, Paul Wigley, NACAA Past President returned to deliver their Keynote address. In addition, sent NACAA member Wes Smith, Georgia as well.

To further strengthen our relationship with OYF, the NACAA board has funded a special assignment liaison position between OYF and NACAA. This assignment is a three year commitment. Responsibilities for this special assignment include maintaining relational continuity between organizations and ensuring that OYF nominees get as much exposure nationally and locally as possibly.

The NACAA board selected Wes Smith from Georgia to represent our organization and serve both entities in this capacity. Wes will serve the OYF by coordinating publicity for their annual conference, work with the AI&PR committee on increasing OYF nominations from county agents, and report directly to the national board. NACAA more than doubled the amount of OYF nominations from the previous year. In addition, 2 television interviews and 5 radio interviews were conducted as well as numerous newspaper and web postings.

All of us were proud to represent NACAA at this event and were extremely impressed with the outstanding candidates from all across the United States. The OYF conference is a representative partnership that was coordinated by the United States Junior Chamber of Commerce (the Jaycees), The Outstanding Young Farmers of America Fraternity and the NACAA with corporate sponsorship provided by John Deere.

Though the OYF has been in existence for over 50 years, in 2013-2014 the OYF Alumni have assumed the responsibility of the program from the Jaycees: the annual meeting and daily operations of the organization. NACAA is helping the OYF Fraternity to make this endeavor a success.

In the future, the AI&PRC will continue to support the OYF program and continue to seek new and innovative ways to share the outstanding Extension programs from across the United States with our clientele. It has truly been an honor to serve as National Committee Chair for this outstanding organization.

Early Career Development

Nathan Winter, Minnesota

The Early Career Development Committee has been busy during this past year thanks to the efforts of our committee members – Amber Yutzky, Pennsylvania, Laura Griffeth,



Georgia, and Taun Beddes, Utah. We were also fortunate to have excellent leadership from Dan Kluchinski as Extension Development Council Chair.

The focus of the Early Career Development Committee is to develop professional improvement education programs that assist members who are early in their career to maximize and successfully complete their Extension education experiences. The Committee also helps train members in management positions, or those who are in other positions that might play a role in mentoring new professionals, to assist those who are new to Extension.

One of the educational programs developed by the Early Career Development Committee is educational sessions at the 2014 AM/PIC in Mobile, AL. Four abstracts were submitted for review, with three selected to present on Tuesday, July 22nd, beginning at 8:30 am. These topics are applicable to all of us, not just those in the early stages of their career.

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|-----------|---|--|--------------------|
| Session A | Work Life Balance for the Extension Professional | Stacey Bealmear, University of Arizona | 8:30 – 9:20 a.m. |
| Session B | Using Autonomous Groups to Deliver Quality Programs | Chris Bruynis, The Ohio State University Extension | 9:30 - 10:20 a.m. |
| Session C | How to Get Published in the Journal of the NACAA | Stephen Brown, University of Alaska Fairbanks | 10:30 - 11:20 a.m. |

The other main program developed by the Early Career Development Committee was the NACAA AM/PIC First Timers Webinar held on Friday, April 25, 2014 which included participation from all four Early Career Development Committee members. The purpose of this webinar was to better prepare participants for the 2014 AM/PIC by reviewing the conference program and the registration process. 24 participated during the live session, with others watching the archived presentations. Thus far 20 people have filled out the online evaluation. This archived session is still available to watch at <https://umconnect.umn.edu/p23457445/>.

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. It will be held on Monday, July 21st at 1:30 – 2:30 p.m. Your ideas will be useful for the development of goals for the 2014 – 2015 year and the 2015 AM/PIC. If you cannot attend, please share your thoughts and ideas with any of the committee members throughout the year.

We look forward to seeing you in Mobile, AL!

Administrative Skills

Ayman Mostafa, Arizona



Primary objective of the Administrative Skills Committee is to improve and enhance the administrative skills of all NACAA members regardless of their level of administrative responsibility. During 2014 the Administrative Skills Committee Provided NACAA members with key program focus areas include:

- Help planning a need assessment survey for Professional Development opportunities by NACAA members.
- Several high quality seminars will be presented at the NACAA AM/PIC in Mobile, AL. These will include:
 - Effective county administration: the key to sustaining extension – By Walter Battle, TN
 - Public board training serves critical need – By Joseph W Koenen, MO
 - Getting talented helpers with a tight budget – By Ayman M. Mostafa, AZ

The Administrative Skills Committee consists of

- Ayman Mostafa, National Committee Chair and Western Region Committee Vice-Chair;
- Bruce Barbour, Northeast Region Committee Vice Chair;
- Paul Westfall, Southern Region Committee Vice Chair;
- Chris Bruynis, North Central Region Committee Vice-Chair.

Teaching & Educational Technologies

Mark Blevins, North Carolina



Your Teaching and Educational Technologies committee is excited about the opportunities you have at the National AM/PIC and throughout the year to learn about emerging and established technologies that can make us all more efficient and effective as educators.

In Mobile, Alabama on Tuesday morning, the 8:30, 9:30 and 10:30 slots are split so that two speakers will share their expertise during each session so you can double what you learn. The early pair is from Pennsylvania and will share Survey Monkey techniques for success as well as mobile apps for dairy profitability.

Two colleagues from New Jersey will then bring light to bridging the field and classroom with online learning and non-linear presentation software to put more pop in a presentation than PowerPoint can provide.

The last session discusses client outreach with your own YouTube channel and blending online classes with hands on approaches for volunteer training - specific to Extension Master Gardeners, but with broad appeal to just about any training.

As a follow up to the Galaxy conference, there were several second Tuesday monthly webinars to discuss a timely topic. These are available online at the Teaching and Educational Technology Google+ page; just search for Using Technology in Extension on Google Plus.

More webinars are to come, so check our website above as well as learn.extension.org where we post webinars of wide significance or interest. Additionally, look for a technology survey from the Educational Development Council to test the waters on several topics that will help guide us in plans for the coming years. We will use this data to tailor our AM/PIC presentations and future super seminars.

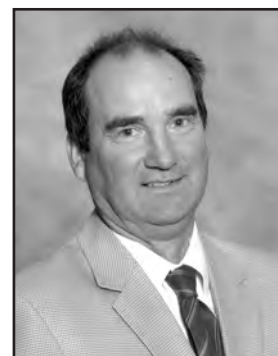
Finally, consider getting actively involved in this committee or another one. We can always use another perspective and you'll know what you're getting into when you apply to be a national vice chair down the road. These are important positions for the good of our organization, so please join my colleagues currently serving as regional vice chairs as we work to bring new ideas, skills and resources to fellow members at the annual meeting and throughout the year.

Thank you for the opportunity to serve you as a committee chair and thanks for your service to the community around you and for being engaged in this great Association.

Program Recognition

Council Chair

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 outstanding work of our members in their respective states, regions and counties. Each year the committees review numerous entries to determine state, regional and national winners. Committees have worked 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 AM/PIC. In July, there will be a wide variety of presentations in Mobile, Alabama. I encourage you to attend sessions with the goals of networking as well as identifying programs and methods for use or adaptation.

Communications

Sherri Sanders, Arkansas

The communications committee is pleased to report that Bayer has continued sponsorship of the Communications Awards Program for 2014. Our committee has worked diligently to expedite the judging of all entries in a timely fashion.



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.

- *Audio recording had 30 entries
- *Published Photo and Caption had 33 entries
- *Computer Generated Graphics had 44 entries
- *Promotional Piece had 118 entries
- *Personal Column had 72 entries
- *Feature Story had 48 entries
- *Individual Newsletter had 45 entries
- *Team Newsletter had 39 entries
- *Video Recordings had 50 entries
- *Fact Sheet had 54 entries
- *Publication had 57 entries
- *Web Site had 33 entries
- *Learning Module had 15 entries
- *Bound Book had 11 entries

I am appreciative to the regional vice-chairs for the communication committee. The regional vice-chairs are: North Central Region Chair David Marrison (Ohio), North

East Region Chair Lee Stivers (Pennsylvania), Southern Region Chair Tracy Robertson (Mississippi), and Western Region Chair Kurt Jones (Colorado). I would like to thank Henry Dorough, Cynthia Gregg, Richard Brzozowski and Scott Hawbaker for their assistance throughout the year with questions and concerns.

Search for Excellence

Stanley A. 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, Wendy Becker from Montana, Travis Harper from Missouri, and Greg Strait from Pennsylvania.

The committee held an organizational meeting by conference call in January. 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:

- Landscape Horticulture – Amy-Lynn Albertson
- Livestock Production – Wendy Becker
- Crop Production – Travis Harper
- Young, Beginning, or Small Farmer – Greg Strait
- Remote Sensing & Precision Ag – Travis Harper
- Farm & Ranch Financial Management – Greg Strait
- Farm Health and Safety – Wendy Becker
- Sustainable Agriculture – Stan McKee

The committee held another conference call in March to check in as a team. 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 – 9 completed entries
- Livestock Production – 9 completed entries

Crop Production – 15 completed entries

Young, Beginning, or Small Farmer/Rancher – 8 completed entries

Remote Sensing & Precision Ag – 1 completed entry

Farm and Ranch Financial Management – 6 completed entries

Farm Health and Safety – 5 completed entries

Sustainable Agriculture – 8 completed entries

The number of entries received was consistent with the number of entries submitted in the last few years, but seems to be lower than what it should be. SFE entries are not difficult to prepare and submit, and the program provides a great opportunity for individual and team recognition. The committee will continue to promote the SFE awards program, and encourage more applications next year.

This year the Remote Sensing and Precision Ag category was in need of sponsorship, and efforts to secure sponsorship were unsuccessful. Without sponsorship we are unable to provide a luncheon for the recognition of winners, and the award is without a monetary component. Historically this category has had low numbers of applications, and going forward consideration will need to be given to the question of continuing the category.

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 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 & Youth

Chris Penrose, Ohio

Almost all agricultural agents conduct some 4-H and youth programs and many of our members have a significant appointment in 4-H. The purpose of the Excellence in 4-H Youth Programming Committee is to recognize those that have developed exceptional programs. This year was no exception. We had 16 entries for awards this year, twice as many as in 2012. One task the committee worked on the past year was to increase awareness that this is not a 4-H award only, but also includes other youth related programs.



The committee was able provide seven awards this year. We had three Regional Finalists, three National Finalists and our National winner is Cyndi. K. Lauderdale, from North Carolina. Cyndi will present her winning program “Green Adventures” at the awards luncheon on Monday, July 21. All seven of the award winners will attend the awards luncheon to be recognized.

Another charge of the committee was initiated five years ago when the committee proposed, and the board approved, the establishment of the Excellence in 4-H Program Workshop. Due to the structure of the Galaxy Conference last year there was not an Excellence in 4-H Programming Workshop as members had the ability to submit 4-H and Youth presentations as part of Galaxy. This year we have nine presenting with all four regions represented for the Excellence in 4-H Program workshop. Members are encouraged to attend the workshop on Tuesday, July 22, from 8:30-11:30 a.m.

Finally, I want to thank the regional directors for their help during the past year: Randy Saner, from Nebraska; Craig Williams, from Pennsylvania; Aubie Keese, from Oklahoma; and Allan Sulser, from Utah.

Professional Excellence

Keith Mickler, Georgia

2014 Report to Membership - Professional Excellence Committee

The Professional Excellence Committee is responsible for organizing and conducting the poster session at the AM/PIC.



All posters abstracts were submitted on-line and reviewed by state chairs, regional vice-chairs and national chair. Lead authors were notified in mid-April that their abstracts were accepted. All posters will be peer reviewed at the AM/PIC by a panel of judges. Winners will be formally announced at the awards breakfast.

NACAA endorses the poster session as a very important method of presenting Extension programming and applied research results to members. Syngenta Crop Protection will be the sponsor for the 2014 Poster Session Awards Breakfast.

This year 156 abstracts were accepted for the AM/PIC in Mobile, Alabama. There were 42 entries in the Applied Research and 114 entries in Extension Education. A summary of posters and authors will be available during the poster session allowing one to easily locate posters of potential interest.

Posters must be in place no later than 1:00 p.m. Sunday, July 20th through Tuesday, July 22, 2014. “Meet the Authors Poster Session” will be from 11:45 a.m. until 1:15 p.m. Monday, July 21, 2014.

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

The Professional Excellence Committee continues to utilize more judges to reduce the amount of time it takes for judging. Each judge will be asked to evaluate 10-15 posters. The top 10 posters from each category will then be evaluated to select the poster award recipients in each category! Awards will be presented at the AM/PIC Poster Session Awards Breakfast to be held on Tuesday, July 22, 2014 starting at 6:30 a.m.

The top three posters in each category will receive a cash award, plaque and ribbon, regional winners will receive a certificate and ribbon and the top 10 will receive finalist recognition ribbons.

We wish to thank all members who have agreed to volunteer their time to judge posters at the 99th NACAA Annual Meeting and Professional Improvement Conference. Without your help, we cannot accomplish the judging of poster. I wish to thank our state and regional vice-chair for the fantastic job they have done with making the poster session successful.

Your current regional vice-chairs are Mylen Bohle, Western Region; Brian Cresswell, Southern Region; Mike Haberland, North East Region; and Eric Barrett, North Central Region. Your Professional Excellence committee has been responsible for poster session organization, securing judges, and recognizing all the winners. It takes a lot of dedication and hard work to make this happen and without the vice-chairs the poster session could not and 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 13 entries this year, which was down a little from 18 in 2013. As always the entries were of outstanding quality and examples of the public relations work we all do in our roles as extension agents. There is a tremendous amount of work that many are all 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 2014.

Congratulations to Nancy Thelen from Michigan, who is the A4 program National winner. Nancy will present her winning entry during the A4 awards recognition luncheon on the Breakfast on the Farm event conducted in five counties in Michigan.

Congratulations also go national finalists Heather Weeks from Pennsylvania, Crystal Snodgrass, Christa Kirby, Samantha Kennedy, Diana Smith from Florida, and Chad Reid from Utah. Regional winners are Sherri Sanders from Arkansas and Roy Thagard from North Carolina.

A sincere thank you to Brent Allen of Georgia; Raquel Dugan-Dibble of North Dakota; Julie Smith of Vermont; and Shannon Williams of Idaho for serving as National Vice Chairs of the Public Relations Committee. Many thanks to also to 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 2015. The Public Relations committee challenges each of you to submit an entry in the NACAA awards programs especially A4.

Recognition and Awards

Chester "Chet" Hill,

North Dakota



Wow! This is one committee that keeps a group busy, but at the same time, very rewarding experience from getting to know so many excellent extension agents in our association. First, let me thank the NACAA Board and membership for giving me the honor, confidence, and privilege of serving as the National Chair of the Recognition and Awards Committee. I am serving the remaining year of Ms. Cynthia Gregg's term who was elected last fall in Pittsburgh as Vice-President of our association. I would like to say "thank you" to the members of the Recognition and Awards Committee: Stephan Hadcock, Northeast Region Vice-Chair; Kevin Lyons, Keith Perkins, Southern Region Vice-Chair; Kurt Nolte, Western Region Vice-Chair; and all of the State Chairs. Everyone did an amazing job this year! As one can see, I have extra duties as the North Central Region Vice-Chair as well. Also, I want to express my gratitude to all of the State Chairs and Presidents, for their hard work in selecting the Achievement Awards, Distinguished Service Awards, and the Hall of Fame Awards winners and maintaining a strong foundation for these prestigious awards for NACAA.

On Tuesday morning, sixty-three Achievement Award recipients will receive their awards at a breakfast awards' program in their honor. This is the fortieth year that NACAA has presented this award with this year's recipients joining 1,923 fellow Achievement Awards winners. This year's winners were based on two percent of the NACAA membership of their respective states as of February 15th. The 2014 Achievement Award winners have developed quality programming, gained respect from their co-workers and have accomplished this in less than ten years. A special thank you goes to NACAA President Henry Dorough and American Income Life's Bill

Viar, as they assist with the awards presentation on Tuesday morning. Regional Directors and State Chairs are welcomed to attendance as well.

The committee is again responsible for awarding of the Hall of Fame Awards which is the ninth year for this prestigious award. The outstanding Hall of Fame winners will receive their awards on Thursday evening during the Annual Banquet. These recipients have received many awards for achievements during their careers and beyond, as they assisted their clientele, along with fellow agents and specialists of the Extension Programs in their respective states and regions of the country. These individuals have provided leadership for professional organizations, churches, and humanitarian service organizations. This year's inductees make one proud to be a member of NACAA.

This year is the seventy-seventh year to present the Distinguished Service Award during the Annual Banquet Thursday evening. The Distinguished Service Award will be presented to fifty-eight NACAA members from across the country. These members were chosen by their respective states to receive one of the highest awards presented by the NACAA in 2014 and join 7,093 past recipients. The award winners represent two percent of their state membership, providing outstanding educational programming, are respected by their clientele and co-workers and have worked for more than ten years.

The Recognition and Awards committee wishes to express a special thank you to the sponsors of the awards that are given during 99th NACAA Annual Conference. Thank you to Deere and Company for their sponsorship of the Hall of Fame award for the ninth year. We want to express our appreciation for the continued support of the Achievement Awards Breakfast by American Income Life Insurance Company for forty-one years, and they have provided sponsorship for forty-six 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.

I would be remised if I also did not thank the NACAA Board, President Henry Dorough, Vice-President Cynthia Gregg, and the Regional Directors along with Program Recognition Council Chair Richard Brzozowski and Executive Director Scott Hawbaker for their assistance to the Recognition and Awards Committee this year. Alan Galloway's work on getting the plaques and certificate frames completed is appreciated by the Recognition and Awards Committee.

To the NACAA members, the Recognition and Awards Committee National Chair, Regional Vice-Chairs, and State Chairs would like to encourage members to continue providing recognition for the outstanding extension educators in your respective states. State associations have members who can be nominated for the Achievement Award and Distinguished Service Award. There are also members both active and retired who would be outstanding nominees for the Hall of Fame. Please take the time to nominate someone deserving of these awards.

It has been truly a pleasure to serve as the Recognition and Awards Committee National Chair this year. To all NACAA members keep up the great work, members make a real difference in their communities, counties, parishes, areas, states, and regions.

Scholarship

Dwane Miller, Pennsylvania



I would like to say thank you to the members of the Scholarship Committee for their hard work during the past year: Susan Boser, Northeast Region Vice-Chair; Wayne Flanary, North Central Region Vice-Chair; Linden Greenhalgh, West Region Vice-Chair; Donna Hamlin Beliech, Southern Region Vice-Chair and all of the state chairs.

The Scholarship Committee would like to recognize the following members for reaching designated giving levels to the NACAA Scholarship Fund:

\$100-\$249

Craig Askim, Basil R. Bactawar, Susan Boser, Timothy Elkner, Laurel R. Gailor, Michael Goodchild, Russ Higgins, Eugene McAvoy, David Nicolai, David Stender, Lee Stivers and Nathan Winter

\$250-\$499

Robert C. Goodling, Jr., Paul C. Hay, Michael Heimer and Audrey Reith

\$500-\$999

Laura Watts

The scholarship committee has been working with state scholarship chairs to encourage donations to the scholarship fund. NACAA members and friends have donated \$6,754.50 to the scholarship fund from July 1, 2013 through May 31, 2014. Thank you all for your contributions! Most contributions are made through the live and silent auction as well as the cash raffle held as part of the AM/PIC. Please consider bringing an item or two for this year's auction, and taking a chance to win some cash!

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 now 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 fund. Members need to be vested at \$100 in the scholarship fund 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 2014 AM/PIC to apply for an award in 2015).
- Other criteria can be found at the NACAA website under the "Awards" tab.

Vestment in the scholarship fund 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 cash raffle, held at the AM/PIC. Non-winning tickets receive credit for a donation to the scholarship fund.
- Some states have auctions or other fundraisers in which they designate proceeds towards the NACAA Scholarship Fund.
- Direct donations by individuals to the fund.

All applications that were submitted by the June 1st deadline will be reviewed by the scholarship committee at the 2014 AM/PIC in Mobile.

Life Member

J. Lee Miller, Pennsylvania

I am pleased to have the opportunity to work with the regional Life Member chairs Tom Benton, Dave McManus, Warren Sifferath, and Nate Herenden to update the Life member committee database.



We continue to seek life member chairs in each state to keep the life members connected. Each year we conduct a Life member memorial service to honor those NACAA life members who have gone before us during the life member's business meeting. We will do this at the AM/PIC Conference in Mobile, AL. Tom Benton will be the incoming Life Members national chair. We are still seeking a Life Members program sponsor. Several companies have expressed some interest but there is a great opportunity for some company 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 us know. Please make an effort to keep life members informed of current agent activities for they are retired but not out energy and often willing to help and be supportive.

I trust that you have made plans to attend the 2014 NACAA meetings in Mobile, AL. We are looking forward to a full schedule of life member activities there. The Alabama Agents and especially the Life Member committee have done an outstanding job of planning tours and activities and welcoming life members. I am looking forward to the southern hospitality that they plan to extend. You will enjoy the many interesting sites of this historic city and the uniqueness of the area. I want to thank the NACAA board for the support for the life member program. We appreciate the concern that you have for us and we are ready to assist you and the NACAA organization in any way that we can.

Journal of the NACAA

Stephen Brown, Alaska



Thirty-three articles from our members were published in the June 2013 and December 2013 issues of the Journal of the National Association of County Agricultural Agents. The journal has an acceptance rate of about 50%. The journal is now fully searchable.

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. As the editor, I am committed to helping any first time author successfully navigate the process.

Thanks to 2013/2014 Journal of the NACAA National Peer Reviewers:

- Nicole Anderson – Oregon
- Cesar Asuaje – Florida
- William Bamka – New Jersey
- Derek Barber – Florida
- Pamela Bennett – Ohio
- Jerry Bertoldo – New York
- Carol Bishop – Nevada
- Beth Burritt – Utah
- Carl Cantaluppi – North Carolina
- Brent Carpenter – Missouri
- Gordon Carriker – Missouri
- Michael Davis – Florida

Wayne Flanary – Missouri
 Linden Greenhalgh – Utah
 Adele Hartly – South Dakota
 Michael Heimer – Texas
 Steven Hines – Idaho
 James Hoorman – Ohio
 Richard Kersbergen – Maine
 James Keyes – Utah
 Jeremy Kichler – Georgia
 Stephen Komar – New Jersey
 Rocky Lemus – Mississippi
 Ayanava Majumbar – Alabama
 Salvatore Mangiafico – New Jersey
 David Marrison – Ohio
 Jeff McCutcheon – Ohio
 Keith Mickler – Georgia
 Charles Mitchell – Alabama
 Tracy Mosley – Montana
 Barbara Murphy - Maine
 Kurt Nolte – Arizona
 Rebekah Norman – Tennessee
 John Nottingham – Maryland
 Andy Overbay – Virginia
 Frank Owsley – Alabama
 Michael Pace – Utah
 Angelique Peltier – Illinois
 Chris Penrose – Ohio
 Marjorie Peronto – Maine
 Heidi Rader – Alaska
 Cindy Sanders – Florida
 Hans Schmitz – Indiana
 Bill Sciarappa – New Jersey
 Mary Carol Sheffield – Georgia
 Bill Shockey – West Virginia
 Mary Small – Colorado
 Julie Smith – Vermont
 Roy Stanford – Texas
 Lee Stivers – Pennsylvania
 William Strader – North Carolina
 Gary Strickland – Oklahoma
 Ann Swinker – Pennsylvania
 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 goes to NACAA officers and board for approving my continued endeavor of representing our association on the Extension Journal Inc. board. Currently I serve as President-Elect for the Extension Journal Inc.

The Extension Journal Inc. offers two products to Extension, *The Journal of Extension (JOE)* and the National Job Bank.

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 those who review them. Should your paper be published in *JOE* consider that a monumental achievement.

During 2013 *JOE* celebrated its 50th anniversary. The final observance was the bestowal of the 2013 Outstanding Feature Article Award. The winning article is “[A National Perspective on the Current Evaluation Activities in Extension](#),” by Alexa J. Lamm, Glenn D. Israel, and David Diehl with The University of Florida. For more about the article, visit <http://www.joe.org/journal-oa.php>.

In 2013 there were 301 submissions: 15% were rejected; 37% returned for revision; 48% accepted for review or publication. Currently there are 102 accepted submissions waiting to be published. *JOE* is published six times per year.

JOE currently has a 5-year publishing average of 26.6%. For more, see February 2104 Editor’s Page, “*JOE* by the Numbers 2013” <http://www.joe.org/joe/2014february/ed1.php>.

If you are interested in being a reviewer and have **breadth** across several areas as well as **depth** of expertise, please visit *JOE* FAQ #10 <http://www.joe.org/about-faqs.php#Q10>.

National Job Bank

Extension Journal Inc.’s other 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 website allows the job seeker to post resumes and cover letters for potential employers to search through and find key individuals for positions they wish to fill.

Don’t forget to visit the *JOE* <http://www.joe.org> and National Job Bank <http://jobs.joe.org> websites. You just might stumble upon a new educational tool or find that dream job **you have been dreaming of.**

Executive Director

Scott Hawbaker, Illinois



It's been my pleasure to serve as NACAA's Executive Director for the past 15 years. I've definitely discovered of this period, that Extension Agents/Specialists are wonderful individuals to work with.

The leadership from each and every level of this organization (State to National) takes pride in NACAA which makes my job easier knowing that when someone takes a leadership role, the job will get done.

A special gratitude goes out to the current board of directors for the hard work and decisions that are made during every conference call and face to face meeting. Making tough decisions have seem to come naturally to you all, and each of those decisions has helped strengthen NACAA. Because of your leadership, NACAA I believe will succeed another 100+ years.

During this past year, I've continued to "hold down the fort" (National Office) in Maroa, Illinois. I never really know what will transpire each day. It may be answering several phone calls from individuals wanting to discuss upcoming Annual Meeting events, it may be responding to 50+ emails/day on association related business, or it may be the opportunity to talk with a potential agribusiness about how to partner with NACAA. Every day is unique, which is makes my job one that I do honestly look forward to each day.

As the 2014 AM/PIC in Mobile, Alabama rapidly approaches, I also want to thank all of the Alabama members I've come to know and work with closely over the last year. It takes strong leadership from the State level to make an AM/PIC happen, and the Alabama group has proven leaders that I've thoroughly enjoyed working with.

I look forward to seeing everyone in Mobile and hope that this years Professional Improvement Conference will be one that you will take full advantage of **as a member of NACAA.**

2014 NACAA

99th Annual Meeting and Professional Improvement Conference Schedule

FRIDAY, JULY 18

7:00 am - Pre-Conference Livestock & Natural Resources Tours
8:00 am- 5:00 pm NACAA Board Meeting

SATURDAY, JULY 19

7:00 am - Pre-Conference Livestock & Natural Resources Tours
8:00 am- 5:00 pm NACAA Board Meeting
12:00 pm-8:00 pm Registration
1:00 pm - 5:00 pm Registration for 4-H Talent Revue
6:00 pm- 9:00 pm 4-H Talent Revue Orientation and Dinner

SUNDAY, JULY 20

7:30 am- Noon 4-H Talent Revue Rehearsal and Meal
8:00 am- 7:00 pm Registration
9:00 am- 1:00 pm Commercial Exhibits & NACAA Educational Exhibits, Poster Set Up
9:00 am- Noon Regional Directors and Vice Directors Workshop
9:00 am- 5:00 pm Scholarship Selection Committee
9:00 am- Noon Nominating Committee Meeting
12:00 pm-2:00 pm Past National Officers and Board Luncheon
Noon- 2:00 pm National Committee Chairs and Vice Chairs Luncheon and Workshop
1:00 pm-3:00 pm Horticulture Super Seminar Featuring P. Allen Smith
1:00 pm-5:00 pm Life Member and Spouses Hospitality Room
1:00 pm-6:00 pm Commercial Exhibit Trade Show - and NACAA Poster Session Display - Open
2:30 pm -3:00 pm Break
1:30 pm-3:00 pm State Officers Workshop
2:00 pm- 5:00 pm Program Recognition Council Workshop
2:00 pm- 5:00 pm Extension Development Council Workshop
2:00 pm- 5:00 pm Professional Improvement Council Workshop
2:00 pm- 3:00 pm Life Member Committee Meeting
2:00 pm- 3:00 pm NACAA Educational Foundation Annual Meeting
3:00 pm-4:00 pm First Timer Orientation and Reception
4:30 pm- 6:30 pm Welcome to Alabama Dinner
5:30 pm- State President Rehearsal for Flag Ceremony
6:00 pm -6:15 pm National Leadership Rehearsal
6:00 pm-6:45 pm Parents Orientation for Sons and Daughters Program

7:00 pm-9:00 pm Opening Session and Inspirational Program
9:00 pm-11:00 pm State Pictures
9:30 pm-11:30 pm Hospitality
10:00 pm Alabama Meeting

MONDAY, JULY 21

6:30 am-7:45 am Voting Delegates Breakfast
6:30 am- 7:30 am Life Members Breakfast and Program
8:00 am-5:00 pm Registration
8:00 pm-5:00 pm Life Member and Spouses Hospitality Room
8:00 am- noon NACAA Poster Judging
8:30 am -4:30 pm 4-H Talent Revue Rehearsal
8:00 am-10:00 am General Session
9:00 am-5:00 pm Commercial and NACAA Educational Exhibits Open
10:00 am-10:30 am Break
10:30 am-11:40 am Trade Talk Concurrent Sessions
11:45 am-1:15 pm Agriculture Awareness & Appreciation Award Luncheon (Tickets Required)
11:45 am -1:15 pm Meet the Authors Poster Session
11:45 am -1:15 pm First Time Attendee Luncheon (Tickets Required)
11:45 am -1:15 pm Professional Improvement and Search for Excellence Luncheons (Tickets Required) Crop, Farm and Ranch Management, Landscape Horticulture , Sustainable Agriculture (SARE)
11:45 am -1:15 pm Excellence in 4-H Programming Luncheon
11:45 am -1:15 pm Educational Luncheon Seminars
1:00 pm - 3:00 pm Climate and Agriculture Session Presentations
1:30 pm-2:30 pm Committee Workshops for all NACAA Members
1:30 pm -3:00 pm Life Members Business Meeting
2:30 pm- 3:00 pm Break: Ice Cream Social
3:00 pm-5:00 pm Regional Meetings and Candidate Presentations
5:00 pm -7:00 pm Dinner with AACAAAS
7:30 pm-9:00 pm 4-H Talent Revue
9:00 pm-11:00 pm State Pictures
9:30 pm-11:30 pm Hospitality Rooms
10:00 pm Alabama Meeting

TUESDAY, JULY 22

6:30 am- 7:45 am	Administrators' Breakfast
6:30 am-7:45 am	Poster Session Breakfast
7:00 am - 8:00 am	Achievement Award Recognition Breakfast
8:15 am- 4:30 pm	Load buses for Life Member Tours (Tour 3 departs at 7:30 am)
8:00 am -5:00 pm	Registration
8:30 am-11:30 am	Delegate Session
8:30 am-11:30 am	Excellence in 4-H Program Workshop
8:30 am- 11:30 am	Extension Development Council Seminar Administrative Skills Early Career Development Teaching & Educational Technologies Ag Issues & Public Relations
10:00 am- 10:30 am	Break
9:00 am- 4:00 pm	Commercial and NACAA Educational Exhibits Open
9:00 am- 4:00 pm	NACAA Poster Session Open
11:45 am-1:15 pm	State Presidents and Vice Presidents Luncheon
11:45 am-1:15 pm	Communication Awards Luncheon
11:45 am-1:15 pm	Search for Excellence in Livestock Production
11:45 am-1:15 pm	Search for Excellence in Remote Sensing
11:45 am-1:15 pm	Search for Excellence in Young, Beginning or Small Farms/Rancher Program
11:45 am-1:15 pm	Educational Luncheon Seminars (Tickets Required)
11:45 am-1:15 pm	SARE Fellows Luncheon
11:45 am-1:15 pm	Professional Improvement Council Luncheon Seminar - Sustainable Agriculture
1:30 pm- 4:00 pm	Professional Improvement Council Seminars Agronomy and Pest Management Ag Economics Animal Science Natural Resources/Aquaculture/Sea Grant Horticulture and Turf Grass
2:30 pm-3:20 pm	Break
4:00 pm -6:00 pm	Commercial Exhibits close and take down
4:30 pm	States Night Out
7:00 pm	Silent and Live Auction Preview
8:00 pm	Live Auction
10:00 pm	Alabama Meeting

WEDNESDAY, JULY 23

6:30 am- 9:00 am	Assemble for Professional Improvement Tours
6:30 am	Breakfast - Convention Center
8:00 am- 6:00 pm 4:45 pm	Professional Improvement Tours Shuttle buses for Alabama Dinner for non-tour participants
6:00 pm	Dinner - USS Alabama Battleship Memorial Park
10:00 pm	Alabama Meeting

THURSDAY, JULY 24

6:30 am -8:00 am	National Committee Members Breakfast Recognition of Retiring Chairs, Vice Chairs and Special Assignments
8:00 pm-5:00 pm	Life Member and Spouses Hospitality Room
8:30 am- 10:00 am	NACAA Policy Meeting
8:00 am- 11:00 am	General Session
9:00 am- 5:00 pm 11:00 am-11:30 am	Registration Break
11:45 am- 1:30 pm	Search for Excellence Luncheon- Sustainable Agriculture (SARE)
11:45am- 1:15 pm	Educational Luncheon Seminars (Tickets Required)
1:00 pm - 4:00 pm	Super Seminar - Agronomy
1:00 pm - 4:00 pm	Super Seminar - Agriculture Economics
1:00 pm - 5:00 pm	Super Seminar - Climate and Agriculture Session
4:30 pm-5:00 pm	Formal Picture Opportunity
5:00 pm- 6:30 pm	DSA & AA Recipients, Hall of Fame Recipients, NACAA Board Members, Region Directors, Past Officers, Special Assignments, Special Guests, Council Chairs, Committee Chairs and Vice Chairs Assemble for Banquet
6:30 pm- 9:00 pm	Annual Banquet
9:15 pm-11:00 pm	President's Reception
10:00 pm	Alabama Meeting & Celebration

FRIDAY, JULY 25

8:00 am- 5:00 pm	NACAA Board Meeting
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SATURDAY, JULY 26

8:00 am- 12:00 pm	NACAA Board Meeting
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Poster Session

Applied Research

2014 NACAA

99th

Annual Meeting

and

Professional Improvement Conference

Mobile, Alabama

WEST REGION

EVALUATION OF FUNGICIDES APPLIED VIA DRIP IRRIGATION FOR CONTROL OF SILVER SCURF ON POTATO IN WESTERN WASHINGTON

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The Silver Scurf pathogen infects the tuber periderm causing lesions that reduce marketability. Fungicides applied through drip irrigation were evaluated for effectiveness in controlling silver scurf and as an alternative to preplant fungicide treatments. The study established near Mount Vernon, WA at Washington State University NWREC on 21 May 2012. There were five treatments included: penthiopyrad applied at 45 days after planting (dap), penthiopyrad applied at 60 dap, azoxystrobin applied at 45 dap, and azoxystrobin applied at 60 dap, and a non-treated non-irrigated control. Azoxystrobin and penthiopyrad-treated plots were drip-irrigated. The trial was maintained with fertilizer and pesticide management practices standard for commercial potato production in the area. Plants were topped (mowed) and then sprayed with Diquat on 31 Aug 2012. Harvest took place on 10 Oct 2012 to ensure the maximum exposure to silver scurf inoculum in the soil. Each tuber was weighed and graded. Twenty-five potatoes from each plot were evaluated postharvest after 2 weeks of storage. Incidence of silver scurf was higher for the control plots (96.92%) as compared to azoxystrobin-treated at 45 dap and 60 dap (83.00% and 81.45%, respectively) and penthiopyrad-treated plots at 45 and 60 dap (76% and 74%, respectively). Control plots also had higher silver scurf severity (11%), as compared to plots treated with azoxystrobin at 45 and 60 dap (8% and 7.5%, respectively) and plots treated with penthiopyrad at 45 and 60 dap (7% and 6%, respectively).

MANAGING DAIRY GRAZING BY MONITORING WEEKLY PASTURE GROWTH AND UTILIZATION

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The use of weekly pasture cover measurements have been shown useful in New Zealand and Ireland to estimate daily growth rates, feed inventories and for feed budgeting. The objectives of this project were to document weekly pasture growth, forage quality and utilization and to understand how to use this information to make management decisions on US dairies. One dairy was studied for a two-year period. Pastures were measured and mapped and total standing dry matter was estimated weekly in all 22 pastures using a calibrated rising plate meter. Measurements started with the grazing season in the spring in March and continued until the end of November. Weekly grazing wedges were developed, printed and were used to make grazing decisions that week. Paddocks grazed

and residual pasture covers were recorded daily and forage cover measurements were measured weekly and entered into management software. Paddock grazing and residual heights were also included in the electronic recordkeeping. Dry matter yields for each paddock ranged from 11,312 to 20,257 lbs. per acre. Daily pasture DM growth averaged 47 ± 19 and 49 ± 26 lbs. a day for 2012 and 2013. In 2012, during the 9 month grazing season the dairy averaged 1089 lbs. of milk solids per acre and 739 lbs. per cow and in the second year the dairy averaged 793 lbs. of milk solids and 640 lbs. of milk solids per cow. In 2012 the dairy produced 85% of the total DM consumed as pasture and 72% for the 2013 season.

WHAT ARE THE ECONOMIC COSTS & BENEFITS OF VEGETABLE GARDENS?

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Extension professionals are often asked whether or not planting and maintaining a home vegetable garden is a good economic investment. However, reliable data on the economic costs and benefits has been hard to come by. The objective of this study was to assess how much home vegetable gardeners can expect to spend and recoup from their efforts. I searched the literature to find studies that rigorously documented the costs and benefits associated with starting and maintaining a vegetable garden. An analysis of published data suggests that home vegetable gardens are profitable, if the fair market value of garden labor is not included in calculated costs. On average, home vegetable gardens can produce \$677 worth of fruits and vegetables, above and beyond the cost of \$238 worth of materials and supplies. It is thus reasonable for Extension professionals to promote vegetable gardening as an economical way to supplement the family food budget.

SOUTHERN REGION

A SIMPLE TOOL TO PROJECT COW-CALF PROFITABILITY FOR NEXT YEAR

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Making a profit with a cow-calf enterprise requires prior planning and management. Cow-calf producers can make more profitable management and marketing decisions when they use decision aids and enterprise budgets for their operation. A spreadsheet was developed to project cow-calf profitability for producers using the basic factors that affect cow-calf profitability. The spreadsheet provides the user the opportunity to insert individualized projections about their cost of production, performance, and market prices for the

coming year. It provides a visual to which producers can identify profitable outcomes. The spreadsheet organizes the information and computes the profitability of the cow-calf enterprise. Additionally, a sensitivity option with respect to cost of production and animal performance allows the user to evaluate alternative levels and their impact on profitability. The spreadsheet can be used for estimating the impact of certain decisions on the profitability on your cow-calf operation. Adjusting the parameters in the spreadsheet will allow you to examine the impact of alternative animal production practices, animal performance, forage production practices, feeding strategies, levels and types of input use, and marketing opportunities on the level of profitability.

A SNAPSHOT OF TENNESSEE AGRITOURISM: 2013 UPDATE

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Agritourism provides Tennessee farmers opportunities to diversify income and foster rural economic development. In 2003-2004, a study was conducted to obtain a snapshot of the industry. Since that time, the landscape of agritourism has evolved, and an updated view was needed. The objectives of this study were to 1) Provide industry information for individual business planning, local and state policy development and resource allocation; 2) Identify impacts and evaluate effectiveness of existing educational, cost-share, technical assistance and promotion programs and 3) Identify needs for future educational and technical assistance programs. A total of 429 viable contacts received a mail survey in early 2013, and 171 operators responded for an overall response rate of 39.9 percent. The direct estimated economic impact from agritourism was more than \$34.4 million for 2012, and the impact with multiplier effects was \$54.2 million. This more than doubles the estimated impact from the 2003-2004 study. Among those attending educational programs in the last three years, the average estimate of sales in 2012 influenced by information obtained was a 19.9 percent increase. The most cited problems faced by enterprises, which present opportunities for future educational programs, included deciding how to promote, developing advertising, obtaining capital, identifying target customers, record-keeping and analysis and finding employees. A policy consideration was identified as more than 12 percent of operations had less than 15 acres, likely omitting them from the protection offered by a state agritourism liability law. Complete results of the study are available at <http://tiny.utk.edu/ATStudy>.

BASIL DOWNY MILDEW: PRESENT AND FUTURE PROSPECTS FOR CONTROL

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Poster URL: <http://www.scribd.com/doc/211270958/BASIL-DOWNY-MILDEW-PRESENT-AND-FUTURE-PROSPECTS-FOR-CONTROL>

Basil downy mildew, caused by the fungus *Peronospora belbahrii*, was first reported in the U.S. during 2007. During later stages of the disease, leaves turn brown and necrotic, rendering the crop unmarketable. The disease may also progress following harvest, causing massive losses after shipment. All sweet basil types are highly susceptible to the downy mildew, although a few of the specialty basils, such as cinnamon basil and spice basil have shown some resistance. A very aggressive disease, sweet basil growers must use a very intensive spray program to keep the disease from reaching economic levels. These experiments were conducted to investigate fungicidal efficacy and to improve prospects for control.

Multiple fungicide trials were conducted over three years to investigate the management of basil downy mildew. A number of soil treatments have shown promising results slowing the onset of the disease and many efficacious compounds are capable of preventing new diseases.

A comparison of compounds used as a seedling drench indicated significant differences in mildew efficacy. Presidio, Quadris, and Ridomil provided significantly longer control than the phosphites ProPhyt and Aliette, and the SAR compounds Regalia and Vacciplant, with Ridomil providing superior control at both the 8 and 16 fl oz rates. In order of effectiveness, in the absence of a seedling drench, Ridomil, Revus, Reason, and Zampro provided for reductions in DM incidence, followed by Ranman, Forum, Quadris, Presidio, and ProPhyt, which were aided by a Ridomil drench.

CALF DEPREDATION

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Cattle ranches provide important habitat for wildlife, including endangered and protected species; such as Florida panthers. Livestock loss due to the panther is an issue of growing concern to Florida ranchers as the panther population increases and expands its range. To understand these impacts, the University of Florida conducted a study to quantify calf depredation during 2011-2013. This study was supported by the U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission (FWC), Defenders of Wildlife, and two commercial cattle operations in south Florida. A total of 409 calves were ear tagged with radio transmitters on two ranches, over two years (~100/ranch/yr.). The tags allowed us to monitor calves daily. Each tag was equipped with a mortality mode that emitted a specific signal when a calf did not move for two hours or more, indicating the calf was dead. Mortalities were documented and evaluated for cause of death and all panther depredations were verified by the FWC. On Ranch A, panthers killed an average of 5.3% of the study herd/year. On Ranch B, panthers killed an average of 0.5% of the study herd/year. Additionally, black bears were responsible for a small percentage of calf mortalities on both ranches. Calf loss from causes other than predation was also documented, including factors such as health issues and abandonment. Results of this study are being considered by multiple state and federal agencies in an effort to identify strategies addressing landowner concerns regarding livestock losses to the Florida panther.

CHINESE PRIVET CONTROL WITH CUT STUMP AND BASAL BARK HERBICIDE TREATMENTS

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Chinese privet (*Ligustrum sinense*) is one of the most invasive shrubs in the southeastern United States. It reproduces by seed and lateral root sprouts and is a strong stump sprouter following cutting. Despite its notoriety, information concerning the effectiveness of herbicide approaches including cut stump and basal bark treatment is lacking. Our objective was to evaluate these methods for Chinese privet control. Studies were conducted from 2008 to 2011 in mixed hardwood stands infested with Chinese privet near Auburn, Alabama. For the cut stump study, glyphosate

(Accord Concentrate at 25% v/v) and triclopyr amine (Garlon 3A at 25% v/v) were compared to cutting alone at April and November timings. For the basal bark treatment study, triclopyr ester (Garlon 4 at 5, 10, and 20% v/v and Pathfinder II at 100% v/v) were compared to untreated control plants at January and March timings. Chinese privet mortality and stump and lateral root sprouts were quantified at 6, 12 and 18 months after treatment (MAT). Canopy defoliation was also estimated in the basal bark study. For the cut stump study, both glyphosate and triclopyr amine provided >92% control across timings. However, control was better with glyphosate than triclopyr at the November application timing. For basal bark treatment studies, the lowest rate of triclopyr resulted in high levels of canopy defoliation and few basal sprouts. However, percent privet kill was better for the higher triclopyr rates. These studies indicate that both cut stump and basal bark treatment are effective options for Chinese privet control.

DEVELOPING SUCCESSFUL TREATMENT PROGRAMS FOR COGONGRASS PATCH ERADICATION

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Smutgrass (*Sporobolus indicus*) is a perennial warm-season weed species that infests bermudagrass (*Cynodon dactylon*) and bahaiagrass (*Paspalum notatum*) pastures in south Louisiana. Selective herbicide options for control of smutgrass in perennial warm-season pastures are limited. The objective of this study was to evaluate four herbicide treatments for control of smutgrass and amount of injury incurred by the perennial warm-season forage grasses present. Herbicide treatments included Velpar applied at either 3 or 4 pints/acre, and glyphosate applied at either 1 or 1.5 pints/acre. The herbicides were applied at six different locations across south Louisiana. Herbicide applications were made in either June or August of 2013. Visual smutgrass control and grass injury ratings were taken about 30 days after treatment (DAT) and final ratings were taken in either October or November. At the first rating date (30 DAT), the best smutgrass control (79 to 88%) was provided by the two Velpar herbicide treatments. The glyphosate treatments provided poorer smutgrass control and caused more injury to the warm season forage grasses. At the final rating date in the fall, the Velpar treatments of 3 and 4 pints/acre provided smutgrass control of 80 and 88% respectively. Both glyphosate treatments provided smutgrass control of less than 50% and injury to the forage

grasses was significantly higher for the glyphosate treatments than for the Velpar treatments. Results suggest that producers should use Velpar herbicide for smutgrass control in perennial warm-season pastures as it provided excellent control without causing significant injury to the forage grasses.

DISTRIBUTION OF THE KUDZU BUG AND ITS POTENTIAL PREDATORS IN ALABAMA

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Since its discovery in Georgia, USA, in October 2009, *Megacopta cribraria* (F.) more commonly known as the kudzu bug, has rapidly spread across the southeastern United States. Kudzu bugs were first detected in Alabama in October 2010 and were eventually found in all 67 counties by August 2013. Although the primary demonstrated reproductive hosts are kudzu (*Pueraria montana* Lour. [Merr.] variety *lobata* [Willd.] Maesen & S. Almeida) and soybeans (*Glycine max* [L.] Merrill), it has been observed to feed on several other legumes and occasionally feed on a wide variety of native and introduced plants in Alabama. Four insects have been observed to cause some mortality of all life stages of *Megacopta*. Evidence of a potential adult parasitoid has also been observed. Insects of the families Scelionidae, Reduviidae, Tachinidae, and Chrysopidae have been observed feeding or parasitizing life stages of the kudzu bug. Despite these natural control agents, *M. cribraria* populations have increased dramatically, becoming one of the most pervasive nuisance pest insect in Alabama. Management strategies for kudzu bug infested soybeans include treating field borders and delaying application of insecticides until the density of immature kudzu bugs reaches one per sweep.

DOES POULTRY LITTER INCREASE SOYBEAN YIELDS IN A WHEAT/SOYBEAN DOUBLE-CROP PRODUCTION SYSTEM?

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Research-based information is lacking about the yield response of soybeans planted behind wheat when the wheat is fertilized with poultry litter and/or commercial nitrogen (N). The objective of this 2010-2013 study was to compare the yield response and crop value of double-cropped soybeans following wheat that was fertilized with different poultry litter and commercial N fertilizer treatments. The study was conducted in north Alabama on non-irrigated plots with initially high levels of P and K. There were 5 fertility treatments with 4 reps/treatment arranged in a RCB design. The 5 wheat fertilizer treatments were as follows: (1) 2 tons litter/A pre-plant {L} (2). 2 tons litter/A pre-plant + 1.5 tons litter/A topdress {LL} (3). 20 lbs. commercial N/A pre-plant

+ 80 lbs. commercial N/A topdress [C] (4). 2 tons litter/A pre-plant + 40 lbs. commercial N/A topdress {LC} (5). 100 lbs. commercial N pre-plant as a N rich strip {NRS}. There was no statistically significant effect on soybean yields with respect to fertility treatments in 2010 with severe drought conditions or in 2012 with abundant rainfall. However, in 2011 with moderate rainfall all 3 litter treatments had significantly greater soybean yields than the 2 commercial N treatments. During 2013 with abundant rainfall the LL treatment yield was significantly greater than that of the other 4 treatments. Average gross receipts for the soybeans produced by each treatment during the 4 year period were as follows: L= \$505; L= \$509; C= \$449; LC= \$466 and NRS= \$466.

ESTABLISHING A PHEROMONE TRAPPING PROGRAM TO AID IN EARLY MANAGEMENT DECISIONS OF LESSER CORNSTALK BORERS IN SUGARCANE

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Lesser-cornstalk-borer (LCB) is a pest of sugarcane in Florida with increasing levels of damage being noted recently. Research indicates potential yield losses of 14%-70% when young plant-sugarcane is infested at the 3-7 leaf stage. Often by the time significant LCB damage is noted in the field, yield-reduction has already occurred. **Objectives:** To establish a LCB early warning system that helps growers make early management decisions. To determine if pheromone traps can help predict future damage. To determine if the location of a trap within a field will affect the number of moths trapped. **Methods:** LCB pheromone monitoring sites were established in two plant-sugarcane fields and one ratoon-sugarcane field. Traps were placed near the corners and in the middle of each site to determine if trap orientation within the field influenced the number of LCB trapped and if number of LCB trapped would be an early indicator of plant damage. **Results:** Location within the field had no effect on LCB counts. Peak LCB counts generally were followed by increased plant damage. **Conclusions:** A plant-sugarcane field can produce over 15,000 pounds of sugar/acre; early detection and control of LCB can prevent significant yield losses. Early management decisions preventing a 10% loss equals saved income of \$250-\$300/acre. Pheromone traps were more effective than scouting to predict populations of LCB and can be used to help make early management decisions. For 2013/2014 growers who were supplied with and taught to self-monitor pheromone traps found them useful in making early LCB management decisions.

EVALUATION OF CORAGEN® AS A TRANSPLANT WATER TREATMENT FOR CONTROL OF TOBACCO SPLITWORM IN FLUE-CURED TOBACCO

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The DUPONT™ product CORAGEN®, (chlorantraniliprole) was labeled for use to control insects in flue-cured tobacco production in the United States in 2010. Coragen is recommended for use on tobacco to control tobacco budworm (*Heliothis virescens*), tobacco hornworm (*Manduca sexta*) and tobacco splitworm (potato tuberworm) (*Phthorimaea operculella*). Research trials have been conducted in Georgia in 2010, 2011 and 2012 to evaluate the use of Coragen for control of a variety of worms which attack tobacco. Trials have demonstrated the effectiveness of Coragen applied with the water at transplanting for control of tobacco budworms, cutworms and most recently tobacco splitworms. Although populations of tobacco budworms and tobacco hornworms occur annually and require management by tobacco growers, the occurrence of cutworm and tobacco splitworm varies with the season. Cutworm and splitworm populations have recently been encountered in areas where trials have been conducted and valuable data have been accumulated on these insects as well. In this trial transplant water treatment with Coragen was found to give control of tobacco splitworm.

EVALUATION OF HERBICIDES FOR USE IN PERENNIAL PEANUT

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Perennial Peanut (*Arachis glabrata*, Benth) is a high value hay crop adapted to the coastal plains of the Southeastern US and is similar in quality to alfalfa. The number one limiting factor to marketability and production is weed control. There are currently only 4 herbicides [imazapic, 2,4D, hexazinone, clethodim] that can be legally applied to perennial peanut which creates a need for research on alternative chemistries. Four herbicide trials were conducted in 2013 in Marianna and Quincy, Florida. The objective of trial 1 and 2 was to determine

the efficacy of herbicides during stand establishment while the objective of trial 3 and 4 was to determine the efficacy of herbicides on an established stand. Trials 1 and 2 were planted on May 10, 2013 and treatments were applied on May 14 and July 9, respectively. Treatments from trials 3 and 4, conducted on 2 different established stands, were applied June 19 and July 17 following hay removal. The following treatments varied by trial but included: pendamethalin, imazapic, 2,4D, metribuzin, imazapic + 2, 4D, imazapic + metribuzin, hexazinone, bentazon + acifluorfen, acifluorfen, as well as untreated controls. Results from trials 1 and 2 showed weed control from imazapic, metribuzin, and hexazinone was significantly greater than the untreated and other treatments. Results from trials 3 and 4 show that imazapic and imazapic + 2,4D or metribuzin significantly increased weed control over the untreated. Additional testing will be conducted to determine if metribuzin or other chemistries have potential for use in perennial peanut.

EVALUATION OF PROTHIOCONAZOLE FUNGICIDE ON PEANUTS

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Peanut fungicides are the 2nd highest input a peanut producer has. Diseases are often times the most limiting factor on peanut yield in Early County and fungicides are constantly being evaluated with on-farm research for their efficacy on peanut diseases. Prothioconazole (Proline) is one of the products claiming to offer the producer the added benefit of better disease control and a higher return on investment. Multiyear studies have been conducted on Prothioconazole both in-furrow and early post emergence. In-furrow applications were used to evaluate Prothioconazole's activity on *Cylindrocladium* Black Rot (CBR) and the early post emergence applications its efficacy on general disease control. Two on farm replicated trials have been conducted on in-furrow applications of Prothioconazole. In both trials the addition of Prothioconazole gave an increase in yield with or without the presence of CBR. It also lowered the incidence of CBR. A yield increase of 268 pounds per acre was achieved in the presence of CBR and 403 pounds in its absence. In the early post emergence trials, Prothioconazole was applied at 28 days after planting followed by a 4 block Provost program. In the three trials, Prothioconazole was the highest yielding program with an average yield increase of 733 pounds per acre. Other data collected from these trials include the incidence of White mold, Rhizoctonia, and CBR. Prothioconazole has also shown on average a return on investment of \$101.00 per acre. These on farm research trials give producers valuable information they can use to make informed decisions.

EVALUATION OF TRIAZOLE AND STROBILURIN FUNGICIDES, ALONE AND IN COMBINATION, FOR CONTROL OF EXSEROHILUM TURCICUM ON SWEET CORN

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Northern corn leaf blight, caused by *Exserohilum turcicum*, is often a yield limiting foliar disease of sweet corn (*Zea mays*) when left unmanaged. Two field experiments conducted in south Florida during Spring 2008 included fungicides frequently relied upon for control of the pathogen. The trials were designed to evaluate the efficacy of several triazole and strobilurin fungicides, alone and in pre-mixtures. Four replications of ten fungicide treatments were arranged in randomized complete blocks. Experimental units were composed of two rows, nine meters in length, separated by three non-sprayed guard rows. Fungicides were applied using a CO₂ backpack sprayer equipped with a 3-nozzle handheld boom. Maneb, a broad spectrum protectant, was also investigated, as were the strobilurin compounds azoxystrobin, pyraclostrobin, and trifloxystrobin, as well as the triazole compounds metconazole, propiconazole, prothioconazole, and tebuconazole, either alone or in combination. Disease was severe in both experiments and both trials were considered definitive. All treatments provided significant disease control though results reveal triazole and strobilurin fungicides perform significantly better than maneb. Fungicides containing a triazole, either alone or in combination were more efficacious than fungicides containing only a strobilurin compound. These results demonstrate the benefits of including triazole chemistries in a sweet corn foliar disease management program, especially if northern corn leaf blight is the featured disease. Triazole/strobilurin pre-mixtures, or rotations of triazoles with strobilurin fungicides, demonstrate the best strategy for managing the sweet corn disease complex which includes foliar blights and rust, since strobilurins perform well on rust.

EVALUATION OF VARIOUS MATERIALS FOR REDUCING PLANT INJURY BY THIELAVIOPSIS BASICOLA TO FLUE-CURED TOBACCO SEEDLINGS GROWING IN A T-RAIL GREENHOUSE SYSTEM

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A variety of fungicides (Topsin, Procure and Folicur) were applied as drench treatments to trays of seedlings in which

Thielaviopsis basicola had been diagnosed as the cause for stunted and yellowing plants. Affected plants were pale yellow and smaller than neighboring healthy plants and in most cases limited to individual trays. Trays were black, hard, plastic and were previously washed with a sodium hypochlorite solution before filling with media. Stunting was evident early to mid season transplant production season. On hot days, leaves of the diseased plants wilted more rapidly than those of healthy plants, but recover during the night. The most distinctive symptoms of black root rot occur on the roots. The entire root system is greatly reduced with smaller roots exhibiting a typical brown to black discoloration of their tips, and larger roots having brown or black spots on their surface. The outer root tissue may slough easily and the root mass is insufficient to hold the media together so that all the media in the cell is pulled out at one time. It has been suggested that some sterol inhibitors (triazoles) have activity against *T. basicola*. Plant vigor ratings and growth measurements were taken. There appear to be materials that may be helpful to growers who find seedling resulting from *Thielaviopsis basicola* early in the production season.

FIELD COMPARISON OF LIQUID, GRANULAR, AND FOLIAR NITROGEN FERTILIZERS ON IMPROVED BERMUDAGRASS VARIETIES FOR FORAGE PRODUCTION

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Nitrogen fertilizers are a critically needed input for hay producers. Producers have several choices, including granular; liquid, ground-applied; as well as liquids promoted as "foliar fertilizers". On-farm comparison trials were established in Madison, Banks and Elbert Counties, Georgia using 16 ft² plots in bermudagrass hayfields of different varieties. Treatments included a control with no N fertilizer (Cont.), calcium ammonium nitrate (CAN; 27% N), urea-ammonium nitrate (UAN; 32% N), urea (U; 46% N), urea treated with Agrotain® urease inhibitor (AgT; 46% N), foliar fertilizer applied at product-labeled rate (Fol-L; 42%), and foliar fertilizer applied at an N-rate based on University of Georgia recommendations (Fol-U; 42%). Fol-L was applied at 5.25 lbs. N/acre (total 21 lbs. N/Ac) while other treatments were applied at 75 lbs. N/acre on four fertilizer applications (total 300 lbs. N/Ac). Fertilizers were applied and forage harvested at 4-wk intervals. A randomized complete block design was used with four treatment replications. Yields were significantly lower in Fol-L and Cont. treatments compared to others while yields from Fol-L and Cont. treatments were not significantly

different from each other. Though Fol-U treatment yields were not different from conventional fertilizers, the expense of applying foliar 42-0-0 fertilizer at sufficient N rates is 5-8 times more expensive (Cost/Lb. Forage) than conventional N fertilizer. We conclude that the use of the foliar fertilizer at the labeled rate will not provide comparable yields to conventional N fertilizer at recommended rates and using this foliar fertilizer at recommended rates of N is not cost-effective or practical.

IMPACT OF AZOXYSTROBIN AND PROTHIOCONAZOLE APPLICATIONS ON SEVERITY OF SOILBORNE DISEASES OF PEANUT

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Soilborne diseases are a critical problem for peanut producers in Effingham County and must be addressed with additional on-farm research to establish “best management” practices. The producers’ current best line of defense to combat these problems involves selection of more-resistant varieties, judicious use of fungicides, and soil fumigation with metam sodium to reduce severity of *Cylindrocladium* black rot (CBR). Unfortunately, foliar fungicides and more-resistant varieties are insufficient to manage CBR in Effingham County and our growers are unlikely to use fumigation to manage the disease. In this study, the effectiveness of prothioconazole (Proline) and azoxystrobin (Abound) applied in-furrow at planting and over the top after emergence was evaluated for the management of peanut diseases. Provost (prothioconazole + tebuconazole) was evaluated with Proline (prothioconazole) and Abound (azoxystrobin) to assess the best program for overall disease protection. Data collected included white mold, *Diplodia* collar rot and *Cylindrocladium* black rot. From the research in Effingham County, the effectiveness of prothioconazole as a part of a disease management program to improve plant stand and reduce other disease such as TSWV, CBR, and white mold has been addressed. This trial will evaluate the efficacy of Abound compared to Proline on soilborne diseases of peanut. These results will play an important role in recommendations for future use of prothioconazole and azoxystrobin in the Southeast.

INTEGRATED MANAGEMENT OF SOUTHERN ROOT-KNOT NEMATODE WITH RESISTANT COTTON VARIETIES AND NEMATICIDES IN APPLING COUNTY, GEORGIA

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Southern root-knot nematode (*Meloidogyne incognita*) is the most widespread nematode affecting cotton in Georgia and is a significant problem in Appling County. With the loss of Temik, growers require new options to manage nematodes. This large-plot, on-farm study was conducted with objectives of assessing fumigation with 1,3-dichloropropene (Telone II) and use of multiple varieties, to include PhytoGen 367 WRF which has partial resistance to *M. incognita*. Two studies were conducted, each a randomized complete block with three replications. In each study, each variety was planted to ground that had or had not been pre-fumigated with Telone II (3 gal/A). Varieties in Test 1 included PhytoGen 367 WRF, PhytoGen 375 WRF, and PhytoGen 499 WRF. Varieties in Test 2 included DPL 1048 B2RF, DPL 1050 B2RF and PhytoGen 499 WRF. In Test 2, use of Telone II increased yields by 440, 222 and 148 lb/A for varieties PHY 499, DPL 1050, and DPL 1048, respectively. In Test 1, use of Telone II increased yields by 112, 127, and 12 lb/A for PHY 499, PHY 375 and PHY 367, respectively. In Test 1, root damage and final nematode counts were reduced when PHY 367 was planted. In Test 2, use of Telone II generally reduced both final root gall ratings and final nematode counts for all varieties.

MACARTNEY ROSE CONTROL WITH REPEATED HERBICIDE TREATMENTS

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Macartney rose (*Rosa bracteata*) is an aggressive thorny shrub that displaces forages and greatly hinders cattle grazing in rangelands and pastures of the southern United States. Over the last century, Macartney rose has proven to be extremely difficult to control even with high rates of soil residual herbicides such as picloram. However, recent introductions in herbicide chemistry warrant testing on this troublesome species. We conducted studies from 2009 to 2011 on two pastures near Eutaw, Alabama that were heavily infested with Macartney rose. We compared mowing and August applications of thirteen herbicide treatments that included certain combinations of aminopyralid, fluroxypyr, metsulfuron, picloram, triclopyr, and 2,4-D. Herbicide treatments were applied to the same rose clumps for two consecutive years and an additional mowing was done to one half of the rose clumps in each treatment six months after the second herbicide treatment. At 11 months after the initial treatment, mowing and all herbicide treatments performed poorly and provided 35% control or less. At 12 months after herbicide retreatment (24 months after the initial treatment), picloram + 2,4-D and aminopyralid + metsulfuron, both followed by mowing, were the most effective treatments, providing 72 to 91% control. All other treatments provided less than 70% control of Macartney rose clumps. However, complete clump mortality was very low across all treatments and

ranged from 3 to 32%. These studies indicate that Macartney rose suppression is possible with certain new herbicides, but complete clump kill is still lacking.

MIDLAND 99 BERMUDAGRASS FORAGE YIELD RESPONSE TO TWO YEARS OF PHOSPHORUS AND POTASSIUM FERTILIZATION

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Warm-season forage makes up the largest percentage of hay harvested in Arkansas. Median soil test P(phosphorus) and K(potassium) for warm-season forages has declined since 2006, suggesting the lack of fertilizing forages sufficiently with K. This report summarizes P and K research conducted in 2011-12 on an established stand of Midland 99 bermudagrass on a farm located in El Paso, Arkansas having suboptimal soil P and K availability. Our research objective was to evaluate soil test P and K and bermudagrass yield and nutrient uptake as affected by annual P and K fertilization. Soil samples were collected from each plot to monitor soil-test P and K. In the K rate trial, muriate of potash was applied in two or three applications of 0, 90, 180, 270, 360, and 450lbs. K₂O/acre. In the P rate trial, triple superphosphate was applied in one to three applications of 0, 30, 60, 90, 120, and 150lbs. P₂O₅/acre. The biomass was harvested from each plot and weighed. It was adjusted to a total dry weight of forage/acre. Soil test P and K were increased with the treatments. Year one yields from the first two and the fourth harvest events were unaffected by K fertilization. Phosphorus fertilization resulted in similar yield results. Forage receiving no P produced the lowest yield at three of the four individual harvests, but the differences were never significant. Year 2 yield was increased in treatments of P and K versus the unfertilized control. The stand appeared to be more uniform.

MUMMY BERRY SUPPRESSION IN RABBITEYE BLUEBERRY IN NORTHEAST GEORGIA

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In 2012 there were 18 counties in Northeast Georgia that have 1215 acres of blueberries with a farmgate value of \$4,613,482.00. Mummy berry a disease caused by the fungus *Monilinia vaccinii-corymbosi* in Georgia blueberries. There is no efficacy data on fungicides for blueberries in Georgia. Organic production has expanded and new approved organic materials are needed for mummy berry management. A disease that could limit yields by over 50% in conventional and 90% in organic could have a significant impact on both u-pick and pack operations in an area of the state where producers must diversify their agricultural operations to stay viable. Many consumers prefer the «Know your farmer, know your food» market and like to purchase local products. In 2013 with limited data in Georgia as well as limited options for mummy berry suppression in blueberries a field trial implemented. The site was in Northeast Georgia at a u-pick and pack farm that has been in operation since the late 1960s. This was the first on-farm mummy berry trial set up for data in Northeast Georgia. Many organic blueberry farms have come into operation in this area of the state. This issue was also addressed in the field trial. An 8 treatment randomized completely block design including a control was set up with sprays at green tip, 10-20% bloom, full bloom and late bloom. The treatments had 5 replications.

NITROGEN RATES AND APPLICATION TIMING ON STOCKPILING FORAGES FOR LATE FALL/EARLY WINTER GRAZING IN SOUTH CENTRAL KENTUCKY

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The amount of nitrogen (N) to use and timing of application for stockpiling forages is challenging for producers. Lack of moisture, the heat of late summer, and high nitrogen prices often prevent producers from attempting to stockpile forages. In 2011 and 2012 a demonstration trial was established on two fields with test strips of 0, 30, 60, 90, and 120 lbs/ac N. Applications were made August 10, September 10, and October 10 of each year. The N source was Urea treated with the recommended rate of Agrotain. In late July and early August fields were grazed and mowed to an average height of 2-3 inches. Forage mass was measured every two weeks from

date of application and rainfall amounts were collected from August through December. Quality samples were collected in November, as well as quality samples from the cooperating producers' hay. The results from this demonstration coincided with literature from previous work on stockpiling in Kentucky. Although several limitations prevented the trial from being analyzed statistically, it showed local producers that applications made after mid-September would not likely accumulate sufficient forage mass to warrant the cost of fertilizer. Higher N rates produced higher crude protein (CP) and total digestible nutrients (TDN) of stockpiled forages and exceeded the CP and TDN of the producers' hay. In conclusion, this demonstration trial was useful to encourage producers to use standard stockpiling recommendations, and suggested that moderate N rates of 60 – 90 lbs/ac were beneficial both economically and agronomically even in challenging years.

PHAUCET PROGRAMS IMPROVES SOYBEAN IRRIGATION EFFICIENCY

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Arkansas uses several different methods to irrigate soybeans. Those methods are a center pivot, flood irrigation, furrow irrigation, and border irrigation. Furrow irrigation is becoming much more popular in recent years. Arkansas growers are implementing a program developed by the Missouri NRCS called Phaucet into their furrow irrigation fields. Then program calculates the hole size needed in the irrigation tubing at each watered furrow depending upon pressure and the available flow. The objective of this research was to investigate whether implementing the Phaucet Program would result in less water being pumped for furrow irrigated soybean than in previous years without the program.

On-farm demonstrations indicate Phaucet Program helps producers improve water management to address declining water levels and increasing irrigation costs. Potential water management improvements include: water savings, reductions in pumping cost, less runoff and more uniform distribution down each furrow. The Phaucet Program calculates the pressure inside the tubing at each watered furrow and adjust the hole size to deliver the same amount of water down each furrow for improved efficiency.

Demonstrations included Phaucet designed fields compared to the producers prior experience when using furrow irrigation and punching various hole sizes at random throughout the field. The Phaucet fields averaged 20% less time required per set when compared to the grower's designs. These average savings on 2 million Arkansas Soybean acres that are irrigated would save 108.6 billion gallons of water and \$59.9 million.

SMUTGRASS CONTROL AND INJURY TO WARM-SEASON FORAGE GRASSES WITH APPLICATIONS OF VELPAR AND GYLPHOSATE HERBICIDES

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Smutgrass (*Sporobolus indicus*) is a perennial warm-season weed species that infests bermudagrass (*Cynodon dactylon*) and bahaiagrass (*Paspalum notatum*) pastures in south Louisiana. Selective herbicide options for control of smutgrass in perennial warm-season pastures are limited. The objective of this study was to evaluate four herbicide treatments for control of smutgrass and amount of injury incurred by the perennial warm-season forage grasses present. Herbicide treatments included Velpar applied at either 3 or 4 pints/acre, and glyphosate applied at either 1 or 1.5 pints/acre. The herbicides were applied at six different locations across south Louisiana. Herbicide applications were made in either June or August of 2013. Visual smutgrass control and grass injury ratings were taken about 30 days after treatment (DAT) and final ratings were taken in either October or November. At the first rating date (30 DAT), the best smutgrass control (79 to 88%) was provided by the two Velpar herbicide treatments. The glyphosate treatments provided poorer smutgrass control and caused more injury to the warm season forage grasses. At the final rating date in the fall, the Velpar treatments of 3 and 4 pints/acre provided smutgrass control of 80 and 88% respectively. Both glyphosate treatments provided smutgrass control of less than 50% and injury to the forage grasses was significantly higher for the glyphosate treatments than for the Velpar treatments. Results suggest that producers should use Velpar herbicide for smutgrass control in perennial warm-season pastures as it provided excellent control without causing significant injury to the forage grasses.

STING NEMATODE REPRODUCTION AND EFFECTS ON ROOT WEIGHT IN TALL FESCUE CULTIVARS

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Tall fescue (*Festuca arundinacea* Schreb.) is one of the most common cool season forages for livestock and hay production in the southeastern U.S. Much is already known about the health benefits to livestock when utilizing novel or endophyte-free cultivars when compared to the more traditional, endophyte-

infected 'Kentucky 31'. However, the persistence of 'Kentucky 31' through periods of drought or heavy grazing, in general, cannot be matched by those other cultivars. The reason for this persistence may be, in part, due to resistance to the parasitic sting nematode (*Belonolaimus longicaudatus*), particularly in soils with a texture of 80% sand or greater. Greenhouse cultivar trials were conducted to measure reproduction of the nematode and their effect on the dry root weights of each cultivar. The objective of this research was determine which cultivars of tall fescue, if any, exhibited greater resistance to the nematode. All cultivars were determined to be hosts for sting nematode, but this study showed no significant difference ($P = 0.05$) in nematode reproduction rates between cultivars. Additionally, this research was inconclusive in regard to whether or not sting nematode infection causes reduced root weights in the studied cultivars at the given levels of infection. Further research in a variety of environments still needs to be conducted to determine if a particular cultivar provides greater resistance to sting nematodes than another. For producers managing fescue in sandy soils, proper cultivar selection based on further research may assist in management and control of this pathogen, resulting in increased yields.

THE ECONOMICS OF PRECONDITIONING FEEDER CALVES

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Preconditioning is specifically defined as having calves weaned for 45-days, bunk broke, and receive a comprehensive health program. Research has well documented that by reducing the stress during the weaning phase feeder calves will have less sickness, death loss, a higher level of performance, and hang a higher quality carcass. Thus, feeder calf buyers can pay higher prices for preconditioned feeders. Basic feeder calf preconditioning data were collected from a custom preconditioning yard in Alabama during 2012. An electronic spreadsheet was developed to address the economics of preconditioning feeder calves. The economic factors included in the spreadsheet were a) cost of the health program, b) feeder calf performance during the preconditioning period, c) feed and mineral input prices, d) yardage, e) death loss, f) shrink, and g) price margin between preconditioned (weaned) and non-preconditioned (un-weaned) feeder calves. The cost of preconditioning and net return for preconditioned feeder calves was calculated by the spreadsheet. The cost of preconditioning ranged from \$113 to \$153 per feeder calf. The net returns ranged from -\$39 to +\$130 per feeder calf. The average preconditioning cost was \$133 per head and the average net return was +\$44 per head. The most sensitive factors in the data set were feed prices, average daily gain, and price margin.

NORTHEAST REGION

A STUDY ON QUINCE RUST OF BLACK CHOKEBERRY (*ARONIA MELANOCARPA*) IN NEW JERSEY

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Commercial Aronia acreage in the United States is increasing due to high antioxidant levels of the fruit and perceived low-maintenance of the plants based on its native origin. Jalma Farms noted a significant rust infection on their commercial Aronia plantings in New Jersey in 2012. There are no recommended control options available for rust on this minor crop. Consequently, in 2013 Rutgers University conducted a study to determine infection timing and fungicide treatment efficacy. Replicated treatments of JMS Stylet Oil and Rally 40WSP fungicide were applied at 14 day intervals between 11 Apr and 21 Jul. Foliar infection was evaluated on non-treated control bushes weekly. A destructive harvest and assessment of fruit disease was performed on 1 Aug. A final foliar assessment was conducted on 5 Aug for the foliar variables. The early and full season treatments of Rally 40WSP were most effective, lowering percent berry infection significantly relative to the control. There is no established economic threshold for this disease/crop, but the authors hypothesize that the disease pressure in 2013 was not high enough to warrant fungicide applications. The study will be continued in 2014 in order to substantiate results.

A SUSTAINABILITY STUDY: NEW JERSEY SOIL COPPER LEVELS RESULTING FROM COPPER FUNGICIDE APPLICATIONS

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Vegetable producers rely on copper compounds for the prevention and suppression of plant diseases. During recent growing seasons growers questioned if the use of copper

affected plant health and soil microbial activity. Research shows that soil copper levels above 130ppm with 6.5 or higher pH can cause toxicity symptoms. This project set out to determine if New Jersey soil copper levels are high enough to cause reduction growth and microbial activity. Fifteen farms were sampled for soil copper levels, ten of the farms are certified organic and five use conventional growing methods. Soil samples were taken from sprayed and non-sprayed areas of each farm. Soil samples were analyzed at the Rutgers Soil Testing Laboratory for macro and micro nutrients (including soluble copper), soil pH, and organic matter content and soil microbiological activity using the Solvita respiration test. NRCS evaluated soil samples for total copper levels utilizing the PXRf scanner. Soil copper levels were lower than the growers had expected with a high of 27.61ppm soluble copper and a low of 2.22ppm of soluble copper. Several farms participating in this project had historical use of copper fungicides in excess of 30+ years. There was no direct correlation to historical use and higher than average soil copper levels. All farms that used copper fungicides had an increase in soil copper levels. The Solvita test was used to evaluate microbiological activity in three farm soils. This test showed that in the three farm soils copper was not a limiting factor in biological activity.

CREATING POLLINATOR HABITAT IN STORMWATER DETENTION BASINS TO PROVIDE AN URBAN REFUGE

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This program examines 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 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 vegetation, mowed once in the fall the other plot is fescue turf grass, mowed down to 1.5 inches every two weeks during the growing season. Pollinator samples were collected every two weeks using pan traps and sweep nets on alternate days. Pollinator species were identified and enumerated; plot type usage was compared and typical forage distance estimated

by genus. Results after one year show foraging in our basin by five genera of bees: honey bee and 4 genera of native bees. The naturalized area was preferred (86%), versus mowed (16%). Foraging distance was calculated, ranging from 7.8 m to 9766 m for all genera combined, and includes a variety of potential nesting habitats.

USING SUSTAINABLE SWITCHGRASS AS POULTRY BEDDING

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Bedding is an important component used in the rearing of poultry. Traditionally, pine shavings (PS) have been the bedding of choice because of performance, availability, and cost. However, as the cost of PS continues to rise, and availability decreases, alternative sources of litter are needed. Grasses, including native switchgrass (SG), can produce large amounts of biomass and can be grown on marginal land. Chopped SG possesses the necessary qualities needed to be alternative bedding. While there is some research demonstrating that SG is a viable alternative bedding material in pen trials, none have been done looking at the long term viability in commercial houses that go multiple grow-outs between cleanouts. The objective of this study is to evaluate the feasibility of using SG as an alternative bedding material in commercial production houses. Two farms were used to run comparisons of pine shavings vs. SG. The bedding material was placed in opposite ends in the second house to remove any variable caused by location in the house. Early results found no significant difference in bird wt. (PS 4.00kg, SG 3.95kg), feed conversion (PS 2.04, SG 1.99), mortality, (PS 3.41%, SG 3.14%) or paw quality. These early results suggest that in areas where SW is grown, it can provide a viable cost effective alternative source of poultry bedding.

WESTERN MARYLAND PASTURE-BASED MEAT GOAT PERFORMANCE TEST: A FIVE YEAR SUMMARY

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The Western Maryland Pasture-Based Meat Goat Performance Test was initiated in 2006 at the University of Maryland's Western Maryland Research & Education Center (39° 30' N/77° 44' W) in Keedysville, Maryland USA. The purpose of the annual test was to determine genetic differences in meat goat bucklings consuming a pasture only diet, with natural exposure to gastro-intestinal parasites. While on test, the goats were handled bi-weekly to determine body weights (BW), FAMACHA© eye anemia scores (FAM), body condition scores (BCS), coat condition scores, and dag scores. Fecal samples were collected bi-weekly to determine individual fecal eggs counts (FEC). Pooled samples were collected every 14 to 28 days for larvae identification (ID). Since 2006, data have been collected on 374 bucks, of various breeds and breed types, representing 46 herds in 17 states. There were significant year effects ($P < 0.001$) for FAM, FEC, BCS, and ADG. Fecal egg counts were highest in 2007 and 2008 and lowest in 2009 and 2010. FAMACHA© scores have been trending lower (getting better) and were lowest in 2010. ADG was highest in 2007, but did not differ in years 2008-2011. There were significant ($P < 0.0001$) correlations between traits: a weak positive correlation between FEC and FAM and a weak, negative correlation between FEC and ADG. Within years, the correlation between FEC and FAM ranged from 0.14 and 0.42. Year had no effect on ID and pooled fecal egg counts. From 2009-2011, the worm load carried by the goats was composed of 92.5% *Haemonchus contortus*.

NORTH CENTRAL REGION

DEVELOPING A BASE-LINE DATA SET OF WESTERN CORN ROOTWORM POPULATIONS IN CORN PRODUCTION SYSTEMS IN OHIO (FRINGE AREA).

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Western corn rootworm (WCR), *Diabrotica virgifera virgifera*, is an important pest of corn (*Zea mays*) in the US Corn Belt. WCR management tools include rotation, soil insecticides, seed treatments, and most recently, genetically modified (GM), rootworm-resistant corn hybrids. GM hybrids were rapidly adopted, however resistance to at least one GM-resistance source (Cry3Bb1) has already developed in Central Corn Belt production fields (Focus Area). The goal of this project was to establish current base-line population levels of WCR in corn production fields under various management practices before resistant populations of WCR develop in Ohio (Fringe Area). On-farm production fields (N=40) were sampled for 6-8 weeks (9 Jul.-6 Sep. 2013). Corn production systems were

described as: 1) first-year corn following soybeans planted with rootworm-resistant corn hybrids (1GMRW); 2) first-year corn following soybeans planted with non-rootworm-resistant corn hybrids (1NONGM); and 3) continuous corn planted with rootworm-resistant corn hybrids (CONTGM). Six Scentry Multigard yellow sticky traps were deployed into each field at a minimum of 60' from any field edge and 100' between each trap. Traps were replaced weekly and the numbers of WCR beetles were recorded for each trap. WCR emerged in all the corn production systems and were captured throughout the trapping period. Significant differences existed between the mean total numbers of WCR captured per field during a common 6-week trapping period (1GMRW: 247 (range = 39-529) beetles, 1NONGM: 1,251 (range = 182-4,581) beetles, and CONTGM: 3,307 (range = 93-9,325) beetles) (ANOVA; $P < 0.001$). Levels of resistance may already exist in Ohio.

EDUCATIONAL FARM TOURS IMPROVE PUBLIC UNDERSTANDING, IMPRESSIONS AND TRUST IN MODERN DAIRY PRODUCTION SYSTEMS

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Michigan State University Extension Breakfast on the Farm (BOTF) events involve public farm tours with educational stations providing consumers a first-hand look at modern agriculture. Ten of twelve tours in 2010 and 2011 involved dairy operations with 16,270 participants. Exit surveys indicated that 44% of the participants had not visited a dairy farm in the past 20 years and 21% had made only 1 or 2 prior visits. Ninety-four percent of first-time visitors either Agreed or Strongly Agreed to the statement “I have a better understanding of modern dairy production”. Results are similar with the statement “My general impression about modern dairy farming has improved as a result of my visit today”. Two questions gauged participants increase in trust: “As a result of today's tour, my trust in milk as a safe food has increased” and “As a result of today's tour, my trust in dairy farmers as a source of information about food production has increased”. Eighty-six percent either Agreed or Strongly Agreed to the first statement and 91% either Agreed or Strongly Agreed to the second. Estimates from an online survey of 228 households, representing 5,653 households attending BOTF in 2012, showed 19% of households reported increased purchasing of at least one of three dairy products (milk, cheese, yogurt) following attending a BOTF event. Extending the survey sample of weekly increases in dairy purchases to the estimated 5,653 households, the annual value for all three products totals \$404,340 in additional retail sales for households attending BOTF in 2012.

EFFECT OF DRAINAGE WATER MANAGEMENT ON SOLUBLE NUTRIENT CONCENTRATIONS IN CROPLAND DRAINAGE WATER

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Concentrations of soluble nutrients in fresh water watersheds have an impact on water quality. The Western Lake Erie Basin (Northwest Ohio) is impacted by water soluble nitrogen and phosphorus. Concentrations of nitrate-nitrogen (N-NO₃) above 10 ppm trigger human drinking water advisories and concentrations of dissolved reactive phosphorus (P-PO₄) above 0.03 ppm contribute to growth of harmful algae. A research study began in 2005 to examine controlled drainage (CD) compared to conventional free drainage (FD) from cropland on concentrations of soluble nutrients in subsurface tile drainage water. A paired plot design was established using four subsurface drainage designs, then duplicated giving eight total plots. Two drainage designs used 4 inch inside diameter (i.d.), corrugated plastic tubing (CPT) tile; one at 20 foot and another at 40 foot lateral spacing. Two additional drainage designs used 2 inch i.d., CPT tile; one at 10 foot and another at 20 foot lateral spacing. During the research period 2007-2013, plots were planted to a corn-soybean rotation and managed to have treatments of CD or FD annually. Eight automated water samplers collected samples (n=5,632) for each rainfall event for nutrient analysis. Differences in annual N-NO₃ and P-PO₄ concentrations in drainage water from CD (16.96 ppm and 0.20 ppm, respectively) vs. FD (13.44 ppm and 0.19ppm, respectively) were not significant. While concentrations were not significantly affected by drainage water management, CD has potential to reduce total volume of water leaving cropland on an annual basis, thus reducing total nutrient release from subsurface drained cropland to the watershed.

EFFECT OF FUNGICIDE APPLICATION ON CORN YIELD

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Corn acres treated with fungicides have increased with increasing corn profit margins. University recommendations suggest fungicides should be applied to corn when foliar diseases are present, hybrids lack disease resistance and environmental conditions are suitable for increased disease development. Growers have been encouraged to apply fungicides to protect yield and the cost of the application will off-set by grain yield. At the Graves Chapple Research Center, University of Missouri,

a fungicide application was applied to different corn hybrids in 2011, 2012 and 2013 with the goal measuring the impact of the fungicide application on corn yield. In 2011, Quadris was applied at a rate of 16 ounces per acre and during 2012 and 2013, Headline was applied at 6 ounces per acre with 23 gallon of water as a carrier. The fungicide treatment was applied using an off-set boom attached to a front-end loader tractor. Data from all three years across corn hybrids indicated that no significant yield response from the application of fungicide to different corn hybrids compared to the non-treated.

EVALUATION OF BROCCOLI VARIETIES FOR NEBRASKA PRODUCTION

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In recent years there has been an increasing demand for locally grown food in Nebraska. To meet this demand, it is important for producers to select varieties that are suited for their production climate. Unfortunately for producers in Nebraska, there is little to no local variety trial data available to them. This study worked with a vegetable producer in 2012-2013 to conduct an evaluation of commercially available broccoli (*Brassica oleracea*) varieties in spring and fall production. The study was conducted near Dwight, NE to evaluate nine varieties in the spring of 2012, ten varieties in the fall of 2012, and six varieties in the spring of 2013. A randomized complete block design with three replications was used with eight to ten transplants established per plot. Crowns were harvested when deemed mature for the grower's market. After harvest, varieties were evaluated for height, width, and weight of the cut crowns, days to harvest, and number of crowns and culls. Upon statistical analysis, significant differences for weight and height were found among varieties in both 2012 and 2013. No statistical differences were found among varieties for width. The study found three varieties that stood out as the best performers for spring or fall planting, while there were two varieties evaluated which performed well either in the spring or in the fall, but not in both. Additionally, one variety was deemed unusable for production in Nebraska based on the poor trial performance.

NITROGEN RATE FOR OPTIMAL YIELD IN SOFT RED WINTER WHEAT

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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. New wheat varieties may require more nitrogen. The objective of this study was to determine the nitrogen rate for optimal yields for soft red winter wheat in northwestern Ohio. Dynagro 9042, a

medium-maturity variety, was established in the fall of 2012 in an undisturbed field of soybean stubble on the OARDC Northwest Research Station near Custar, Ohio. Eight N rate treatments were applied as urea-ammonium nitrate at greenup: 0, 40, 60, 80, 100, 120, 140, and 160 pounds per acre. All treatments received 30 pounds of N per acre prior to planting. Experimental design was a completely randomized block replicated four times (N = 32). Analysis was a simple ANOVA. Grain yield, test weight, spike number, and N uptake (SPAD meter) were measured for each plot. Significant differences ($p < 0.05$) were observed among treatments for each measured agronomic trait. Grain yield increased with larger N rates until the 120 pounds per acre N rate. Yields were similar for the 120, 140, and 160 pounds per acre rate. Results from this study would suggest minimal yield benefits above the 120 pounds per acre N rate. An optimal N rate would exist between the 100 and 120 pounds per acre N rate.

NORTHEAST OHIO DAIRY SURVEY

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The dairy industry accounts for \$56,908,000 of gross cash receipts for the five northeast Ohio counties. Early in 2013, community leaders expressed concern about the long term viability of the dairy industry. Looking to the future, there are many difficult issues facing continued and expanded milk production. These include housing pressures, generational transition, federal milk pricing, input costs, workforce, waste management, and state regulations. In an effort to understand better how these issues are playing out in northeast Ohio, OSU Extension was requested to conduct a survey of northeast Ohio dairy farms. This survey was mailed to 187 dairy producers in the spring of 2013. Eighty-one surveys were returned providing a 43.3% total response rate. Seventy-eight percent indicated they do not plan on leaving the dairy industry during the next five years. For the producers who responded they were thinking of exiting the dairy industry, the major reasons cited were: retirement with someone else taking over and shifting to other livestock or cash crops. Thirty-five percent of the farms indicated they would expand their operation which would increase the overall cow numbers by 6 percent. Participants were asked to select the facility improvements they plan on investing in over the next five years with the top three responses: housing for heifers, increasing cow comfort, and manure handling systems. They also listed the top three management improvements they anticipated to make over the same time period to be feed management, genetic improvement, and milking herd health management.

SORGHUM-SUDANGRASS POTENTIAL FOR LIVESTOCK FEED AND BIOMASS PRODUCTION

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Farmers may not plant biomass crops for energy production unless there are additional options. Sorghum-sudangrass hybrids are warm season annual forages that look like sudangrass in growth but are generally taller, with larger stems and leaves. They can be used for grazing, hay and haylage. In addition, they may be a possibility for biomass production. Four varieties were evaluated in a replicated trial in 2012 at the Eastern Agricultural Research Station in Southeastern Ohio for yield, quality and energy value. The plots were harvested on October 15 which favored higher yields over quality to maximize growth for biomass production. The four varieties in the trial were Sordan Headless, 1990, Trudan Headless and SS405, from Chomatin Inc. Yield and quality were comparable to corn silage. Yields ranged from 26,253-43,346 pounds dry matter per acre with no significant differences in varieties ($P=0.05$). There were no significant differences in ADF, In Vitro Dry Matter Digestibility and BTU's. There were significant differences in crude protein (6.32%, 1990; 7.40%, SS405; 7.69%, Sordan Headless; 9.00% Trudan Headless). There were also significant differences in neutral detergent fiber (61.42, Sordan Headless; 62.00% SS405; 63.44%, Trudan Headless; and 67.57%, 1990). The variety (1990) that had the highest yield had the lowest crude protein and the variety with the highest crude protein (Trudan Headless) had the lowest yield. The energy levels ranged from 7206-7535 BTU's per pound of dry matter which is comparative to switchgrass. The varieties have potential for forage production and a biomass crop to provide renewable energy.

Poster Session

Extension Education

2014 NACAA
99th
Annual Meeting
and
Professional Improvement Conference

Mobile, Alabama

WEST REGION

ANIMAL HEALTH INCIDENT PROVIDES FOR IMPACTFUL EDUCATIONAL OPPORTUNITIES

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Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. This prion disease, a transmissible spongiform encephalopathy, however is not a human health concern. Although it is detected at a low rate (0.016%) through routine slaughter surveillance, it causes losses of \$20-25 million annually to the US Sheep Industry. In 2013, one ewe in a western Oregon flock was found to be positive for Scrapie. Because the flock was in compliance with the National Scrapie Eradication Program, requested and developed by U.S. producers to improve sheep marketability, it was recorded by USDA program administrators without local public notification. Many sheep and goat producers in the area learned of the incident by word of mouth and were disturbed; much misinformation and speculation circulated among them. An educational program (Animal Health: Biology and Control of Scrapie) was organized by OSU Extension Service with funding from an Oregon Sheep Growers Associations' Scrapie Education Grant. USDA veterinarians presented information on Scrapie, including epidemiology, genetic components, options for affected producers, concerns for neighboring ranches, and current status. Premises and Scrapie tag information along with educational pamphlets on the disease and links to the American Sheep Industry Association's on-line "Producer's Guide to Scrapie" were available. A light supper was served for program registrants; therefore a list exists for mailing Scrapie updates specifically requested by producers. A widely circulated article was written on the incident and the program. Participants self-reported that they were more informed, calmed, and more able to respond appropriately.

ASSESSING AGRICULTURAL RESPONSE TO CLIMATE INFORMATION AND WATER SUPPLY UNCERTAINTY IN CENTRAL ARIZONA

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Although agricultural production was once expected to significantly decline in central Arizona due to widespread urbanization, it remains economically relevant. In addition, agricultural water demand continues to comprise nearly half of the overall demand in Maricopa County, the most populated county in Arizona. While municipal water demand exceeds agricultural water demand in Maricopa County, many agricultural producers are faced with the prospect of absorbing a majority of the predicted drought shortages on the Colorado River because of a unique agreement with the Central Arizona Project (CAP), which delivers Colorado River

water to central Arizona. Through a project entitled "Risk Perception, Institutions, and Water Conservation: Enhancing Agricultural Adaptation to Future Water Scarcity in Central Arizona", researchers analyzed how agricultural water users are dealing with drought and an uncertain future that includes increasing projected population growth and a reduction of water supplies due to drought. In 2012, University of Arizona Cooperative Extension, Maricopa County collaborated with researchers from Arizona State University's Global Institute of Sustainability under a grant from the National Oceanic and Atmospheric Administration to survey over 200 farmers in Maricopa and Pinal Counties. Farmers were asked about their perceptions of drought, water supply, climate, and how policymakers react to climate information. A total of 52 surveys were returned. The results provide insights into farmers' concern over water supply uncertainties and interest in learning more about climate related impacts on water availability.

BEEF PRODUCERS LEARN ABOUT THE "MEAT" SIDE OF THE INDUSTRY IN IDAHO

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Historically beef extension programs in Idaho have focused on traditional topics such as nutrition, reproduction, or animal health. While these topics are extremely important, presenters often times do not relate them to end-product quality. To help increase awareness of end-product quality and provide education on the "meat" side of the industry, University of Idaho Extension educators created the Idaho Beef Summit, a 3-day educational program that focuses on end-product quality. The Summit is offered biennially and held at locations around the state. To date, the Idaho Beef Summit has been offered in 2012 (Twin Falls) and in 2014 (Pocatello). The Summit has featured speakers, tours, and hands-on workshops on topics ranging from beef quality assurance to meat science 101 for ranchers. Previous tours have included beef packing plants and retail grocery stores and meat departments. Hands-on activities have included cutting demonstrations, taste panels, and quality grading carcasses. To date, 143 beef producers have attended the Idaho Beef Summit and evaluations have been positive. 100% of attendees stated they are more aware of end-product quality after attending the Summit, and 98% of attendees said they would consider end-product quality when making management decisions on the ranch. Participants ranked the overall economic value of the Summit as 4.8 on a scale of 1-5 (1=no value, 5=high value). Due to the success of the two previous Summits, and based on feedback from producers, it is intended that future Summits will be held to continue to educate beef producers about end-product quality in Idaho.

EDUCATING HAWAII COFFEE GROWERS ABOUT COFFEE BERRY BORER INTEGRATED PEST MANAGEMENT: PERSUADING GROWERS TO JUMP ON THE BAND-WAGON

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Kona coffee has over 200 years of cultural history and economic importance in the islands. Hawaii's mild climate, rich, volcanic soils, and low pest and disease pressure, allowed growers to produce world-renowned, quality coffee with relative ease. In August 2010, discovery of the Coffee Berry Borer *Hypothenemus hampei* (CBB), caught the Kona coffee industry by surprise. The industry was ill-prepared and hesitant to band together to tackle CBB as a cohesive unit. By 2012, CBB damages soared above 80% causing coffee yields and quality to plummet. The CBB invasion also began expanding to neighboring districts. Early CBB integrated pest management (IPM) recommendations were helpful but often viewed as confusing and conflicting by farmers. Assistant Extension Agent Andrea Kawabata, recognized the need to unite the industry's educational voice. In January 2013, Kawabata and others organized a CBB Summit. A comprehensive 13-page document was generated and adopted by summit participants and all coffee organizations in Hawaii. This document became the basis of all state-wide CBB educational efforts. From June 2013, 99.4% of event participants reported an increase in knowledge and understanding of CBB. Additionally, 91.2% of participants indicated that three or more concepts were learned and applicable to their operation. Annual grower surveys also show a stabilizing green bean recovery ratio, implying that farmers using current CBB IPM recommendations are having greater success at controlling CBB. Getting growers to jump on the area wide IPM bandwagon is essential for the long term sustainability of Hawaii's \$35 million coffee industry.

EVALUATING A DISTRIBUTED MASTER GARDENER LEADERSHIP MODEL THROUGH A JOINT SELF ANALYSIS PROCESS

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Extension garden and landscape programs in Pinal County, Arizona are conducted with the assistance of Master Gardener volunteers. Our county is large (5,374.09 mi², 13,918.8 km²) and driving times can reach 2 hours one way. Volunteers are assigned to serve in 1 of 5 community working groups, each group focusing on projects important to the community. Our challenge and stated goal is to maintain a consistent, high impact and unified countywide educational program while embracing the diversity of the individual communities. This goal is achieved by using a distributed leadership model that engages the agent, the working group chairs and the vice chairs in a shared governance structure. To evaluate the effectiveness of the model, the leadership team participated in a self-review focus group to identify model strengths and challenges. The committee listed 9 positive strengths and three challenges. These were ranked in order of importance. Knowing the model strengths, members of the leadership team build for the future. Aware of the challenges, they strive to find valid solutions for common problems.

WOMEN IN RANGE: TARGETING WOMEN TO MITIGATE CHANGE ON WYOMING'S RANGELANDS

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As a spinoff of the Converse County Annie's Project program it was decided that the Extension Educator partner with the University of Wyoming Range Extension Specialist and developer of the Women in Range program, and the Wyoming Women in Ag group to put together a field day for women involved in agriculture. The Women in Range/Ag field day was held on July 2, 2013 just outside of Douglas, and focused on "The Good, The Bad, and The Ugly" plants found on Wyoming's Rangelands. Because of the response that that was garnered from the field day, Women in Range workshops were then held in Natrona and Converse Counties in September. These workshops taught women the importance of setting goals and objectives, how to identify certain plant communities or ecological sites, different aspects of prescribed grazing and weed control, and ways to use rangeland monitoring to track your goals. The Women in Range workshops and field day were formally evaluated through a post survey that gauged how much knowledge was gained in each subject area and also what types of topics women would most likely want to learn about in upcoming Women in Range sessions. Participants felt that the workshops and field day answered their questions and stated that they will definitely use the information to make changes in the way they manage their land.

WSU SKAGIT COUNTY EXTENSION GEARING UP FOR SAFETY TRAINING

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Every other year, personnel from WSU Skagit County Extension located in Burlington, Washington teach 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. The curriculum has also been tested with other audiences and has been shown to be a useful program for training older youth not effected by the AgHOs, full- and part-time farm employees, and migrant and seasonal farm workers assigned to operate, service, or maintain agricultural tractors and equipment. This paper provides a summary of the evaluations of the course located at WSU Skagit County Extension for the 2008, 2010 and 2012 spring Gearing Up for Safety Course.

WYOMING BEEF MANAGEMENT AND ARTIFICIAL INSEMINATION SCHOOLS PROVIDE TOOLS TO PRODUCERS

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~~Beef Management and Artificial Insemination (AI) Schools have been held in two rural communities in Wyoming-Laramie and Riverton. The schools are designed to provide tools to producers including nutrition, bull selection, management and artificial insemination in beef herds. The Riverton school was first held in 1986 and has recorded over 390 participants who have completed the 4-day school. The Honor Farm, a state minimum security prison, provides volunteers to help. Laramie held its first class in 2012. Those participating in the schools include a mix of beef producers and college and high school students with an interest in beef management and AI technologies. Follow up surveys were sent four months following the Laramie school to those participating. Respondents (n=15) reported all would attend another school. Thirty-three percent said the Beef Management and AI school would positively impact the economic status of their beef operation during the next 12 months, through either additional income or cost savings by over \$1,000. Another 33% said that the impact would be \$251-\$500. Both schools include a combination of classroom and hands on instruction. The instructors include extension educators, specialists and graduate students. Both locations were supported by Select Sires; supplying manuals and supplies. The educational team

was successful in getting the course at the Riverton location listed with the local Community College to provide students the opportunity to received college credits for the class. The Laramie school was approved by the Wyoming Veterinary Board for certification upon successfully passing the state exam.

SOUTHERN REGION

'MY GARDEN, MY PLATE': WATCH US LEARN, WATCH US GROW

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~~In 2013, Bibb County Extension developed the 'My Garden, My Plate' (MGMP) program in partnership with the Bibb County Board of Education School Nutrition Program. The program, a hybrid of ANR, 4-H, FACS, and EFNEP programming, offered a hand- on school gardening component each month following the traditional 4-H club meeting with a focus on agriscience curriculum. MGMP taught gardening and nutritional lessons to 4th and 5th graders in four schools. The goals of the program included supporting area youth in their understanding of science and math curriculum, nutrition, changing attitudes about eating fruits and vegetables, and increasing students' awareness of where their food comes from. Leaders incorporated gardening and nutrition lessons that aligned with Georgia science curriculum standards. During the 2013/14 school year, 206 youth completed the program, exhibiting substantial knowledge gained. In addition, Master Gardener Extension Volunteers spent more than 200 hours preparing for lessons and delivering curriculum.

"FORAGES: PAST, PRESENT, FUTURE" 2013 ALABAMA FORAGE AND GRASSLAND CONFERENCE

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The 2013 Alabama Forage and Grassland Conference, “Forages: Past, Present, and Future” was held December 12, 2013 at Lake Guntersville State Park in Guntersville, AL. This one day conference, put on by the Alabama Forage and Grassland Coalition, brought entities from the public, private, and producer sectors together to obtain valuable information from some top forage experts from across the country. The ACES Animal Science and Forage Team played an integral role, as members of the Alabama Forage and Grassland Coalition, in the organizing, advertising, and execution of this well attended event. The conference not only discussed basic management techniques to improve operations but also encouraged attendees to think bigger and broader when it comes to their own forage operations. Based on the evaluation provided at the conference, the average value of the information presented/knowledge gained was \$5355.00 per attendee with an overall value of information equating \$969,255. There were 181 attendees from 7 states represented, and the total impact for the conference valued at \$990,669.00. Conference proceedings and highlights can be found at <http://www.aces.edu/anr/forages/AFGC2013.php>.

4-H MARKET HOG PROJECT

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Animal projects are a traditional 4-H trademark with a modern application. Animal science related projects provide numerous opportunities for youth to develop skills that will benefit them throughout their life. Managing daily needs of an animal promotes decision making, self-discipline, and problem solving. Record-keeping principles learned may later improve management of a business or family budget. In the 4-H Market Hog Project, 4-H'ers who are interested in raising swine and have the facilities may complete and submit an application to receive one feeder pig free of charge. Financial sponsorship of the feeder pigs is limited to twelve and the Cooperative Extension Service make contacts to secure these sponsorships. A committee selects the top twelve applicants; however, the other 4-H'ers that are not selected may purchase their own market pig. The 4-H'er must raise and care for the pig and show the animal at the Baxter County Fair in September. Youth involved with the market hog project learn responsibility, self-discipline, goal setting, and decision making as well as management skills as they relate to their market hog project. Also, the 4-H'er receives prize money and premium money from the junior livestock auction at the Baxter County Fair, and the hog is the 4-H'ers to keep or sell after the fair is over. For the grand champion and reserve grand champion market hogs the Cooperative Extension Service secured sponsors for belt buckles the winners receive at the county fair. There were 23 4-H'ers who participated in and completed this project in 2013.

ADVISING THE BEGINNING BEEKEEPER: A RESOURCE GUIDE FOR THE GEORGIA COUNTY AGENT

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Interest in beekeeping has increased tremendously in recent years due to demand for locally produced foods and expanded pollination needs. Client inquiries concerning beekeeping directed to extension agents has increased in parallel with this surge in interest. This has created a dilemma in satisfying information requests as comparatively few extension agents are well versed in apicultural matters. In addition budget constraints have forced many land grant universities to minimize 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 updatable indexed resource manual to provide agents with a basic knowledge of beekeeping terminology and methodology to adequately advise the beginning beekeeper. The resource guide was introduced to twenty four extension agents at an annual extension training conference. The session was accompanied by a presentation from the author on how to utilize the manual along with basic apicultural terminology. The manual is divided into sections covering basic honeybee information, equipment, honeybee acquisition, hive placement, sourcing, association links and training sources. The trial group has provided feedback on clarifications and additions which have been included into the first update. User group commentary is entirely positive and indicates the guide is a much needed resource for the extension agent without a background in beekeeping.

AIMING FOR SUCCESS

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The need to educate our youth about firearms and firearm safety is a tremendous responsibility of county agents. Today's youth are very computer oriented, but many don't get the opportunity to experience more traditional 4-H programming. Tremendous educational opportunities are always present at county, district and state events. These avenues give the youth an opportunity to exhibit their skills. One example is the 4-H Shooting Sports program which provides 4-H'ers the opportunity to showcase their shooting talents. It is through my work with these youth that they acquire the knowledge needed to learn self-confidence, personal discipline, responsibility, teamwork, self esteem and sportsmanship. The discipline and

self control required for responsible firearms use carries over into many other aspects of life. Educational impact of this program is measured through various means. Some of which are membership in 4-H, success at competition and enhancing the accomplishments of these future leaders of tomorrow. Evaluations of this program will continue throughout the life of this program and I would like to share this information with other agents in the NACAA.

ALL THINGS EQUINE: A UNIQUE OPPORTUNITY TO TEACH YOUTH ABOUT EQUINE MANAGEMENT TOPICS

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All Things Equine is a one-hour interactive educational seminar where 4-Hers are given the opportunity to interact with live animals and learn practical application of management techniques. 4-Hers from across the state are encouraged to participate in 4-H University; a week –long conference that allows 4-Hers to practice life skills acquired throughout their 4-H career, provides statewide networking opportunities, and a chance to experience college life. 4-H University is composed of competitive and non-competitive components. Participants from across the state compete in over 40 events reflecting projects they were active in during their 4-H career and attend non-competitive learning seminars for a total of 7 hours of instruction held at The Louisiana State University. During the non-competitive educational component of 4-H University, LSU AgCenter specialists and agents collaborate with professionals from the Louisiana State University Veterinary School to provide a program called All Things Equine. Instructors demonstrate equine evaluation techniques, health standards, and management practices to approximately 65 youth. Following each demonstration participants practice hands on techniques. Youth are allowed to evaluate equine vital signs on live horses, perform appropriate feeding techniques, evaluate fecal samples for parasite infestation, judge a class of performance horses, and age a live horse. Evaluations regarding the effectiveness for All Things Equine range from 4.2 -4.7 for the last two years on a scale of 5.0 with an average 4.35 (SD=0.2). Increases in the post-test scores compared to pre-test scores indicate that participants increased knowledge in all topics presented after participating in All Things Equine.

AQUAPONICS 101: A BEGINNER'S WORKSHOP TO SUSTAINABLE FOOD PRODUCTION FOR HOME GARDENERS AND SMALL FARMERS

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There is great interest in sustainable food production in today's society. Aquaponics is an exciting production system where fish and plants grow in harmony. The aquaponic system can be a fun project for the home gardener but can also become a new farming venture. The event will attract a minimum of 30 interested participants. Seventy-five percent of participants will gain knowledge on topics of basic aquaponics, plants in aquaponics, fish in aquaponics, Florida rules and regulations, and constructing a small aquaponics system. Five systems will be built, participants will have an opportunity to purchase 4 systems, and win one in a raffle. The full-day workshop began with presentations on aquaponics topics including fish, plants, systems, and rules and regulations. The hands-on afternoon session allowed participants to build a small aquaponics system and included a field trip to a small commercial aquaponics farm. A total of 40 people attended the event, 30 filled out an end of program post-pre test evaluation. Evaluations indicated 86% gained knowledge on the basics of aquaponics, 86% gained knowledge of plants in aquaponics, 90% gained knowledge of fish in aquaponics, 93% gained knowledge on Florida rules and regulations, and 86% gained knowledge on construction of an aquaponics system. Eighty-six percent of participants indicated that they have plans to start an aquaponics system or expand a current system. A follow-up survey will be conducted in six months to determine additional results of the workshop

BI- STATE MASTER GARDENER PROGRAM: USING REGIONAL RESOURCES WISELY

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Muscogee County (Columbus), an urban center of over 175,000 residents, shares the Chattahoochee River with their Alabama neighbor, Russell County (Phenix City) with a population of 32,000 residents. Adding to this Muscogee County, GA is a much closer proximity to the campus of Auburn University than the University of Georgia campus in Athens, the partnership of UGA Extension and Alabama Cooperative Extension is mutually beneficial for our region. According to needs assessments, the Master Gardener Extension Volunteer program is desired in both communities mentioned. Combining our unique resources from the two county's Extension offices, a bi-state Master Gardener program was offered in the fall of 2013. Eighteen participants graduated the program's two-month class portion; 14 Muscogee County and 4 Russell County. The program participants have now volunteered in both states according to their respective requirements. Master Gardener Extension Volunteers are currently assisting with multiple volunteer projects that include, but are not limited to, afterschool garden programs, Junior Master Gardener and assisting with office administration and providing research-based horticultural advice within the county extension offices.

BLUE PATHWAYS SERIES EQUIPS LANDSCAPE AND ENGINEERING PROFESSIONALS

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Increased urban development in Northwest Arkansas is intensifying the challenges of managing stormwater pollutants and flows to protect regional water quality. A knowledge gap exists as regional cities, businesses, and homeowners are seeking guidance and expertise in the areas of sustainable landscaping and rainwater harvesting as a means of mitigating the effects of increased stormwater runoff. In response, a series of “Blue Pathways: Sustainable Landscaping and Engineering for Stormwater Management” workshops have been conducted from March 2011 to March 2014, equipping landscape architects, design engineers, irrigation specialists and installation contractors with the knowledge and skills to enhance rainwater utilization and stormwater management in residential, commercial, and municipal landscape and irrigation designs. To date, five different workshops have emphasized soils, bioswales, bioretention, rainwater harvesting, permeable pavements and native plants, attracting 239 different participants, with 86 attending multiple workshops. As a measure of success, 199 evaluations indicated that 87% of respondents agreed or strongly agreed that they learned new skills that will help them in their jobs while 93% agreed or strongly agreed that they were stimulated to learn more. Written comments included; “I appreciate the continued evolution of this line of topics provided through this series of seminars. Each session has reinforced the previous lessons while expanding on the topics and concepts.” and “I would like to see more of this type of event.” By providing this specialized technical training, local green industry professionals are more able to effectively communicate market and utilize their sustainable landscaping and stormwater management expertise.

CAN I FARM...AND BE PROFITABLE

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Many landowners have seemingly observed the success of farmers even through tough economic suppression. As a result of these observations, many landowners and part time farmers have asked the question, “Can I Farm...and Be Profitable?” In an effort to provide educational programming to an underserved audience, UT Extension in Grundy County has developed and implemented six (6) educational seminars aimed to address this question. The fee-based program included topics such as: business management, marketing, product liability, goats, beef cattle, fruits, and vegetables. The

program was available to anyone interested in improving an existing operation or a beginning farmer. As a result of this educational effort, thirty-five (35) participants attended the program. These participants reported gaining knowledge on all topics covered by sixty-seven percent (67%) and the program reportedly had an economic impact of \$40,500. Eighty-eight percent (88%) of all participants that completed the program reported that they would adopt information received.

CERTIFYING YOUR BACKYARD FOR WILDLIFE

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Marion County, “Horse Capital of the World”, has 1,000 farms, housing approximately 50,000 horses; it’s also home to first magnitude freshwater springs. Unfortunately, larger farms in the county are continually parceled into urban housing with quarter to half acre lots. Ironically, individuals moving into these homes tend to be “far removed” from existing natural ecosystems/habitats once found in abundance on the land. The course objectives were to 1. Teach urban homeowners ways to peacefully coexist “with” their environment, 2. Create awareness and understanding about how each can live together: A Power Point presentation workshop was developed for one of the largest housing associations in the county. Individuals not residing in the housing were also invited to take the class. It was offered two times in the fall, with approximately 10-13 individuals participating in each of the two courses offered for the first year. Results of the surveys showed one hundred percent (n=23) learned the steps needed to certify their backyard for wildlife and one hundred percent (n=23) learned the steps required to prepare their yards to be more wildlife friendly. One hundred percent (n=23) reported having a better understanding how to make their backyard more “wildlife friendly”, and one hundred per cent (n=23) understood the importance native vegetation. Results/impacts showed improved awareness regarding peacefully coexisting “with” the environment and how wildlife and urban homeowners can flourish together. Future classes are planned.

CHINESE TALLOW TREE CONTROL DEMONSTRATION WITH DIFFERENT HERBICIDE APPLICATION METHODS

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Chinese tallow trees (*Sapium sebiferum*) are a very invasive species infesting pastures in south Louisiana. Large tallow trees (>10 feet in height) are difficult to control with broadcast applications of commonly-used pasture herbicides. The

objective of this field demonstration was to compare several different methods of applying herbicides to individual Chinese tallow trees, and to feature this demonstration at a Pasture Weed Control Field Day. Methods demonstrated included: hack and squirt with either 2,4-D or Tordon herbicides; application of Velpar herbicide to the root zone of the trees; and application of a mixture of Remedy herbicide and diesel fuel to the base of the trees. The hack and squirt treatments and the Velpar treatment were made in February, April and June, while the basal application treatment was made in late-June. The field day was held on August 21, 2013 at the University of Louisiana at Lafayette Cade Farm located near Cade, LA. There were 120 people who registered for the field day. Demonstrations of each of the application methods were made to the participants. Visual control ratings of the different methods were taken in September and November. All methods provided excellent control, with the exception of the hack and squirt method with 2,4-D herbicide which provided less than 50% control. Results of this demonstration were presented at ten pasture educational meetings in the fall of 2013 and the winter of 2014, with over 500 people receiving the information.

CITRUS CANKER IN THE FLORIDA PANHANDLE

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Extension Agents established a cooperative effort with state agencies, local governments, homeowners and local nurseries to prevent the establishment and spread of citrus canker, a devastating bacterial disease, that had not previously been seen in the Florida panhandle. Awareness and education were accomplished and are ongoing through an initial published news story with a circulation of 2,932 which was picked up by at least 20 news organizations with a combined circulation of an estimated 100,000; one television story with a viewership of an estimated 115,000; an estimated 150 personal communications, two community meetings with attendance of 54 people; two homeowners' association newsletters reaching 1400 homeowners; and training of 72 Florida Master Gardeners and proprietors of three local nurseries. State and university agencies provide scientific information, tree inspections and diagnostic testing. Extension agents are at the center, bringing all parties together and keeping them current on information, ideas, and events. The publicity resulted in 62 site visits in three counties to inspect for canker. Citrus trees on 15 properties were positive for canker and all were found to be situated in an area 2.6 miles wide, small enough to make eradication of the disease possible. Action by the Extension Agents in awareness, education, and bringing many parties together, are making it possible to isolate and manage citrus canker in order to save dooryard and emerging commercial citrus in the Florida panhandle.

DEVELOPING RELEVANT EXTENSION PROGRAMS FOR VEGETABLE FARMERS IN FOOD SAFETY

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The requirements for successfully completing third party food safety audits are constantly changing for fruit and vegetable growers. Over the last five years, approximately 150 farmers in Northeast Florida were trained to develop a food safety manual for their operation. This program allowed farmers to learn how to implement their own plans without the expense of hiring a consultant. However, as the requirements from buyers and auditing companies changed, new educational programs needed to be developed. These changes have included: developing a food safety program based on the Global Food Safety Initiative (GFSI) not just a standard Good Agricultural Practices (GAP) audit, having HACCP trained staff while packing houses are in operation and refining programs for product recall and crisis management. In the past two years, Extension agents have provided leadership and partnered with key industry representatives and grower associations to provide six advanced food safety trainings. Through this process, Extension agents have emerged as leaders in providing the necessary training and certification to meet the ever changing needs. A total of 125 farmers, industry partners and Extension agents have attended these trainings. In addition, Extension agents have worked directly with farmers on their farm to help them implement their food safety plans. Through this sustained effort, 100% of the farmers that have needed a third party audit have passed. Furthermore, the industry as a whole has significantly raised the level of expertise in the area of food safety and now consider these practices a routine part of their business.

ENGAGING HOMEOWNERS ABOUT INVASIVES

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Situation: Homeowners should manage for invasive species in their yards and their neighborhood's conservation easements. We held an evening learning event to meet homeowners' informational needs on invasive species removal. Our objectives were: 1) Increase participants' knowledge about the problems of invasive species, 2) Have participants identify at least one invasive plant or animal in their yard or neighborhood after the program, and 3) Distribute resources to help them understand how to remove invasive plants in their area. Methods: We organized a two-hour program which consisted of: a PowerPoint on invasive species, a discussion with a six person panel of local invasive species experts (representing six different academic and governmental agencies), live samples with information sheets for 36 invasive plants, and a "neighborhood invasive removal toolkit". Results: We had 23 participants attend. Sixteen participants responded to a follow-up survey (70% response rate). We found that 15 participants improved their awareness of invasive species problems, 10 could identify an average of five invasive species in their yards/neighborhoods, and 15 (93% of those surveyed) are willing to remove them. Conclusion: Our results showed that an evening panel-based program with samples of the plants was an effective learning platform. We intend to expand our audience and refine our materials/methods to increase the amount of invasive species removal from private property.

EVALUATING THE IMPACTS OF GRAZING MANAGEMENT CLINICS IN ALABAMA

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Forages account for roughly four million acres across the state of Alabama. Grasslands are second only to forest land and serve a critical role in ecosystems throughout the state. Proper management of these grasslands is vital for healthy, productive soils, clean waterways and profitable farms. The Alabama Grazing Management Clinic was developed as a

project of the Alabama Forage & Grassland Coalition to teach proper grazing management techniques in a one-day format. Instructors include both Extension and Natural Resource Conservation Service personnel. Topics include: physiology of forages, minimizing hay, economics, grazing systems, fence/water technology, and forage allocation. A total of 28 clinics, averaging 25 in attendance, have been held to date. Evaluations have documented the impact of the clinics and easily justify a \$75 registration fee. Over the last two years, responses show that 19,635 acres are being managed more intensively with a return per acre for attending the clinic of \$51.48. Evaluation results indicate that 98% of participants plan to implement at least one new practice within 12 months, primarily cross fencing and rotational grazing. A total impact of \$946,017 is reported for the last six clinics.

EXAMINING THE EFFICACY OF PEANUT FUNGICIDE PROGRAMS WITH ON-FARM TRIALS

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Each year peanut producers in North Florida are faced with the difficult task of determining the best fungicide spray program for disease management in peanuts. The main goal of this research was to enable peanut producers an opportunity to learn experientially about the different fungicide spray programs and the utility of on-farm trials. During the 2012 and 2013 growing seasons, four agro-chemical companies' fungicide spray programs were compared. Products for each program were donated by the companies and applied by the peanut producers with the same equipment used to treat the rest of their acreage. Plots consisted of 24 rows and were replicated 4 times. Peanuts were harvested by the grower and both yield and quality were recorded for each replicate plot. These programs were discussed at both in-season and winter peanut production meetings. Producers were also encouraged to visit the on-farm trial throughout the growing season to form their own assessments about the products. The results after two seasons of testing indicate that each of the companies spray programs was successful at reducing disease and saving yields. Evaluations and field consultations suggest that producers prefer demonstrations at on-farm trials and trust the data generated through typical field production methods. On-farm trials are vital in extension when encouraging producers to try new production techniques. For example, one producer was able to increase their yields by more than 700 lb/A using a program similar to the on-farm trials which generated an additional \$5600 on the 40 acre field.

EXTENSION PARTNERS WITH SOUTHSIDE GROWERS TO BRING MAJOR AGRITOURISM AND MARKETING OPPORTUNITY TO THE REGION

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Produce marketing in Southside Virginia has traditionally been limited to roadside stands and direct sales despite the interest of growers to expand. In 2010, a group of growers in Charlotte County partnered with Extension to research new marketing options. The group determined that a wholesale produce auction would mitigate some of the current market limitations, forming Southside Produce Auction, LLC in 2012. Auction representatives and Extension personnel met with potential producers and buyers, and in 2013, growers and Extension partnered to open a new facility and increase market potential through the meetings on food safety, buyer interests, and promoting local foods. Auction buyers represented 13 Virginia counties and 10 states. Growers represented 15 counties and the diverse group included English, Amish, and Mennonite, small and large farms, and new producers. The Southside Produce Auction, LLC increased its reach considerably in 2013 by partnering with Extension for help with marketing decisions, sale facilitation, and feedback. Stakeholders invested \$650,000 in the community to establish

the auction. The auction brought over 6,000 visitors to Charlotte County in 2013. Sales of produce increased from 350,000 lbs in 2012 to 650,000 lbs in 2013. A survey of the participating growers has indicated a 100% to 400% increase in produce sales since 2011. The Extension “Product of the Week” program served 800 clients in 2013 and caused strawberry and squash prices to double in one week. Acreage in Charlotte County alone dedicated to produce increased 300% and an additional 28 new enterprises have been established.

FARMER 101

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Recent agricultural statistics show that Cullman County has 2,465 farms and 55% of these are part time farms. The Extension office has experienced a steadily increasing number of requests to assist new and transitioning farms. A survey was conducted using Survey Monkey to determine interest level in a series of classes to address the most requested information needs. The pre-class survey indicated that 74% of interested people were not currently farming for profit but desired to do so.

There were a total of 8 sessions in the initial series. Over 50 participants attended the series and 65% attended between 6 and 8 sessions. The class content met or exceeded expectations of 96% of participants. When asked if they felt more confident going forward in developing and implementing their farm plan 92% either agreed or strongly agreed. 100% felt more confident in knowing where to get reliable information. 96% said they would recommend the course to others. 81% expected to increase profitability on their farm as a result of what they had learned during the course.

The immediate post class survey also indicated a high interest in other subjects and an interest in advanced classes in small livestock and farm accounting which were subsequently conducted. A one year follow up survey to measure long term impacts found an increase in profitability by 89% of respondents with an average increase of almost 40%. Also, 39% of respondents had started a new enterprise while 68% intend to start one within the next year.

FIELD FOOD SAFETY EDUCATION FOR STUDENTS WORKING IN SCHOOL GARDENS

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School gardens are often used as teaching tools to engage students in meaningful learning activities. To provide students the opportunity of eating healthy produce, many schools are considering the use of student-grown food in their cafeterias. To minimize the risk of illness, students and adults working in school gardens should know about pathogens that can contaminate produce in the field. This program was designed to teach students about microorganisms that cause foodborne illness, how to identify conditions in the field that may increase the risk of contamination, and how to develop and follow procedures that will reduce those risks. During the first session, middle school students learned basic course vocabulary and were assessed during a whole-group matching game. Each 90 minute session was divided into activities that taught concepts building upon previous learned material. Hands-on learning activities included visiting the growing site where existing risk factors were assessed, growing yeast colonies and observing them under the microscope, and developing in-field procedures that they could follow to reduce risk. The average knowledge gain of the 34 participants was 74%, as indicated by pre and post-tests. 100% of the students indicated they would use this knowledge later in life. Due to the feedback and course success, a second presentation was made to teachers representing six different schools on how to incorporate these activities into their own school garden programs. Educating students about foodborne pathogens and risk management will improve the safety of school garden produce and provide students with important life skills.

FIRE ANT CONTROL DEMONSTRATION AT AMERICAN VILLAGE

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The American Village, located in Montevallo, is an educational institution that receives thousands of guests on an annual basis. Due to the immense popularity of this venue, public health concerns must be recognized and addressed quickly.

Historically, fire ant control has been quite a challenge at this 70-acre site. In 2013, the facilities department reached out to local Extension staff to develop a strategy to address this ever-increasing public nuisance.

After a site assessment, an application of fire ant bait was chosen as the control measure of choice. To determine the effectiveness of this method, pre-treatment mound counts were taken on four ¼ acre plots. Eight weeks later, bait applications were made. The products used were Extinguish Plus® (3 plots) and Amdro® (1 plot). Post-treatment mound counts were taken eight weeks after the bait was applied to allow for maximum product efficacy.

The number of mounds per plot was significantly reduced in all plots. Additionally, the number of ants per plot decreased drastically.

American Village administrators were thrilled with the initial results, and continue to see extremely effective control using the bait application method. According to one staff member, “We now know how to consistently keep our ant population under control.”

GARDEN CENTER GURU

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Master Gardeners in Lake and Sumter Counties reach over 4,000 residents annually through traditional plant clinics. It is imperative that Master Gardeners know how to identify slow release fertilizers and active ingredients of pesticides in order to aid residential horticulture clientele. Garden Center Guru is an opportunity for Master Gardener Trainees to use University of Florida research based information taught in the classroom to evaluate products offered at a local retail garden center. The objective of Garden Center Guru is that 80% of Master Gardener Trainees will be proficient at identifying slow release fertilizers and active ingredients of common pesticides. Proficiency was evaluated by a hands-on “seek and find” quiz with teams of 2 participants delivered at a local garden center. 91% (n=75) of 2009, 2010, 2012 and 2013 Master Gardener Trainees scored 80% or higher on the quiz and were proficient at identifying slow release fertilizers, active ingredients and brand names of pesticides. Master Gardener Trainees are now better able to recommend products available at local retail garden centers to residential horticulture clients. This training gives Master Gardeners and the residential horticulture clientele they reach the knowledge needed to select UF/IFAS recommended fertilizer and pesticide treatments to solve their landscape problems. It also gives participants the ability to comparative shop for lawn and landscape products that will save the Master Gardener and homeowner money and effort spent on landscape maintenance.

GARDENING A-Z

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The Gardening A-Z class was created in cooperation with Clayton Parks and Recreation and Clayton Area Ministries (CAM) to fill a couple needs. One need was the demand for information on how to grow vegetables in home gardens. Many residents have moved from other parts of the country and find it difficult to successfully garden in our challenging climate. Need two was that of fresh produce for the less fortunate. Cooperative Extension has the knowledge to train people how to cope with the conditions here. In order to deliver the gardening information to class participants, we have a hybrid class. Class participants work in a demonstration garden doing activities including designing the garden layout, planting seeds and transplants, scouting for disease and insect problems, handling pest problems using best management practices, and harvesting produce. This is paired with classroom instruction. The produce is then donated to CAM where it is distributed to the needy. In 2013 there were 47 people who attended one of three classes where we taught them about our three gardening seasons. The classes produces 917 pounds of produce much of it in the form of lettuce, spinach and other leafy greens for distribution by CAM. Of the 47 participants 27 were experienced gardeners who'd moved into the area and needed information about what to grow and when. Of the other 20 participants eleven have started vegetable gardens, while the others decided it was too much trouble and they would rather purchase from local farmers.

GREEN BEER & WITCHES BREW: THEMED PESTICIDE TRAINING

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Annually, pesticide license holders seek Continued Educational Units (CEUs) to maintain their state certification. Traditional educational methods used by County Extension offices occur in routine classroom settings. Many of the licensees are technology oriented and are choosing online training to acquire their CEUs. There is a need to attract licensee holders to return to the classroom setting. **Objectives:** Attract audiences to attend pesticide training. Increase knowledge by 20% from audiences attending themed trainings. Build attendance in classroom settings by 25%. **Methods:** Two pesticide training classes were offered in Volusia County having Halloween and St. Paddy's Day themes. Marketing efforts including Facebook, web sites, email list serves and print media. Holiday décor and descriptive food terms including 'witches brew' and 'green beer' were used to capture audiences. County agents and staff dressed in costume themed

attire. **Results:** Audience levels grew from the popularity of the themed programs with a 54.7% gain in attendance. Post survey results revealed knowledge level gains of 22.4%, and 21.2% after attending the Halloween and St. Paddy's Day training, respectively. Overall, 76% (n=35) and 94% (n=64) of the Halloween and St. Paddy's day attendees, indicated they would attend a theme-style training again. Attendees also admitted that 69.7% and 76.9% felt confident to pass the certification test. **Impact:** Using theme-styled educational programming is an effective way to draw audiences that may not attend traditional classroom settings. Audiences responded positively to these creative learning programs. Volusia County themed pesticide trainings are becoming preferred options to obtain CEUs.

GREEN BY-PRODUCTS FOR AGRICULTURAL LANDS

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Before commercial fertilizers and ground agricultural limestone, by-products, mainly manures, were the main soil amendment used. In the early 20th Century industrial by products that could improve crop production became popular. Some of these were ammonium sulfate, a by-product of coking, and basic slag, a by-product of the steel industry. With our heavily industrialized society and urban living, many more by-products are potentially available that have beneficial use on agricultural lands either as nutrient sources, soil amendments, or soil liming materials. We will feature a few of these that have been tested over the years and are being used successfully in Alabama rather than burying them in an expensive landfill. Some of those described include a potassium bicarbonate solution (3-0-11 grade fertilizer) from a chemical industry, paper mill by products including boiler wood ash, lime wastes, and biochar, alum sludge from waste water treatment facilities, municipal biosolids, food processing wastes, and cotton mill wastes.

GROWING AND MARKETING SATSUMA MANDARINS AS A COMMERCIAL CROP IN SOUTHERN GEORGIA

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Satsumas are citrus fruits similar in size to tangerines. The fruit is sweet, easy to peel, and seedless, which makes them a great fit for school lunches. They have been growing in southern and coastal Georgia for decades with no attempt to make them a commercial crop because of potential cold damage. With new freeze protection methods such as windbreaks, irrigation techniques, and improved rootstocks, satsumas can become a commercial crop. The Lowndes County Extension office worked with a local nurseryman and an extension agent in Florida to plan a half day meeting to address the possibilities of growing and marketing satsumas. A total of 85 people were in attendance at the meeting from numerous counties in Georgia as well as Florida and Alabama. *89% of attendees considered themselves farmers or small landowners.* On average, the audience said their knowledge of Satsuma production increased 60%. 100% said the information gained at this meeting was helpful in their decision of whether or not to grow satsumas. The director of the Lowndes County School Food and Nutrition program explained to the audience how satsumas could become part of the school lunch menus. There are over 18,000 school lunches served per day to Lowndes County students. The potential school system market in Georgia represents a tremendous opportunity to market these high quality citrus fruits. Since the August meeting, two citrus nurseries in Alabama and Louisiana have sold 2,000 satsumas trees to customers in Georgia. This represents about 20 acres of trees.

GROWING KIDS THROUGH GARDENING

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Youth in Franklin County learned about basic gardening and soils through 4-H school enrichment programs and workshops. The gardening project materials presented to the youth served as a supplement to the teacher's regular school curriculum. The school enrichment programs were conducted for three 8th grade science classes in Charleston Public School to teach them about square foot gardening and soils. The Growing Kids through Gardening workshops were taught to 4-H members and focused on raised bed gardening and soils. Hands-on labs were used to teach youth about soil particles, soil profiles, soil testing, planting vegetables in raised beds, designing and planting square foot vegetable gardens and crafting with gourds. The overall goal of the school enrichment program and gardening workshops were to expose youth to 4-H project work and the 4-H programs in Franklin County. The 4-H school enrichment programs and workshops on gardening reached a total of 78 youth in 2013. 4-H school enrichment programs provide teachers an additional educational resource that will complement their classroom instruction while educating youth about 4-H project work and the county 4-H program. The Growing Kids through Gardening workshops allowed youth to focus on the 4-H gardening project.

GROWING MUSHROOMS FOR FUN AND PROFIT

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Florida Extension has offered limited classes on shiitake mushroom production on logs in the past. Two Agents realized the potential and biological efficiency of producing oyster mushrooms using bag culture with cottonseed hulls and wheat straw. Objectives were; 1) develop a variety of educational and promotional materials, 2) raise awareness of the potential value of growing gourmet mushrooms by attending several events, 3) each year 100 farmers, Master Gardeners and hobbyists would increase their knowledge by 50% on small-scale mushroom production, 4) class attendees will produce 100 pounds of oyster or shiitake mushrooms annually. Promotional brochures and displays were created. PowerPoint presentations, experiential activities and notebooks were created for workshops. Two toolkits were developed with supplies to grow either shiitake or oyster mushrooms. Agents attended Sunbelt Expo, "Agritunity", local fairs and festivals to promote workshops. Over 800 people participated in workshops held in eight counties throughout the state. So far, 802 small farmers, Master Gardeners, and hobbyists have attended 24 workshops on small-scale gourmet mushroom production, processing, and marketing. The average knowledge gain was 82%. Agents have given out 838 inoculated oyster mushroom kits and 568 inoculated shiitake mushroom logs valued at \$24 and \$26, respectively, a total value of \$34,880. Following completion of the workshops, attendees have grown over 2,514 pounds of oyster mushrooms and 8,520 pounds of shiitake mushrooms valued at \$88,272 (\$8/lb). This program can be duplicated as long as time and labor is allotted for: set up; execution of hands-on activities; and assembly of toolkits.

HAWKINS COUNTY CATTLEMEN'S ASSOCIATION'S VIDEO SALE

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In 2002, a group of cattle producers, along with the Hawkins County Extension Agent, began working on a plan to add value to the beef producer's operations. The plan was to develop a cooperative effort among producers to market

beef cattle of similar weight and sex in truck load lots (48,000 lbs.). The mechanism chosen to develop the program was the Hawkins County Cattlemen's Association (HCCA). The HCCA had been inactive for approximately 14 years and the interested cattle producers, with guidance from the Extension Agent, began to reorganize the association. The group had the first re-organizational meeting with approximately 14 interested producers. In 2002, six truckloads of cattle were sold. From 2002 to 2007 the HCCA has sold approximately 114 truckloads of cattle consisting of 8,060 head and totaling 5.6 million dollars. In 2008 alone, the HCCA sold 106 truckloads of cattle worth over 4.6 million dollars. From 2009-2013, the HCCA has sold 342 truckloads of cattle totaling over 17.6 million dollars. Individual producers from Tennessee, North Carolina and Virginia have marketed as few as one head to as many as a whole load. Selling through the HCCA video sale gives the small producers the same advantages as the large producers and the flexibility of monthly sales. Since 2008, over 30,000 calves have been sold worth 22.4 million dollars. The added value versus selling at weekly livestock auctions is over one million dollars. The comparison was made to the Tennessee weekly auction summary price report for like cattle.

HAY TESTING TO REDUCE WINTER FEED COSTS

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Winter feed costs are the largest expense for cow/calf producers. One way to reduce these costs is to have hays analyzed for nutrient content, and develop a least cost, supplemental feeding program based on hay quality. Bermudagrass hays in Arkansas average 13% protein, but can range from 6% to 22%. This variability can lead to under or over feeding nutrients causing poor growth rates or unnecessary expenses. The Montgomery County Hay Show and Winter Feed Program was started to help producers develop least cost supplemental feeding programs. Producers were allowed to test up to five lots of hay for \$20 (\$90 value) and then educated on how to manage a feeding program based on their hay test results. Individual ration formulation was also available to producers. Hays were judged for quality and ranked with a color coded system based on its ability to meet a cow's nutritional requirement. This system allowed producers to visually appraise each hay, while educating them about its nutrient content. Following this program, participants indicated an increase in knowledge of beef cattle nutritional requirements, matching supplements to hay quality, and understanding a feed analysis report by 27%, 30%, and 39%, respectively. In addition, 15 participants indicated they would start using hay tests on a regular basis and would start selecting a supplement based on hay quality. A follow up evaluation

show participants saved \$9682 in winter feed costs as result of the hay testing program.

HYDROPONICS AND AQUAPONICS WORKSHOP INCREASES FARM SURFACE AREA IN AN URBAN COUNTY

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Situation and Objective: More than 98% of Seminole County Farms are categorized as small farms and 89% are family owned (Florida Agricultural Statistical Directory, Florida Department of Agriculture and Consumer Services). Farms in the county are encouraged to diversify their crop profile in order to maximize profits. A hydroponics and aquaponics workshop was conducted to educate clientele on concentrated production techniques to increase farm surface area on small acreage. **Educational Methods:** A combination of local businesses and UF/IFAS specialists educated participants on various aspects of hydroponic and aquaponic production. Businesses represented at the workshop were Village Farms, the largest producer of greenhouse vegetables in the nation, and owners of two small hydroponic operations. Two UF/IFAS specialists presented on the topics of open shade structure production and aquaponic production. The workshop was comprised of three segments: lectures, hands-on demonstrations, and an open discussion. **Results:** Ninety participants attended the Hydroponics and Aquaponics Workshop in 2013. Participant knowledge of open shade structure hydroponic production and aquaponic production was increased by 56% and 90% respectively. **Conclusion:** Although the average farm size in Seminole County is small, a potential exists to make a substantial impact through intensive agricultural production. Educational workshops such as the Hydroponics and Aquaponics Workshop help to diversify agricultural operations in an urban county.

IMPLEMENTATION OF ADVANCED IRRIGATION MANAGEMENT ON NORTH FLORIDA FARMS

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North Florida's Lower Suwannee River Basin (SRB) is a major field crop production area, particularly for corn and peanuts. Supplemental watering is required to achieve maximum economic production due to sandy, porous soils. More than 32,000 acres of agricultural land in the basin have been fitted with overhead irrigation systems to meet water demand and achieve economic optimum production. The Suwannee River Water Management District reports that on average, production

agriculture withdraws 180 million gallons of ground water per day. More than 2,000 center pivot irrigation systems in the SRB account for most of this consumption.

Agriculture is facing increasing pressure from citizens and regulators to show efficient use of water resources. Continuously measuring soil moisture and climate data using current, affordable technology are an excellent method to optimize irrigation management for water conservation and economic optimum management. Recording systems are automated and relatively maintenance free. However, gaps exist in both technical and agronomic knowledge which reduces on-farm implementation of this technology.

The objectives of this project are to 1) *Assemble* the equipment and education into a *package* that can be readily adopted by producers; 2) *Deliver* this package to producers in the region and help them *integrate* it into their production system; and 3) *Demonstrate* groundwater withdrawal reductions realized from this program.

Farmers willingly adopted and utilized the technology. One farmer reported eliminating four 1" irrigation events on 180 acres. This resulted in water savings of 19 million gallons and reduced pumping cost by about \$5,000.

IN-SCHOOL PROGRAMMING GIVES 4-H INITIATIVES ANOTHER DYNAMIC

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The 4-H initiatives of Citizenship, Healthy Living and Science were identified to help address the skills and awareness needed for tomorrow's leaders. These include: leadership skills to become active members of society, physical and emotional health consciousness, and science and technology proficiency. To reach young people that are not able to attend community 4-H clubs and experience 4-H education, monthly in-school programming is conducted in Clark County. In two years, a total of 372 students have been reached. Arkadelphia Schools' 6th grade classes received Healthy Lifestyle Choices (HLC) programs in 2012-13, while Gurdon School's 5th grade classes received Citizenship programs. In 2013-14, Junk Drawer Robotics (JDR) lessons were presented to Arkadelphia's 6th graders and Gurdon's 5th graders to offer hands-on engineering experiences. Among the evaluation results: from the HLC programs 91% reported being better at using information to make their own decisions and 83% said they had more ideas on how to deal with stress in positive ways; from the Citizenship programs 93% learned that everyone has different leadership styles and that they all are important and 73% planned to apply their new leadership skills to making differences in their school or community. The evaluations for the JDR are currently in process. To date, participants have learned critical thinking and problem solving techniques as the groups work together to create objects to complete an assignment. Overall, in-school programming has given more young people opportunities to develop their leadership, healthy

living and science knowledge and skills through fun, hands-on, educational activities.

INCORPORATION OF HANDS-ON STATIONS IMPROVE OUTCOMES IN IRRIGATION BEST MANAGEMENT PRACTICES

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Nursery container plants are grown in small volumes of soilless substrates in which the water is usually replenished daily often with low application efficiency. A team of state and county UF/IFAS Extension faculty was formed to assist container nursery growers with irrigation practices. The objective of this team was to transfer information and technology about water conservation and water quality impacts on plant production to producers. Workshops were made to incorporate hands-on education and visualization of proper irrigation calibration to increase irrigation efficiency and minimize fertilizer run-off. Hands-on stations such as a field catch-can application test, pH use, blue dye leaching, pour-thru water analysis, and media pore size displays were incorporated into the teaching curricula to supplement typical classroom learning. The Water Team worked with educational partners such as Water Management Districts, County Agencies, USDA Natural Resources Conservation Service Mobile Irrigation Lab, South Dade Soil & Water Conservation District Mobile Irrigation Lab, UF/IFAS BMP Implementation Team and Florida Nursery Growers and Landscape Association (FNGLA) members. To date the Water Team has conducted three educational programs in central and south Florida with 92 attendees. Surveys and pre- and post-evaluations were conducted to measure changes. Participants reported knowledge increased from 24 –71% across educational programs. Six month follow up survey respondents from one regional program reported 8 out of 12 (67%) changing production practices with the knowledge from the workshop. 6 out of 10 (60%) increasing production or saving money as a result of attending the UF/IFAS Extension Irrigation BMP Workshop.

LEARNING THE NUTS & BOLLS AGRICULTURE AWARENESS EDUCATION IN SCREVEN COUNTY

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Many youth in our county and state have limited knowledge of where life's basic necessities, food and fiber, actually come from. Agriculture awareness is critical to the understanding of where and how food and fiber products are produced. A program was needed to increase student awareness of agriculture and its importance to our local economy. In Screven County, Georgia, two of the primary agricultural crops produced are cotton and peanuts. In 2012, a total of 26,000 acres of Cotton and 11,000 acres of Peanuts were produced in Screven County. Students see these crops growing in the fields and watch farmers planting and harvesting cotton and peanuts through their vehicle or school bus windows yet are unable to grasp the concept that those crops are providing food and fiber to consumers. In order to further educate the youth, an awareness program was implemented to educate youth about the importance of peanuts and cotton to Screven County and Georgia. Screven County Extension created a hands-on educational program to teach 4th grade students about the production and consumer use of cotton and peanuts. During the five hours of instruction, students and their parents were showed the process of cotton and peanut production from planting to harvest. Participants were able to examine cotton growing in the field and the harvest of the peanut crop. Students also learned how to determine peanut maturity utilizing the Hull Scrape Method. A total of 150 youth and 75 adults participated in the Nuts & Bolls Agriculture Awareness Day.

MASTER COMPOSTER PROGRAMS TO MEET THE CHANGING CLIENTELE OF EXTENSION

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The Georgia Master Composter Program is an adult environmental education course developed as a partnership between University of Georgia Extension and the Athens-Clarke County Solid Waste Department. The program was created in 2011 to address the increasing demand for composting education in Georgia. Totalling over 30 hours of instruction, the program includes nine weekly class sessions and two weekend field trips. Facilitators collaborate with public and private entities and statewide organizations to provide unbiased, scientifically accurate composting information and experiential programming. Students receive hands-on instruction in the chemistry and microbiology of composting,

types of and reasons for composting, climate and conditions in Georgia that impact composting, and training for teaching varied audiences. In addition to education, the Georgia Master Composter program provides visibility for Extension. More than half of the participants were previously unfamiliar with Extension education and programming. The program has also generated new partnerships between Extension and a variety of Georgia communities and organizations. Extending the program's outreach effort, participants fulfill composting education requests as volunteers and broaden the Extension network to new individuals and community groups. Participants from the 2012 and 2013 programs have volunteered over 1,000 hours to their communities and interacted with over 1,100 community members. As assets to their community, participants fill a vital role in reducing waste and improving soil within their local environment.

MASTER GARDENER SPECIAL INTEREST GROUPS FOR SERVICE AND EDUCATION

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Denton County Master Gardeners have several special interest groups including Herbal Branch, Plant Propagation Team, Tree Team and Gardenscapers. These groups provide specialized volunteering opportunities and education in their subject area. These groups meet monthly and offer members an advanced training component presented by a special speaker or a group member. The leaders of these groups work closely with the County Extension Agent to ensure that the service and training opportunities are beneficial and appropriate for the Master Gardener program. Herbal Branch has individual members select an herb to research and to present at the monthly meeting. The meeting also features recipes made with the herb. The Herbal Branch member now has a presentation ready to give to the public and herb presentations are in demand with the speakers' bureau. Gardenscapers have undertaken a study of famous gardens to understand the elements of design. They then use this knowledge to assist with landscape designs for community organizations such as county facilities and schools. The Tree Team does site visits to learn about common tree problems and assist the public through one-on-one education. The Plant Propagation Team teaches propagation techniques while members practice propagating plants for the annual plant sale. These groups create more knowledgeable volunteers by capitalizing on the enthusiasm and passion of Master Gardeners in niche topics. These groups also put like-minded individuals together working on a common goal which builds community in a larger Master Gardener group, like Denton County with over 200 members.

MEETING THE EDUCATIONAL NEEDS OF A GROWING INDUSTRY

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Situation: The 2007 Agriculture Census ranked Marion County number one in small ruminant production, housing twenty-four percent of the state's 2,001 farms. Throughout Florida, the growing demand of alternative red meat sources for health-conscious consumers has increased substantially. Other cultures including: Muslims, Hispanics, Caribbean Islanders, etc., have increased demand for sheep and goat meat. Escalating feed costs have made small ruminants a more economical option due to their ability to generate more cash-flow per acre, when compared to other large livestock. **Methods:** The Central Florida Livestock Agents Group (CFLAG) developed a one-day educational conference focusing on small ruminant production. Topics discussed ranged from small farm pasture management and fencing and round-table sessions to health and parasite control. The FAMACHA® parasite management certification was also offered. A farm tour and a chute-side animal handling demonstration were conducted during the conference. An evaluation was carried out to determine further educational needs for this demographic. **Results:** Survey response rate was thirty-nine percent (n=24). Ninety-six percent (n=22) indicated the information was useful. Eighty-seven percent (n=21) would consider implementing new farm management practice changes. Examples of practice change include: pasture management (n=8), improved parasite management (n=4) and herd nutrition (n=1). **Conclusion:** The survey results indicated a significant need for more educational programs targeting sheep and goat ranchers in the State of Florida. Educational needs identified were; reproduction (n=4), herd health (n=3), financial management (n=3), nutrition (n=2), value added products (n=2). Based on this producer feedback, CFLAG will conduct an annual Small Ruminant Production Conference.

MODERNIZING AND IMPROVING EFFECTIVENESS OF THE EXTENSION SERVICE IN TANZANIA BASED ON THE U.S. EXTENSION MODEL

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In 2012 Ms. Jacqueline Mkindi, Chief Executive Officer of Tanzania Horticultural Association (TAHA) visited U.S. participating in President Obama's Young African Leaders Program. She was also hosted by the UF/IFAS Miami-Dade County Extension Director (CED) Teresa Olczyk, who organized educational program, meetings with women leaders from local growers' associations and visits to several horticultural operations to help Ms. Mkindi learn about U.S. Extension Service and educate her how the UF/IFAS Miami-Dade County Extension works with local farmers and farmers' organizations. Ms. Mkindi wanted to learn more about the direct links between University of Florida's agricultural research and Extension Service and how the research results are disseminated to farmers by Miami-Dade County Extension Service. She collaborated with iAGRI Consortium in Tanzania and invited T. Olczyk to visit her country to introduce the U.S. Extension model to multiple stakeholders including TAHA, Ministry of Agriculture, Crop Production and Cooperatives and the Sokoine University of Agriculture (SUA). The invitation was finalized in the fall of 2013. The CED traveled to Tanzania, shared her Extension experiences with multiple Tanzanian partners helping to generate discussions leading to developing collaborations and partnerships benefiting Tanzanian horticultural sector, especially small and medium farmers. As the result of this visit, the MOUs between TAHA, SUA and iAGRI are currently being developed to improve and modernize Extension Service in Tanzania and include linkages between research from SUA and dissemination of practical information to farmers by government's and private Extension Services. Future collaborations between UF/IFAS Extension and Tanzanian partners are being discussed.

MOTIVATING AND EDUCATING AGRICULTURE LEADERS

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Recently, rural communities have experienced major changes. Increasing environmental regulations; food safety concerns; negative sentiment in the mainstream media, and an increase in urban and non-farm residents moving into rural farmland areas are challenges facing today's farmers. To ensure the voice of agriculture is heard during policy discussions, "Motivating and Educating Agricultural Leaders" (MEAL) was

offered to clientele in 4 Kentucky counties. Sixteen participants participated. MEAL consisted of eight one day sessions. Topics included: The Leader In You; Communications; Issues Management; Media Training (2); Connection To Consumers; Ag. Law; and Working With Elected Officials. The program included a trip to the state capital to visit members of the General Assembly. ANR Agents developed the curriculum, secured speakers, presented, and raised funds. The MEAL program has already produced impact. All class members report: (1) increased awareness of challenges facing farmers and ranchers (2) strengthened communication skills (3) and being more likely to be an agricultural leader. They have: started farm social media pages, contacted policy makers, and become more involved locally. This is the second time MEAL has been offered. Previous MEAL graduates have become strong ag. leaders in their community.

ON-FARM ENERGY EFFICIENCY PILOT PROJECT

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Dairy and poultry operations, greenhouse facilities, and flue-cured tobacco farms in Southside and Southwest Virginia are significant consumers of energy. Rising fuel and electricity expenses increase the cost of production and reduce already tight operating margins. Fluctuations in energy costs make budgeting more difficult. Inquiries to Virginia Cooperative Extension regarding farm energy audits and energy conservation cost-share programs illustrated the immediate demand by agricultural producers for resources and programs to address energy efficiency issues. The Virginia Tobacco Indemnification and Revitalization Commission awarded Virginia Cooperative Extension a \$248,842 grant to develop a pilot farm energy efficiency program. An energy firm was selected to train data collectors for energy audits, and a Virginia firm focusing specifically on the energy usage of agricultural enterprises was launched. As a result of the pilot farm energy efficiency program, farm energy audits identified potential annual energy savings including: 1,258,086 (kWh) in electrical usage, 603,315 (gallons) propane fuel, and 19,336 (gallons) fuel oil. Farm audits projected annual savings of \$1.2 million with installation costs to be approximately \$4.9 million. Approximately 76% of the recommended energy conservation measures have a payback period shorter than five years. Twenty-one (21) farms implemented the cost saving projects identified in the audits. Fourteen (14) farms applied for USDA REAP energy conservation grants and 11 of these were successful. The farm energy audit program has focused the attention of agricultural producers on the cost of energy that they use, energy conservation options, and opportunities to cost-share projects to reduce farm energy consumption.

OSU COW/CALF BOOT CAMP

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In Oklahoma the beef cattle industry generates annual gross revenues of \$3.58 billion with an inventory of 1.8 million head and 55,000 producers. Oklahoma ranks third in the U.S. in beef cattle numbers. The challenge for extension is coming up with innovative and engaging methods to provide unbiased researched information to these producers.

In 2011 the Oklahoma Cow/Calf Boot Camp was created. The objectives of this camp were to create a workshop where producers could learn management and production practices that would help make their operations successful.

The goal was to provide lots of information over a wide range of topics. Topics needed to cover all aspects of cattle production such as forages and record keeping not just cattle. Knowledge areas covered were castration, dehorning, cattle ID, cattle handling, hay evaluation, feeding options, cow body condition scoring, internal and external parasite control, reproduction efficiency, bull selection, calving seasons, cow efficiency, marketing, calving management, health and vaccination programs, forage production, nutrition, farm business planning, livestock mortality disposal, facilities, fencing, selecting replacements, culling management, aging cows and brush control. By completing the boot camp producers would become Beef Quality Assurance (BQA) certified.

Since 2011 four boot camps have been held with a total attendance of 193 producers from six states. Participants were asked to do a pre/post test and evaluation. Results from the tests and evaluations indicate there was an increase in knowledge gained of 28.4% and a total perceived value of knowledge gained \$885,166.

PASTURE & FENCE ROW WEED CONTROL TOUR

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For livestock and forage producers in Giles County pasture weeds are one of the top issues. Extension gets many requests each year on identification and control. In an effort to better educate producers Extension partnered with

Dow AgroSciences and Giles County Co-op to implement a demonstration of various Dow products in pasture and fence row situations. A warm July afternoon saw 62 producers attend a tour of the demonstration plots. Each participant received a manual which contained a plot map, information on the various Dow products used, sprayer calibration instructions and information on pasture herbicide stewardship. The pasture plots contained six different treatments while two different treatments were used in the fence row plots. Several species of weeds were identified by name in the check plots located immediately beside each treated plot. As the tour progressed participants were able to identify the major weeds and then see how each were controlled by the different treatments. Evaluations were completed by 47 participants; 57% indicated they most definitely improved their knowledge of weed control practices, 59% ranked the teaching effectiveness as excellent, 95% indicated the program met their needs and answered their questions while 98% planned to utilize the information in their operation. Five of the participants specifically mentioned that they wanted more programs like this in the future.

PROS IN PARKS EXTREME SAFETY

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Pros in Parks offers affordable training to front line employees. It provides opportunities to improve knowledge with the goal of greater job satisfaction, professionalism and performance. Safety training is an essential component. Hands-on activities are one of the best ways to teach this audience which includes employees with limited English proficiency, but developing a system that elicits participation from everyone is challenging. This program combined interactive classroom presentations on general safety, sun protection and mosquito repellents with an innovative series of hands-on outdoor stations about safe practices for trash pickup, lifting, parking, and working around poisonous plants with simple CPR training. Each participant was given a card that station facilitators punched upon completion. At the program wrap-up, there was a drawing from the cards for five appropriate door prizes. This also allowed instructors to review content. 160 employees participated. 60% of them said that they definitely will adopt/apply all the safety practices reviewed during the class and an additional 32% said that they probably will. 81% said that they anticipated an economic benefit as a direct result of what they learned.

REDUCING NUTRIENT RUNOFF IN STORMWATER PONDS BY ENGAGING HOMEOWNER ASSOCIATIONS

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Community stormwater ponds are important for water quality because of their ecological function, they also serve an aesthetic purpose and increase property value. Homeowners often demand pond managers to utilize short-term chemical solutions for aesthetic issues which can create long-term problems for water quality. With a community based social market approach, this project emphasizes that by helping to keep the ponds in good condition homeowners are helping the environment and their own property investment. Homeowners are more engaged in the health of their ponds through an advisory board which is helping design strategies to work with homeowners' associations for neighborhood ponds and helping determine what type of shoreline plantings and buffer zones homeowners would be more receptive to being introduced in their neighborhoods. With information gathered at focus groups, advisory board meetings, and pre-surveys motivating factors and barriers to change have been identified and will help direct the best ways to make change easy and enjoyable for the homeowners.

REDUCING THE IMPACT OF THE RED IMPORTED FIRE ANT AT THE 2010, 2011, 2012 AND 2013 TOYOTA TEXAS BASS CLASSIC, CONROE, TX

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Poster URL: www.montgomery-tx.tamu.edu

The presence of the red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: *Formicidae*) at any outdoor function can be unpleasant to those participating in the function. The Toyota Texas Bass Classic (TTBC), held in the Lake Conroe area (Conroe, TX) the past few years, is advertised as the world championship of professional bass fishing. The event proceeds benefit the Texas Parks and Wildlife Department (TPWD). It has generated over \$1.2 million for the TPWD and the state of Texas. Fire ants were an issue during the 2009 TTBC in Montgomery, TX. The organizers of the 2010 TTBC voiced their concern to the property managers of the Lone Star Convention Center, Conroe, TX, (property chosen for the

2010 - 2013 TTBC), and asked that something be done. A management program consisting of twice yearly applications of Extinguish Plus fire ant bait across the grounds where the event was to be held was suggested and implemented. Six weeks after broadcasting the fire ant bait and less than one week before the scheduled Toyota Texas Bass Classic, essentially no foraging activity was seen in 2010, 2011, 2012, and 2013, and less than 1 active fire ant mound per acre was observed in 2010, 2011 and 2012. Resulting data calculated to greater than 94% reduction in foraging activity for the three years and 100% reduction in observable fire ant mounds.

SCHOOL GARDEN SUPPORT: SUCCESS STORIES AND LESSONS LEARNED

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School garden popularity is increasing every day in Pinellas County. Our objective was to increase Extension education in at least ten school gardens in Pinellas County in 2013, while also increasing the quality of those gardens and their learning opportunities. First we identified one of our horticultural staff who could assist this agent with providing information and guidance to new and expanding school gardens. Next, we reached out to every public school in the county through email to offer our services. This agent and staff provided site visits, emails, fact sheets, grant funding information, links to the Farm to School program for school gardens, curriculum material information, and a one day school garden summer camp for teachers. The results have been successful; we have aided in the establishment, expansion, or rejuvenation of eleven school gardens. We have also linked three Master Gardener volunteers closely with several of these new school gardens for ongoing education.

Along the way we have learned many lessons about the logistics of how Extension can support school gardens. Some of those lessons include how to communicate with school board employees, visiting schools in light of increased school security measures, aligning our outreach with school and test scheduling, and how to coach school staff on the time and resource requirements for a successful school garden. Most importantly we have learned to manage the schools' expectation of what Extension can provide (education, resources, volunteer support) as well as what we cannot provide (labor, free plants, free curriculum materials).

SOIL, WATER, PLANTS AND STAKEHOLDERS: THE ALABAMA LOW IMPACT DEVELOPMENT HANDBOOK

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Alabama has amazing water resources that are important for ecological diversity, agriculture, recreation, drinking water, and industry. Poor management practices associated with land use change from agriculture or forest to urban or suburban, threatens streams, rivers, lakes, and bays. Low Impact Development (LID) is an innovative approach to stormwater management that seeks to create a more natural hydrologic cycle in a developed watershed. LID uses natural resource based planning and best management practices that carefully consider water, soils, and plants to slow, infiltrate, store and treat polluted runoff. Although LID has been implemented in some states, a coordinated approach to build awareness and understanding of its application in Alabama is needed. The Alabama Department of Environmental Management asked the Alabama Cooperative Extension System and Auburn University for assistance in writing an Alabama LID Handbook. This guidance document provides a comprehensive look at planning, engineering, vegetation, construction, maintenance, and recent research for 11 LID practices. It is critical to engage stakeholders for the long-term success of LID practices. A series of stakeholder workshops and presentations have been conducted around the state to get input into real and perceived opportunities and obstacles. The Alabama LID Handbook is available for download at www.aces.edu/lid

SOUTH FLORIDA WINTER SUPPLEMENTATION SEMINAR

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South Florida is a unique environment to raise cattle. Producers are able to graze year-round providing forage for their cattle. Issues arise when forage quality and quantity declines and cows begin declining in body condition score (BCS) when suckling a calf. The extension agents in South

Florida noticed a need for providing information that producers could use to properly and economically supplement their animals through the winter months. The South Florida Winter Supplementation Seminar was developed to meet these needs. The seminar covers cattle nutritional requirements, forage supplementation, winter supplementation programs and managing cost of supplementation. Each topic is explained by extension specialists and agents to assist producers in gaining a full understanding of how to properly provide supplemental nutrients to their animals. Research has shown that BCS is directly correlated to reproductive efficiency. In a state where the cow-calf enterprise is the predominant sector of the cattle industry this becomes important. When explained to producers that the difference between a cow in a BCS-3 versus a cow in a BCS-5 can mean a difference of \$223 or more in calf weaned per cow exposed they begin to understand the importance. In two years 87 producers have attended the course. In response to post program surveys 45 percent have reported an increase in knowledge and 89 percent plan to implement techniques they learned during the seminar. One of the techniques which producers are implementing is to begin the supplementation program before you begin to see BCS decline in your cattle.

SOUTH GEORGIA NORTH FLORIDA VEGETABLE PRODUCTION MEETING

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The Commercial Vegetable Industry makes up a large portion of the total Farm Gate value of the agriculture industry for the South Georgia counties of Brooks, Echols, Lanier and Lowndes as well as Madison and Hamilton counties in North Florida. The 2013 Farm Gate Value Report for these counties shows that over 16,500 acres were used in commercial vegetable production with a combined farm value of over \$250,000,000. Eight packing sheds and three commercial transplant greenhouses also provide an added value to this still growing and competitive industry. Extension agents in these six counties acted on the opportunity to meet the growing educational needs of the producers in these counties in both states to help keep them up to date on new varieties, fungicides, insecticides, herbicides and production practices to keep producing top yields and quality produce. This has to be done while trying to reduce rapidly increasing cost of labor, chemicals, fuel and machinery. Extension agents working with extension specialists from both states and agribusiness industry representatives conducted a winter meeting in January with 85 producers attending to cover topics for the spring growing season. This Extension cooperation with growers helps to increase awareness on working with each other conducting research plots, field trials, improving production practices and answering questions concerning vegetable production problems.

SOYBEAN YIELD CONTEST IN PHILLIPS COUNTY ARKANSAS

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Phillips County is the largest soybean county in Arkansas with 203,720 acres, which is 6.3% of the state's total. Average yield in the county was 52 bu/ac, which is 9 bushels over the stage average. 63.4% of the crop is irrigated with an average yield of 65 bushels per acre. To assist producers in increasing yields, efforts were made to encourage producers to enter the Soybean Promotion Board's "Go for the Green Contest". This is a yield contest with monetary awards for the highest yield. It was surmised that if "friendly" competition could be initiated between producers, many would increase their yield. The local county agent job was to aid in recruitment of participants, measure fields for harvest and to certify yields. Success of this program was based on comparing contest yields to both the state and county average for soybeans. In 2013, state wide there were 120 different producers who entered the contest. In Phillips County there were 27 entries or 22.5% of the state entries. Eighteen of the 54 harvested fields in the state were from the local area. Average yield for contest fields was 75.2 bushels, compared to 65 bushels for irrigated soybeans. Due to better than average per acre yield, the program was successful. This program is made available with financial support of the Arkansas Soybean Promotion Board and administered by the Arkansas Soybean Association. Thanks to the teamwork between the three groups, this program will continue into the 2014 season.

SPREADING THE GOSPEL: ADDRESSING THE CHALLENGES OF MARKETING EXTENSION RESOURCES TO 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 in 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.

SPRING INTO VEGETABLE GARDENING: DISTRICT-WIDE INTERACTIVE VIDEO SERIES FOR NOVICE GARDENERS

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There is a growing trend towards edible gardens and supplementing produce with fruits and vegetables from the home garden. Consumers have increased spending by an average of 14% for food gardening products from 2008 through 2012 (National Garden Association, 2013, p. 12). This data coupled with good attendance at local vegetable gardening classes initiated development of a more in-depth vegetable gardening series. Series was designed to teach recommended vegetable gardening methods to residents of North Florida. Team members worked with IFAS Communications to create a colorful flyer and multi-media template that all instructors used to create a professional and unified program. Topics covered included proper planning, soil preparation, recommended cultivars, transplanting seedlings, common pests, management practices, troubleshooting nutritional problems, and harvesting. All speakers were transmitted through Blue Jeans, a cloud-based video service that also allowed for program recordings which were later available through YouTube. Written evaluations were given to participants at the end of the series to measure knowledge gained with follow up evaluations planned for 6

months post program. A total of 306 people attended the program. Evaluations indicated that participants gained knowledge in the following topic areas: 83% (161) garden expectations, 85% (164) site selection, 84% (163) recommended varieties, 85% (164) seeding methods, 89% (173) maintenance, 90% (175) Integrated Pest Management, 84% (163) harvesting. A majority of participants (86%) indicated a plan to change behavior related to vegetable gardening and 83% learned information they plan to share with others.

STRATEGIES FOR SAFETY FOR OLDER FARMERS

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Objectives were to gain knowledge about risks contributing to high numbers of injury/illness, excessive fatality rates with senior farmers, perspectives on injury risk and develop intervention strategies. Focus group meetings were held with farmers over age 50 and their spouses to learn perspectives on farm work, risk, and intention to remain active in agricultural production. Meetings determined that senior farmers and families are aware of risks in the agricultural environment, yet injury/illness rates remain high. Attention to health and safety interventions should be developed while representing values and culture of farm communities, considering farmer's need to be part of the farming process, recognizing valuable input by senior farmers, providing realistic resources and allowing senior farmers to make decisions about adaptations. Attention should include psychological well-being as stress, both occupation and home, is as an increased challenge with age. Templates for injury prevention programs were reviewed resulting in a novel intervention being developed and tested for safety intervention. Thirty-three participants (farmers and spouses) came to the Mercer County Extension Office for a "Dinner Theater". Local farmers presented four short plays (readings based on real farm based stories about injury and illness). After each play, farmers shared reactions to the play and their own stories/solutions to problems presented. One week later phone interviews were conducted to learn more about reactions to the play and changes made regarding topics presented. Thirty-three percent reported significant changes and 67% were contemplating changes. Eighty-eight percent stated they could apply messages to their life and family

SUNBELT AGRICULTURE EXPOSITION BACKYARD GARDENING SERIES

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The Sunbelt Ag Expo in Colquitt Georgia is viewed by many as North America's premier farm show. It attracts upwards of 100,000 visitors annually from all over the country. Part of the goal of the Sunbelt Expo is to offer educational programming for participants and many seminars are presented for farmers on agricultural topics. People from all walks of life attend the Sunbelt Expo farm show and adding a home and garden aspect would strengthen the draw for non-farmers and/or farm families. In 2008 the Executive Director of the Sunbelt Agricultural Expo asked if the University of Georgia Master Gardener State Coordinator could involve Master Gardeners and Extension Agents from around the region to provide horticulture seminars. The Agent in Dougherty County was asked to coordinate homeowner educational seminars on landscape and other home horticulture topics. In the ensuing years the seminar series has educated 5,250 people and their feedback from surveys indicated that the participants learned something new, found the presentations helpful, and enjoyed the hands-on demonstrations.

TEACHING AND UTILIZING SUSTAINABLE AGRICULTURAL PRACTICES IN UGANDA

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Uganda, Africa is considered the "Pearl of Africa" because of its rich abundance of natural resources. Yet, millions of people from the East African country (Image 1) are starving each day because of the lack of knowledge, skills and tools to produce food sustainably. Farming practices for the majority of the population consist of tilling the land manually with hoes and intercropping several crops on small portions of land. UGA Cooperative Extension Agents from Banks and Jackson County were invited to Eastern Uganda to present practices and information that specifically address improving soil fertility and crop yields. The agents developed a two-day workshop that focused on sustainable agriculture which hosted farmers from the 6 major regions of Uganda. All expenses and fees for each participant were covered by donations raised by Jackson and Banks ANR agents. 16 participants attended the workshop in Mukono, Uganda which provided in-class information and field demonstrations. Following the workshop, the agents visited individually with the participants on their farms to provide on-site instruction. From evaluations, 100% of participants stated this seminar was their first professional agricultural education class. 100% of participants planned to implement at

least one practice from the workshop within a year. And, with a response indicating a need for further education in animal rearing, beekeeping and pesticide handling, a return trip has been scheduled for 2014.

TEACHING YOUTH THE VALUE OF AGRICULTURE AND ITS IMPACT ON OUR LOCAL COMMUNITY

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In 2001, the Fayette Master Gardener Extension Volunteers implemented a Plant a Row for the Hungry Community Garden (PAR) to provide nutritious produce to food banks and shelters throughout Fayette County and the Metro Atlanta area. Later, black plastic and drip irrigation were installed to increase produce production as well as manage weeds and aid in moisture retention. The PAR garden is a wonderful community service project that allows MGEVs to give back, however it is also a valuable teaching tool to volunteers, adults and youth. In the summer of 2013, our Cloverbud Day Camp focused on the Farm to Table learning concept. Eighteen 2nd-4th grade campers explored local produce farms including traditional agriculture production, organic production and community garden production at PAR. Campers were taught by each garden proprietor the importance of agriculture, the mechanics of their specific production system, and how each farm impacts our local community. In addition to touring local farms, campers planted their own raised bed vegetable garden and learned the value of pollinators in our education garden. They also completed community service by harvesting potatoes and onions at PAR. Campers explored where their food comes from, how to plant their own, and how to harvest different fruits and vegetables. Having a hands-on approach to learning enables youth to explore and further increase agricultural interests in the community.

TENNESSEE VALUE-ADDED BEEF PROGRAM

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The cattle industry is one of the most historically significant agriculture enterprises in Tennessee. It has traditionally been dominated by cow-calf and feeder production. In recent years, more producers have been considering adding value by

finishing, harvesting, processing and marketing. However, many challenges such as regulations, labeling, processing and packaging have been encountered. After assessing and defining stakeholder needs, 22 individuals from 6 agencies and departments collaborated to develop and implement the Tennessee Value-Added Beef program. To date, 52 educational sessions in 29 counties have been conducted with 1,449 participants. The programs were possible through the teamwork of 30 different local host Extension agents and five primary instructors/presenters. Seven educational publications have been completed and just over \$250,000 in external funds have been secured. In one educational workshop series, a sample of participants was surveyed 4 months after the program and asked to rate their before and after knowledge of key topics that were taught. Participants reported an average increase of 289 percent in knowledge gained. The evaluation also revealed that 10 percent of participants had begun to market meat direct to consumers or market live animals for custom harvesting. From December 2011 to December 2013, there was a 59 percent increase in the number of farm-based retail meat permits issued in Tennessee. It is estimated that the practice changes of marketing beef under a retail meat permit, under wholesale registrations and live animal sales for custom processing results in a gross farm revenue impact of \$744,480 annually.

THE FINANCIAL BENEFITS OF MARKETING FEEDER CATTLE THROUGH THE USE OF ALTERNATIVE MARKETING AND GROUP SALES

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Alternative marketing strategies and the use of value added practices is a topic that has become more popular in recent years, and is of great importance to producers of agricultural products. The financial benefits of marketing feeder cattle through the use of marketing alliances and group sales is both an important and timely topic to both research and discuss. It was not until recently that the market's structure was conducive to value added practices. For some time producers have been adding value to animals, but it is now easier than ever to capture that value. (Dolan 2011) Alternative marketing can be defined as pursuing marketing strategies or positions other than those traditionally followed. Alternative marketing strategies include: direct marketing of products, group marketing, or simply taking advantage of value added practices. For producers in East Tennessee, beef cattle are a major agricultural commodity bringing in millions of dollars each year. In the current economic environment, with increasing production costs and returns that simply have not inflated at the same rate as production rates, producers must increase their overall profit using whatever avenues possible.

THE MASTER HORSEMAN PROGRAM: BUILDING EQUITY IN LOUISIANA HORSEMEN

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The Master Horseman Program is an ongoing equine educational program hosted by LSU AgCenter state and regional specialists. The goal of this program is to have a group of extremely well trained volunteer leaders and to increase the quality of horsemen and horses throughout the state. These well trained individuals then have the responsibility to teach others throughout the equine community. Instructors host eight clinics, each three hours in length, to educate horse owners on the science of equine management and the concepts of riding and training. Demonstrations are used to disseminate information on the latest techniques. The use of hands on training, written materials, internet web sites, social media and television programs have been shown to increase the knowledge of stakeholders. In 2013 a survey of this program's effectiveness was conducted. On average, 75.5% of the respondents have adopted the research-based practices that were emphasized in the extension program. Fifty-six percent of respondents indicated that they use information from trainers and other horse owners when making decisions regarding their equine needs. Forty-five percent of stakeholders site internet sites as a valuable resource. These results indicate that it is vital that agents and specialists continue to prioritize person-to-person contact and programs in the Louisiana equine industry. It is also apparent that as technology becomes increasingly available that electronic information delivery will continue to increase in importance. The Master Horseman Program continues to build equity in stakeholders, build strong partnerships, and increase the overall knowledge within the equine community.

TRAINING 4-H YOUTH IN FOREST ECOLOGY IN ALACHUA COUNTY, FLORIDA

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Many of today's youth are spending the majority of their time indoors and are unaware of the importance of forests to our state. In 2012, the agent and an Alachua County 4-H volunteer recruited 4-H members for the state forest ecology contest. The program's objectives were to help 4-H youth learn more about Florida's forests and ecosystems and improve their critical thinking and problem solving skills. As a result of the practice sessions, the average score on the practice quizzes would increase by 15%. While learning plant and tree identification, the students were encouraged to compare and contrast specimens and draw conclusions. In the map and compass portion of the contest, the students had to solve problems involving distance and direction. From 2012-2014, the agent held a total of 39 practice sessions that included

classroom activities and field trips. As a result of the practice sessions, the average score on the team members' practice quizzes increased by 19%. In 2012, the junior team placed third out of seven teams. The entire Alachua County won the High Scoring New Team Award. In 2013, the junior team A won the state contest and junior team B placed second out of nine teams. Alachua County also had the state high individual in the junior division. In addition, the forest ecology team also won the inaugural forestry contest at the 2013 Greater Jacksonville Fair.

TRANSPLANTS FOR YOUTH EDUCATION IN LONOKE COUNTY

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The need to educate our youth about gardening and transplant production is a tremendous responsibility of county agents. Today's youth are technology oriented and do not get the opportunity to experience more traditional 4-H programming. There are incredible educational opportunities present at county, district and state fairs. These avenues give the youth an opportunity to exhibit their gardening projects. One example of an educational program is the school enrichment program in Lonoke County which provides 4-H'ers the opportunity to showcase their endeavors that require caring for 2,400 plants, from seeding to mature transplants. It is through youth educational programs that they acquire the knowledge needed to produce transplants which are planted in a community garden in Lonoke county each year. Educational impact of this program is measured through various means; some of which are membership in 4-H, specifically horticulture and horticulture related projects. Evaluations will continue throughout the life of this program and I would like to share this information with other agents in the NACAA.

UGA EXTENSION PIZZA FARM, A SUCESSFUL MODEL FOR PARTNERSHIPS

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Issue: In Georgia, 25% of 4th graders were overweight and 17% were at risk for being overweight. In total, approximately 40% of Georgia's children had body weights that were of significant concern. The Food Trust reports, "Agricultural programs enhanced by nutrition education "positively impact children's food choices by improving their preferences for vegetables and increasing their nutrition knowledge." **Response:** Nearly 60 volunteers and Extension Agents contributed to the success of this interactive educational event. The event received \$10,900 in in-kind donations and

\$9,750 from agricultural commodity organizations and County Extension offices to make the event possible. **Participants:** Fourth and fifth grade students took an hour and half guided tour through the seven Pizza Farm Stations. Stations consisted of a brief educational lesson and a hands-on activity. Participants received a pizza lunch – with fruit, ice cream and water, and information for the parental guardians about the educational components of the event. **Impact:** This event provided 624 students from metro-Atlanta schools and their teachers an opportunity to interact with the agricultural commodities that go into making pizza. Pizza Farm provided the collaborative environment for the Georgia Department of Agriculture and UGA Extension to showcase the talents of our employees from FACS, 4-H, ANR, and OCTS. The 2013 Pizza Farm Committee Members were: Pam Bloch, Maria Bowie, Kisha Faulk, Katie Gazda, Jessica Hill, Beth Horne, Todd Hurt, Kim Riley, Neil Tarver, Kim Taylor and Carla Wood.

UNIVERSITY OF FLORIDA LIVING EXTENSION IPM FIELD LABORATORY

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A new long range plan to teach hands-on IPM principles and practices was developed at the Suwannee Valley Agricultural Extension Center in response to increased interest among small farmers in Florida to adopt innovative pest management strategies. A three-year USDA Extension IPM grant was secured to transform the 330 acre farm at the Center in Live Oak, FL into a field laboratory. The three primary program objectives were to: 1) create a model to teach IPM principles and techniques beyond the classroom, 2) teach clientele whole farm IPM approaches, and 3) build a sustainable education infrastructure and networking capacity for future IPM information delivery. The IPM strategies emphasized at the site include: annual and permanent plantings to attract beneficial insects and vertebrates providing year round habitats, demonstrating strategic trap cropping systems, utilizing banker plant systems, increasing natural pollinators, and enhancing the ecological services contribution of the lake, surrounding forest and other natural resources on the farm. Since 2011, the Living IPM Laboratory has increased awareness of the opportunities to improve the adoption of IPM practices for a variety of cropping systems. The project has been implemented by a diverse multi-disciplinary team of more than 25 University of Florida faculty and staff along with associated agency cooperators. A total of 18 trainings with 521 participants have been conducted in a two year span, including a County Extension Agent In-service Training attended by 21 agents where evaluations indicated 94% were confident they could provide this training back in their counties.

USING AGRICULTURE TO TEACH STEM EDUCATION TO URBAN 5TH GRADE STUDENTS: A MULTI-FACETED APPROACH

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Fewer Americans are being raised on farms than 50 years ago, but agricultural education is considered to be more important than ever—helping young people understand the complex food system that keeps American's food supply safe and secure. Urban youth rarely have opportunities to experience agriculture first hand nor do they have any curriculum in the schools. Therefore exposure and awareness is minimal. Agriculture involves much more than the science of growing plants and raising animals. In the Lynchburg City Schools 5th Grade Urban Agriculture program, 4-H, Agriculture & Natural Resources, and Family Consumer Sciences Extension Agents collaborated with many partners to host the successful two day event which used agricultural components to teach the Virginia Standards of Learning (SOL). From using fresh strawberries to extract DNA to teach about plant cells, constructing 3-D Animal Cell models, using fresh apples from local orchards to teach about the importance of soil sustainability, to how wheat from the field makes it all the way to the dinner table, this program encapsulates just that. This event impacted not only the 600+ 5th graders, but the community as well. Each student received the skills and materials to make fresh bread in their homes for their family as well as to donate to the ones less fortunate in their community. Over 400 loaves of bread were donated to various non-profit organizations throughout Lynchburg who directly served the less fortunate.

USING BLUE DYE MARKING TECHNIQUE TO ILLUSTRATE WATER AND NUTRIENT MOVEMENT THROUGH SANDY SOILS TO LANDSCAPE PROFESSIONALS AND HOMEOWNERS

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OBJECTIVES: In Florida Friendly Landscaping™ programs horticulture agents stress the principle “Water Efficiently” to landscape professionals and homeowners. This principle teaches residents to conserve water and protect the environment from non-point source pollution through run off and leaching of plant nutrients. Current University of Florida/IFAS recommendations call for ½ inch-¾ inch of irrigation water per application. Calibration of irrigation systems and sprinklers is strongly encouraged so users know how much water is being applied to turf of landscapes. Often clients do not calibrate their systems and guesstimate and the amount of water being applied. As a result of viewing the blue dye demonstration in a landscape setting 90% of homeowners report they will adopt appropriate irrigation amount to conserve water and prevent nutrient runoff and leaching and 90% will calibrate their irrigation system. **METHODS:** A water soluble spray pattern indicator blue dye demonstration was done with landscape professionals and homeowners to illustrate how water and nutrients move through our soils. **RESULTS:** All the participants (n=50) responded that the demonstration made an impact on their understanding of water movement in Florida's sandy soils. And 100% (n=50) reported that they would calibrate their irrigation systems to apply ½ to ¾ inch to make certain they were irrigating appropriately and to ensure the water applied was within the root zone of their turf or landscape plants. **CONCLUSIONS:** Visually demonstrating water movement in landscape soils convinces landscapers to adopt efficient irrigation methods, and to calibrate their irrigation systems.

USING COMMUNITY BASED SOCIAL MARKETING TO ACHIEVE BEHAVIOR CHANGE FOR EXTENSION PROGRAMS

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Using Community Based Social Marketing (CBSM) to Achieve Behavior Change was a study that detailed an effort to help Extension agents move their program attendees from education to action. This study examined the perceptions of homeowners in Orange County, Florida, who have automated

irrigation systems, regarding CBSM strategies to reduce water used for lawns. The study looked at the pragmatic approach of social marketing and the effectiveness of CBSM to bring about behavior change. The practical strategies used by CBSM seek to determine the barriers to behavior change and to understand the accepted societal behaviors, also known as norms. Once barriers and norms are established, the use of CBSM has a greater opportunity to be successful. This study used focus groups to gain insights on this complicated topic. The results revealed the barriers as pressure from the Home Owner's Association (HOA's) to have perfect grass, lack of knowledge about proper lawn care, confusion about when to water and the inability to use the irrigation timer correctly. The norm was to abide by the water restrictions and have a nice lawn. Also following the water restrictions was their primary means of conservation. In fact the areas that emerged as barriers such as lack of knowledge about lawn care, inability to use their irrigation system efficiently and understanding water restrictions are all classes taught by Extension. However, Extension needs to establish the barriers to behavior change prior to teaching a program in order to reduce the barriers and increase behavior change results.

UTILIZING DUTCH OVENS TO INCREASE SUMMER CAMP PARTICIPATION

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Finding ways to capture the attention of today's 4-H member is challenging and sometimes difficult. Discovering new and innovated ways to provide educational opportunities, which members will attend and enjoy, is always the goal of any extension 4-H educator. Dutch oven cooking provides an excellent learning opportunity and can achieve many of the 4-H program goals to increase youth participation. The overall goals were to increase summer camp participation while providing outdoor cooking experiences using Dutch ovens. The objectives of the program were: 1.) to provide practical skills needed to enjoy outdoor cooking, 2.) to teach the proper methods of outdoor cooking with Dutch ovens and 3.) to educate youth in the areas of food safety and healthy eating. A total of thirty-one 4-H members participated in the two day summer camp, all members participating where able to eat a meal prepared in a Dutch oven. Twenty four surveyed indicated they had a better understanding of basic food safety, as a result of attending the camp. Fifteen reported they could cook meals with Dutch ovens and 12 reported purchasing Dutch ovens and planned to use them on camping trips and other outdoor adventures. Dutch oven cooking offers a perfect opportunity to learn while doing.

WATERSHED MANAGEMENT

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Mud Creek flows through a primarily rural watershed into Spring Creek, a major tributary of Weiss Lake in the Coosa River Basin. The watershed is located in Cherokee County, in the northeast corner of Alabama. Elevated pathogen levels resulted in the inclusion of Mud Creek the 2004-2010 303d list. A Total Maximum Daily Load (TMDL) was developed to address *E. coli* loading by nonpoint sources of pollution. A Section 319 grant was also awarded to implement a Mud Creek and Spring Creek watershed plan. The Alabama Cooperative Extension System (ACES) has been integral in the implementation of education and demonstration projects for this watershed plan. Target audiences for the reduction of nonpoint sources of pathogens include cattlemen, row crop farmers, forestry professionals, homeowners with septic tanks and youth. ACES specialists and agents have provided guidance for landowner education, recommendations for best management practice implementation, and leadership for watershed stewardship. Examples of successful activities that have been implemented include the popular 'Get Pumped' septic tank education and voucher workshops, water festival for 4th graders in Cherokee County, Alabama Smart Yards Program, Rain Barrel Workshops, Environmental Stewardship Clinics, and Water Quality Sampling. Both Spring and Mud Creek have been delisted for pathogens.

WEED MANAGEMENT IN CONTAINER PRODUCTION: WORKSHOP AND DEMONSTRATION PLOTS

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Weeds are a considerable economic pest for woody ornamental plant growers. This problem has increased with the downturn in the economy with fewer workers and longer plant holding times. Pre-emergent herbicides are typically used to control weed germination and minimize weeds. Demonstration plots were created to screen 19 pre-emergent herbicide and mulch combinations for efficacy against fall/winter weeds commonly seen in woody plant production in Hillsborough County, FL. Used potting soil containing weed seeds was used as the foundation of the plot

substrate. Weed seeds were collected from local nurseries and raked into the top one inch of the plots. Pre-emergent herbicides were then applied over the top of the 4.3 ft² plots. Growers were invited to a workshop which included weed ID, herbicide BMPs, hands-on granular herbicide calibrations and discussions on the demonstration plots. Twenty-six surveys were completed. Eighty-five percent of participants reported an increase in knowledge about ornamental preemergent herbicides in general. On a 1-10 scale, knowledge gain about ornamental preemergent herbicides was 62%, and knowledge of herbicide weed combination/interactions was increased 87%. This workshop and demonstration plot lead to practice changes. One hundred percent reported they would change herbicide use based on attendance. Another 92% would start to, or calibrate herbicides differently at their operation. Ninety-six percent believed that the workshop would save them money and estimated savings of \$3,700.00 per attendee, per year.

WINTER FEED MEETINGS HELP REDUCE FEED COSTS

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Cattle producers in Johnson and Franklin counties have benefitted from participation in a Winter Feed Meeting. The meeting was developed in order to reduce winter feed costs and ensure that nutritional requirements needs were met while feeding hay. The objectives of the program are: (1) to determine the quality of the hay that producers had in storage (2) match hay quality to the nutritional needs of the cattle, (3) reduce supplemental feed costs and (4) Stress the importance of grouping their cattle by their nutritional needs. Eight producers participated in the Winter Feed Meeting and 40 hay samples were submitted to determine forage quality. Participants in the program learned that beef cattle nutrient needs are influenced by animal weight, sex, average daily gain, and stage of production or gestation. Based on post program surveys, 3 producers planned to continue forage quality testing, eliminate or reduce supplemental feeding, and feed cattle groups based on nutritional needs. In post program evaluations, producers were encouraged by the quality of their hay, and expressed interest in educational programs on management decisions that would affect hay quality.

YOUR FARM, YOUR LEGACY - ESTATE PLANNING

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The complicated burden of taxes and property transference is often overwhelming for landowners faced with the loss of a family member. Lack of knowledge about the importance of planning to protect the assets of the farm or land can lead to loss of land that has been in the family for several generations. Surveyed landowners in the Howard/Polk/Sevier County area indicated that they needed education on estate planning. In order to meet the indicated need for residents of the counties, two sessions of a two-night estate planning seminar were planned for landowners in the tri-county area. Topics covered in the program were: Getting Started on an Estate Plan; Probate, Trusts, and Farm Transfer; Taxes and Longterm Care; Transfer of Non-titled Property; and Planning Ahead for End of Life. Eighty-four individuals participated in the two sessions. Overwhelming results of the evaluation indicated that all participants increased knowledge about the topics as well as started plans to develop estate plans/wills/end of life directives. Actual adoption of the practices will be measured by personal survey in July and March of 2014 and 2015, twelve months post seminar for each session.

NORTHEAST REGION

A NEW THREAT TO BERRY CROPS MANAGED THROUGH LOCAL AND REGIONAL COOPERATION

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Spotted wing drosophila (*Drosophila suzukii*) was first found in Maine in the fall of 2011. This small fruit fly is an invasive pest originating in northern Asia that can destroy berry crops and other soft fruits. During the winter of 2011-2012 an intensive educational program was initiated to increase grower awareness of the new pest. Local efforts were supported and enhanced through cooperation with programs across the Northeast. New England research and Extension specialists developed a network of monitoring sites in each state, maintained with the help of farmers and students. Fly population and damage data was shared with growers and Extension staff through a blog and mapping web

page developed for this pest, as well as weekly e-mail updates. Management recommendations based on the results of ongoing regional research was distributed via newsletter, web page and online videos. Prior to the growing season, detailed fact sheets on identification, monitoring and management were distributed through a cooperative project with Pennsylvania State University. Although damage from spotted wing drosophila since its arrival has been significant, program surveys have shown that most growers were aware of the pest and had access to management information. Extension was cited as the primary source of information. The impact of this program in preventing this new pest from causing severe economic harm to Maine berry growers could not have been achieved without the cooperation of Extension and research specialists locally, regionally and nationally, enabling us to develop an effective program in a very short time.

ANNIE'S PROJECT NEW JERSEY, LESSONS OVER THE YEARS

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Annie's Project New Jersey started in 2011 as a six-week farm management course for women. Since that time the program has evolved and changed- meeting with successes and challenges along the way. Looking back at what has worked and what needs improvement allows us to then look forward to the future of Annie's Project New Jersey. In doing so our goal is to provide input to anyone who wishes to replicate this course. From changes in format and educational delivery to new locations and topics- this constant evolution based on team experiences and participant surveys has contributed to the success of our award winning program. Still, new challenges have been identified and will need to be evaluated in order to chart the program's future course. We believe this reevaluation and reinvention has led to the sustained success of the course and allowed us to continue to offer a program that provides a much needed educational experience to the women of our state.

CONNECTING INSTITUTIONAL SERVICES AND ADMINISTRATIVE GOALS: THE SYNERGY OF COOPERATIVE EXTENSION

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The mission of the Department of Veterans Affairs (VA) is to serve and honor the men and women who are America's veterans. VA centers around the country offer a wide variety of services to veterans and their families including medical care, educational opportunities, job placement, and financial assistance. As federal facilities, VA sites are required to develop and implement stormwater management and abatement plans. Rutgers Cooperative Extension linked a sustainable landscape training program for unemployed veterans to the stormwater management plan of the East Orange (NJ) Veterans Affairs Hospital. This educational program provided job training for veterans and contributed to the administration's goal of becoming a more "green" and sustainable facility. The landscape training program met twice a week for an in-class lecture and subsequent hands-on training sessions reinforced the techniques introduced by those lectures. The veterans gained knowledge and field experience by improving the stormwater management on the site's 30-acre campus. The stormwater management techniques installed by the program's participants have led to approximately 75,750 gallons of stormwater per year being retained on site and the demand for drinking water has been reduced by 18,000 gallons per year. The therapeutic value of gardening has long been established, and veterans were able to enjoy these benefits (relaxation, exercise, etc.) while the facility became more environmentally-sustainable through stormwater management improvements. The connection between the training program and the VA's institutional goals of reduced stormwater runoff resulted in higher visibility and support for the training program.

DAIRY IN IRELAND

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Dennis Kauppila was on a sabbatical study leave in Ireland, from July to December, 2013. He studied with Teagasc financial management specialists. Teagasc is Ireland's Food and Agricultural Development Authority. It is similar to our land grant universities, with research, extension (advisory), and college teaching. In 2010, there were 18,000 Irish dairy farms, averaging 61 cows, with 10,600 pounds of milk shipped per cow, on 1000 pounds of grain per lactation. Irish farmers have been milking under the European Union's dairy marketing quota since 1984. Quota will end in April 2015. The Irish government's goal for dairy is to produce 50% more milk in 2020 than was produced in 2009, looking for export income

and jobs. So, Irish dairy farmers and their coops are planning for expansion. Teagasc started a new 300-cow dairy farm in 2010 as a demonstration with a target audience of both current dairy farmers and potential new entrants. They have done an excellent job of reporting both successes, and 'lessons learned' the hard way. Teagasc advisors were very interested in Risk Management and how we taught this to farmers at home. Dennis gave a presentation, 'Identifying and Managing Risk,' at the Teagasc Dairy Conference, 'Strategies for Sustainable Success,' in Nov 2013, 600 farmers attended at two locations. It is very interesting to see how other countries provide extension services to farmers.

EVALUATING MICROBIAL WATER QUALITY IN VEGETABLE OPERATIONS IN MARYLAND

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Microbial water quality is a major component of on-farm food safety and the proposed Food Safety Modernization Act (FSMA) regulation. Water is used in almost every phase of vegetable production, such as transplanting, irrigation, postharvest washing, chemical applications, and worker use. Given that water is a known carrier of microbes, the varying uses and sources of water can carry different microbial risks in an agricultural operations. Historically, the level of *E. coli* in surface water sources tends to be higher and more variable than well sources, as surface water is subject to environmental variables and potential sources of contamination. This study was conducted to develop baseline information by analyzing microbial water quality during the vegetable production months and by major water sources utilized in Maryland vegetable operations. Water samples were tested for *E. coli*, total coliform bacteria, pH, electrical conductivity and turbidity. Vegetable grower sites were selected to represent various geographic areas including the Eastern Shore, Southern, Central and Western Maryland. Monthly samples were taken from 16 surface water sources (including ponds and springs) and 12 well sources from April through September 2013. When comparing the *E. coli* results to proposed national FSMA standards (126 MPN/100mL): 56% of surface water sources and 8.3% of well sources had higher than proposed standards. Highest *E. coli* counts were recorded for surface sources in the months of June, July and August. The project's

results are used in Good Agricultural Practices (GAP) training and to develop on-farm water quality baseline information for Maryland growers.

FARMING: PENCIL TO PLOW

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Farming: Pencil to Plow is a beginning farmer program designed for aspiring small farmers and those producers interested in diversifying their farm operation. The course is held over eight (8) weeks, meeting one night each week for 3 hours each night of class. Information is presented by experts in the agriculture field who discuss key business planning topics. Speakers include University of Maryland Extension educators, local agencies and businesses that work with agriculture producers. Topics covered in this course include awareness of regulations, developing a business plan, cash flow statements, understanding customer base, marketing, and the importance of budgeting. Farming interests from participants varied greatly: beekeeping, alpacas, hay, livestock, CSA, vegetables, hops, and mushroom production. Upon completing this program, participants have developed a prepared business plan to be presented to potential lending agencies along with a certificate of completion issued by NxLevel, a nationally recognized entrepreneurship training provider. To date, there have been 27 participants. Originally developed as a Maryland Lower Eastern Shore program, Farming: Pencil to Plow has reached beginning farmers from eight (8) Maryland counties. Of the participants that have graduated from the program, 87.5% strongly plan to use the knowledge and skills gained in this program to help develop their farming endeavor. \$4900 total grants have been secured from the Eastern Shore Entrepreneurship Center with a \$1000 grant secured from the Beginning Farmer Success program. In addition, \$1750 of solicited funds have been received to support the program.

FROM THE FIELD TO THE CLASSROOM: EXTENSION AGENTS PROVIDING UNDERGRADUATE EDUCATION

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~~A team of County Agricultural Agents and Extension Specialists developed an undergraduate course for Agricultural and Natural Resources students enrolled at Rutgers University. The course, 11:015:315 Direct Farm Marketing and Agritourism was offered to undergraduate students enrolled during the fall, 2013 semester and was designed to prepare students to manage an agritourism or direct marketing operation. Participating students (n=17) were surveyed following completion of the 15 week course to assess the effectiveness of the curriculum. The student's assessments were overwhelmingly positive with an overall rating for the course of 4.7 (1= Poor, 5= excellent). Teaching effectiveness of the instructors was highly rated (4.9) with the students agreeing that they learned a great deal during the course (4.6). The information presented was rated favorably with the majority of the students reporting the course as generating interest in the topics covered (4.8) and the format effectively encouraged students to learn the material (4.8). When asked for general comments, the students overwhelmingly reported that they enjoyed the realistic nature of the scenarios presented during the course and enjoyed meeting with actual agritourism operators to discuss the "real world" issues facing producers. Due in part to the positive feedback from the students, this course is now a required course for agricultural majors. The success of this program demonstrates the important contribution that off-campus faculty such as County Agricultural Agents can make to the success of undergraduate education.

MORE MAINE MEAT

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With the goal of "significantly increasing the amount of meat that is produced, processed, distributed, and sold in Maine, and simultaneously increase wealth among those involved in Maine's meat industry," the University of Maine Cooperative Extension and the Maine Sustainable Agriculture Society initiated a project to try to improve opportunities for everyone involved in Maine's meat industry. The More Maine Meat project has a wide array of activities, including implementing a survey of producers to better understand the needs and opportunities within the industry and to help establish and implement an appropriate plan of action. The survey was initially distributed to a total of 3286 (1582 surface, 1704 electronic) beef, dairy, sheep, goat, grass farmers, and general farming mailing lists. About 35% of the electronic surveys were opened and assuming an equal number of surface mailed surveys were opened about 1,150 producers learned of the survey. Initially 170 producers completed the survey that offered one of four \$50 prizes. The survey was kept open and re-advertised at various livestock meetings. Initial results showed the three primary barriers to increasing herds or flocks

were feed costs, capital and processor availability, followed by labor and handling facilities. Most producers currently use USDA inspected facilities and sell frozen cuts followed by on-the-hoof and frozen sides. About 44% are willing to consider selling to a processor or aggregator under their brand. Three-quarters would sell more whole carcasses if there were a market. Forty percent would like to buy feeders in spring.

THE ADOPTION OF AN ON-FARM CULTURE PROGRAM BY SMALL AND MEDIUM SIZED DAIRIES IN PENNSYLVANIA TO MAKE PROACTIVE DECISIONS REGARDING TREATMENT.

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Mastitis is an inflammation of the mammary gland. Clinical mastitis is one of the most costly diseases affecting the dairy industry, with recent estimates of \$231-\$289 loss per case. Producers suffer losses due to reduced production, discarded milk, culls, and antibiotic use. Mastitis is associated with the most frequent antibiotic use on a dairy. The objectives for this program is to have dairy producers increase their knowledge of mastitis causing bacteria, decrease the number of cases of clinical mastitis and implement the use of "on-farm" culturing. Participants will be educated on the importance of knowing what types of bacterial pathogens cause mastitis on their farm and how to effectively treat bacteria for increased chance of cure. Participants will also be given the tools to identify bacteria growth using the Penn State Quad-Plate. Education will be delivered through one day workshops, field days, and interaction with producers. NE SARE funds were made available through a partnership grant to involve eight producers across the state in this project. These farms have implemented "on-farm" culturing and are tracking clinical mastitis, bacteria identification, treatment methods and cure rates. This program has reached a total of 419 participants with 80% (N=124) indicating the intent to implement "on-farm" culturing on their farm. A six month follow up evaluation was implemented by phone indicating that 100% (N=12) of participants implemented "on-farm" culturing to manage mastitis. 100% (N=12) decreased the number of cases of clinical mastitis and 75% (N=12) decreased the use of antibiotics on their farm.

THE NEW YORK CITY WATERSHED MANURE NUTRIENT MANAGEMENT CREDIT PROGRAM

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The New York City Watershed Agricultural Program

(NYCWAP) engages farmers living in the upstate New York boundaries of the New York City drinking water supply reservoir watersheds in a voluntary program to implement whole farm planning on their farms to protect the pristine quality of the world's largest unfiltered drinking water supply. Each year the NYCWAP maintains approximately 270 manure nutrient plans for livestock farmers within the watershed west of the Hudson River. One hundred and seventeen of these farms (43%) participate in the NYCWAP Nutrient Management Credit program, a program which provides participants annual financial incentives in turn for successfully following the plan. Program participants must annually keep and submit manure spreading records to the NYCWAP for summary, review and approval by a farmer peer review committee. Farmer participants who are approved as following their nutrient management plan for a given year, receive farm-size scaled credits against which they may submit approved nutrient management expenses. The program currently manages the land application of manure from a total of 13,245 animal units on 33,509 acres, providing incentives for farmers to follow their nutrient management plans, and keep and submit records, as well as providing accountability to the NYCWAP and the NYC Department of Environmental Protection that plans are being implemented as designed.

USING MINI-GRANTS FOR COOLING SPACE TO FOSTER ECONOMIC DEVELOPMENT

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Often with many micro and small scale farms, there are a number of barriers holding back their ability to expand their operations. In these under \$150,000 budget operations, the farmer does not view cooling as one of their critical on-farm operations. However, as our applications clearly demonstrated, adding or expanding cooling space was one of the largest hurdles many faced when trying to improve their product quality, increase production or reduce losses. A \$230,000 economic development grant was obtained to assist these farms statewide by providing about 60 mini-grants of up to \$3000 to provide a 50% cost-share match and some technical assistance. After vetting 124 applications, the approved farms, encompassing vegetables, fruit, meat, dairy and alternative crops, enacted their projected plans. With half the businesses reporting, the project has already provided 5.5 FTEs with a projection of 16.2 FTEs for 2014. More than \$235,000 of planned construction has occurred and the farmers have documented an immediate increase in product value, sales or reduced losses in excess of \$396,000. With some of the larger projects being completed in the later part of the project, the economic impact will exceed the original projection of a 10-25% increase in income. As the expansion was implemented cooperative extension staff provided expertise and education about harvest, building and implementing cooling sheds.

WOMEN IN AGRICULTURE PROGRAM EVOLUTION

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Educational programs that target women in agriculture are more abundant than ever. Maryland and Delaware are no exception to this trend. This year marks the 13th Regional Women in Agriculture Conference and 6th year for Annie's Project. Along with these programs, farm tours, social media, quarterly newsletters and the introduction of Annie's Project: Managing for Today and Tomorrow have occurred. This poster will highlight the development and impacts of the Women in Agriculture initiative. Since 2008 Annie's Project has expanded and reached 15 unique sites in Maryland and Delaware educating 469 women in agriculture. Additionally a multistate conference is held each year reaching approximately 170 women in agriculture. Through these networks a quarterly newsletter has been developed to stay in touch with participants as well as social media sites, FaceBook and Pinterest. Other specialized training has been conducted such as reunions and tours of participants' agricultural operations. End of class and follow up evaluations are conducted for educational programming and have had significant results. Class participants leave the program with a high intent to write business and marketing plans, use computers, check credit reports, prepare financial statements, update estate plans, purchase insurance and positively increase community and family relations.

NORTH CENTRAL REGION

“VACANT TO VIBRANT” URBAN AGRICULTURE PROJECT INSPIRES YOUTH ENTREPRENEURS

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In July 2013, The Victory Project, a non-profit mentoring program for at-risk youth, assumed responsibility for the management of the High Tunnel Project. Located on the parking lot of a demolished elementary school, the High Tunnel Project is a partnership between the City of Dayton and Ohio State University Extension. The sixteen youth enthusiastically accepted the challenge. A non-profit focusing on Education, Entrepreneurship, and Enlightenment, the Victory Project was a perfect complement to the project goals. As the produce grew and developed the youth saw an analogy to their lives, if you nurture and care for yourself, you grow and develop. A

new venture for the youth was to establish a market for their produce. A locally owned nearby restaurant was willing to buy if the quality and quantity of produce was acceptable and priced appropriately. Over 1000 pounds of produce was sold to the restaurant with the remainder donated to food pantries or consumed by the youth. The learning experience included a lesson that just because the grower (youth) likes the vegetable or fruit doesn't mean the market will purchase it, or that it will make it to market. The 2014 expansion of the project afforded the opportunity for Extension Educators and Specialists to mentor and educate the youth on developing business, site, production, and marketing plans. The vision, mission, and goals of the project focused on developing sustainable educational opportunities for the youth and community, while increasing food production using technology suitable to this unique production site.

A QUICK(EN)® VIEW OF FARM FINANCIAL RECORDS

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Ohio State University Extension professionals have taught computerized farm recordkeeping workshops for over 20 years. Quicken® software has been used in hands-on workshops to provide farm managers an option to transition paper ledger systems to computerized systems and/or switch from other software/spreadsheets. Since 2010, 147 farmers completed two-session workshops. A 2013 post-workshop survey was sent to 2010-2012 farms that participated in the workshops (n=56). Survey respondents (68%) are using Quicken for farm and/or home financial management and indicated they (80%) improved their understanding about their farm income and expenses, cash flow needs, or profit/loss of farm enterprises as a result of the workshop. Respondents (20%) have contacted OSU Extension following the workshop for Quicken assistance. In 2014, a post-pre evaluation instrument was used with workshop participants (n=47) to report knowledge gained. On the scale, 1 equals poor knowledge and 5 equals excellent knowledge. The 2014 workshop participants gained knowledge about How to Use Quicken for Farm Records (1.4 pre to 3.9 post), Using Quicken to Keep Family/Personal Records (1.5 pre to 3.8 post), and How to Use Quicken Tags to Track Production (1.2 pre to 3.8 post). For 2014, 79% of participants (n=37) were not currently using Quicken compared to 21% (n=10) were using Quicken. For those not using Quicken, 61% (n=23) indicate they will use Quicken for their 2014 records, 29% (n=11) were undecided and 10% decided not to use Quicken. Evaluations (2014) indicated topics for future workshops and the most important items learned in the workshop.

ASHTABULA COUNTY AG DAY

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Since 2012, OSU Extension in Ashtabula County has been conducting an annual "Ashtabula County Ag Day" to educate first graders on where their food comes from and to showcase the different types of agricultural commodities which are being grown in Ashtabula County, Ohio. In 2012, this program was pilot tested with 350 students at Lakeside Elementary School. In 2013 & 2014 this program was expanded so all of the first graders from the seven Ashtabula County public school districts could attend. On the first Friday of May, over 1,200 first graders travel to the Ashtabula County Fairgrounds to participate in the event. During this interactive day, students are able to get up close and personal with farm animals, crops, fruits, and vegetables at twelve interactive stations relating to our county's agriculture. Teachers reported that 100% of their students learned something new from their day and expressed appreciation the day was formulated to meet their state science standards. Over 150 volunteers from our community assist with this program by teaching at the interactive stations, serving as tour guides and by completing behind the scenes logistics. The cost of hosting this event is over \$10,000 (both monetary and in-kind). The goals of this poster is to share the logistics for conducting a large-scale agricultural awareness event; how funding was acquired and how curriculum was developed for each station.

BOOTHEEL LOCAL FOODS INITIATIVE

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The Bootheel Local Foods Initiative is a cooperative project between the University of Missouri Extension and Delta Area Economic Opportunity Corporation (DAEOC). The project goal is to increase the overall production and availability of local foods in the six county area of the Missouri Bootheel. This area of Missouri is one of the most productive agriculture regions with some of the highest county gross agriculture sales in Missouri. At the same time Bootheel county poverty rates vary from 15% to 30%. Unemployment in the Bootheel counties averages higher than the state average. Personnel at local groceries, schools, restaurants and nursing homes were surveyed to determine the factors for increased usage of local

foods. Local food production was quantified in the region. An understanding of food company's requirements was quantified and a series of meetings were held to inform farmers of the demand for local foods. Major local food purchasers require farm liability insurance and GAP certification or similar production practices. There are several farmers in the Bootheel region producing a variety of commodities. After the meetings farmer interest in local food production increased, with plans for increased acreage.

DEALING WITH DROUGHT: MU EXTENSION EFFORTS HELP BEEF CATTLE AND ROW CROP PRODUCERS MANAGE THROUGH DROUGHT CHALLENGES

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The drought of 2012 presented many challenges to beef cattle producers and row crop growers in northwest Missouri. The University of Missouri Extension regional agricultural specialists in the northwest extension region worked as a team to provide pertinent information related to drought through a number of timely meetings. Topics included drought management relative to pastures, row crops, livestock, economics, landscapes, and gardens. Nitrate testing was also made available for drought-stressed crops. A resource guide was printed and distributed which included publications related to drought management in the areas of agriculture business, agricultural engineering, agronomy, horticulture, and livestock. From July 2012 to February 2013, 244 producers attended 17 meetings focused on drought management. Evaluation results suggested significant knowledge gain and impact.

These meetings and others, in addition to countless individual consultations that occurred, provided timely and critical information for livestock producers and row crop growers in northwest Missouri as they managed through the drought.

EDUCATING FARM-BASED FOOD ENTREPRENEURS

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~Ohio, like many other states, is experiencing growing interest in farm-based food production. Whether producing cottage foods, meats, eggs, baked goods or produce, farm-based food entrepreneurs face many challenges and risks related to food safety, regulatory compliance, product development and legal liability. Recognizing the risks associated with farm-based food production, OSU Extension educators partnered to address the information and education needs of Ohio's food entrepreneurs. Educators with expertise in food science and agricultural law have collaborated to evaluate the most pressing food production, processing, and regulatory issues. The team used a variety of venues to gather information to identify the unique needs and challenges for these individuals who are beginning or expanding a farm-based food business. The methods for obtaining the information included surveys of participants at workshops, online surveys of Extension Educators, and analysis of blog post views from the Ohio Agricultural Law Blog. Thirty-six participants completed surveys during three different workshops in southwestern, central and northeastern Ohio. These surveys gave participants open ended opportunities to indicate the most pressing concerns and desires for skills-based trainings to help start or grow food businesses. An online survey of 34 OSU Extension educators confirmed that all receive questions in their county offices related to selling foods. Also the Ohio Agricultural Law Blog post "Legally Selling Your Baked Goods at a Farmer's Market" received 2,462 views, the third most popular post ever. These identified needs from workshop attendees, educators and blog readers were prioritized to drive the development of educational program outputs.

FORGING RELATIONSHIPS BETWEEN NEW EDUCATORS

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Current training processes for new educators involve general orientations offered by state level human resources. Program area training is sporadic, with occasional in-service

trainings presented, also at the state level. A hiring surge of new educators in our system revealed a need new training opportunities within our program area for support of and collaboration with these new educators. New educators were asking many questions about county program management and basic daily questions from clientele. Thus, a grass roots approach was taken to encourage collaboration among the new educators. The collaborative efforts started with emails to welcome new educators, then group emails to invite them to participate in a roundtable session. Sessions are now offered face-to-face two times per year. Beyond these meetings, new educators have a shared file in the cloud in which to share important resources and information. Experienced educators share presentations for pesticide recertification, office management/participation, communication ideas, and other program specific information to present at programs. A listserv was created for the new educators to discuss issues and share experiences. Informal evaluations were conducted to gain insight into the needs of new educators. Twenty three new educators continue to report positive outcomes from connections with experienced educators and other new educators. New educators stated their most important areas of assistance included answering farmers and consumer questions; program planning and marketing; documenting and reporting; time management; and county office functions. Further evaluation will be conducted to measure areas of success and to determine future needs.

GARDEN N' GROW TEACHES YOUTH HOW TO GROW, EAT AND PRESERVE FOOD

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Garden n' Grow is a gardening program for youth ages 9-13. It is designed to provide youth a summer activity where they can be involved with others in a relaxed, outdoor atmosphere without classroom walls and with plenty of hands-on activities while learning about growing vegetables. The goals of Garden n' Grow are to teach youth how to properly plant, maintain, and harvest a garden, as well as the importance of healthy eating and sharing with others in need. Youth learn by hands-on experiences where rapid results are achieved with plants, and the youth can successfully apply knowledge gained. Lessons cover nearly every gardening topic including planting methods, plant biology, insects, disease, soils and harvesting. Instruction includes using ecologically sound practices such as organic or natural methods of pest management, companion planting and the importance of water quality. Youth are taught fun and healthy ways to prepare and preserve the produce. The summer of 2014 will make the fifteenth year for the program at the Adair County Extension Center, in Kirksville, Missouri. In the past 14 years, over 140 youth have completed the program and nearly 6,000 pounds of produce has been donated to local food pantries where hundreds of low income residents have benefited from receiving it. Evaluations given to participants five years after the program indicate that 90% of the youth

continue gardening at home, 50% have donated produce to someone in need and 100% eat healthier because they learned the importance of eating fresh fruits and vegetables.

GRAZING MANAGEMENT WORKSHOP

Landefeld, M.¹

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Southeastern Ohio has thousands of acres of unglaciated land that can produce high quality forage for grazing livestock. Using rotational grazing principles, a farm manager can increase the amount of forage produced on each acre of pasture land and also increase the stocking rates per acre. This can make a farm operation more profitable and be beneficial for the environment at the same time. A three part Grazing Management Workshop was held and more than 29 people attended each session. Participants of this workshop learn about water and land resources, about fertility and how to reduce the amount of nitrogen that must be purchased for application, learn how forage plants grow and how to extend the grazing season to reduce costs. Weed and plant identification were also discussed along with management options for control. Participants of the workshop manage more than 3500 acres of hay and pasture land in eastern Ohio and own more than 1100 head of livestock. Post program participant evaluations confirmed that knowledge is being gained and the meetings are having impact. Seventy percent believed they would be able to extend their grazing season, 79% said they would be able to increase forage yield per acre as a result of the workshop and 82 percent were going to make production improvements. On average, respondents were able to increase the number of grazing days by 64 days per year, including spring and fall. Conservative estimates would value this savings at \$70 per head for these farm managers.

MICHIGAN'S BREAKFAST ON THE FARM PROGRAM IS MAKING A DIFFERENCE

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Breakfast on the Farm (BOTF), a program of Michigan State University Extension, gives consumers and farm neighbors a firsthand look at modern food production and the farm families who work hard to produce a safe, wholesome food supply for Michigan communities and the world. A total of 53,552 visitors and volunteers have participated in twenty-six

programs held since 2009 throughout Michigan. Twenty-two of the host farms have been dairy farms, two were beef, and one was a crop farm and one an apple operation. The program is helping to mend the multi-generational disconnect between producers and consumers. According to exit surveys, three out of every four attendees fit the program's ideal target audience - people either completely removed from modern farming or slightly familiar. The educational farm tours provide the public an opportunity to see modern, non-commercial farm operations first-hand and to put a face of the producer on the products they buy at the grocery store. The free breakfast which starts off the tour is an added bonus for the attendees. Results of the exit surveys show that participation in BOTF helps to change the public's knowledge about food production, their impression about modern agriculture and is building consumer trust. The first online follow-up survey of participants was completed in 2013 and showed that consumers do purchase more dairy products as a result of participating in a Breakfast on the Farm program at a dairy farm, and they talk to many others about their experiences on the farm tours.

MISSOURI 4-H DAIRY JUDGING CAMP

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Missouri 4-H Dairy Judging Camp was developed as a means of teaching dairy judging skills to 4-H dairy youth. The program was initiated in 2008 and with the exception of 2009 has been held annually since its inception. The three-day event is designed to 1) Increase the knowledge of youth about the evaluation of dairy animals, 2) Enhance life skills of youth in the areas of oral communication, confidence, critical thinking, problem solving, decision making, teamwork, self-responsibility and self-esteem, 3) Further develop the potential of 4-H dairy judging teams, 4) Develop the interest and skills of younger members in the area of dairy judging. Camp attendance has averaged sixteen participants annually. At camp youth learn to use the dairy cattle unified score card for evaluating dairy animals. They learn to take notes on classes and subsequently develop and deliver oral reasons defending their class placings. While at camp participants spend mornings and afternoons visiting farms and judging classes of dairy animals. Evenings are spent working on oral reasons. Each participant receives individual attention and critique on his or her work. Progress in animal evaluation and oral reasons has been apparent each year in the majority of youth participants. Judging camp has been a success at educating youth in judging dairy animals and at enhancing decision making, critical thinking, communication, and a number of other life skills. Furthermore the program has successfully prepared youth for competition at state and national dairy judging events.

MISSOURI LIVESTOCK SYMPOSIUM

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²Agricultural Business Specialist, University of Missouri Extension, Edina, MO, 63537

The Missouri Livestock Symposium is an annual educational program that attracts participants from throughout Missouri and beyond. It is recognized nationally as an outstanding program that targets agricultural producers and landowners. The main objectives of the Missouri Livestock Symposium are: 1) To provide educational opportunities for livestock producers and landowners representing all species of livestock, forages, and renewable resources 2) Provide the latest information on important agricultural issues and research that is practical, applicable, and can be implemented by producers and landowners; 3) Promote the adoption of best management practices that are economically and environmentally beneficial; 4) Evaluate programs to monitor change that results from Symposium programming; 5) Coordinate important educational information and programming consistent with the goals and objectives of the various agencies, educational institutions, and others that provide leadership and direction to the agriculture industries. The 2013 Missouri Livestock Symposium drew over 1,600 attendees from 62 of 114 Missouri counties and seven states. Curricula includes workshops led by nationally known speakers in the areas of horses, beef, sheep, stock dogs, meat goats, forages, around the home, small poultry production and farm continuation planning. Program evaluations indicate 82-91% of session attendees intend to adopt best management practices presented in the respective management tracts. The Missouri Livestock Symposium features a true multi-disciplinary and cross-agency approach to program planning with a committee consisting of producers, Extension specialists, University researchers and governmental liaisons.

NEBRASKA AGRICULTURE EDUCATION SOILS PROJECT

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Since 2011, over 120 Nebraska agriculture education instructors have participated in the Nebraska Agriculture Education Soils Project (NAESP). The Nebraska Environmental Trust funded a \$200,000 grant for this project. In 2011, 80 agriculture educators participated and received soil science education with the project continuing in 2012 and 2013. In 2012, two field days taught 92 agricultural education instructors from Nebraska on soil quality. Teachers received a soil quality testing kit (\$500 value) with lesson plans to utilize in their soils curriculum. This statewide event brought together the Nebraska Department of Education, NRCS, and soil testing professionals, in addition to a team of UNL Extension faculty.

In 2013, nearly 120 teachers learned about soil health using various tests and the application those tests have in real world agricultural situations. In addition, teachers received soil science curriculum and access to the UNL Extension CropWatch-Youth website with soils resources. YouTube videos have been created by NRCS and are posted on the UNL Extension Crops- Youth webpage. Evaluations (n=56) showed that on average, 31% of teachers have used the fifteen soil tests and demonstrations given in 2012 and 45% of teachers plan to use their soil test buckets to perform tests and demonstrations as part of their curriculum. Sixty three percent of teachers plan to use the buckets outside of the classroom to enhance FFA involvement among students.

NEBRASKA YOUTH BEEF LEADERSHIP SYMPOSIUM (NYBLS) CELEBRATES 10TH ANNIVERSARY

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The Nebraska Youth Beef Leadership Symposium (NYBLS) is held annually in November. It is designed to provide updates on: current beef research, industry happenings, and UNL College of Agriculture recruitment. Youth spend 2-3 days on campus with UNL Extension Educators, Professors, and Specialists working on team projects which include developing and marketing a new beef dish, creating a media relations blast on the benefits of eating beef, or developing positive agriculture communication skills. Youth from other states have and are encouraged to attend, and often receive travel scholarships. Sponsorships and grants aid in making this a very cost effective event! Over the years NYBLS has been modified based on youth evaluations. The modifications include adding a second session to include freshman and sophomore students to the pre-existing junior and senior student session, off-campus tours, and use of technology sessions; things that have not changed are opportunities to work with professional chefs, networking with some of the most elite Nebraska beef industry leaders, meeting out-of-state youth and having fun! Youth are encouraged to attend as many years as they like and return as NYBLS group leaders, project judges, or NYBLS interns! Approximately 400 youth have participated in NYBLS. Areas of significant knowledge increases include: awareness of how animal health issues may affect consumers, understanding the importance of value-added products within the beef industry, and knowledge of food service expectations of beef marketing. In 2013, youth attendance represented five states and the local television personalities captured footage for several special interest shows.

SOYBEAN MANAGEMENT MEETINGS RESULT IN IMPROVED PROFITS

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Soybean is an important row crop in Missouri with about 5 million acres planted each year. An annual winter meeting in Union focusing on soybean production targets farmers in East Central Missouri. These soybean meetings have been held for 15 years with a generally growing attendance. Speakers include University of Missouri Extension faculty and representatives from the Missouri Soybean Association. These meetings target current topics that are important to soybean farmers' management decisions. Farmers in attendance report individually growing from 40 to more than 500 acres of soybean each year. Evaluations of the program reveal that farmers appreciate the information presented and that the knowledge gained helps them make management decisions for the growing season. When asked how the meetings improved their farm profitability over the past 5 to 10 years, 20 percent indicated no improvements, one third indicated an increase of \$5 to \$10 per acre per year, 27 percent indicated an increase of \$10 to \$25 per acre per year and 20 percent indicated an increase of more than \$25 per acre per year. Annual meetings focusing on soybean production result in improved crop management and profitability.

STARK COUNTY WOMEN IN FOOD, AGRICULTURE AND NETWORKING FORUM

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The Stark County Women in Food, Agriculture and Environment Networking (WFAEN) Forum is a direct result of 2007 USDA Census data, showing that the number of women farm operators is significantly large for our area of the state. Stark County was one of four counties regionally and nine counties in the state identified with over 600 women farm operators. Based on this need, an advisory team comprised of eleven local women farm operators and stakeholders convened to plan a "pilot" educational networking forum focused on Stark County women and young women interested, involved, or wanting to become involved in food, agriculture, environment, or small business. The leadership planning team set a 50 participant goal for the inaugural forum. Forty-three women/young women registered, with thirty-eight attending the event. Participants engaged in a daylong program offering open networking with other participants; learned about one local woman's journey in building her agricultural business; and gained practical connections and knowledge with sessions on finance and planning, food, health, marketing, leadership, advocacy, cottage foods, value added production, sustainability,

conservation, and balancing work and family. A demographic/evaluative assessment survey was conducted with all participants using clicker technology. Evaluation survey results identified two key motivations for attending as increasing networks (45%) and increasing knowledge (31%). Additionally, 87% of participants were interested in opportunities to engage in group/networking meetings and informational/educational sessions, with 100% of participants supporting the creation of a Stark County network for women in food, agriculture and environment, and the need for an annual event.

THE XERISCAPE GARDEN - 20 YEARS OF SUSTAINABLE LANDSCAPE EDUCATION

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The Master Gardeners of Greene County (MGGC) Xeriscape Garden was established in 1992 in partnership with Springfield, MO City Utilities and the Springfield/Greene County Park Board, with the goal of teaching sustainable landscape design, installation, and maintenance. The garden includes three zones that compare and contrast high maintenance, moderate maintenance, and low maintenance/sustainable landscape design. The MGGC funded the garden on land provided by the Park Board. Trained volunteers have developed an innovative garden maintenance procedure that includes advanced training opportunities and garden bed ownership. Over 750 MGGC volunteers have received core training in the Xeriscape Garden since inception, and advanced trainings for over 300 MGGC volunteers continue the teaching value of the garden. The garden is used as a training tool by Springfield City Utilities and other city/county governmental agencies. Public outreach activities during three recent years of exceptional drought and heat impacted over 500 members of the public at 10 presentations, and the garden was featured on 4 public garden tours and several media interviews. A website shares knowledge gained in the garden over years of observation and furthers the impact of the Xeriscape Garden.

TOMATO VARIETIES GROWN BY MISSOURI PRODUCE AUCTION GROWERS IN 2014

Quinn, J.T.¹; Baker, T.B.²; Byers, P.L.³; Miller, P.D.⁴; Pinero, J.C.⁵; Trinklein, D.H.⁶

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²Horticulture Specialist, University of Missouri, Gallatin, MO, 64640

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⁴Agronomy Specialist, University of Missouri, Nevada, MO, 64772

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⁶Associate Professor of Horticulture, University of Missouri, Columbia, MO, 65211

For most Missouri produce auction growers, tomatoes are their top cash crop. An important question relating to tomatoes is the variety to grow in different cultural situations (greenhouse, high tunnel, or field). Growers discuss this amongst themselves, review new releases, tender their customers' opinions, and review recommendations from reputable sources. To aide these growers, who are primarily Amish and Mennonite and market through wholesale distribution facilities, a comprehensive survey was mailed in December 2013. Growers sent the survey are those who receive a free quarterly newsletter (Extension's IPM Bulletin) which has been published since 2010; 370 growers were on the mailing list in 2013. The survey contained sixteen questions; the response rate was 36%. Ninety-nine respondents grew tomatoes with 75 in the field, 54 in greenhouses, and 37 in high tunnels. Scarlet Red, Florida 91 and Rocky Top were the top three field varieties. Bigdena, Rocky Top and Goliath were the top three greenhouse varieties. Growers were asked to pick between three factors for their variety decision- marketability, productivity or hardiness. Marketability was most selected for both field and greenhouses. The top three heirlooms were Hillbilly, Brandywine and Cherokee Purple. Growers were also asked which new varieties they were most excited about; they were Red Bounty, Beorange, and Red Deuce. A sixteen page report was developed and inserted into their February quarterly newsletter. A one question evaluation with five response options was also included, on a postage pre-paid postcard. Complete survey results and the evaluation summary will be provided.

URBAN ON-FARM RESEARCH, NEW DIRECTIONS FOR EXTENSION EDUCATORS

Kowalski, J.¹

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Farmers and Extension Educators have traditionally collaborated through on-farm research in order to answer questions of concern within farming communities. With the increase of interest in urban farm systems it is important to conduct research projects to increase profitability and sustainability of urban agriculture enterprises. However, urban agriculture on-farm research is much different than traditional on-farm research and should be approached much differently. On-farm research also provides the opportunity for Extension to reach out to urban farmers in order to build relationships and trust. Two Ohio State University Warner Sustainable Agriculture grants were awarded to conduct small, on-farm research projects in Cuyahoga County (Cleveland), one to determine the best ratio of municipal leaf humus to use as a soil amendment and the other the best fertilizer regime for small-scale garlic production. The Extension Educator

worked closely with the farmer through the planning, design, planting and data collection phases to ensure the integrity of the research and completion of the projects. Through the results of these projects four small scale farmers have been able to utilize the information to decrease the cost of soil amendment inputs on their farms. The reasons behind the projects were not only scientific data, but to show urban farmers that information from traditional farm research projects could be applied to urban farms. The objective of this poster is to discuss the approach, challenges and advantages of conducting urban on-farm research projects and benefits to both the Extension Educator and the farmer.

USING ELECTRONIC STUDENT RESPONSE SYSTEMS AT THE GREAT PLAINS GROWERS CONFERENCE

Baker, T. P.¹; Byers, P. L.²; Fowler, T. R.³; Gu, S.⁴; Metzgar, K. J.⁵; Quinn, J. T.⁶

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²Southwest Regional Horticulture Specialist, University of Missouri Extension, Springfield, MO, 65807

³Northwest Regional Horticulture Specialist, University of Missouri Extension, St. Joseph, MO, 64507

⁴State Horticulture Specialist, North Carolina Agricultural and Technical State University, Greensboro, NC, 27411

⁵Northwest Regional Director, University of Missouri Extension, St. Joseph, MO, 64507

⁶East Central Regional Horticulture Specialist, University of Missouri Extension, Jefferson City, MO, 65101

The Great Plains Growers Conference is a multi-state conference held annually in early January in St. Joseph, MO. Its first year was 1996 and it now attracts around 700 participants over three days. Paper evaluations were included in registration packets from the beginning, but compliance was lacking. While there is good information obtained using paper evaluations, they do not provide much information about the nature of conference participants and their farming operations. To get that kind of data would require a much longer survey, which would result in less compliance. In 2009 an interactive and instantaneous evaluation method was implemented: an electronic student response system that employs handheld 'clickers'. The survey was conducted right before the keynote address, when the most participants could be reached. Information gathered included the participant's state, level of production, demographic data, income from the farm, organic vs. conventional, and more. The information gathered from the clicker survey has been invaluable for making programming decisions for future conferences. Conference organizers have, for example, learned that a great majority of attendees consider themselves organic, and farm relatively small acreages. This survey has been used for five years. Compliance is 100% of those who are present and receive clickers. Audience reactions to the results are also interesting, since the numbers voting for each selection are displayed immediately. Complete

information about the conference can be found at: <http://www.greatplainsgrowers.org/>

'HOW DOES YOUR GARDEN GROW?'

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²4-H Program Coordinator, OSU Extension Scioto County, Portsmouth, OH, 45662

³Extension Program Assistant Family Nutrition Program, OSU Extension Scioto County, Portsmouth, OH, 45662

⁴Conservation Education Coordinator, Scioto Soil & Water Conservation District, Lucasville, OH, 45648

This program involved collaboration between Ohio State University Extension Agriculture and Natural Resources, 4-H Youth Development, Supplemental Nutrition Assistance Program, Scioto County Soil and Water Conservation District, Findlay Manor retirement center and the 14th Street Community Center to establish a youth community garden program. On average, 90 underserved youth participated in the intergenerational program daily. Educators taught children at the garden site three times a week for 10 consecutive weeks where they planted, weeded, watered and tended to the garden. Children were also taught nutrition and eating healthy. Garden produce included 562 pounds of corn, tomatoes, peppers, squash, beans and pumpkins that was harvested and donated to the Pleasant Green Baptist Church community food pantry. A program impact survey was conducted where youth indicated what they learned: how to plant a garden; importance of growing their own food; cost effectiveness of planting a garden; how to work together as a Team; and importance of nutrition and healthy eating. Youth (100% reported) they liked trying new fruits & vegetables; they liked the benefits of physical activity and how to follow directions. Youth (90%) learned about gardening with their families. "Was the garden good for your community? And why?" youth responded; "It teaches kids how to work"; "Because it helped kids with gardening and eating better"; "Because it helped people who don't have any food" and all youth believed the garden was good for the community. All youth wanted to participate in the program again in 2014.

Award Winners

2014 NACAA

99th

Annual Meeting

and

Professional Improvement Conference

Mobile, Alabama

Agriculture Awareness and Appreciation Award

National Winner

AGRICULTURAL AWARENESS AND APPRECIATION AWARD

Thelen, N.*¹, Ferris, T.A.², Kuschel, A.³

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Breakfast on the Farm (BOTF) gives consumers and farm neighbors a firsthand look at modern food production and the farm families who work hard to produce a safe, wholesome food supply for Michigan communities and the world. In 2013, this Michigan State University Extension program was held on five farms throughout Michigan – four were hosted by dairy farms and one was on a crop farm. Over 12,600 youth and adults participated in the five programs, and each farm had between 240 and 400 volunteers. Statewide sponsors help to make this program possible. Each breakfast also has a local planning committee comprised of local farmers, businesses and organizations who are interested in promoting agriculture, and has the financial support of 50 to 100 local sponsors and donors. BOTF is free and includes a breakfast and an educational, self-guided tour of the farm. Volunteers are at each station to answer questions and share our key messages with the visitors. The program is helping to mend the multi-generational disconnect between producers and consumers. According to exit surveys, three out of every four attendees fit the program's ideal target audience - people either completely removed from modern farming or slightly familiar. BOTF is also connecting to consumers by increasing their confidence in Michigan food products by 78%. The first online follow-up survey of participants was completed in 2013 and showed that consumers do purchase more dairy products as a result of participating in a Breakfast on the Farm program at a dairy farm.

National Finalists

EXPERIENCE CUMBERLAND COUNTY AGRICULTURE: 2013 FARM TOURS

Weeks, H.*¹

¹ Extension Educator 4, Penn State Extension, Carlisle,PA, 17013

Cumberland County, PA has a deep history of agriculture, but in the last decade suburban encroachment from the state capital and the intersection of two interstate highway systems has threatened the county's agricultural base. Local residents are increasingly removed from agriculture, even though the industry continues to drive the economic growth in the

county. Coordinated by this educator, the 2013 Farm Tour, served to educate the community about agricultural practices and to highlight the work of producers in strengthening the economic viability of the industry and county. Five farms hosted approximately 400 people at the one-day event in October. The target audience was families with young children and socially conscious adults. Over 3,000 brochures, flyers and announcements were distributed to 39 businesses and 14 online calendars, as well as through Facebook, radio and newspaper. At the pre-tour kickoff ceremony, County Commissioner, Barbara Cross and other local dignitaries honored the 25th anniversary of the county Master Gardeners, recognized donations to the county Agricultural Land Preservation program, and presented a local dairy farm family with a "Partners of Penn State Extension" farm sign. Eight community organizations represented agriculture and environmental conservation at the ceremony, which was attended by approximately 55 people. Local businesses supplied refreshments including milk and ice cream from Mt. Joy Farmers' Cooperative. The changing demographics show that agricultural awareness through free farm tours is a way to expose residents to the diversity of agriculture and the importance of a continued agriculture presence in the county.

MANATEE COUNTY FARM CITY WEEK: A TRADITION IN AGRICULTURE AWARENESS

Snodgrass, C.*¹, Kennedy, S.², Kirby, C.L.³, Smith, D.⁴

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² County Extension Director, UF/IFAS Manatee County Extension, Palmetto, FL, 34221

³ Livestock Extension Agent, III, UF/IFAS Manatee County Extension, Palmetto, FL, 34221

⁴ 4-H Extension Agent, IV, UF/IFAS Manatee County Extension, Palmetto, FL, 34221

With the continuation of urbanization encroaching on agricultural lands of Manatee County, it is becoming increasingly important to promote a clear understanding of the economic importance of agriculture in Manatee County. Agricultural production is second only to tourism in its economic impact on Manatee County. The annual impact of agriculture to the county's economy is estimated at over \$500 million. This ranks Manatee County in the top ten Florida counties for agricultural sales. Some of the main agricultural industries in Manatee County are vegetable production, citrus production, livestock and forage production, ornamental horticulture, the commercial fishing industry, and forest products. The objective of Farm City Week is to increase the awareness of agriculture and its importance to the economy of Manatee County. Manatee County Farm City Week has continually developed since its inception in 1967. Currently the activities include a speech contest, two agricultural tours, an Agriculturalist of the Year Luncheon, an Agricultural Hall of Fame Luncheon, Ag Venture and the Beef Workshop and Prospect Show. Support materials are developed to show the

statistics of agricultural enterprises in the county. Since 1967 over 25,000 people have been exposed to Manatee County's agricultural enterprises through organized programs. Even more people are exposed to the importance of the agricultural industry through news coverage of the week's activities and articles written by committee members. Farm City Week has been celebrated in Manatee County since 1967 honoring the agriculture industry and producers past and present and continues to change public perceptions of agriculture for the better.

CEDAR LIVESTOCK AND HERITAGE FESTIVAL

Reid, C.R.*¹

¹ Extension Professor, Utah State University, Cedar City, UT, 84721

Iron County is built on a foundation of farming and ranching which makes the community strong and healthy in a variety of ways. In addition to being a major economic factor, farming and ranching was key in establishing – and is a key to maintaining – a strong work ethic, good family values, open space and in making Iron County a great place to live. Recently construction of a new Wal-Mart interfered with a historic livestock trail that has been used continuously for over 120 years. This resulted in hard feelings and conflicts between the developer, Cedar City and local ranchers. To help alleviate these hard feelings and educate the public about our unique agricultural heritage, the author initiated and serves as Chairman of Cedar Livestock & Heritage Festival which is an annual event. The festival features a premier stockdog competition, Draft horse pull, Antique tractor pull, Vintage car show, Quilt show, Art contest, Dutch oven cooking contest, live music and entertainment. The key event is a parade with tractors, wagons, horses, over 30 historic sheep wagons and other western heritage entries. The final and most anticipated entry over 1,000 sheep parading down Main Street in Cedar City, following their historic route from mountain summer ranges to valley winter ranges. In 2013, the festival raised over 60,000 dollars and was attended by approximately 15,000 people. This festival has significantly increased the public's knowledge and awareness about agriculture and our heritage.

Regional Winners

WHITE COUNTY GARDENING PODCASTS

Sanders, S.*¹

¹ CEA-Agriculture, Searcy, AR, 72143

Arkansans love their yards and gardens. Many have horticultural related questions and are unsure of where to seek answers. A series of podcasts appearing on the University of Arkansas Division of Agriculture website have helped to promote the Cooperative Extension Service in every county, as well as educate residents about horticulture.

A series of podcasts were conducted on timely horticulture topics to better educate clientele on horticulture and the joys of gardening in Arkansas. The scripts were written by the agent. Using the software program, Audacity and a RODE Podcaster microphone, the podcasts were prepared in the agent's office. The podcasts were created by county agent with an emphasis on targeting the average homeowner with timely horticulture topics. Emphasis was also placed on promoting the local county Cooperative Extension Service as a source for additional information. This exposure has allowed agent an opportunity to reach a non-traditional audience and to make them more aware of the Cooperative Extension Service and its horticulture resources and other valuable programs. Exposure for the White County Gardening podcasts over the past year is an average of 254 hits per day for 92,990 total hits in more than 89 different countries worldwide. There has been an estimated increase of at least 15% additional emails, and phone calls from clientele to request information that they were introduced to through the podcasts. Many of the additional requests were from clientele who had limited or no previous association with Extension.

AG AWARENESS DAY

Thagard, R.*¹

¹ Extension Agent, NCCE, Snow Hill, NC, 28580

Greene County, NC is a rural county very diverse in its agricultural practices. As the average age of a farmer steadily rises, as small farms continue to be bought by larger farmers and as families move into the area to live and work, many people have become removed from the practice of farming themselves. Thus many youth today grow up without the appreciation of where their food comes from.

NC Cooperative Extension of Greene County saw the opportunity to celebrate small farms week by showcasing the diversity of local agriculture to third grade students in public school. The goal of Ag Awareness Day is to educate youth on the agriculture crops, insects, livestock, and safety that provides food each day. Together, extension agents and volunteers worked together to provide a series of stations the students could participate in. The students were encouraged to listen to presentations, observe things with their eyes, and touch things with their hands as they learned about these agriculture practices.

As a result from the day the students showed great interest in agriculture around them. The students expressed joy from touching animals, from dissecting fish, from looking at insects and from feeling different soil textures, among other things. As a result of the field day, extension agents hope that students will observe with a greater level of understanding and appreciation of the work that is being done on local farms by animals and farmers.

State Winners

“LOCAL FOOD” PROGRAM

Drake, Jr., G.*¹

1 Agriculture and Natural Resources Agent, University of Kentucky, MORGANTOWN, KY, 42261

Public relations efforts are an important part of 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 program on using local food to feed your family was conducted on the courthouse lawn to expose members of the general population to locally grown produce, and help them understand what is available in our community. The program was successful in helping people understand where their food comes from and the importance of what is happening in our rural community.

EDUCATING THE NEXT GENERATION ABOUT AGRICULTURE

Davis, Jr., C.W.*¹

1 County Extension Agent, Clemson University, S'T Matthews, SC, 29135

Today's younger generation has very little connection with agriculture, which is the exact opposite of their parent's generation where nearly everyone had a father, grandfather, or uncle who farmed. Understanding the history of agriculture in Calhoun County is a vital part of bringing the next generation to a position where they can make educated decisions about their attitudes concerning modern agriculture. The “Educating the Next Generation About Agriculture” project, supported by a grant from Monsanto, was an attempt to view agriculture historically, and to give students a chance to see and feel this history through discussion, sight and touch.

This project involved over 850 middle and high school students from Calhoun County Public Schools and was presented on May 22-23, 2013. The project included classroom discussion, outdoor displays of historical and modern farm equipment, and production of field crops on the school campuses.

Excellence in 4-H Programming

National Winner

GREEN ADVENTURES

Lauderdale, C.K.*¹

¹ Agriculture/Horticulture, North Carolina State University, Wilson, NC 27893

In today's society, children are lacking physical activity, nutritional knowledge, and the understanding of where their food comes from through vegetable gardening and agriculture. Wilson, North Carolina children are no exception and rank among the highest children obesity rates in the state. With these critical issues facing our youth, Green Adventures was created. Green Adventures is an outreach youth gardening program sponsored by North Carolina Cooperative Extension, Wilson County Center; the Wilson Botanical Gardens; and the Wilson County Extension Master Gardener Volunteers. The goals of Green Adventures are to increase physical activity by leading youth gardening programs to 4-Her's and community wide to children aged K through 5th grade. Green Adventures project focus are 1) increase physical activity by enhancing the physical environment to create space and places for physical activity and to design and implement programs that increase physical activity both during and upon completion of the program and 2) increase access and consumption of fresh produce/healthy foods by designing and implementing programs that increase knowledge of and exposure to healthy, local foods both within and outside of the program. Results were over 478 youth were more active and ate more fresh fruits and vegetables after attending Green Adventures and therefore have overall better physical and mental health. This was collected via testimonials, surveys, journaling, and parent observations. The produce the children grew was harvested and they brought it home with them. An additional 48 pounds of produce was given to the local shelters and summer youth programs.

National Finalists

VETERINARY SCIENCE SERIES

Nemecek, C.*¹

1 District Extension Director, K-State Research & Extension, Iola, KS, 66749

With 62% of 4-H members in the Southwind District enrolled in livestock or pet projects, teaching about animal health has become important to the overall learning experience of those projects. Without a Veterinary Science project offered in Kansas, youth have been exposed to animal husbandry

skills, but not those skills associated with science-based knowledge of veterinary science. The Veterinary Science Series consisted of 4 teaching units for youth ages 7-19 and included an Introduction to Veterinary Science, Livestock Quality Assurance, and a tour of the VCA Mission Animal Referral & Emergency Center. Goals for this series included: developing interest in veterinary careers, become knowledgeable and responsible animal caregivers; develop experience-based skills to diagnose animal health concerns and management of disease prevention. To cover the variety of educational efforts, a partnership was formed with a local veterinarian to allow for experiential learning opportunities for developing life skills. The success of this program suggests that youth are indeed interested in participating in veterinary science educational programs.

MOBILE BEEF LABS

Chichester, PhD, L.M.*¹, Darci Pesek², Monte Stauffer³, Robert Meduna⁴, Steve Tonn⁵

¹ Extension Educator, University of Nebraska - Lincoln, Ithaca, NE, 68033

² Extension Educator, University of Nebraska - Lincoln, Jefferson, NE, 68352

³ Extension Educator, University of Nebraska - Lincoln, Papillion, NE, 68046

⁴ 4-H Program Coordinator, University of Nebraska - Lincoln, Ithaca, NE, 68033

⁵ Extension Educator, University of Nebraska - Lincoln, Blair, NE, 68008

In 2012, UNL Extension rolled out two Mobile Beef Labs, one in Eastern Nebraska and one in West Central Nebraska. The Mobile Beef Labs come equipped with a team of IACUC (Institutional Animal Care and Use Committee) trained Extension Educators, a rumen fistulated steer, microscope, large television, and story boards. These labs, when requested, travel to schools, fairs, and festivals and provide lessons in microbiology, ruminant nutrition, animal care, animal behavior, and more! The labs are requested for all ages, and the content delivered is adapted to fit the audience. Persons have a chance to put their arm into the rumen and feel the stomach wall, stomach content, and bony protrusions. While not everyone reaches into the steer, many of the youth take advantage of looking into the hole with the help of a flashlight. These experiences provide excellent photo opportunities! Additionally, a sample of the rumen fluid can be removed, and the microorganisms are viewed under a microscope, which can be projected onto a television screen for a large crowd – if time is limited or weather is not conducive a pre-recorded video is shown. Finally, the teaching team provides additional information about forages, grains, monogastrics vs ruminants, and Nebraska agriculture with the help of storyboards.

The mobile laboratory concept has been very well received in Nebraska. Teachers enjoy the fact that an all-encompassing lab

will come to their school with subject matter trained educators who will describe the unique odor the participants smell, and who will clean up the mess when the session is over. Teachers also enjoy the fact there are no worries about booking buses or travel permission slips. Additionally, a session in the Mobile Beef Lab fits well into their pre-existing, timed class periods. The laboratory is “gross” enough to be cool! There is a charge for the use of the laboratory, but teachers and other groups have been successful in obtaining grants or sponsorships to cover the expenses.

A facebook page was created (<https://www.facebook.com/pages/UNL-Extension-Mobile-Beef-Lab/721394597875171?ref=hl>) in late 2013 which showcases photos from various events, photos of teaching team members demonstrating what events occur at a site visit, and photos of the steer in his daily life. It is a chance for people to see what the steer does when he is not traveling with the lab, and that even though he has a fistula into his rumen, his life is very normal. Many persons are concerned that the fistula limits his ability to behave like other or “normal” cattle, so this is a great way to educate persons about the Mobile Beef Lab and the steer that travels with it! The facebook page has approximately 250 likes.

Most recently, an Extension Assistant was hired to aid the current Mobile Beef Lab team in taking this hands-on laboratory experience to the next level. This person will be responsible for updating and creating online curriculum and resources that can be shared both pre and post lab visit with teachers. This person will also assist with site visits, scheduling, and marketing as needed.

Annually, each of the labs visits approximately 5,000+ persons. In 2012, evaluations indicated that after going through the Mobile Beef Lab, 61% of youth were talking about science and 71% better understood the role of beef cattle and agriculture in Nebraska. In 2013, teacher evaluations indicated that students had a 45% increase in describing the role of agriculture and beef in Nebraska. “If science was like this every day, I would love school” reported one youth! One teacher said “My fourth graders loved it...they even got back in line for a second “feel”.”

TRAINING 4-H YOUTH IN FOREST ECOLOGY IN ALACHUA COUNTY, FLORIDA

Barton Wilder*¹

¹ Agriculture and Natural Resources Agent, UF/IFAS Extension Alachua County, Gainesville, FL, 32609

Many of today’s youth are spending the majority of their time indoors and are unaware of the importance of forests to our state. In 2012, the agent and an Alachua County 4-H volunteer recruited 4-H members for the state forest ecology contest. The program’s objectives were to help 4-H youth learn more about Florida’s forests and ecosystems and improve their critical thinking and problem solving skills. As a result of the practice sessions, the average score on the practice

quizzes would increase by 15%. While learning plant and tree identification, the students were encouraged to compare and contrast specimens and draw conclusions. In the map and compass portion of the contest, the students had to solve problems involving distance and direction. From 2012-2014, the agent held a total of 39 practice sessions that included classroom activities and field trips. As a result of the practice sessions, the average score on the team members' practice quizzes increased by 19%. In 2012, the junior team placed third out of seven teams. The entire Alachua County won the High Scoring New Team Award. In 2013, the junior team A won the state contest and junior team B placed second out of nine teams. Alachua County also had the state high individual in the junior division. In addition, the forest ecology team also won the inaugural forestry contest at the 2013 Greater Jacksonville Fair.

State Winners

YOUTH AND WATER

Rector, P.*¹

¹ County Environmental Resource Mgmt Agent, Rutgers Cooperative Extension, Morristown,NJ, 07963

Land use in much of New Jersey has large suburban areas, with impervious surfaces, contributing to stormwater runoff, flooding and pollution. To help address this issue, the goal of the Rutgers Youth and Water Program is to educate youth about water conservation and storm water management and provide them with simple solutions such as rain barrels and rain gardens. This program increases the ability to reach the next generation and provides a potential entrée of information into the home. The Program reaches youth in: 4-H Clubs, After-School Programs, Vacation Bible Schools, Elementary and High Schools, At-Risk Pre-Schools and Camp Counselors. The Program focuses on hands-on experiential learning. Using rain barrels program provides a service orientated teach-back component for older students and a paint the rain barrel component for younger students. The rain garden component led to the installation of four rain gardens that capture, treat and recycle 956,826 gallons of water annually. Curricula were developed for rain garden (Rector and Witty 2013)<http://morris.njaes.rutgers.edu/environment/youth.html>) and rain barrel (Rector 2010) education. Since 2010, 130 students helped to conserve and/or disconnect 1,027,346 gallons of water. The Youth and Water Program received the Morris County 4-H Excellence in Youth Instruction Award (2010) and the author was recognized as 4-H State Educator of the Year (2012). The program continues in 2014 with workshops and outreach to educators. The Rain Garden Curricula was showcased as a tool at a Teacher In-Service on stormwater in Your School Yard and Using Rain Barrels as Educational and Civic Learning was presented at conference of the Alliance of New Jersey Environmental Educators.

DIG INTO PENNSYLVANIA AGRICULTURE

Schurman, C.*¹

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

Regional 4-H staff conducted agricultural science programming with 77 youth in a regional 4-H camp setting. The camp theme was “Dig Into Pennsylvania Agriculture”. The educational goal was for campers to learn about their state agriculture and the food they eat. A variety of teaching methods were used. A life skill evaluation was used to determine whether campers agreed that they had learned various camp life skills. The percentage of “agree” or “strongly agree” was 98% or above in 10 areas including treating others fairly, trying new activities, contributing to a team, and respect for other campers. A second evaluation about knowledge gained showed that campers learned about dairy and livestock breeds, soil, poultry, new foods, and horses. 98% of the campers indicated they had learned more about Pennsylvania agriculture, and 96% indicated they learned something about where their food comes from. 98% of the campers were able to answer the question “One thing I will remember about this 4-H camp is...” Some key concepts listed were having fun, making new friends, interacting with friends, what campers learned, the friendly people, campfire, songs, crafts, and the counselors. A counselor evaluation also showed that counselors learned leadership skills.

4-H CHICK CHAIN PROJECT

Miller, D.S.*¹, Burgess, A.P.², Marks, M.L.³

¹ County Extension Coordinator, Alabama Cooperative Extension System, Centre, AL, 35960

² County Extension Coordinator, Alabama Cooperative Extension System, Gadsden,AL, 35904

³ Regional Extension Agent, Alabama Cooperative Extension System, Centre, AL, 35960

After discussing many projects that exist throughout the state, it was decided that we should develop a project dealing with chickens. This project met all the criteria especially since the counties (DeKalb and Marshall) were very large in poultry production. We discussed having a project that included the production of broilers. We also discussed various other sectors of poultry production. We investigated programs already being used in other states. As a result we visited two county extension offices where a chick chain was in place. We studied the processes and brought the ideals back home and began to take what we had learned and change it around to meet our needs. Soon we had a working plan for the DeKalb/Marshall 4-H Chick Chain project.

WHITE COUNTY VETERINARY SCIENCE PROGRAM

Heck, A.*¹

¹ CEA - 4-H/Agriculture, , SEARCY,AR, 72143

The White County Veterinary science program is a comprehensive agriculture education program that deals with techniques and procedures involved in caring for animals. The goal is for 4-H members and adults to acquire life skills through project participation, and gain the knowledge and skills necessary to pursue a career in veterinary medicine or a related career. Members are given the opportunity to work with local veterinarians. The program was introduced to local veterinarians and other potential collaborators and a kickoff meeting was then planned and conducted. A vet science day camp was conducted within the county. The White County 4-H Foundation collaborated with local vet clinics and other businesses and organizations in conducting the day camp. Members were given the opportunity to take part in hands on learning activities involving how to draw blood, identify parasites, tour vet tech school, bandage animals, use an ultra sound machine , dissect a cat, and much more. Also, two vet science project group meetings were held. One of the meetings was held at a local vet clinic where members were allowed to watch vets perform a surgical procedure on a goat. In addition, a program was conducted on big cats. Members learned about tiger health, nutrition, and habitat. White County 4-H members also attended two Vet Science open house tours at Oklahoma state university and Louisiana State University. Recently a 4-H Vet Science club was formed and currently have programs scheduled through December 2014.

PARLIAMENTARY PROCEDURE WORKSHOP

Drake, Jr., G.*¹

¹ Mortantown, KY, 42261

Basic parliamentary procedure skills are a necessary tool to lead an effective meeting. 4-H members and club leaders need at least a basic understanding of them to accomplish their purposes. Sessions were offered to both active 4-H teens and volunteer leaders to improve these skills. Two versions were developed to reach the different audiences. Both sessions included opportunities for participants to practice parliamentary procedure skills during the workshop. The adult class was offered at the Kentucky Volunteer Forum. The Volunteer Forum was a statewide 4-H volunteer training program offered in Lexington, KY. The teen program was offered at a Mammoth Cave Area Teen Council meeting. The teen council program reached teens and agents from ten counties in south central Kentucky. The program was designed to help club meetings flow smoothly. The learned about making and disposing of motions and how to follow Robert's Rules of Order. The teens demonstrated an immediate improvement in the order of their meetings. Several adults from the Volunteer

Forum have started working on by-laws and are planning to train 4-Hers on parliamentary procedure.

YOUTH FALL FLOWER AND GARDEN FEST

Morgan, M.R.*¹

¹ Extension Agent, Mississippi State University Extension Service, Copiah County, Mississippi 39083

Youth are not aware of the importance of agriculture. Therefore, the Youth Fall Flower and Garden Fest was created to educate youth about agriculture. Second and third graders from the Southwest District of the Mississippi State University Extension Service were invited to attend this two day event. Approximately 836 youth from the twenty county district attended the event held at the Mississippi State University Extension Service Truck Crops Experiment Station in Crystal Springs, MS. The event included lecture and hands-on learning from the following activities: Moovin' -N- Groovin' with Nutrition, Plant Parts, Composting, Sam E. Soil, Pizza Garden, Build-A-Burger, Forestry Obstacle Course, Garden Tours, and educational Wagon Rides. This event was coordinated by Melissa Morgan, Copiah County Extension Agent. Agents and EFNEP educators from the Southwest District assisted with educational stops. The Mississippi State University Extension Service Forestry Specialist also contributed his skills to conduct the Forestry Obstacle Course. The services of the Natural Resource and Conservation Services, Alcorn State University, Mississippi Cattlemen's Association, and Master Gardeners were also utilized to make this event possible. After the youth have completed all the activities, evaluations were completed to determine what changes need to be made to make it more of a success the next year. The evaluations were used to measure the impact that the event had on the youth. The evaluations identified this event as very beneficial in giving youth the knowledge about agriculture.

4-H CAMP WILD

West, A.W.*¹, Anne Brock², Jeff Fellers³, Margie Sippel⁴,
Robin Currence⁵, Steve Hucks⁶

¹ Newberry County 4-H Agent, Clemson University Extension Service, Newberry,SC, 29108

² Union County 4-H Agent, Clemson Universtiey Extension Service, Union,SC,

³ Union County Forestry and Natural Resources Agent, Clemson Universtiey Extension Service, Union,SC, 29379

⁴ York County 4-H Agent (retired December 2013), Clemson Universtiey Extension Service, York,SC,

⁵ Chester County 4-H Agent, Clemson Universtiey Extension Service, Chester,SC,

⁶ Lancaster County 4-H Agent, Clemson Universtiey Extension Service, Lancaster,SC,

Camp WILD is a midlands region overnight 4-H summer camp that has been around for about seven years. It started with Lancaster and Chester counties and has now grown to

include Fairfield, Union, and Newberry. The 4-H Agents in these counties work together to provide this opportunity for area youth. Camp WILD is open to boys and girls ages 8 to 14 for a cost of \$80 each. It is currently being held at Chester State Park in Chester where there are tent camp sites, picnic shelters, a bath house, a small lake, hiking trails, open grassy fields, and access to a nearby community pool. Youth enjoy tent camping and other hands-on activities such as fishing, canoeing, shooting sports, rocketry, animal and insect identification, wildlife lessons, swimming, and much more.

For 2014, new events and activities have been added by partnering with other organizations. DNR volunteers will be providing a hands on fishing workshop for youth. This workshop will include how to tie knots, rig rods, cast, fish, and more. Ducks Unlimited has been approached regarding their input with this camp. And to cap it off, the final morning of camp, campers will compete in a WILDathlon Event. Designed after such athletic events as decathlons and triathlons, campers will show case skills learned at Camp WILD. Examples of events are archery, casting, knot tying, rocketry, etc. Campers will earn points for skill and time. Family is encouraged to attend this event as spectators.

In addition Extension Agents, 4-H utilizes teen and young volunteers as camp counselors, many of which have previously come to camp or have completed other 4-H projects. Everyone that helps out with camp completes all necessary and required background checks.

Without collaboration across counties and input from multiple agents: 4-H, horticulture, natural resources, and more, this camping opportunity would no longer exist. Although some of the 'founding' agents of this camp have gone in other directions with their careers, new agents in the counties involved have stepped up to the plate so that this opportunity is continuously offered.

LYNCHBURG CITY SCHOOLS 5TH GRADE URBAN AGRICULTURE PROGRAM

Camm, K.*¹

¹ Extension Agent, ANR/4-H, VCE, Lynchburg,VA, 24506

Fewer Americans are being raised on farms than 50 years ago, but agricultural education is considered to be more important than ever—helping young people understand the complex food system that keeps American's food supply safe and secure. Urban youth rarely have opportunities to experience agriculture first hand nor do they have any curriculum in the schools. Therefore exposure and awareness is minimal. Agriculture involves much more than the science of growing plants and raising animals. The General Assembly of the Commonwealth of Virginia declared every October to be Urban Agriculture Month. To raise awareness of the proclamation as well as the importance of agricultural education, the Lynchburg City Schools 5th Grade Urban Agriculture program was created. 4-H, Agriculture & Natural Resources, and Family Consumer Sciences Extension Agents

collaborated with many partners to host the successful two day event which used agricultural components to teach the Virginia Standards of Learning (SOL). From using fresh strawberries to extract DNA to teach about plant cells, constructing 3-D Animal Cell models, using fresh apples from local orchards to teach about the importance of soil sustainability, to how wheat from the field makes it all the way to the dinner table, this program encapsulates just that. This event impacted not only the 600+ 5th graders, but the community as well. Each student received the skills and materials to make fresh bread in their homes for their family as well as to donate to the ones less fortunate in their community.

MONTANA ADVANCED YOUTH MARKET BEEF TOUR

Sackman, S.*¹, Schuldt, M.²

¹ County Extension Agent, Montana State University, Terry, MT, 59349

² Custer County Extension Agent, Montana State University, Miles City, MT, 59301

4-H members taking the market beef project get a limited view and experience with the beef industry. The market beef project provides opportunities for learning about individual animal care, feeding for gain, and fitting the animal for show but does not necessarily give members exposure to the beef industry in a real-world setting. Montana 4-H members had the opportunity to take an inside look at the beef industry by participating in the Advanced Youth Market Beef Tour which took place October 4-5, 2013 in Miles City, Montana. This tour was targeted toward members taking the market beef project as a way for them to investigate the beef industry beyond the market sale at their local county fair. The 2013 Advanced Youth Market Beef Tour stops included the Miles City Livestock Commission, Muggli Brothers feed plant, Quality Meats of Montana, Miles City Veterinary Service, and Solaris Feeders. As a result of the tour, youth participants reported that they know more about different segments of the beef industry, better understand different career possibilities in the livestock industry, intend to use or share information they have learned on this tour with others and feel confident sharing that information, would like to serve as a teen leader in the beef project, and are more interested in staying involved with 4-H throughout their teen years.

HIDALGO COUNTY 4-H PROGRAM

Allen, J.*¹

¹ 4-H/Ag Agent, NMSU, Lordsburg,NM, 88045

The Hidalgo County 4-H program saw an enrollment of 76 youth in organized 4-H Community clubs. Youth in these clubs participated in traditional 4-H projects. Projects come from the areas in Animal Sciences, Cloverbuds, Consumer Education and Home Management, Creative Arts, Engineering Sciences, Family Life, Home Economics, Horticulture Science,

and Personal Growth and Development. Youth received training in project areas and record keeping. All youth enrolled in community clubs participated in community service projects including trash pickup, collecting canned food and toys that were then disseminated throughout the county. Leadership activities are a priority for the community clubs. Members hold club and county leadership offices where they develop and fine tune leadership skills such as running a meeting and Roberts Rules of Order. 4-H members participate in a wide variety of local, regional and state events. Hidalgo County had members attend Youth-Get-Away, State 4-H Conference, Southwest District Contest, Livestock School, and Home Economics School.

JUNIOR LIVESTOCK SERIES

Sulser, A.*¹

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Wasatch County Junior Livestock Series for youth both 4-H and FFA is more than just about the sale. Since 2010 clinics in feeding and animal nutrition, showmanship and sportsmanship, proper fitting techniques, records and record keeping, and ethics in and out of the show ring have been an integral part of learning for youth and parents of Wasatch County. With 84% of clubs in Wasatch County being family type clubs, the junior livestock committee realized that not all club members were getting the correct information about livestock. The author along with FFA advisors initiated seminars taught by experts in the fields listed for youth and parents to increase their knowledge. Seminars averaged two hours of instruction time. Teaching methods were hands on for showmanship, fitting, records, and feeding, question and answer for the remainder of the seminars. Youth and parents were able to gain knowledge about their particular animal species. Exhibitor numbers have averaged two hundred forty since 2010; of those 100% of the exhibitors and one parent has attended at least one seminar, 50% have attended two or more seminars. Results of program has been fewer animals not making weight at fair, increased participation in showmanship classes, and increase in number and quality of record keeping portfolios.

GEARING UP FOR SAFETY

Mcmoran, D.*¹

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Every other year, personnel from WSU Skagit County Extension located in Burlington, Washington teach 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. This abstract provides a summary of the evaluations of the course located at WSU Skagit County Extension for the 2008, 2010 and 2012 spring Gearing Up for Safety Course provided to Skagit County 4-H youth.

SEARCH FOR EXCELLENCE CROP PRODUCTION

National Winner

MISSOURI ELDERBERRY DEVELOPMENT PROGRAM

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The Missouri Elderberry Development Program was initiated in 1997 as a collaborative effort among University of Missouri, Missouri State University, Lincoln University, and USDA-ARS to foster development of elderberry as a commercial fruit crop through research and outreach. The outreach component of the program is multifaceted, with emphasis on elderberry production, marketing, and challenges. Activities focus on promotion of elderberry as a viable alternative fruit crop for Missouri producers; development of ongoing cooperative activities with Missouri elderberry producers; and development of recommendations, publications and workshops based on research from the program and elsewhere. Activities in the past 3 years have led to improved understanding of elderberry production and challenges, planting of new elderberry acreage in Missouri, widespread planting of cultivars developed and publicized through the program, and adoption of science-based production practices by Missouri elderberry producers. Since inception, Missouri Elderberry Development Program activities have led directly to a new industry of 150 plus acres of commercial elderberry production in Missouri and surrounding states, worth an estimated \$650,000 for the raw fruit alone. The majority of the elderberry acreage in Missouri is planted to cultivars selected and promoted by the Missouri Elderberry Development Program. Extension outreach programming through the Missouri Elderberry Development Program in 2011-2014 has directly impacted an estimated 540 people at workshops and individual consultations, and evaluations reveal a substantial level of knowledge gain as a result of participation. The publication Growing and Marketing Elderberries in Missouri, based on 15 years of research and experience, has had 2531 requests for the downloadable version since its publication in 2012.

National Finalists

REDUCING SOYBEAN HARVEST LOSSES

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Preventable harvest losses average between one and two bushels per acre across the U.S. With nearly two million acres planted to soybeans in Michigan each year and assuming a conservative market price of \$12.00 per bushel, harvest losses account for 24 to 48 million dollars in lost income per year. The objectives of this project were to help soybean producers identify why and where harvest losses occur and to teach them how to measure and reduce them. One “Soybean Harvest Equipment Field Day” was planned, promoted, conducted and evaluated each year from 2011 through 2013. Grant funds obtained from the Michigan Soybean Promotion Committee combined with financial contributions from participating equipment dealerships covered the costs of conducting the programs. More than 300 soybean producers and agronomists participated in the programs. Every participant received three factsheets “Reducing Soybean Harvest Losses”, “Harvesting Lodged Soybeans” and “Harvesting, Handling and Storing Frost-Damaged Soybeans”. A follow-up evaluation was developed and distributed to participants in December of each year to measure and document our actual educational impacts. The evaluations showed that 96% of the respondents learned new information from the field days. More than 85% actually utilized or implemented the information they learned to measure and reduce soybean harvest losses and 67% actually earned additional money. The average amount of money earned per acre was \$14.05. The respondents implemented the information they learned on 19,729 acres making the actual documented financial impact of this educational activity \$277,212.

EXTENSION’S RESPONSE TO THE 2011 MISSOURI RIVER FLOOD

Wilson,* J.A.¹

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The 2011 Missouri River Flood was unique because of the vast area it affected (parts of five states), its duration (three-four months), and the number of people displaced from their primary residence (making communication more difficult). Because of the flood’s gradual inundation and recession, it didn’t receive the national exposure, or support for victims, common following a sudden event (tornado, earthquake or hurricane). Unique challenges require unique programming and partnerships. In 2011, a team of extension educators and specialists from Iowa State University and the University of Nebraska-Lincoln formed. I provided leadership to this group, but everyone contributed. This core group presented educational programs, not only in those two states, but also in Kansas, Missouri and South Dakota. We shared resources, news releases, kept each other apprised of developing problems and concerns, co-sponsored educational events, formed a “Crop Flood” eXtension Ask An Expert group, and identified agronomic research needs following a long-duration flood since there was limited data for this situation. I partnered with a multi-state, multi-agency group and helped coordinate their educational outreach efforts. In 2012, the efforts shifted to conducting research and working with farmers as they tried to repair and reclaim flooded cropland. I applied for and received a \$50,000 grant to fund research on many of these issues and secured two locations to conduct this research. In 2013, the program directed shifted again to helping farmers use results from the research project in their operations. I shared what we learned with others in Colorado (two programs) that experienced flooding and also at made two presentations on this at the Galaxy conference.

IMPROVING THE COMPETITIVENESS OF THE WATERMELON INDUSTRY IN THE SUWANNEE VALLEY

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³ Extension Agent, University of Florida/IFAS Extension Madison Co., Madison, FL, 32340

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The watermelon industry in the Suwannee Valley (SV) of Florida has changed dramatically in the last 20 years. Watermelon farmers are increasingly responsible to implement voluntary and required programs such as: food safety, pesticide compliance, water quality best management practices and labor requirements among others. This regulatory environment has created serious challenges for most family farms that are responsible for growing, packing and marketing watermelons. Over this transition period, Extension agents continued to work with growers in their counties, but it became important to network and provide advanced information on a regional scale. To address this issue, Extension agents and organizations supporting agriculture decided to organize the Suwannee Valley Watermelon Institute. The idea was largely supported and encouraged by growers and the allied industry. Extension agents provide the leadership and work with agency partners and key growers to plan an event that allows for farmers to come together to learn about current key issues. The Institute includes a combination of educational sessions, opportunities for necessary certifications, an industry trade show, and networking. The first SV Watermelon Institute was held in December 2009 and has been offered annually since then. Industry support has increased significantly and approximately 100 participants attend every year. The popularity of these meetings, along with the food safety trainings held for watermelon growers, BMP field days, on-farm demonstrations, crop management schools, and hosting legislative tours collectively have raised the level of importance placed on local Extension programs by the Suwannee Valley watermelon growers.

State Winners

POST ROCK EXTENSION DISTRICT CROP PRODUCTION PROGRAM

Wick, S.*¹

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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 25 demonstration plots illustrating three different crops produced in the Post Rock Extension District which includes corn, grain sorghum and wheat. Yield reports are published annually and are distributed in the 7 area newspapers, on our District website along with given to our walk-in clientele at each of the 5 District Offices. Soil testing is also an important component of the test plots and, on average, the information producers receive from their soil testing has saved them 20%

on their fertilizer costs. Agronomic leasing arrangements have been extremely volatile, in the last couple of years, due to the increased cost of inputs such as commodity prices and land values. The rental arrangements between landowners and producers can have significant impacts on the risk and returns of those operations. For the last two 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 52 educational events such as consultations, workshops, seminars, formal field days along with setting up educational displays at expos within the district. In the last 3 years, I have had 981 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 bi-monthly radio programs for 2 radio stations along with personal columns as well as on our District website.

PENN STATE EXTENSION CROPS CONFERENCE

Frankenfield, A.D.*¹, Dwane L. Miller², Elina Snyder³, Mena Hautau⁴

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³ Extension Educator, Penn State Extension, Martinsburg, PA, 16662

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Penn State Extension Educators from across Pennsylvania coordinated eleven statewide Crops Conferences for the first time in 2013. This allowed the Field Crops and Forage team members to combine their efforts to get sponsors, market and schedule their meetings so the industry partners could attend more of them and financially support them.

Agricultural producers need education to keep up with changing technology on the farm and to maintain their pesticide license certification. Prior to 2013 there were a couple dozen County Crops Days around the state coordinated by county agricultural educators and even more crop meetings coordinated by the agricultural industry. These meetings often overlap causing agricultural support industries to choose which to attend and financially support and which to skip. Also the Penn State Specialists and county educators had to choose which meeting to speak at, sometimes juggling multiple meetings a day.

In 2013 the Crops Conferences attracted 1,362 participants with 51 sponsors and exhibitors supporting the meetings generating over \$50,000 in funds offset the registration fees for the conference. Preliminary data indicates the Crops Conferences in 2014 attracted 731 participants, 54 sponsors and exhibitors supported the meetings generating over \$41,000 in funds.

REJUVENATION OF PEANUT PRODUCTION IN NORTH EAST ARKANSAS

Andrews, M.*¹, Herb Ginn²

¹ CEA-Staff Chair, Pocahontas, AR, 72455

² County Extension Agent- Staff Chair, , Walnut Ridge, AR, 72476

Rejuvenation of the peanut crop was started in 2010 with 560 acres. From this small beginning peanut production acres grew to 3,762, 18,610, and 11,729 acres in 2011, 2012 and 2013 respectively. The increase in acres from 2011 to 2012 was partly due to price per ton of the peanut crop and also producers having the opportunity to attend peanut production educational meetings, consultant training and activities provided by Randolph and Lawrence County Extension Services and peanut companies. The moderation in acres in 2013 was partly due to price per ton of peanuts, but also rotational concerns on suitable acres. Producer yields have averaged between 4,200 to 4,300 pounds per acre over the past three years. A simple variety plot has agents looking into the amount of time that irrigation water should be applied to fields as there was at least 1,200 pound decrease in yields near irrigation source when compared to lower three-fourths of field when watering entire field versus splitting field. Many producers chose to irrigate field in two sections to reduce the time the upper one-fourth of the field is subjected to irrigation water. Due to this continued production of peanuts two buying points were constructed (one in Randolph County and one in Lawrence County) at a cost of \$16,000,000 to handle the majority of the production from Northeast Arkansas. Agents assisted producers in organizing the Arkansas Peanut Growers Association in 2013.

TRI-COUNTY PROGRAMMING SERIES

Coles, J.*¹, Milam, C.², Phillips, J.³

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³ County Extension Agent for Agriculture and Natural Resources, UK Cooperative Extension Service, Franklin, KY, 42134

Many families in Logan, Simpson and Warren Counties depend upon grain crop production as their primary source of income. Although grain prices have been good as of late, land purchase and lease prices continue to rise, and input costs remain very high. The volatility of the grain market along with these other challenges, mount an ever-increasing importance for producers to sharpen their managerial skills and continue to rely on the UK Cooperative Extension Service for unbiased, research-based information.

Due to these factors, local stakeholders in Logan, Simpson and Warren Counties identified the need for Extension Agents to offer grain programs. In response, Extension Agents for Agriculture in these three counties organized a “Tri-County Grain Programming Series”. The programs offered reflected issues identified by producers and local stakeholders. These “Tri-County” programs include: “Corn Field Day”, “Pest Management Workshop”, “Grain Day” and three “Grain Newsletters”.

100% of producers increased their knowledge due to the information presented at the events and many indicated profitable practice changes on their operation due to the information.

CERTIFIED CROP ADVISOR TRAINING

Britton, T.*¹, Amanda Hatcher², Curtis Fountain³, Della King⁴, Melissa Huffman⁵

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² Ag Agent, NCCES, Kenansville, NC, 28349

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⁴ Ag Agent, NCCES, Clinton, NC, 28328

⁵ Ag Agent, NCCES, Jacksonville, NC, 28540

The Certified Crop Adviser (CCA) certification program was established in 1992 by the **American Society of Agronomy** to provide a benchmark for practicing agronomy professionals in the United States. A certification is the standard by which all professionals are judged as being certified adds credibility and shows that you are serious about what you do. The purpose of a certification program is to protect the public and the profession. It is a voluntary professional enhancement to a person’s career credentials. CCA certification is the most recognized agriculturally-oriented certification program in North America. This program’s professional standards are widely respected by industry, academia, and government and are referenced in statutes. Once certified, a CCA must earn 40 hours of continuing education credit every two years.

In 2000, North Carolina Cooperative agents in the Southeast district recognized the need to provide Certified Crop Advisors with opportunities to obtain credit hours while receiving reliable research based information from extension specialist and agents.

Based on data from SimplyHired.com, the average salary for a certified crop advisor in North Carolina is \$58,000 and the average salary for an uncertified crop advisor is \$53,000. This salary was calculated using the average salary for all jobs with the term “certified crop advisor” or “crop advisor” anywhere in the job listing. Based on the increase in salary, allowing individuals to maintain their certification can earn them \$5000 more per year. Data from the past four years, indicate that the Southeast district has helped 213 individuals obtain CCA credits, making these individuals an average of \$5000 a year more that they can put back into their local economy.

Hiller, M.R.*¹

¹ CEA-AG/NR Jackson County, Edna, TX, 77957

Row Crop production accounts for over 100 million dollars annually in Jackson County. During the last 3 to 5 years, commodity prices have been strong while costs of major inputs such as fuel and fertilizer have increased. Producers are forced to pay close attention to all production decisions - from farm program alternatives to fertilizer and pesticide choices. Strong commodity prices and drought conditions during 2011 and 2012 have led to an increased interest in irrigation in an effort to increase and stabilize crop yields from year to year. Producers are required by law to be trained and licensed to use restricted-use pesticides. License holders are required to receive continuing education to renew existing licenses.

SILVER SCURF FIELD STUDIES

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Silver scurf is an economically important disease on potato tubers caused by *Helminthosporium solani*. The pathogen infects the tuber periderm causing lesions that reduce marketability (1). Fungicides applied through drip irrigation were evaluated for effectiveness in controlling silver scurf and as an alternative to preplant fungicide treatments (maritime, Puget Sound region with mean temps of 58, 62, and 61°F and mean precipitation of 1.84, 0.86, and 1.28 in. for Jun, Jul, and Aug respectively). Two studies were established near Mount Vernon, WA at Washington State University NWREC on 20 May 2011 and 21 May 2012 in Skagit silt loam. There were two treatments in 2011: penthiopyrad (Vertisan; 24 oz/acre; emulsifiable concentrate; DuPont, Mississauga, ON) and a non-irrigated, non-treated control. In 2012, five treatments included: penthiopyrad applied at 45 days after planting (dap), penthiopyrad applied at 60 dap, azoxystrobin (Quadris; 9 oz/acre; Syngenta, Greensboro, NC; 2012 only) applied at 45 dap, and azoxystrobin applied at 60 dap, and a non-treated non-irrigated control. Treatments in both years were arranged as a randomized complete block design with four replications.

Search for Excellence in Farm and Ranch Financial Management National Winner

KNOW YOUR NUMBERS: TECHNOLOGY ENHANCED DAIRY CASH FLOW PLANNING

Goodling, Jr., R.C.*¹, Beck, T.J.², del Campo, X.³, Haan, M.M.⁴, Hennip, G.J.⁵, Horst, L.U.⁶, Ishler, V.A.⁷, Weeks, H.A.⁸, White, R.A.⁹, Williams, J.C.¹⁰

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⁵ Extension Educator-Dairy, Penn State Extension, Towanda,PA, 18848

⁶ Extension Educator-Dairy, Penn State Extension, Chambersburg,PA, 17202

⁷ Nutrient Management Specialist, Dept. Animal Science, the Pennsylvania State University, University Park,PA, 16802

⁸ Extension Educator-Dairy Business, Penn State Extension, Carlisle,PA, 17013

⁹ Dairy Extension Program Manager, Dept. Animal Science, the Pennsylvania State University, University Park,PA, 16802

¹⁰ Extension Educator-Dairy, Penn State Extension, Wellsboro,PA, 16901

Evaluating financial records is challenging on any agricultural operation, especially dairies. Typically 40-60% of the cost of producing milk can be attributed to animal feed. Feed is a blend of home raised and purchased products, and is unique to each dairy operation. To effectively track key profitability measures like Income Over Feed Costs (IOFC) producers must accurately maintain and regularly monitor production and financial data. Extension educators sought to develop a comprehensive program to help the producer track records and aid decision making for risk management and planning initiatives. The dairy cash flow “Know Your Numbers” program uses a spreadsheet tool that integrates dairy herd rations, cropping plans and financial data to help producers calculate their breakeven milk price and IOFC. The spreadsheet incorporates downloadable pricing data so PA dairies can compare their own costs to current market prices. The program evolved into four mobile apps for dairy producers and consultants combining a multi-state risk management initiative with one-on-one producer meetings to help individual farmers more fully understand their finance and

production plans. To help support these multi-year endeavors, the team has secured \$142,969 direct and \$448,525 indirect grant funding to help with the establishment, maintenance, and continued growth of the program. Participation in the hands-on program doubled from 2012 to 2013, adding an advanced program in 2014 to assess forage and feeding management. As a result of this program, 98% of 2013 participants reported increased understanding of the cost to raise their own feeds, 23% received lender approval for a loan, and 58% changed their cropping strategy to reflect discussion with their educators. Mobile application use has maintained steady adoption rates: DairyCents showed a 100% user increase from its first year of availability to the second. Currently DairyCents, DairyCents PRO, and CropCents maintain 2,530 registered users from 46 countries.

National Finalists

ANNIE'S PROJECT IN IOWA – FARM FINANCIAL MANAGEMENT FOR WOMEN

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² Field Specialist II, Iowa State University Extension and Outreach, Clarinda, IA, 51632

³ Program Coordinator II, Iowa State University Extension and Outreach, Fairfield, IA, 52556

⁴ Field Specialist II, Iowa State University Extension and Outreach, Iowa Falls, IA, 50216

⁵ Field Specialist III, Iowa State University Extension and Outreach, Oskaloosa, IA, 52577

“I think that the Extension is one of the most important tools the rural communities, rural farmers and women have, right here in our communities. [Annie's Project] is invaluable and there's nothing comparable; there's nothing like it,” stated Sara Shepherd, a 2013 Iowa Annie's Project participant. The overall educational objective of Iowa Annie's Project team was to empower farm women of all experience levels to improve decision-making in the agricultural risk areas of financial, human resources, legal, marketing and production.

The Iowa team delivered ten Annie's Project courses, educating 148 farm women; plus six farm transition courses and two cattle management courses, educating 96 farm women; and organized the Annie's Project Tenth Anniversary Celebration, educating 75 farm women. On a national level, the Iowa team offered 6 professional development programs and provided leadership to a national network of educators who delivered 89 courses in 22 states in 2013. The team managed \$423,605 in grants and gifts. Iowa educators offered local courses using best educational practices developed to serve women's learning preferences.

Iowa farm women completing 2013 post-course surveys reported a 92% to 95% satisfaction level on the best educational practices. Iowa farm women increased their knowledge of all five agricultural risk management topics as demonstrated with pre-course and post-course surveys. The public value statement is: “Women who participate in Annie's Project are empowered to become better business partners and owners by managing agricultural risks to bring greater financial security and well-being to their families. Farms and communities are sustained through more vibrant rural economies, improved natural resource conservation and generational succession on the land.” Based on evaluation work; small group courses will continue to be a hallmark of Annie's Project, but the team also helped initiate a women in ag learning network on eXtension to stay connected to the audience.

KEEPING THE LEGACY ALIVE

Hart*, K.N.¹, Brooks, R.H.², Church, J.A.³, Jensen, K.D.³, Richel, K.L.⁴, Steele, V.⁵, Tifft, K.J.⁶, Williams, C.E.²

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² Extension Specialists, University of Idaho, Moscow, Idaho 83844

³ Extension Educators, University of Idaho, Idaho County, Grangeville, Idaho 83530

⁴ Extension Educator, University of Idaho, Latah County, Moscow, Idaho 83843

⁵ Extension Educator, University of Idaho, Nez Perce Tribe, Lapwai, Idaho 83540

⁶ Extension Educator, University of Idaho, Nez Perce County, Lewiston, Idaho 83501

“Keeping the Legacy Alive” is a workshop to help farmers and ranchers plan for estate and business succession. The curriculum is designed to be interdisciplinary, addressing a range of elements that are important to complete estate and succession plans. The workshop is held over three days in a one-week period. A final class includes dinner and is held approximately two months later, when participants share successes and obstacles encountered, offering each other support to continue moving forward. Several collaborations make this possible, including a partnership with the Idaho Barley Commission and grant funding from USDA Risk Management Agency. Curriculum and program presentations were created by University of Idaho Extension Educators. Farmers and ranchers often believe that the main problem facing them is the correct legal document or proper legal language, while issues of communication and actual farm/ranch business structure and performance are the problems that need to be addressed first. “Keeping the Legacy Alive” has helped farmers and ranchers in north central Idaho come to grips with the thorny problems of estate and farm succession

planning. The workshop has served 76 individuals. Participants were evaluated at the conclusion of the workshop using a 1-5 Likert scale with 69 responses. Average response score across categories was 4.7.

WYOMING MASTER WOOL GROWER PROGRAM

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³ Extension Educator, University of Wyoming Extension, Afton, WY, 83110

⁴ Extension Agriculture & 4-H Youth Agent, University of Wyoming Extension, Ephraim, UT, 84627

⁵ Extension Agriculture & 4-H Youth Agent, Utah State University Extension, Cedar City, UT, 84721

⁶ Extension Educator, University of Wyoming Extension, Thermopolis, WY, 82443

The objectives of the Wyoming Master Wool Grower program are to promote the sustainability of wool growers through use of a comprehensive production strategy and risk assessment program. Participants receive training on enterprise analysis, risk management, insurance options and record keeping. Participants also receive information on marketing and innovative flock management strategies. After each production strategy presentation the enterprise analysis tools are reinforced. Participants provide suggestions for potential changes in their operation. As a group with help from the instructors the participants then complete a partial budget and sensitivity analysis on the proposed change. A net present value analysis is also complete if warranted by the change.

The program is patterned after the highly successful Wyoming Master Cattleman Program and consists of 6 core session topics. The program has been offered in two Wyoming and two Utah locations to a total of 54 participants in the last three years. Additionally, a three session version of the program was presented at the 2012 Tri-State Wool Growers Meeting to over 50 participants from Idaho, Utah and Wyoming. Finally the three session version was also presented at the 2014 annual meeting of the American Sheep Industry to 45 participants from all over the United States.

State Winners

WHAT IS A FAIR AND PROFITABLE FARMLAND RENTAL AGREEMENT?

Bau, D.*¹

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Farmland rental rates have risen dramatically over the past several years in Minnesota. A new program was developed in 2012 titled "What is a Fair and Profitable Farmland Rental Agreement?" The overall goals of the program include:

- Have participants examine cost of production for corn and soybeans and understand how they relate to farmland rental rates.
- Provide participants with actual farmland cash rental rates from various sources and where to find information in future.
- Have participants understand the economics of farming by examining land values and commodity market trends.

For the past two years 45 workshops we held to help landlords and farmers reach an agreement on fair and profitable rental agreements. In 2012 over 1230 attended 20 workshops and in 2013 over 960 attended 25 workshops. The participants were 1/3 farmer and 2/3 landlords.

For both years over 850,000 of cropland was represented at meetings, roughly 3% of Minnesota's corn and soybeans acres. The total rental value for farmland of participants, based on average county rental rates, would be over \$176,863,235. Participants placed a monetary value for information received at workshops of \$150 each or a total of \$329,550.

Overall evaluation results for workshops were scores of 4.26 on a five point Likert Scale with 5 Excellent and 1 Poor. All 6 sections evaluated at workshops were rated at 4 or above in both years ranging from 1 Strongly Disagree to 5 Strongly Agree. All six evaluation categories received even higher ratings at the 2013 workshops. Participants came from 62 of the 87 counties in Minnesota.

These workshops were a viable way for farmers and landlords to receive information to better negotiate a fair and profitable rental agreement. Participants received worksheets, websites, factsheets, tools and spreadsheets, to help the negotiation process.

ANNIE'S PROJECT

Salverson, R.*¹, Harty, A.²

¹ Cow-Calf Field Specialist, Lemmon, SD, 57638

² Cow-Calf Field Specialist, SDSU Extension, Rapid City, SD, 57702

SDSU Extension is dedicated to empowering women involved in farming and ranching by providing Annie's Project an educational program dedicated to strengthening women's roles in the modern farm enterprise. In 2012 and 2013, Adele Harty and Robin Salverson led 4 Level I Annie's Projects in South Dakota focusing on providing education within the areas of risk management.

SDSU Extension also recognizes that we need to focus on developing self-driven sustainable learning communities. As a result we have been working extensively with the 4 locations since 2012 focusing on continued learning and networking opportunities beyond the initial 6 weeks of the course including a Level 2 Managing for Today and Tomorrow. Likewise, through strong interest in marketing, Women Managing Cattle will be added in 2014 as a level 2 option for the women.

Since SDSU Extension restructuring in 2011 we no longer have a presence in every county in the state therefore, it creates an opportunity for us to partner with local businesses, government and participants to develop a strong and viable Annie's Project at that site. The value of the program is seen by both participants and sponsors as noted by receiving \$10,570 from regional and local businesses.

Based on evaluations, over half the participants had a significant increase in knowledge in regards to estate planning. Likewise estate planning came to the top as the most valuable topic to them. This encouraged us to take estate planning education to the next level with the women and incorporated Level 2 MTT into SD Annie's Project curriculum which included taking it to Kadoka as a pilot.

Overall Annie's Project in South Dakota has been successful in educating farm and ranch women. Today's women live active lifestyles but are concerned about making the most profitable decisions for their operation and family.

Search for Excellence in Farm Health and Safety

National Winner

BOVINE EMERGENCY RESPONSE PLAN

Workman, D.*¹, Dr. Charles L. Stoltenow², Dr. Clyde Lane³, Dr. Jan Shearer⁴, Dr. Steve Boyles⁵, Jarred W. Yates⁶, Lisa M. Pederson⁷

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³ Retired Beef Specialist, University of Tennessee, Knoxville, TN,

⁴ Extension Veterinarian, Iowa State University, Ames, IA,

⁵ Beef Specialist, The Ohio State University, Columbus, OH,

⁶ Farm Manager, WVU Reymann Memorial Farm, Wardensville, WV, 26851

⁷ BQA Extension Specialist, North Dakota State University, Bismarck, ND,

It is estimated that there are several hundred thousand head of cattle on the roadways each day in the United States. A Bovine Emergency Response Plan (BERP) was developed to offer a framework for local emergency responders to more appropriately address accidents involving cattle transport vehicles by a team of Extension faculty from across the country. The Plan includes standardized recommendations, suggestions and materials for dispatchers and first responders in the areas of call taking, scene arrival and assessment, containment and security, extraction of cattle from the trailer, relocation of cattle involved, mortality disposal, securing the wrecked transport vehicle, humane euthanasia of cattle, and debriefing. From this plan, materials were assembled and resources secured and two, one day programs were presented in WV and TN. Participants, from five states, received classroom training, table top exercises, demonstrations and practicums. The training was directed to first responders and others with an interest in responder safety, public safety and animal care and welfare. Pre/post tests showed an increase in knowledge gained. Program surveys noted the value of the program to first responders, including fire, EMS, law enforcement, veterinarians, and local emergency planners. Communities are offered the tools to assist in planning and preparing for these incidents with an emphasis on responder safety, public safety and animal care.

National Finalists

FARM SAFETY PROGRAMS TO MEET OSHA NEEDS ON MINNESOTA DAIRY FARMS

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OSHA audits on dairy farms in neighboring states increased Minnesota dairy farmers' interest in how they can comply with OSHA regulations before they might be subject to their own audits.

This program built dairy specific safety training on an earlier non-dairy OSHA program offered by another dairy organization in Minnesota. Significant funding for this program was secured from a USDA Risk Management Education grant. I was also able to collaborate with a similar program in Wisconsin that developed after OSHA audits were increased in the state.

In the collaboration we were able to use one primary curriculum with only minor adjustments for use in different states and with different delivery options.

The OSHA approved curriculum was built on a typical 10 hour format prescribed for industry. As anticipated, this two-day format proved to be generally unattractive to dairy farmers. A revised format removed duplication and pared the program down to a single long day format for selected sites. This proved to be more attractive.

Besides lecture format, farm safety assessment worksheets, teaching outlines to use with employees and safety material and supply resources were available. The teaching sessions included small group work sessions to start farms on their personal safety plan development and to help them become comfortable with tools offered.

The final project did not reach as many farms as desired, but did reach farms with over 600 employees, so had a major impact. Over 60% of the participating farms made significant progress toward or completed safety plans for their individual farms. A significant part of the success was asking participants to outline their planned work at the workshops and then follow-up letters at 30, 60 and 90 days after the workshop.

Work on the program also developed into further dairy farm safety programming with the Upper Midwest Agricultural Safety and Health consortium (UMASH).

SOUTHWEST FLORIDA CANTALOUPE FOOD SAFETY WORKSHOP

Snodgrass, C.*¹, Danyluk, M.², Roberts, M.³, Schneider, K.⁴, Schneider, R.⁵, Whidden, A.⁶

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³ Professor, UF/IFAS Government Relations, Quincy, FL, 32351

⁴ Professor, UF/IFAS Food Science and Human Nutrition, Gainesville, FL, 32611

⁵ Professor, UF/IFAS Food Science and Human Nutrition, Gainesville, FL, 32611

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Over 75,000 acres of cantaloupe are grown in Florida each year. Cantaloupes are “netted” melons and require slightly different good agricultural practices when compared to other fruits and vegetables. Agents in the Hillsborough and Manatee County region of Central Florida worked with University of Florida Food Science and Human Nutrition specialists and the Florida Fruit and Vegetable Association to put on two annual one day workshops in 2012 and 2013. The program was initiated in response to the 2011 Listeriosis outbreak which caused 147 illnesses, 33 deaths and reached 28 states nationwide. The objectives of this training were: to provide Florida growers and packers with the necessary tools to follow good agricultural practices specific to cantaloupe, to make cantaloupes from Florida as safe for consumers as possible and to prepare growers and packers for possible regulatory changes. Attendees were trained to look for possible contamination points in their supply chains and take corrective action. The meetings consisted of classroom style lectures and hands on demonstrations. Educational efforts of attendees can be documented in their third party food safety

audit plans. The workshops successfully educated over 100 attendees on proper good agricultural practices for cantaloupe production and prepared them for possible regulatory changes. Program impacts indicate that knowledge gained represents the prevention of future foodborne illnesses from Florida cantaloupes. Pre and post tests were given and a positive educational knowledge gain (15%) was shown. Seventy-six percent planned to incorporate new found knowledge on their operations. Certificates were awarded at the end of the training to be used to document the attendance at a food safety training.

GEARING UP FOR SAFETY

Mcmoran, D.*¹

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Every other year, personnel from WSU Skagit County Extension located in Burlington, Washington teach 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. The curriculum has also been tested with other audiences and has been shown to be a useful program for training older youth not effected by the AgHOs, full- and part-time farm employees, and migrant and seasonal farm workers assigned to operate, service, or maintain agricultural tractors and equipment. This abstract provides a summary of the evaluations of the course located at WSU Skagit County Extension for the 2008, 2010 and 2012 spring Gearing Up for Safety Course.

State Winner

FARM TRUCK AND TRAILER SAFETY

Baker*, Eric¹

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With revisions in Kentucky commercial vehicle regulations including farm vehicles, farmers need current information to operate vehicles legally and avoid violations. In response, the UK Cooperative Extension agent for agriculture and natural resources Eric Baker collaborated with the Kentucky State Police Commercial Vehicle staff to develop and execute a Farm Truck and Trailer Safety Program. The program would be divided into two parts. Part one of the program was an overview of current commercial and farm vehicle regulations

and exemptions. Part two was a mock inspection using a local volunteer's farm truck and gooseneck trailer. The mock inspection covered trailer brakes, load binding, and weight classes. Each participant was provided a Kentucky Farm Vehicle Regulations quick reference guide provided by Kentucky Farm Bureau. Twenty seven people attended the meeting April 30, 2013. Twenty completed a survey with 85% indicating they learned at least some pertinent information. Participants listed weight classes, rules/exemptions, trailer safety breakaway, DOT number use, difference in intra- and interstate, and farm versus part-time business as examples of knowledge gained. Ninety-five percent of those surveyed indicated they would use the information presented to safely and legally operate a truck and trailer and agreed the mock inspection was very beneficial. In addition, a lawn care business owner commented that his truck and trailer weight class was too great and he would downsize trucks to be compliant with the law.

Search for Excellence in Landscape Horticulture National Winner

ORGANIC LAND CARE CERTIFICATE PROGRAM

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² Environmental and Resource Management Agent, Rutgers Cooperative Extension, North Brunswick, NJ, 08902

³ Agricultural and Resource Management Agent, Rutgers Cooperative Extension, North Brunswick, NJ, 08902

⁴ Senior Program Coordinator, Rutgers Cooperative Extension, Roseland, NJ, 07068

Rutgers Cooperative Extension recently developed a statewide Organic Land Care Certificate Program that offers landscape professionals the tools to transition away from synthetic pesticides and fertilizers to a more natural approach that focuses on promoting healthy soil, enhancing biodiversity, and reducing polluted runoff from managed landscapes. Currently, there are no federal standards for organic land care which has led to confusion in the landscaping industry and the general public over what organic actually means. The basis of the organic land care program is a week-long certificate course. In addition, condensed introductory courses have been offered to Master Gardeners and homeowners. Rutgers has formed an organic land care working group currently developing a best management practices manual, and a new website-www.njaes.rutgers.edu/organiclandcare which provides detailed information for professionals and homeowners on this topic. Thus far, the program has the potential to impact over 2,600 acres of residential and commercial properties.

The RCE team has formed an Organic Land Care working group that includes representatives from the New Jersey Department of Environmental Protection, the United States Environmental Protection Agency, and Rutgers soil and turf grass specialists. A number of professional landscapers also participate and have provided practical guidance with regards to practices, costs, and the challenges of to an organic business. The group is reviewing the limited number of organic land care guidelines currently in existence and has begun to write a New Jersey best practices manual which will lay out recommended practices for an organic land care program. The professional landscapers are so passionate about the environmental impacts of organic land care that they have created a professional industry group, the New Jersey Organic Landcare Association, that is "committed to the protection and preservation of our limited natural resources" (www.njola.org).

National Finalists

WHITE COUNTY GARDENING PODCASTS

Sanders, S.^{*1}

¹ County Extension Agent - Agriculture, Searcy, AR 72143

Arkansans love their yards and gardens. Many have horticultural related questions and are unsure of where to seek answers. A series of podcasts appearing on the University of Arkansas Division of Agriculture website have helped to promote the Cooperative Extension Service in every county, as well as educate residents about horticulture.

For the past three years, a series of podcasts were conducted on timely horticulture topics to better educate clientele on horticulture and the joys of gardening in Arkansas. The scripts were written by the agent. Using the software program, Audacity and a RODE Podcaster microphone, the podcasts were prepared in the agent's office. The podcasts were created by county agent with an emphasis on targeting the average homeowner with timely horticulture topics. Emphasis was also placed on promoting the local county Cooperative Extension Service as a source for additional information. This exposure has allowed agent an opportunity to reach a non-traditional audience and to make them more aware of the Cooperative Extension Service and its horticulture resources and other valuable programs. Exposure for the White County Gardening podcasts over the past three years is an average of 254 hits per day for 278,518 total hits in more than 90 different countries worldwide. There has been an estimated increase of at least 15% additional emails, and phone calls from clientele to request information that they were introduced to through the podcasts. Many of the additional requests were from clientele who had limited or no previous association with Extension.

2011 MASTER GARDENER ELECTRONIC SURVEY OF ADOPTION OF SKILLS AND BEHAVIORS

Mitchell, R.E.*¹

¹ County Extension Director - Extension Agent III MA Horticulture, Port Charlotte, FL 33980

In Charlotte County, the Master Gardener Program began in 1983 and has to date provided 30 training courses to qualify candidates as Master Gardeners. Currently about one-hundred individuals are active to some degree in the program. Their long-term adoption of skills and behaviors is essential in order to provide consistent Uf/IFAS research-based, unbiased information to consumers in need of home horticultural information. New Master Gardener volunteers are surveyed each year to gauge their increase in knowledge and readiness to volunteer. In 2011 a major electronic thirteen question survey was sent to the Charlotte County Master Gardener population (those who have computers) of 90 individuals. The questions were adopted from two Journal of Extension articles related to surveying Master Gardener skill and behavior adoption. Fifty-nine (59) responded and completed the survey. For instance, 83% stated that they practiced cultural (non-chemical) methods for managing pests. Ninety percent indicated that they pruned their own small tree/shrubs according to what they learned in the course, and 86% practiced Florida-Friendly Landscaping™. On-going adoption of these key practices helps validate our Horticultural Outreach Program standards.

GREEN ADVENTURES

Lauderdale, C.K.*¹

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The Wilson Botanical Gardens was created to promote horticultural education through the use of outdoor classrooms. Children can heighten their appreciation of how horticulture, gardening, landscape design and environmental stewardship are linked to the land they inhabit. In today's society, children are lacking physical activity, nutritional knowledge, and the understanding of where their food comes from through vegetable gardening and agriculture. Wilson, North Carolina children are no exception and rank among the highest children obesity rates in the state. With these critical issues facing our youth, Green Adventures a youth gardening program sponsored by North Carolina Cooperative Extension, Wilson County Center was created. One program implemented by the Wilson Botanical Gardens is Green Adventures a youth gardening program. Besides teaching gardening the objectives of Green Adventures are to 1) increase physical activity by enhancing the physical environment to create space and places for physical activity and to design and implement programs that increase physical activity both during and upon completion of the program and 2) increase access and consumption of

fresh produce/healthy foods by designing and implementing programs that increase knowledge of and exposure to healthy, local foods both within and outside of the program. Results for 2013 Green Adventures was over 478 youth were more active and ate more fresh fruits and vegetables after attending Green Adventures and therefore have overall better physical and mental health. Children also expressed greater self esteem, empowerment, and increased knowledge on gardening, nutrition and exercise.

State Winners

COMMUNITY GARDEN ESTABLISHMENT, AMERICAN LEGION LEARNING CENTER

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² Richland County Extension Agent, Co-Author, Wahpeton, ND,

The Hankinson area did not have a public garden for residents who do not have their own area to grow vegetables. The American Legion decided to include a public garden in their Learning Center plan starting in 2013.

The American Legion in Hankinson ND owns property next to Lake Elsie and began to improve the area in 2005 to build a public learning center. The American Legion has planted 2200 trees and a native grass area. A 2.5 mile long bike path was constructed in 2008 followed by a meeting building in 2012. The American legion then decided to open public gardens on the site and requested a meeting with me to discuss developing the gardens and a public orchard.

A public orchard will be planted in the spring of 2014. This public garden provides horticultural opportunities not available in Hankinson previously.

A meeting was scheduled with the Hankinson American Legion and a plan was developed utilizing Extension Resources. It was recommended to use the fees from the garden plot rental to pay for the free public orchard scheduled to be planted in 2014.

Objectives of the meeting were to establish a community garden & orchard, provide long term educational opportunities for the Hankinson Community and increase public awareness of fruit and vegetable production, propagation and diversity. A field day was held on August 21st and speakers were invited from NDSU and MSU.

Members of the community attended the presentations as well as a tour of the learning center. A variety trial plot and youth garden plot is located on the bike path with NDSU Extension signs in full view of the public. Youth learned how to save money by saving their own seeds, took vegetables home, and donated the remainder to the food pantry.

OHIO GOVERNOR'S RESIDENCE AND HERITAGE GARDEN AMBASSADORS

Bennett, P.*¹

¹ State Master Gardener Volunteer Coordinator, ANR Educator, Ohio State University Extension, Springfield, OH, 45502

The Extension Educator developed a training program for the Ohio Governor's Residence and Heritage Garden Ambassadors. Only one Master Gardener Volunteer from each county is eligible to serve as an Ambassador; this person is nominated by their Coordinator and required to present at least three Heritage Garden programs in their individual county. The goal of the Ambassador program is to raise the awareness of the Ohio Heritage Garden as well as introduce people to the native plants of Ohio. In order to be an Ambassador, the MGVs must go through this training program.

The educational objectives are for the Ambassadors to learn about the Governor's Residence and Heritage Gardens, Ohio's five physiographic regions and associated plants, and to be able to teach others about these gardens. The Ambassador training program included a one-day workshop in which the participants learned about the history and background of the residence and gardens and plants as well as how to present the program, including how to use a projector, computer and PowerPoint. Each participant was provided with a PowerPoint complete with notes and learned how to customize their presentation for their specific audience. They were also provided with an evaluation and data collection form that they turn in after each presentation.

Thirty-two MGVs were trained and upon completion of their training, 100% felt prepared and confident to give this presentation to participants in their county. In 2013, 123 presentations to over 3050 people were given by the Ambassadors. Results of these presentations indicated that more than 95% of the attendees had a greater awareness of the gardens and the native plants of Ohio.

HOME GARDENING WORKSHOP SERIES

Porter, W.*¹

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The Home Gardening Workshop Series is an interactive video presentation series that was originally designed to help Master Gardeners obtain necessary educational hours. The workshops were also opened to anyone interested in gardening. These gardening workshops met during lunch time on the third Thursday of each month except December. The programs were offered by interactive videoconference to

county extension offices state-wide. The topics were selected by me to address topics pertinent to the gardening season. The programs offered combined current and relevant issues: the desire of people to grow tomatoes; specific ornamentals (perennials, roses, azaleas, daylilies, crapemyrtles, angel's trumpets); specialty gardens (birds and butterflies, shade); or simply choosing good trees. I attempted to use catchy titles to catch gardener's interest. These workshops allowed Mississippi State University Extension Service to help Master Gardeners get educational hours and expose other clients to extension service programming. Supporting material was supplied to accompany the PowerPoint presentations. The Home Gardening Workshop Series were viewed by 35 to 45 counties per month depending on client interests. Over 685 contacts were made in 2013 through this program. The individual presentations were evaluated at various times throughout the year. Repeat attendees made up 89.5% of the audience. On a 1–10 scale (1=worst; 10=best), attendees rated the Interactive Video Conference experience an 8.7. On a 1–10 scale (1=worst; 10=best), attendees rated the effectiveness of the presentation over Interactive Video a 9.6.

JACKSON COUNTY MASTER GARDENERS

Hiller, M.R.*¹

¹ County Extension Agent - Agriculture/Natural Resources, Jackson County, Edna, TX, 77957

Home landscapes, turfgrass, and fruit and vegetable gardening are important to the quality of life of citizens in 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 Master Gardeners suggested that educating the public with reliable, nonbiased information and assistance on these topics would benefit the citizens and the value of Jackson County.

Search for Excellence in Livestock Production

National Winner

OKLAHOMA COW/CALF BOOT CAMP

Jones, J.*¹, Freking, B.², Pugh, B.³, Rice, C.⁴, Ward, E.⁵

¹ Area Agricultural Economics Specialist, Oklahoma Cooperative Extension Service, ADA, OK, 74820

² Area Livestock Specialist, OSU, Ada, OK, 74820

³ Area Agronomist, OSU, Muskogee, OK, 74401

⁴ Area Agronomist, OSU, Ada, OK, 74820

⁵ Area Livestock Specialist, OSU, Muskogee, OK, 74401

The beef cattle industry in Oklahoma is the largest agricultural enterprise in the state with gross revenues of \$3.58 billion in 2012. The cow/calf segment represents the majority percentage of the Oklahoma cattle industry with 1.8 million head and 55,000 producers. That ranks third in inventory numbers in the U.S. The challenge for OSU extension is coming up with new, inventive and engaging methods to provide unbiased researched information to these producers.

In 2011 the Oklahoma Cow/Calf Boot Camp was created. The Cow/Calf Boot Camp was created from a model of the Oklahoma Meat Goat Boot Camp. The objectives of this camp were to create a workshop where producers could learn management and production practices that would help make their operations successful. Boot camp sessions used a combination of different teaching techniques that would make participants more engaged during the educational process.

A goal was to provide lots of information over a wide range of topics. Topics needed to cover all of cattle production such as forages and record keeping not just cattle. Knowledge areas covered were castration, dehorning, cattle ID, cattle handling, hay evaluation, feeding options, cow body condition scoring, internal and external parasite control, reproduction efficiency, bull selection, calving seasons, cow efficiency, marketing, calving management, health and vaccination programs, forage production, nutrition, farm business planning, livestock mortality disposal, facilities, fencing, selecting replacements, culling management, aging cows and brush control. By completing the boot camp producers would become Beef Quality Assurance (BQA) certified.

Since 2011 four boot camps have been held with a total attendance of 193 producers from six states. Participants were asked to do a pre/post test and an evaluation. Results from the tests and evaluations indicate there was an increase in knowledge gained of 28.4% and a total perceived value of knowledge gained \$885,166.

National Finalists

GRAZING MANAGEMENT CLINIC

Stanford, M.K.*¹, Johnson, J.M.², Mitchell, C.C.³, Prevatt, J.W.⁴

¹Extension Specialist – Nutrient Management, Alabama Cooperative Extension System, Crossville, AL 35962

²Extension Forage Specialist, Alabama Cooperative Extension System, Auburn University, AL 36849

³Extension Soils Specialist, Alabama Cooperative Extension System, Auburn University, AL 36849

⁴Extension Specialist – Ag Economics, Alabama Cooperative Extension System, Auburn University, AL 36849

Forages account for roughly four million acres across the state of Alabama. Grasslands are second only to forest land and serve a critical role in ecosystems throughout the state. Proper management of these grasslands is vital for healthy, productive soils, clean waterways and profitable farms. The Alabama Grazing Management Clinic was developed as a project of the Alabama Forage & Grassland Coalition to teach proper grazing management techniques in a one-day format. Instructors include both Extension and Natural Resource Conservation Service personnel. Topics include: physiology of forages, minimizing hay, economics, grazing systems, fence/water technology, and forage allocation. A total of 28 clinics, averaging 25 in attendance, have been held to date. Evaluations have documented the impact of the clinics and easily justify a \$75 registration fee. Over the last two years, responses show that 19,635 acres are being managed more intensively with a return per acre for attending the clinic of \$51.48. Evaluation results indicate that 98% of participants plan to implement at least one new practice within 12 months, primarily cross fencing and rotational grazing. A total impact of \$946,017 is reported for the last six clinics.

CENTRAL FLORIDA AGENTS GROUP BEEF CATTLE REPRODUCTION MANAGEMENT SCHOOL WITH ARTIFICIAL INSEMINATION

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

¹ Extension Agent II MS, Cocoa, FL, 32926

² Extension Agent

³ Extension Agent III, FACAA, Orlando, FL, 32812

⁴ Extension Agent IV, FACAA, Bushnell, FL, 33513

⁵ Extension Agent I, FACAA, Ocala, FL, 34470

⁶ Extension Agent IV, FACAA, Ocala, FL, 34470

⁷ Extension Agent II, FACAA, Bunnell, FL, 32110

⁸ Associate Professor, Ph.D., Beef Cattle Specialist, Gainesville, FL, 32611

⁹ Extension II, FACAA, Tavares, FL, 32778

¹⁰ Extension Agent IV, FACAA, Deland, FL, 32724

Reproductive management of beef cattle is critical to the success of cattle operations in Florida. To enhance knowledge of and therefore increase reproductive efficiency, a Beef Cattle Reproductive Management School has been conducted in excess of fifteen years with an artificial insemination certificate added the last three years. This five-day intensive school combines didactic and clinical experiences to thirty students annually with combined attendance of more than four hundred students. Because the school is a partnership between Deseret Cattle Ranches of Florida providing facilities and 500 head of cattle annually and instruction provided by Extension Agents, UF professors, graduate students, American Breeders Service personnel and local veterinarian, costs have been kept to three hundred dollars per student for the school. The school provides intensive instruction to students in group and one-on-one settings. The school, open to advanced mature high school, college students and cattlemen and women has had participants from Florida, surrounding states, and other countries. Knowledge gained has included: shortening breeding seasons of three-hundred and sixty-five days to ninety to one hundred and twenty days by the majority of attendees, participants purchase higher quality bulls instead of raising their own and have increased their selection pressure within herds using pregnancy determination and replacement heifer selection. Younger students have become large animal veterinarians, obtained degrees in Animal Sciences, and have taken knowledge back to their farms. Participants that historically did not attend Extension Events now attend other Extension programs to obtain additional knowledge.

“HAY CHEF: PRODUCING QUALITY HAY” WORKSHOP

Norman, R.*¹, Kevin Ferguson²

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² Area Farm Management Specialist, University of Tennessee Extension, Murfreesboro, TN, 37129

Frequently requests are received for assistance in supplemental feeding decisions for the cowherd. Most commonly they involve a producer feeding hay and having no idea of hay nutrient quality. Needs assessment also revealed the need for livestock producers to better understand how to interpret a hay test and better understand those production and environmental factors impacting ultimate hay quality. Producers have also expressed concern over decreased profits, even with high calf prices. Input costs are high and feeding the cowherd is a major contributor to those costs. With that in mind, a program was developed to address those needs in an active, demonstration-based format. The program began with a three-week period of traveling from farm to farm and collecting hay samples. Fee-based monies collected from prior livestock programming were used to subsidize hay test costs to encourage initial producer participation. Approximately 30+ farm visits were made with over 70 samples collected. As

the agent traveled from farm to farm, upcoming workshop information was shared and producer commitment to attend received.

The two-night workshop, entitled “Hay Chef: Producing Quality Hay,” included topics such as: “What makes quality hay: The Forage,” “Hay Budgets,” “Hay Storage and Feeding Loss Calculator,” “Unlocking the Forage Test: How to Feed after the Test,” and more. Concepts were taught through discussion, demonstrations, and games. The workshop drew 75 producers with a producer-reported economic impact of \$194,000. Producers also declared a 105% knowledge increase in “Impact of fiber on hay quality,” 84% in “How to supplement based on hay test results,” and 105% knowledge increase in “How to compare hay based on nutrient content.” Of the 75 participants, 56 said they would now test hay to determine nutrient content before feeding, 51 would supplement based on hay test results, and 41 would monitor bale temperatures.

State Winners

CALVING CLINIC ESPECIALLY FOR WOMEN

Rapp, W.R.*¹, Gene Schmitz², Smith, Heather³

¹ Livestock Specialist/CPD, University of Missouri in Howard County, Fayette, MO, 65248

² Livestock Specialist, MU Extension in Benton County, Warsaw, MO, 65355

³ Livestock Specialist, MU Extension in Callaway County, Fulton, MO, 65251

Since 2004, over 244 women and girl livestock producers have been helped by the “Female Only Calving Clinics” in central Missouri. The women’s only concept was something as a female livestock specialist I saw a need for. Most livestock programs are attended by very few women and when they attend, women usually are not active participants. They might feel intimidated or think they are asking “stupid questions,” so their learning experience is inhibited.

The interaction and learning experience is quite different when like-minded females come together for agriculture production issues. Women learners are more engaged; feel more comfortable in their experience, ask questions more freely, support each other and learn more when they are around other women producers. Women only programs help them be more active and helpful back on the farm, allows them to make better decisions that save calves lives and help their operations be more profitable.

When extension started this program in 2004, the veterinarians that helped disseminate the information to the lady livestock producers did so with PowerPoint presentations. However, over the years, we have incorporated a hands-on portion by cooperating with female professors from the MU Veterinary School. This includes utilizing two calves, which died from dystocia and a metal “pelvis” in which the veterinarian can

position the calves so participants can get the full learning experience of “pulling calves” and how to manipulate calves during difficult birthing positions. These hands on clinics also allow participants to learn when to call the veterinarian and how to take care of the calf once it is born. The learning experience, according to participants, was one of the most positive extension experiences they had in their lives.

FOUR COUNTY BEEF AND FORAGE TOUR

Hipp, P.*¹; Chaney, H.²; Griffin, D.³; Mobley, M.©⁴

¹ CEA-Staff Chair University of Arkansas Division of Agriculture-Stone County, Mt. View AR 72560

² CEA-Staff Chair University of Arkansas Division of Agriculture- Faulkner County , Conway AR 72032

³ CEA-Staff Chair University of Arkansas Division of Agriculture- Van Buren County, Clinton AR 72031

⁴ CEA-Staff Chair University of Arkansas Division of Agriculture – Cleburne County, Heber Springs, AR 72543

Following the drought of 2012, local producers were looking for forages and livestock selection practices to help rebuild farm potentials. Cleburne, Faulkner, Stone, and Van Buren County producers struggled during the drought to provide enough forage to accommodate their herds. In trying to rebuild, producers were seeking education and hands on demonstrations in areas of beef and forage production. The Four County Beef & Forage Tour was put together to address and educate producers on these concerns. Missouri was chosen for the tour due to their work and information concerning forages. Missouri also has a very similar climate to Northern Arkansas that would help associate different forages and growing seasons. Beef cattle genetics, breeding, and marketing practices were also highlighted in this tour. Following the tour, verbal evaluations were conducted with each producer. Each producer expressed that they gained further knowledge in forage, beef genetics, and beef marketing. Producers also shared their experiences and knowledge following the trip with local Cattlemen’s Associations and Farm Bureau Boards. The program was able to influence the group and has inspired various workshops and programs in the county.

SMITH COUNTY BEEF AND FORAGE MANAGEMENT

Gulley, C.H.*¹

¹ CEA--Ag/NR, Texas A&M AgriLife Extension Service, Tyler, TX, 75702

The historic drought of 2011 dramatically lead to a decline in cattle numbers within Texas. Other factors such as competing land use, economics, drought and availability of financing have all contributed to decline in livestock inventories. A statewide educational initiative focusing on rebuilding breeding cattle inventories within the state. There are six areas of focus,

challenges in agriculture financing, forage recovery, options for replacements, value of replacements, forage management and generational turnover. Educational programs focused locally to reach 450 people in beef and forage production. Programming for beef and forage management focused on evaluating all options before purchasing replacements, stock at less than 100% capacity, and implement a management/stocking plan that allows for greater flexibility as forage conditions change. *Focus on Genetics* was the title of a District 5 Beef Tour in 2013. This tour highlighted seedstock and commercial beef cattle ranches raising replacement heifers and bulls for our producers to increase their genetic potential as they replace cattle from the drought. The tour also highlighted new genetic technology for beef cattle at Sexing Technologies. Other workshops focused on highlighting the latest research on forage management and beef cattle production at our local Research and Extension Center.

ENHANCING LIVESTOCK PRODUCTION AND PRODUCER PROFITS

Ligon, J.*¹

¹ Virginia Cooperative Extension, Buckingham, VA, 23921

Jennifer Ligon has worked to enhance livestock production and producer profits, as well as initiate innovative thinking in the fields of improved production, marketing, management, and sustainability. Jennifer employs the use of technology, the internet and mailings for area production sales’ marketing. She encourages area producers to improve livestock genetics and work together to provide a superior product that receives premium prices. Through her Master’s degree work and research she has initiated a movement for low stress cattle handling to improve performance, product, and profits for her clients and across the state of Virginia. She has promoted agricultural economic development in the region through various grants for commodity storage, livestock improvement, and for a new building that will stand as an agricultural hub for central Virginia. She strives to create a regional impact for local business, farms, and the community and help recognize local farmers that have made a difference in the community and bring agriculture and livestock production into the news in a good way.

Search for Excellence in Remote Sensing and Precision Agriculture National Winner

PRECISION AGRICULTURE TECHNOLOGIES AND ASSOCIATED MANAGEMENT STRATEGIES

Ortiz B.V.*¹

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The main goal of my Precision Agriculture Extension work in Alabama is to increase overall knowledge and skills on the use of Precision Agriculture technologies and associated management strategies. My PA extension efforts during the last three years have been focused on four areas: 1) increase the knowledge and adoption of crop remote sensors for variable rate application of inputs (e.g., nitrogen, plant growth regulators, defoliant), 2) increase training on the development and use of management zones for site-specific management, 3) increase the proper use of precision agriculture technologies and sensors for assessment of within-field variability (e.g., Soil electrical conductivity - VERIS, elevation of the terrain using RTK GPS, canopy remote sensors like GreenSeeker), and 4) demonstrate -atn a multi-state level- the benefits of GPS-based auto guidance in peanut production. The target audience of my program are: extension agents and specialists, crop consultants, farmers, Ag. Retailers, COOP- personnel, agricultural machinery and precision agriculture companies personnel. Every year, in-service trainings, workshops, on-farm demonstrations, presentations during field days and farmers' meetings are conducted. The in-service trainings and workshops (a combination of presentations and hands-on activities) trainings have been prepared and customized based on the knowledge and skills of the target group. Several extension publications have also prepared with the objective of increasing knowledge, raising awareness and increasing adoption. The evaluations methods implemented (pre- and post- surveys during trainings, percentage increase on the number of visits and hits to the PA website and access to publications, and the percentage increase of the acres using a specific PA technology) have indicated an increase in knowledge, awareness and adoption of PA technologies in the state of Alabama.

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

National Winners (1 from each Region)

ENGAGING WITH AMISH AND MENNONITE VEGETABLE PRODUCERS TO IMPROVE SUSTAINABILITY

Quinn, J.*¹, Baker, T.B.², Byers, P.L.³, Miller, P.D.⁴, Pinero, J.C.⁵, Trinklein, D.H.⁶

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² Horticulture Specialist, University of Missouri, Gallatin, MO, 64640

³ Horticulture Specialist, University of Missouri, Springfield, MO, 65807

⁴ Agronomy Specialist, University of Missouri, Nevada, MO, 64772

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⁶ Associate Professor of Horticulture, University of Missouri, Columbia, MO, 65211

Educational programming was started for vegetable growers, who are primarily Amish and Mennonite, on general production, integrated pest management (IPM), food safety and sustainable agriculture. They mostly market through wholesale distribution facilities; Missouri had twelve in 2013. Vegetable production integrates well with the small farm culture of these communities, keeping them economically viable while serving a critical supply need of retailers. Outreach efforts were taken 'into their communities' using farm tours, 'off-season' workshops, 'in-season' pest review sessions, and field visits. Teaching centered on the Midwest Vegetable Production Guide for Commercial Growers, a six state collaborative Extension resource. A quarterly newsletter was developed and has been mailed since 2011; current distribution is 390 growers. Several funding sources have supported it being provided at no-cost; it addresses topics important to sustainable agriculture. Over 1500 participants attended outreach events through 2013. In formal settings pre/post assessments confirmed increased knowledge. In early 2012 a comprehensive survey was mailed to 313 growers receiving the newsletter. A 20 point IPM scoring system was developed (score range 0-14); the mean score was 10. Responders' scores increased relative to the number of Extension resources used to learn about IPM (positive correlation $r=.38$, $p<.01$). These resources included face-to-face conversations with agents, MU Extension publications, and MU Extension presentations. Of

those extension resources the newsletter was regarded as most useful, followed by the Midwest Vegetable Guide. The survey report confirmed a number of desirable impacts: increased use of IPM, more growers and increased acreage, improved trust and engagement of Extension. It also provided direction for future programming; concern areas were input cost, food safety, conservation of natural resources, and honeybee preservation. A 2014 tomato intention planting survey asked about organic practices. Use of organic production practices was surprisingly high, as well as interest in trying organic practices.

BEST MILKING PRACTICES- “ON FARM” CULTURING

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Mastitis is an inflammation of the mammary gland and is prevalent in dairy herds around the world. Mastitis can be caused by a wide range of bacteria. Mastitis is the most costly diseases affecting the dairy industry, with estimates suggesting each case associated with a \$231-\$289 loss. Producers suffer losses through reduced production, discarded milk, veterinarian services, culling cows, and treatments. Mastitis is associated with the most frequent antibiotic use in dairy cows. The objectives for this program is to have dairy producers increase knowledge of mastitis causing bacteria, decrease the number of cases of clinical mastitis and implement the use of “on-farm” culturing. Participants will be educated on the importance of knowing what types of bacteria are causing mastitis on their farm and how to effectively treat those bacteria for increased chance of cure. Participants will also be given tools to identify bacteria growth using the Penn State Quad-Plate for “on-farm” culturing. Education will be delivered through one day workshops, field days, and continual interaction with producers. NE SARE funds were also made available through a partnership grant to involve eight producers across the state in this project. These farms implemented “on-farm” culturing and are tracking clinical mastitis, bacteria identification, treatment methods and cure rates. This program reached a total of 419 participants with 80% (N=124) indicating the intent to implement “on-farm” culturing on their farm. A six month follow up evaluation was implemented by phone indicating that 100% (N=12) of participants implemented “on-farm” culturing to manage mastitis. 100% (N=12) decreased the number of cases of clinical mastitis and 75% (N=12) decreased the use of antibiotics on their farm. Participants experienced an average increase in profit of \$5664 per farm based on lower levels of mastitis and an additional \$920 per farm due to judicious use of antibiotics.

ALABAMA SUSTAINABLE AGRICULTURE/ VEGETABLE IPM PROGRAM: BACKBONE OF THE SPECIALTY CROP INDUSTRY AND SMALL FARMS

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This abstract is a success story for the Alabama Sustainable Agriculture Campaign led by a Team of seven Regional Extension Agents and four Specialists with the Alabama Cooperative Extension System (ACES). Full report (<1200 words) has been uploaded separately for review. In Alabama, small farm fruit and vegetable production is one of the fastest growing sectors within the vast agriculture industry. Specialty crop production is currently valued at \$61.5 million in Alabama and increasing rapidly with emphasis on local food systems. Prior to 2010, Alabama did not have a sustainable agriculture campaign. In 2010, the Alabama Vegetable IPM Program initiated a ‘small farm/organic IPM campaign’ for filling the gap in producer training and provide support services for transitioning producers. A three-step training curriculum was developed for producers along with over 40 publications, websites, blogs and social media channels

(www.aces.edu/go/87). We use a Farmer-Centric Training Model since peer-to-peer and hands-on training is still the best technology transfer systems for producers based on feedback. The sustainable agriculture program received and continues to receive SARE PDP funds and producer awards, besides significant funding from USDA OAREI, Walmart Foundation, and industry grants. Project evaluation is a continuous process; a variety of evaluation techniques are used to consistently measure project impacts. Recent surveys indicated the average increase in knowledge to be over 50% among respondents. The average IPM adoption rate is about 40% (~10% increase yearly). Highest rate of adoption is for OMRI-approved insecticides that has increased farm income. Without this education campaign, producers can potentially lose over 50% of the crop. Overall, the direct impact of this intensive educational campaign averages \$289 per acre based on 15 cases studies (2013) and \$4 million statewide (estimated). A preliminary impact video has been posted at <http://youtu.be/aqrjQINLUdw>.

CAMP PROGRAM IN THE WALLA WALLA VALLEY

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In apples, codling moth is a quarantine pest for several international markets. Taiwan has a “3-strike” policy, which shuts down the US apple market when the third positive identification is made. In 2004, the third strike came from Milton-Freewater, OR in the Walla Walla Valley and cost the Pacific Northwest an estimated \$26 million in lost foreign exchange. A Codling Moth Area-wide Mating disruption program (CAMP) using high concentrations of codling moth pheromones have been in effect throughout each growing season since 2004 and additional efforts have been made to reduce the incidence of codling moth in the Walla Walla Valley. A daily trapping program is e-mailed to the growers every evening detailing where codling moth are found in the Valley. Trap counts are also Google mapped in real-time. The map is housed on the OSU Umatilla County Extension website and is available unrestricted to all growers and fieldmen. Ongoing efforts to educate growers about timing and efficacy of alternative chemistries, which target only the eggs or larvae have been successful in replacing broad spectrum organophosphates. Indeed, the sales volume of chemicals was reduced linearly from ~22,500 lbs per season in 2007 to ~6,700 lbs in 2010. Since then volumes have reduced further to ~5,600 lbs of product and these levels have been sustained for the last three years. Furthermore, the number of full cover sprays being applied per block per season has been reduced from on average 8 per year to 3 per year. Growers have also been educated on how to deal with “hotspots” and the original 8 in 2007 have been reduced to 5 by 2013. Additional efforts to remove home garden trees in the City of Milton Freewater since 2011 have been successful in replacing >3,700 home garden trees with non-host shade trees.

State Winners

MINNESOTA COVER CROP EDUCATION AND THE 2013 PREVENT PLANT SITUATION

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Cover crops are considered an important part of sustainable agriculture. When managed appropriately, cover crops can reduce soil erosion, decrease nutrient loss, improve soil structure, decrease pest pressure, and provide livestock forage. Even with this knowledge, however, cover crops are used on a very small percentage of Minnesota cropland. This fact plus participation in an NCR-SARE cover crop project led to the development of the Cover Crop Program in 2009. Spring of 2013 was a difficult one in Minnesota, particularly the southeast. It brought heavy snows followed by regular rain showers from March through much of June. Many farmers made the decision not to plant a cash crop leaving thousands of acres bare and resulting in many farmers applying for prevent plant. This led to the need to plant cover crops. Unfortunately, most farmers and farm advisers were not familiar with them. To assist in education regarding the appropriate cover crop management for both prevent plant use and general use, the Cover Crop Program and author were called upon for assistance. A fact sheet and two news articles were developed specific to the prevent plant situation and the author presented at and/or hosted nine educational events with a total attendance of 340 people. Since 2009, the Cover Crop Program has developed 12 field days, seven workshops, 44 presentations, one peer-reviewed article, a listserv with 137 members, one display, two posters, the Minnesota Cover Crop Decision Tool, and provided countless personal technical assistance.

HIGH TUNNEL WORKSHOP FOR HOME GARDENERS AND COMMERCIAL GROWERS

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The High Tunnel Program was initiated as a collaborative effort among and Cass County Extension of NDSU, and Clay County Extension of the University of Minnesota, to foster development of High Tunnels as a business option for families and for the commercial fruit and vegetable industry through research and outreach. The outreach component of the program is multifaceted, with emphasis on marketing, production, and challenges. Activities focus on promotion of high tunnel building, growing, varieties, fertilization, and problem solving to help alleviate areas with “food deserts”; development of ongoing cooperative activities of producers; and development

of recommendations, publications and workshops based on research from the program and elsewhere. Activities in the past 4 years have led to improved understanding of High tunnel production and challenges, planting of new edible crops in North Dakota and Minnesota, increased planting of cultivars developed and publicized through the program, and adoption of science-based production practices by producers. The 101 clientele that attended the 2013 High Tunnel program were from Minnesota, Wisconsin, and North Dakota; of these, 92 responded to an evaluation at the end of the event.

- 73% indicated a new insight and felt inspired into action
- 50% indicated that they would increase their business profitability by at least \$500 from attending this workshop.
- 100% indicated that they learned something new, that they did not know before, about high tunnels.
- 69% said that they would apply for the NRCS EQIP Program if they qualified.

A follow-up survey at six months was administered. Of 86 respondents, 63% incorporated something from the workshop into their business/operation that they would not have done if they had not attended and 94% indicated that they would recommend this workshop to others. Extension outreach programming through the High Tunnel Program in 2011-2014 has directly impacted an estimated 301 people at workshops and individual consultations, and evaluations reveal a substantial level of knowledge gain as a result of participation. According to Keynote speaker: Terrance T. Nennich, University of Minnesota Extension Educator: "High tunnels can help gardeners produce that great crop every year with little risk. High tunnels can lengthen the growing season as much as 5-6 weeks in the spring and also in the fall."

IMPROVING HERD HEALTH OF BEEF CATTLE IN SOUTH FLORIDA

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In the twelve counties served by the South Florida Beef Forage Program, there are over 770,000 head of beef cattle. That amounts to over two-thirds of Florida's beef cattle. Losses that are caused by poor herd health represent a major obstacle to the profitability and sustainability of beef cattle operations. Poor animal health can result in animal death, decreased reproduction efficiently, and decrease in growth and productivity. A herd

health management plan is vital to profitable beef production. Investment in the prevention of disease is less than the cost of treatment. Many animal health problems can be controlled with good management, proper nutrition, and vaccination against infectious diseases. Preventing diseases through the use of a herd health management plan saves time, money, and reduces inputs. The South Florida Beef Forage Program agents offered the 2013 Herd Health program designed to increase participant knowledge and skill in sustainable herd health management practices and techniques. The program had multiple speakers some of whom are experts in the herd health field. The speakers educated participants on subjects such as herd health feeding, internal and external parasites, herd health requirements, and updates on Trichomoniasis in cattle. The educational objectives are to identify, demonstrate, and encourage adoption of a sustainable herd health care program that can be used in both small and large scale operations. Ninety-five (95) participants have attended the Herd Health program in the past two years. According to pre-/post-tests, 86% of participants will implement new or change current practices based on their 30% increase of knowledge from attending this program. According to evaluations, a majority of respondents plan on changing deworming schedules and having yearly bull soundness exams that includes Trichomoniasis testing.

MAPLE SYRUP PRODUCTION AND USE: FROM THE TREE TO THE TABLE

Drake, Jr., G.*¹

¹ Morgantown, KY, 42261

A maple syrup production and use workshop was developed and delivered for clientele in Butler County Kentucky during the winter of 2014. The program was developed due to the increased demand for locally produced food and interest among clients about maple syrup production. The program offered clients the opportunity to see the equipment necessary to collect maple sap and produce syrup from that sap. It also taught participants how to use maple syrup in new ways to feed their family. The information was delivered in a classroom and lab setting using: power point, hands on learning, tasting, giving participants publications on the topics presented, and a field exercise to see maple trees. The program was evaluated with a paper evaluation at the conclusion of the workshop and follow up interviews. Several of the families that participated in the workshop made syrup this year. Most did so for their family's consumption. They also reported using this enterprise as a family activity.

Search for Excellence in Young, Beginning, or Small Farmers/Ranchers

National Winner

GROWING MUSHROOMS FOR FUN AND PROFIT

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² Regional Specialized Extension Agent, UF/IFAS Extension, Live Oak, FL, 32604

³ Taylor County Extension Service, Perry, FL, 32348

⁴ Extension Agent II, Suwannee County Extension Service, Live Oak, FL, 32060

⁵, DEPARTMENT OF PLANT PATHOLOGY, GAINESVILLE, FL, 32611

Florida's climate is conducive for growing shiitake and oyster mushrooms. Mushrooms are grown by inoculating substrate materials with mycelium/spawn, providing appropriate environmental conditions for the mycelium to thrive in, and the substrate thereby producing mushrooms. The substrates commonly used are renewable resources such as cereal straws, cotton seed hulls, and hardwood logs, materials easily available in Florida. Small-scale shiitake and oyster mushroom production enables small farmers to diversify their production and increase farm income while being environmentally sustainable. While a lot of information is available about large-scale mushroom production, very little is known about growing mushrooms with synthetic and natural log culture for small-scale operations. In order to develop educational materials and annually deliver three small-scale shiitake and oyster mushroom production programs to farmers, Master Gardener volunteers (MGs), and hobbyists, the objectives were: 1) Annually, 100 class attendees will increase their knowledge of small-scale shiitake and oyster mushroom production by 50%, as measured by post-tests. 2) Annually, class attendees will produce 100 pounds of oyster and/or shiitake mushrooms, as measured by surveys. So far, 802 small farmers, MGs, and hobbyists have attended 24 workshops on small-scale shiitake and oyster mushroom production, processing, and marketing. The average knowledge gain was 82%. Agents have given out 838 inoculated oyster mushroom kits and 568 inoculated shiitake mushroom logs valued at \$24 and \$26, respectively, a total value of \$34,880. Following completion of the workshops, attendees have grown over 2,514 pounds of oyster mushrooms and 8,520 pounds of shiitake mushrooms valued at \$88,272 (\$8/lb).

National Finalists

SMALL SCALE BLUEBERRY, BRAMBLE, AND WINE GRAPE PRODUCTION IN OHIO

Gao, G.Y.*¹

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There is a strong demand for information on small-scale production of blueberries, brambles and wine grapes in Ohio. The key educational programs offered were "Ohio Commercial Berry Workshop" "Ohio Grape and Wine Conference," "Northern Ohio Blueberry Workshop," and research field days at OSU South Centers. We focused on many aspects of fruit production, such as site and cultivar selection, nutrient management, pest identification management, and nuisance wildlife management. The combined attendance for these educational programs and field days was 950. Our educational programs have reached growers with a collective acreage of 500, and potentially 200 acres in new plantings. Ohio Fruit News delivered up-to-date fruit production information to 350 growers. My statewide presentations reached at least 1,000 in 2013 and early 2014. I co-authored a new Midwest Blueberry Production Guide. We printed 300 copies of Midwest Blueberry Production Guide. So far, 100 copies have been sold. This guide had won the Blue Ribbon Extension Publication Award in the Southern Chapter of American Society of Horticultural Science. I also helped with the revision of the Midwest Small Fruit and Grape Spray Guide. At least 2,000 copies of this bulletin were sold in 2013 in the Midwest. My 35 farm visits have helped farmers save at least \$200,000 through frost prevention, pest diagnostics, fertilizer recommendation, water management, and prevention of nuisance wildlife damage. My blueberry, bramble and wine grape research and extension programs were funded by Ohio Grape Industries Program, Ohio Department of Agriculture and USDA in the amount of \$101,500.

FARMER 101

Glover, T.A.*¹

¹ County Extension Coordinator, Alabama Cooperative Extension System, Cullman, AL, 35055

Cullman is the highest gross sales agriculture producing county in the state. 89% of the total sales come from poultry and cattle and represent a small percentage of the total farms. Recent agricultural statistics show that Cullman County has 2,465 farms and 55% of these are part time farms. This number does not include the very small farmers that do not report farm income on Schedule F-IRS forms. These often underserved farms along with transitioning farmers were the target audience for this series of classes.

The Extension office has experienced a steadily increasing number of requests to assist new and transitioning farms. Potential clientele were surveyed to determine interest

level in a small farm series of training events. The pre-class survey indicated that 74% of those surveyed were not currently farming for profit but desired to do so.

There were a total of 8 sessions in the initial series and 5 additional classes to meet further identified needs from post class surveys. Over 40 participants on average attended each class and 65% attended between 6 and 8 sessions in the initial series. The class content met or exceeded expectations of 96% of participants. When asked if they felt more confident going forward in developing and implementing their farm plan 92% either agreed or strongly agreed. 100% felt more confident in knowing where to get reliable information. 96% said they would recommend the course to others. 81% expected to increase profitability on their farm as a result of what they had learned during the course.

A one year post series survey found that 39% of respondents had started a new enterprise while 68% intend to start one within the next year. 89% had an increase in profitability of an average of almost 40%.

OKLAHOMA MEAT GOAT BOOT CAMP

Jones, J.^{*1}, Brian Freking², Chris Rice³, Justin McDaniel⁴

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² Area Livestock Specialist, OSU, Ada, OK, 74820

³ Area Agronomist, OSU, Ada, OK, 74820

⁴ Pontotoc County Ag Educator, OSU, Ada, OK, 74820

Meat goat production has become a rapidly expanding livestock enterprise in Oklahoma and the U.S. Oklahoma now ranks third in total number of meat goats for the U.S. With this growth in meat goat operations have come new educational opportunities. Many producers interested in meat goat production have had little or no experience in agricultural production. The average goat operation is around 50 goats with annual sales of less than \$100,000. Even those producers with general livestock production skills have found it difficult to adapt to the differing production needs of a meat goat operation. Therefore, the Oklahoma Meat Goat Boot Camp was created. This program is a three day camp that combines hands-on activities, class room presentations and exercises, and traditional power point presentations. Producers attending not only have the opportunity to learn how to perform certain production practices, but also have the opportunity to practice these production practices demonstrated on live goats as many times as they feel necessary. Production methods taught and demonstrated include ear tagging, hoof trimming, castrating, herd health practices, kidding, neonatal care, FAMACHA, fecal egg counts, forage management, ration balancing, forage testing, reproduction, pregnancy detection and business management.

The response to the workshops has been outstanding, not only in Oklahoma but across the U.S. In 2011, 2012 and 2013 one hundred and fifty two producers from nine states have completed the boot camp. Evaluations have showed a favorable response to the workshop with producers wanting more education. Pre and Post tests have shown an overall increase in knowledge of 36.5%. Producers have also indicated that the education received has a perceived value of \$267,079 per boot camp.

State Winners

OHIO VALLEY SMALL FARM AND GARDEN CONFERENCE: MAXIMIZING IMPACT OF LOCAL EXTENSION KNOWLEDGE

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³ Extension Agent, Kentucky Cooperative Extension, Owensboro, KY, 42303

⁴ Extension Educator, Purdue Extension, Princeton, IN, 47670

⁵ Extension Agent, Kentucky Cooperative Extension, Henderson, KY, 42420

⁶ Extension Educator, Purdue Extension, Poseyville, IN, 47620

⁷ Extension Educator, Purdue Extension, Jasper, IN, 47546

⁸ Extension Educator, Purdue Extension, Darmstadt, IN, 47725

⁹ Extension Educator, Purdue Extension, Petersburg, IN, 47567

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¹² Extension Agent, Kentucky Cooperative Extension, Morganfield, KY, 42437

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¹⁵ Extension Educator, Purdue Extension, Vincennes, IN, 47591

¹⁶ Extension Agent, Kentucky Cooperative Extension, Hawesville, KY, 42348

Educators and County Agents serving the Southwestern Indiana and Western Kentucky agricultural communities met to identify common needs for programming for their clientele. The Ohio Valley Small Farm and Garden Conference was marketed to current and prospective small farmers, market gardeners, and the more advanced home gardeners. This program offered participants an improved working knowledge on a variety of topics and access to local experts that will improve productivity, diversify current operations and increase profitability.

Participants filled out multiple evaluations; one after each topic they attended. We had 220 participants and compiled 317 surveys. For assessment of session content, instructors, facilities and overall, participants were to rank each area as: Outstanding, Satisfactory, Needs Improvement or Poor. Results are as follows: 65 % responded Outstanding to the statement “session content was understandable and appropriately organized”; 68% responded outstanding to the statement “instructors were organized and presentation was on target”; 82% responded outstanding to the statement “Instructors were knowledgeable”; and 100% responded that the program was satisfactory or outstanding overall. For program value assessment, participants were to answer Yes, No or Maybe. The following results were recorded: 84% responded yes to the question “Do you feel the information presented will help you meet the goals for your property / enterprise.” ; 73% responded yes to the question “Do you feel the information presented will assist with your efforts to increase the revenue potential for your property /enterprise?” ; 79% responded yes to the question “Do you expect to change any use practices / management techniques with the knowledge you gained in this session?”. For program topics, participants were asked to rank each topic as not very valuable, somewhat valuable, valuable or very valuable. When program topics were aggregated, 77% rated the program sessions they attended as valuable or very valuable.

beefSD

Harty, A.*¹, Hadrick, S.², Kincheloe, J.³, Mesman, L.⁴, Olson, K.⁵, Salverson, R.⁶, Walker, J.⁷

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² Extension Associate, SDSU Extension, Faulkton, SD, 57438

³ Extension Associate, SDSU Extension, Rapid City, SD, 57702

⁴ Organizational Director, South Dakota Farm Bureau Federation, Pierre, SD, 57501

⁵ State Extension Beef Specialist, SDSU Extension, Rapid City, SD, 57702

⁶ Cow-Calf Field Specialist, SDSU Extension, Lemmon, SD, 57638

⁷ State Extension Beef Specialist, SDSU Extension, Brookings, sd, 57007

SDSU Extension and South Dakota Farm Bureau are partnering to provide a multi-year educational program to assist beginning beef cow-calf ranchers in South Dakota become economically, ecologically, and socially sustainable producers. The goal is to present a curriculum that will provide them the tools to make wise management decisions to contribute to ongoing agricultural production, land stewardship, and rural community viability. The learning objectives are to provide (1) evaluation of alternative production systems, (2) an integrated understanding of the entire US beef cattle industry, and (3) development of individual cattle enterprise plans. The first core group is 21 beginning beef cattle operations (33 individuals, with several couples), and 9 beginning beef cattle operations (16 individuals) in the second core group. The curriculum is comprised of six major kinds of activities (1) instructional workshops, (2) case studies of established successful producers using a variety of production systems and management practices, (3) evaluation of post-weaning performance of participants calves, (4) mentoring from established beef ranchers and other industry professionals, (5) web-based interaction, and (6) travel study trips to learn about other segments of the beef cattle industry. Outcomes are evaluated using surveys of the participants beginning at 12 months into the program and thereafter at 6-month intervals. Responses indicate that meaningful outcomes have occurred. For example, when asked the impact of the program on their operation, on producer indicated: “I just had to tell you guys that our net worth has increased by \$37,000. If we can continue to be diligent we can either keep 30+ bred heifers or operate on our own money by the end of the year.” Other participants reported comparable impacts. In conclusion the beefSD program has been successful at fostering positive outcomes for the beginning producer participants.

BROWN BAG LECTURE SERIES

Sanders, S.*¹

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Since horticulture has been an educational component of the White County Cooperative Extension Service’s program for the last three years, a plan was developed to help broaden the knowledge base for clientele, especially small and beginning farmers. This was accomplished by an on-going series of lectures to help new and small farmers learn valuable information to improve their small farming operations. The series is offered twice each year, generally in April and August. In an effort to target clientele that work it was decided to offer this series during the noon hour as a free seminar in a centrally located area, non-formal setting. It is offered on 3-4 consecutive Wednesdays during the month.

Sustainable Agriculture Research Education (SARE) Seminar USDA SARE/NACAA Fellows Program

National Winners

Patrick L. Byers, Horticulture Specialist, University of Missouri, Extension, Southwest

1. Why you wish to attend.

My relevance to my colleagues and clientele is directly related to my efforts to develop professionally. The SARE Fellowship is a unique opportunity to build my skill set in sustainable agriculture. Participation will help me stay current with nationally recognized programming, and to benefit from the successes of others. I also hope to further develop my contacts at a national level, people who can serve as resources and mentors for my program and for my clientele in southwest Missouri. The Fellowship will help guide my future directions in research and extension programming.

2. Details of your experience and past activities that would demonstrate the understanding of and interest in sustainable agriculture and alternative farming strategies.

I have developed a deep interest in sustainable agriculture over the 23 plus years of my career, which has focused on outreach education in small scale specialty crop production. Recent programming efforts include hosting 4 IPM workshops (in cooperation with Lincoln University (LU) specialists) for small scale and disadvantaged farmers, food safety trainings for over 400 produce farmers, on-farm consultation with producers to provide IPM-based pest management information, participation in the University of Missouri IPM Program insect pest monitoring program, developing a soils and fertility management workshop at a multi-state growers conference, and organizing a series of workshops focused on high tunnel production. I have presented on organic fruit production topics at recent annual meetings of the Missouri Organic Association. I have secured grant funding for two projects, the Missouri Blueberry School and the Midwest Winter Vegetable Production Project, that target alternative farming strategies.

I have conducted research into specialty crops, with the goal of developing production choices to enhance the economic sustainability of Missouri fruit and vegetable producers. The Elderberry Development Project, in particular, was instrumental in demonstrating the viability of this crop for Missouri farmers. I have also worked with raspberry, blueberry, pawpaw, persimmon, and several vegetable crops.

Home horticulture is another potential audience for sustainable agriculture that I have targeted. For example, I integrate IPM into my Master Gardener core trainings and

advanced trainings. I participate in a program called “Show Me Yards, Farms, and Ranches”, which promotes sustainable landscape maintenance practices to minimize impact on storm water runoff. I participate as institutional representative with the USDA Sentinel Plant Network, using this training to develop sustainable pest management trainings for Master Gardener Hotline volunteers. I am working with my colleagues to develop an organic gardening class series targeting home gardeners. I use my weekly television and radio interviews to similarly educate my audiences in sustainable agriculture and alternative opportunities.

I participate in professional development opportunities to build my expertise in sustainable agriculture. Two recent in-service trainings covered integrated management of fruit pests, and vegetable grafting as a tool to manage soil-borne diseases. I participated in the planning and implementation of an inservice training for Extension personnel in management of spotted wing drosophila, a new insect pest for Missouri. I also recently attended the MOSES conference in Wisconsin. I serve on the advisory board of the LU Busby Farm, a certified organic research facility, as an advisor to the Springfield Urban Agriculture Coalition, and as a former advisory board member of the Missouri SARE PDP program. I provide an agricultural perspective to students in a sustainable urban futures class at Drury University.

3. A plan on how you intend to use the Fellows program information in your local Extension programs and the evaluation methods you will implement.

I intend to interweave the information gained during the Fellows program into all aspects of my existing programming, with corresponding evaluation of impact. As an example, my individual farmer contacts will benefit, and I will evaluate impact by observing changes in farming practices. Current program thrusts, such as the Missouri Blueberry School and the Midwest Winter Vegetable Production project, will see an enhanced emphasis on sustainability, which will be evaluated using existing tools for short, medium, and long term impact measurement. My ongoing commercial and home horticulture programming will benefit from the Fellows program, and impact will again be measured with existing tools. As an example, in cooperation with local farmers markets I plan to develop an ongoing workshop series that will emphasize sustainable agriculture. Programming to develop collective marketing strategies for farmers is another area on interest. I also plan to develop a series of programs that will focus on sustainable food production at home.

4. The potential impacts and expected results that your participation could have on your local Extension sustainable agriculture program.

At present sustainable practices are a part of all my programming efforts. However, participation in the Fellows program will help me develop a more cohesive approach to sustainable agriculture in my current programming. Thus, participating in the Fellows program will improve my existing programming. Participation in the Fellows program will likely expose me to

programs and techniques that are new to my experience and that could serve as models as I expand programming efforts. As a result, I hope to develop additional programming, as time and resources allow, focused on sustainable agriculture for both commercial and home horticulture audiences. A greater awareness of sustainable agriculture in southwest Missouri is my ultimate goal. Specifically, the impact of my participation will be measured in the number of people trained in sustainable production practices, changes in behavior among participants in my programming, and grants and other support attracted to my sustainable agriculture programming.

5. The potential benefits to other professionals and clientele in their geographic area. Preference will be given to applicants who plan to train others (extension agents, other professionals and clientele) upon completion of the program.

I have long had an emphasis on collegiality in my extension program, and freely share my experiences with my colleagues and clientele. I cooperate closely with state and regional extension specialists, and participation in the Fellows program will enhance my value as a trainer in professional development activities in sustainable agriculture. I serve as a resource to local USDA-NRCS staff, county Soil and Water District staff, and several growers associations; the expertise gained as a Fellow would add to my relevance as a resource. I hope to learn of successful programs targeting minority farmers, which I will put into practice with Hmong, Burmese and Hispanic audiences in southwest Missouri. I will further integrate sustainable agriculture principles and practices into trainings for Master Gardener volunteers; a cadre of such trained volunteers can greatly enhance the impact of my experience as a Fellow.

Mark Hutchinson, Extension Educator, University of Maine Cooperative Extension

Why I wish to participate in the SARE Fellows program.

Sustainability has been part of my educational philosophy for my entire career even though I have never had any formal training in the subject. One of my primary reasons for joining the University of Maine Cooperative Extension in 2000, was to enhance and share this passion with the agricultural community. It is important for me that farms are economically, environmentally and socially sustainable. Food is a very important part of this concern but also the health of the individual sole and soil is important for future generations. As an Extension Educator, I consistently respond to inquiries from both new and existing farmers about agricultural practices, environmental concerns and economic pressures related to agriculture. It is important that I provide the most current and relevant sustainable economic, environmental and social information available. I believe my active participation in the SARE Fellows Program will equip me with the tools and skills to be effect in serving all farm clients.

Details of your experience and past activities.

- Designed and coordinated program called “Institutional Composting”. A two day program to teach clients from public schools, hospitals, universities how to compost pre and post-consumer food waste (2012-2013).

- Technical advisor to the University of Maine’s compost program which utilizes an in-vessel system to turning pre consumer food waste into compost for salad greens production on campus.

- Faculty at the Maine Compost School. A week long program for people interested in medium to large scale compost operations. I teach compost Biology and the Utilization of Compost in Agricultural systems.(2002-2014)

- Co-coordinate the Maine Vegetable School. I initiated the program in 2003 to provide sustainable agricultural practices education to Maine producers (2003-2014).

- Chair Soil Health education session at the New England Vegetable and Fruit Conference, 2003,2005,2007,2009,2011, 2013.

- Participant in professional development; Understanding Sustainable Agriculture (2003), Soil Quality Workshop, Penn St. (2006), Reading the Farm UMaine(2009), NACAA annual meetings and profession improvement conference, (2007 and 2013), American Society of Agronomy annual meeting (2001-2013), Northeast Agricultural Service Providers annual meeting (2001-2014)

- Received a Northeast SARE PDP grant for “Sustainable Carcass Mortality Management Practices”. I was the PI on the grant along with fellow co- PI’s Craig Williams (Penn St.) and Jean Bohnotal (Cornell Waste Management Institute). We trained 55 Ag service provides in sustainable mortality best management practices that reached over 3,000 producers. (2009-2012).

- SARE Farmer to Farmer Grant: Effect of Compost and Cover Crops on Soil Health in an Organic Vegetable Production System when Combined with Minimal Tillage 2006

- Chair or Co-chair of three International Symposia on sustainable management of livestock mortalities and by products. 2007 Beltsville Maryland, 2009 UC Davis, 2012 Dearborn Michigan.

- Research projects include: Impact on Soil Nutrients from Carcass Composting, Effect on Crop Production from Multiple years of Compost Applications, Use of Compost in Caterpillar Tomato Production systems, Yield Effect of Compost Application Rates in High Tunnel Production Systems, Impact of Compost Tea on Sod Production, and Micronutrient Additions in Low Bush Blueberry Production Systems.

Local Extension programs and the evaluation methods

As a part of the Fellows Program, I expect to gain knowledge and skills in all aspects of sustainable agriculture including forages, vegetable crops, fruit crops, livestock and dairy, equipment, farm energy, farm business management, marketing and more. I plan to create an organized file of all the materials, information and photos for my use as an educator. I plan to develop a series of educational opportunities on Sustainable Agriculture for the agricultural community including; farmers, Extension colleagues, NRCS staff, Certified Crop Advisors and food service providers throughout the Northeast region.

I'm interested expanding our Apprentice Gardener Program, for ages 8-12, to include more lessons on Sustainable Agriculture. I will forge relationships with our Youth Development colleagues to develop a list of resources and provide trainings on sustainable agriculture and how this can be lead to healthy sustainable live styles as adults. Education programs, using a variety of education techniques, including technology and hands-on activities, will empower participants to be sustainable in their lives.

I will develop measureable outcome goals for each program and assess impacts by using electronic/paper surveys, personal communications, and product sales from agriculture material suppliers. I will document and record changes to farm-related practices and behavior as it relates to economic and environmental sustainability. These changes will be monitored over a three to five year period. Based on an assessment of highest priority issues and needs, the indicators I will measure could include enterprise development, marketing abilities, creation or expansion of markets, improved efficiencies, energy conservation, energy generation, cost savings, increased profits and decreased environmental impacts. Utilizing the "Reading the Farm" model will used to share information and evaluate impacts with farmers and colleagues.

Potential impacts and expected results

The SARE Fellows experience would strengthen my capacity to develop educational programming and applied research related to sustainable agriculture. This would include needs assessment, program design, effective implementation, evaluation and impact measurement and dissemination of results to key stakeholders and professional associations. I would share my experiences with colleagues at national, regional and local association meetings and Extension colleagues throughout the Northeast. By sharing the knowledge learned and encouraging Extension colleagues and Ag Service Providers to share with farmers, we multiply exponentially the potential impact on farms. Therefore, more farmers will see an increase in productivity and financial benefits resulting in a more sustainable production system. Changes in productivity without increased inputs (specifically time) should lead to improve cultural sustainability. In addition, I would develop and submit at least one applied research proposal to Northeast SARE for funding as a result of my participation in the Fellows Program.

Potential benefits to other professionals and clientele

My plan is to develop and submit at least one professional development opportunity proposal to Northeast SARE for funding. I would encourage Extension colleagues in the region to develop and submit research, partnership or professional development proposals for submission for funding. I would be willing to collaborate or advise colleagues on grant submissions. I would provide professional development training to regional Extension colleagues, Certified Crop Advisors and NRCS field staff to encourage the use of sustainable agricultural practices based on current and emerging trends in the industry. On a continuing basis I would measure the educational and professional development benefits and impacts of my participation in the SARE Fellows Program for Extension colleagues.

In addition, I would convey to farmers and Extension colleagues the knowledge and skills I have gained using electronic newsletter and interactive web site for efficient communications and peer generated information through online networking.

I believe my involvement in the SARE fellows program will help me to bring these ideas to fruition.

Yvette Goodiel, Sustainability & Comm. Hort. Extension Agent II, UF/IFAS, Martin County

As part of my responsibilities, I've been tasked with helping local agricultural landowners find ways to maintain their land in sustainable agricultural production. As in many other counties, we've seen a decline in traditional agricultural crops, such as citrus in my county, and many lands are now vulnerable to development, particularly as the economy begins to recover. I would like to attend so that I can learn about other options our landowners can consider, to maintain their lands in profitable, low-impact agricultural production. Having this training early in my career with Extension (2.5 years) would allow me to develop a strong foundation for my program at the outset, making it as robust and effective as possible.

An abiding interest in agriculture has given me experience in and understanding of sustainable agriculture. In college, I worked at a nursery, gaining experience in retail nursery operations. When I moved to New Jersey for a temporary grant position, I learned of community gardens and volunteered at a garden near my home. Subsequently, I moved to South Carolina, where I volunteered at a Community Supported Agriculture farm and assisted in all aspects of production, including budgeting, pricing, marketing, planting, maintaining, harvesting, and distributing. Later, I moved back to Florida, where I grew my first home garden, experimenting with different vegetables and learning by trial and error. I'm still continuing to garden at home today, 10 years later. In the evenings after work, I've taken coursework at the local University of Florida (UF) Research and Education Center in commercial vegetable production and organic and sustainable production. While working as a Senior Environmental Planner with St.

Lucie County, I participated in our county's Western Lands Study, which sought to create an action plan for preserving agricultural and natural lands. I also served as a member of our county's Sustainability Committee, helping to pass our Sustainability Ordinance, plan our first Green Conference, and draft the St. Lucie County Greenprint. In collaboration with a neighboring county, I applied for and was awarded a regional habitat conservation planning grant, which focused on planning for habitat conservation, including conservation of agricultural lands. Since coming to the UF/IFAS Martin County Extension in 2011, I've sought out opportunities to continue learning about agriculture and the issues our local landowners face and applying knowledge gained to educational programs and one-on-one consults.

The SARE fellowship would foster my ability to provide high quality new, local and regional programming, while also feeding into existing local and state-level projects in which I am currently participating. New programs could include workshops on alternative farm systems, practices, trends, and strategies, in partnership with UF Small Farms Working Groups, SSARE, and other agents/researchers/specialists. With the information gained, I could also partner with producers and researchers on grants to study different systems. One high-priority research need I could address would be to coordinate with UF economists in bringing economic feasibility information to growers considering transitioning to different practices/systems. The SARE fellowship would also allow me to better serve local and state-level initiatives, such as our county's Agricultural Visioning planning team, the UF Sustainable Agriculture Priority Action Plan development team, and the SSAWG Food Hub Learning Network. If granted, the timing of the fellowship, during a critical time in local and state agricultural planning efforts, would allow for strong synergy, maximizing the benefits of knowledge gained.

Program evaluation would focus on short-, medium-, and long-term goals, adaptively managing programming along the way, in response to measured results. In the short-term, the effectiveness of programming could be evaluated by surveying attendees for knowledge gain. A medium-term goal would be demonstrated behavior change. For example, growers could be surveyed to see whether they are pursuing some of the new practices/systems presented through Extension programming. If new transitions are not being pursued, surveys and interviews could identify the hindrances being encountered. Results would then be shared with researchers, regulators, or other applicable organizations/agencies, so that we can gather tools and implement changes needed for growers to move forward. Where surveys reveal successes, we could publicize case studies, showcasing the innovators and inspiring others. As growers transition to new practices/systems, I can collaborate with researchers and economists to study how real-life examples compare to pilot projects or projections, and together we can offer recommendations to improve the new practices/systems. Long-term goals would include maintenance of lands in sustainable agricultural production, bringing fallow lands back into production, and increasing agricultural revenues. Impacts could be quantified using data from the National Agriculture Statistics Service censuses, Property Appraisers' office, surveys

of local growers, and other sources. By evaluating progress toward short-, medium-, and long-term goals, we will have the knowledge needed to adapt our programming and amplify the impact of our efforts.

Compared to a "no action" alternative, wherein the acreage of productive agricultural lands continues to decline and urban development and sprawl expand, maintaining or expanding the acreage of lands in sustainable agricultural production would impact the community through improved quality of life, food security, economic prosperity, and environmental health. Quality of life impacts would include a strengthened community support network and connection to the land, as consumers and local agricultural producers connect with and support one another. By maintaining or expanding the acreage of local food production, the security of the area's food supply would be enhanced. In addition, by shortening the chain of food distribution, food safety issues could be more readily identified and addressed. Agribusiness would contribute to economic prosperity, by generating jobs, creating marketable products, and increasing the diversity of businesses engaged and invested in the community. By continuing to refine their practices in a sustainable manner, agricultural producers would benefit the environment through protection of our water, soil, and wildlife habitat. Agricultural lands that are now host to listed species and other wildlife, would continue to support these species and could be improved through cost-share funding and restoration of unmanaged, fallow lands. As our local society, economy, and environment exist as part of an inter-connected web and as learning and growth are shared across municipal boundaries, the impacts of fostering sustainable agriculture at a local level would extend across the larger region, combining with other local/regional efforts to facilitate shifts on national and global scales.

The SARE fellowship would inform my local clientele and colleagues. I could share knowledge gained through the fellowship by offering educational workshops for clientele, other extension agents, county staff, and state agencies. By educating county planning/permitting staff and commissioners on the new systems, they could identify and implement any code changes that may be necessary or helpful to support growers in moving forward. The showcasing of successful transitions can serve as another educational opportunity, making the public more aware of local agriculture and its embrace of sustainable practices, thereby increasing public and governmental support of local agribusinesses.

Susan Kerr, WSU NW Regional Livestock and Dairy Extension Specialist, Washington State University, Northwest Research and Extension Center

Two colleagues I know participated in the SARE Fellows program and speak highly of it, so I know it is an educational and meaningful opportunity. I recently became the Washington State University (WSU) Northwest Regional Livestock and Dairy Extension specialist and am interested in learning from livestock producers who are successfully addressing

environmental, financial, societal and animal welfare challenges so I can share relevant practices with producers in my region. I am particularly interested in learning from operations that integrate multiple enterprises successfully. Also, I will soon be participating in a statewide sustainable livestock program-building effort and would like to learn about resources and examples of success enterprises we can use to develop outreach materials to share with Washington producers.

I have been a member of NACAA since I joined WSU in 1995. I have attended 12 AM/PICs, two Galaxy conferences and six Animal Science pre-conference tours. I have served as the Western Regional Vice Chair on the Teaching and Educational Technology committee (two terms to date) and Public Relations Committee (two terms). I served as president of the Washington State association for four years. I am an EDEN delegate for our state and an active member of the eXtension Agrosecurity, Goat Industry, Beef and Dairy communities of practice. I am a member of NAE4-H and NACDEP.

I was the Director of WSU-Klickitat County Extension in a single-agent county for 17 years, responsible for agricultural, 4-H youth development and community/economic development programming in a rural agricultural county. In 2013, I transferred to my current position in Mount Vernon, WA.

As a veterinarian, my approach to livestock producer education is taking a proactive stance--preventing problems through planning, best practices and frequent monitoring of animal health, welfare and performance. I emphasize selecting the right species for the right place at the right time for the right owner. Not everyone is suited to raise livestock and livestock are not the best choice for all properties; many problems could be avoided if prospective owners would embrace this concept.

In the last several years, I have given many presentations on non-chemical parasite control methods to small ruminant producers. I use resources from the American Consortium of Small Ruminant Parasite Control to encourage producers to use animal selection, pasture management, stress reduction, nutritional programs and sanitation to help control pathogenic parasites in their herds instead of relying on chemical dewormers, against which parasites are quickly developing resistance.

Highlights of my Extension career to date include serving as a member and/or leader of nine national 4-H animal science curriculum development teams; being recognized as a national winner in several NACAA communication award categories; being co-awarded winner of the national Searches for Excellence in Sustainable Agriculture programming and Farm and Ranch Financial Management Education programming; obtaining a \$168K USDA specialty crop grant for regional outreach; and being selected as one of two WSU representatives interviewed for the National Extension Committee on Organization and Policy Study of Highly Effective 21st Century Extension Professionals.

I have been engaged with other SARE-sponsored activities including numerous Professional Development Programs (hosting and attending), serving as a featured speaker at the 2011 University of Alaska-Fairbanks Sustainable Agriculture niche dairy conference, attending SARE pasture management and multi-species grazing workshops and the 2006 SARE conference. I have attended three USDA Small Farm conferences, two national Extension Risk Management Education conferences and three EDEN national meetings.

If accepted as a SARE Fellow, while participating in program events I would ask myself how what I am learning could be adapted for other situations. Sustainability needs to address matters of financial, environmental, societal and animal welfare concerns, so sustainable livestock education needs to address these four prongs as well. I would use the Fellows program to develop more skills, expertise and knowledge of resources in the following areas:

Financial Risk Reduction

Production education to increase income and reduce expenses

Risk management education

Farm financial planning and record keeping

Disaster readiness

Farm succession planning

Environmental Risk Reduction

Cost sharing programs through NRCS and Conservation Districts for environmental protection measures

Best practices to reduce negative environmental impacts

Certification opportunities to document stewardship and conservation efforts

Societal Risk Reduction

Increasing understanding and connection between consumers and food producers through marketing methods, certification programs and effectively "telling the farm's story"

Educating consumers about the importance and value of food producers for the local economy, food security and quality of life

Animal Welfare Risk Reduction

Education regarding animal welfare standards and best practices to reduce instances of abuse and neglect due to ignorance

Certification and funding from the Animal Welfare Approved organization to enable producers to document they have addressed animal welfare needs and attract loyal and dedicated customers.

Documenting short-term program impacts such as gains in skills and knowledge through routine post-event evaluations is simple. Medium term impacts (changes in attitudes and behaviors) can be measured by documenting the number of participating farms that have achieved various certifications (achieved animal welfare standards, conservation or environmental standards); participated in cost-share programs for environmental protection; created and used farm vision/mission statements, farm stories and social media to educate and attract consumers; and created whole farm, business and marketing plans. Documenting long-term positive impacts in these four topic areas will require comparing comprehensive baseline data from producers to data gathered three or four years later. Data collected should measure changes in finances, production, environmental benchmarks, societal acceptance, animal welfare parameters and, ultimately, profitability. Such openness will require trust between producers and Extension personnel, which develops through long-term positive interpersonal relationships and a track record of delivering meaningful programming.

The overall goal of a SARE Fellow's work is to enable more farms to be more successful while addressing environmental and societal concerns. It is very difficult to have a profitable livestock enterprise. Financial success will rely on innovative thinking, new partnerships, mutually-beneficial integrated enterprises and creative risk taking. What alternative feed sources could benefit growers and livestock owners? How can we reduce fuel and labor costs? How can buying clubs and cooperatives help producers reduce costs? How much are educated consumers willing to pay for premium quality, locally-produced animal products? How can farms diversify and increase sustainability through enterprise integration? A successful SARE Fellow program should be able to answer some of these questions and generate knowledge transferrable to other situations.

A sustainable livestock production curriculum is in high demand throughout the country. Ideally, one result of being a SARE Fellow and collaborating with other educators would be the development of a useful resource that would be broadly applicable by livestock educators and producers throughout the U.S. This guide would include information about production methods and best practices for each livestock species, of course, but also include worksheets to help prospective producers determine the most suitable enterprise for their acreage, assess animal welfare, ensure product quality, improve soil and forage health, protect water quality, etc. Electronic delivery of webinars, videos and other asynchronous learning tools would be cost-effective ways to deliver research-based information to educators and producers as needed. Communication between educators interested in the topic of sustainable livestock production would be facilitated by the creation and support of a moderated list serve.

2014 Service to American/World Agriculture

John W. Jensen

*Interim Director, School of Fisheries
Auburn University*

Prior to becoming an administrator in 1995 my career focused on extension education when I joined the Peace Corps in 1969. Worked on a river in central Brazil where I organized commercial fishermen who formed a marketing cooperative that successfully marketed fish for five years in several of Brazil's largest cities.

Employed as a research associate by Auburn University in 1972 and worked for 3 years in Northeast Brazil where I organized an extension education component in a federal agency with the objective of introducing aquaculture to regional farmers. My work was supported by the U. S. Agency for International Development.

Employed by the Alabama Cooperative Extension System (ACES) in 1979 as a Fisheries Specialist. My principal assignment was to work in aquaculture production, processing and marketing, and small impoundment management

The catfish industry in Alabama grew from 4 million pounds produced in 1979, to 110 million pounds produced in 2000. As the industry grew, extension funds and special legislative line items were made available to support the industry with new research and extension efforts.

The Alabama Fish Farming Center, an organization that I was involved in establishing, began operations in 1982.

During the period 1979 - 1990, when commercial aquaculture grew by 1,000%, Responded to needs of the industry through thousands of personal contacts. I wrote numerous extension publications to support subject matter needs of our clientele.

Used mass media extensively and conducted innovative field-based county agent in-service training exercises that became models for other states. Each year I was requested by dozens of county agents, individuals and civic to provide technical assistance and training within the state and throughout the Southeast.

Involved in 4-H natural resource education

by developing aquatic resource camp activities, providing county agent training and conducting dozens of 4-H field days



related to aquatic resource management and aquaculture. Assisted vocational agriculture and other public school programs statewide by providing support to their aquatic resource teaching activities.

My most significant accomplishments during my extension specialist career were: founding of the Alabama Fish Farming Center, establishment of the Alabama Catfish Quality Assurance Program, and supporting the growth of the catfish farming business, to become Alabama's 5th most important agricultural product.

As Department Head of Fisheries and Allied Aquacultures I oversaw 22 faculty and a total of 145 employees, an \$11 million budget. Involved in the oversight of international projects in Philippines, Bangladesh, China, Brazil, Ecuador, Honduras, South Africa and Kenya. During my time as head, the department maintained its world-class status and became a university Peak of Excellence. The following is a partial list of activities and accomplishments as Department Head:

- Grants and contracts in the department grew to \$4.1 million in 2000, more than any other department on campus. They were at the time 18% of the University departmental grants and contracts and 58% of the COAG departmental grants and contracts.

- Helped bring in USDA support for red snapper research (\$2.6 million in 3 years).

- Developed an MOU with USDA-ARS Aquatic Animal Health Laboratory that resulted in \$250,000 in annual USDA funding and 2 new faculty positions.

- Seven years of effort by members of my faculty and me have resulted in an MOU

with the Dauphin Island Sea Lab and the construction of a new \$650,000 shellfish laboratory on Dauphin Island Sea Lab property.

- Worked collaboratively with the International Center for Aquaculture and Aquatic Environments on international and domestic projects.

- Invested in distance education equipment and expertise that allowed real-time internet teaching of FISH 6650, Post-Harvest Technology, from Faulkner State University in Bay Minette to our students at sites in Auburn and Gulf Shores as well as lectures to South African students.

- Developed and helped implement AAES, ACES and NRCS annual operating budgets for the Alabama Fish Farming Center, Greensboro.

- Secured a donation of the South Auburn Fisheries unit worth \$1 million.

- Secured hard dollar support for coordination of the Alabama Water Watch program directed by the department.

- Developed a hybrid catfish initiative that formed the basis for a USDA-SRAC regional project to support the catfish industry.

Currently serving as Interim Director, School of Fisheries, Aquaculture and Aquatic Sciences, Auburn University.

2014 Achievement Award Winners

North Central Region

Illinois - Teresa Steckler
Indiana - Hans F Schmitz
Iowa - David W. Baker
Kansas - Rachael Boyle
Kansas - Brian L. Rees
Minnesota - C Robert Holcomb
Missouri - Patrick L. Byers
Nebraska - Aaron J.H. Nygren
North Dakota - Ashley Ueckert
Ohio - Amanda Douridas
South Dakota - Chris Zdorovtsov
Wisconsin - Ken Schroeder

Northeast Region

Maryland - Ginger Myers
New Jersey - Mike Haberland
New York - Jerry Bertoldo
New York - Crystal Stewart
Pennsylvania - Christina Yoder Becker
West Virginia - Stacey D. Huffman

Southern Region

Alabama - M. Landon Marks
Alabama - Brenda V. Ortiz
Arkansas - Melissa Beck
Arkansas - Chris L. Grimes
Arkansas - Brad Runsick
Florida - Courtney Davis
Florida - J. Stacy Strickland
Florida - Lindsey Wiggins
Georgia - Lucy Ray
Georgia - Justin S. Shealey
Georgia - Amanda Tedrow
Kentucky - Shane Bogle
Kentucky - Daniel Wilson
Louisiana - Ernest Girouard
Louisiana - Sheena Grote-Cecil
Mississippi - Dr. Angus L. Catchot, Jr.
Mississippi - BJ McClenton
North Carolina - Shawn Banks
North Carolina - Wendi Hartup
North Carolina - Amanda Hatcher
Oklahoma - Brian C. Pugh
North Carolina - Jonathan Croft
Tennessee - Dave J. Mallard
Tennessee - Shannon Perrin
Tennessee - Anthony Shelton
Texas - Zach T. Davis

Texas - Lee Dudley
Texas - Michael R. Hiller
Texas - Jason Ott
Texas - Phoenix Rogers
Virginia - Janet L. Spencer

West Region

Arizona - Shawna Loper
Colorado - Eric McPhail
Montana - Jodi Pauley
New Mexico - Jack Blandford
Oregon - Gail Langellotto
Utah - Trent Wilde
Wyoming - Ashley Garrelts

2014 Distinguished Service Award Winners

North Central Region

Illinois - Martha A. Smith
Indiana - Robert Yoder
Iowa - Terry L. Steinhart
Kansas - Scott Chapman
Michigan - Nancy Thelen
Missouri - Matt Herring
Nebraska - Gary W. Lesoing
North Dakota - Randy Grueneich
Ohio - Jefferson Mccutcheon
South Dakota - Heather Gessner
Wisconsin - Ted Bay

Northeast Region

Maryland - Jon Traunfeld
New Jersey - William Sciarappa
New York - Sandra Buxton
Pennsylvania - Gregory Strait
West Virginia - Georgette Plaugher

Southern Region

Alabama - M. Kent Stanford
Alabama - J. Kevan Tucker
Arkansas - Michael Andrews
Arkansas - Jeremy Ross
Arkansas - Sherri Sanders
Florida - Sonja C. Crawford
Florida - Ed Skvarch
Florida - Wendy Wilber
Georgia - D. Scott Carlson
Georgia - Dr. Laura A. Griffith
Georgia - Dr. Casey Ritz
Kentucky - Lori Bowling
Kentucky - Bryce Roberts
Louisiana - Andrew Granger
Louisiana - Michael A. Lavergne
Mississippi - Thomas E. Brewer
Mississippi - Dr. Mark A. Crenshaw
North Carolina - Thomas M. Campbell
North Carolina - Carl D. Pless, Jr.
North Carolina - Bryant M. Spivey
North Carolina - Kim Woods
Oklahoma - Justin Barr
South Carolina - Amanda McNulty
Tennessee - Alan Bruhin
Tennessee - Melody Rose

Tennessee - John K. Teague
Texas - Bryan Reynolds
Texas - Dwight Sexton
Texas - Cullen D. Tittle
Texas - Todd Vineyard
Texas - Zachary Wilcox
Texas - Lyle Zoeller
Virginia - C. Taylor Clarke
Virginia - Bruce G. Jones

West Region

Alaska - Stephen C. Brown
Arizona - Trent Teegerstrom
Colorado - Tom Hooten
Montana - Marko Manoukian
New Mexico - Del Jimenez
Oregon - Shelby Filley
Utah - Kevin Heaton
Washington - Douglas M. Stienbarger

NACAA Hall of Fame Award

The NACAA Recognition and Awards Committee is proud to present these four 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 John Deere for sponsorship

of the NACAA Hall of Fame Awards



2014

Southern Region
Hall of Fame Award

Larry Moorehead

Tennessee
36 Years



The first four years of my career was teaching Vo-Ag. I wanted something different so I applied and was accepted into a PhD program at Illinois. However, before the end of the '77 school year I was offered an Extension job in Moore County. I accepted the 50% 4-H and 50% Ag position and did not go back to school.

Moore County is a livestock county and this suited my training in animal science. Producers feed the by-product from Jack Daniels Distillery and Moore is the number one cattle-feeding county in the state.

In 1990 I did a demonstration on storing hay and recording losses. We were losing 33% of our hay by January. I started promoting hay barns and became known as the 'barn man'. I did talks from East to West Tennessee and even assisted with plans.

I showed how a farmer could pay for a barn in 5 years from the waste. When Tennessee Department of Ag started the TAEP cost-share program I was the only agent called in by the Commissioner of Agriculture to discuss how hay barns would help all livestock producers and they have been cost-shared on ever since.

I'm in the smallest county in the state and the first year of cost-share we were number 2 in the state on new barns because we had already seen how valuable they are.

In 4-H, we went from one family to over 30 families showing at the state expo. Having the most outstanding county exhibit in 1987. My first big project in 4-H was landscaping the new high school with 200 plus plants and all the money was raised through donations. In 2002 we put in a reading garden at the elementary school and have landscaped the rest of the grounds since then with 150 plus plants.

I still work with and help raise money for a county camp. When I started, 4-Her's paid to go and we carried about 25-30 kids. Today it's an award and at no cost for their participation in clubs. We had over 125 4-Her's there last year with 25 adult leaders.

In 1988 I attended my first NACAA meeting to receive my DSA. I suggested to our State President that we could host a meeting and we did in 1996. I was named Chair of the Seeking Committee then elected Meeting Chair in 1992. I went on my first NACAA tour in 1987, gave my first \$20 to the scholarship fund in 1988 and to date have given \$9755.00. I work with young agents to get them interested in NACAA through AM/PICS and NACAA Tours.

2014
Northeast Region
Hall of Fame Award
Donald Fretts
Pennsylvania
13 Years - Retired



Before Don joined PSU Extension at the age of 52 in 1995, He was active 4-H member, had several agricultural related careers and was Executive Director of the Westmoreland County Fair. He developed a crops demonstration and hay marketing site on the fairgrounds in cooperation with Penn State Extension.

Don developed many successful regional programs in 13 years with extension:

CTAP (Computer Technology for Agricultural Producers) – A three year multicounty training event to bring farm producers current on computer technology and training.

Developed a 9 County Standardized County 4-H Livestock Guidelines for the development of the 4-H member.

4-H Achievement Ladder recognition system for encouraging youth to achieve personal growth in knowledge, character and service.

9 County Commissioners Forum to inform local county policy

and budget makers of Cooperative Extension's roll with public education. Keystone Development Center, a Mid-Atlantic regional cooperative development center combined with the Farm Credit System, PA State Cooperative Association and Extension.

Extension programming in crop production, farm management workshops, field trials and development of the SW No-Till and tri-state Forage Conference.

Improved funding supporting for the Fayette County Extension program by over 100% in 7 years and developed over \$150,000.00 in two local extension foundations.
Association

Agent William Kelly had a tremendous influence on Don and his PACAA/NACAA involvement. His first AM/PIC was in 1996. He left impressed with a set course for personal extension growth and attended 12 of the next 13 AM/PIC's.

Don was a PACAA Director, Secretary, President Elect and President. Don developed a food booth fundraiser and in four years, paid for a permanent structure with profits of \$3000-\$4000 annually to support PACAA/NACAA member activities and conferences.

Don coordinated the 2006-2008 cooperation of all associations, the NE & PA JCEP to set the stage to host 2013 Galaxy 4 in Pennsylvania. Don's vision to work together carried this project.

Don created and submitted the 2008 PA JCEP proposal that the NE host Galaxy IV in Pittsburgh, PA.

Don has won awards, PACAA state, regional and national in Communications and Search for Excellence, including the 2000 National Winner in Farm and Ranch Management.

Since retirement, Don served a term as NE Life Member Vice Chair.

Humanitarian

Don continues to use his skills and contacts with the volunteer efforts in his community. Westmoreland County Cattlemen, Westmoreland County Farmers Association, Pennsylvania Farm Bureau and Farm Credit Associations, and in retirement at the Augusta Farm Bureau Cooperative.

Don's involvement with United Methodist Church has been influenced by life's teachers, 4-H, Agri-business, farming, & Extension. Christianity has provided direction to always strive to do what is right and best, not just expedient or convenient. Don enjoys being a better mentor to those younger in their Christian faith or their professional walk through life.

A group of farmers gave Don a plaque he cherishes the most. It reads, "In Don we trust". "Thanks for all your hard work."

**2014
Western Region
Hall of Fame Award
Billy Dictson
New Mexico
37 Years - Retired**



Mr. Dictson was the County Agent we all strive to be. He cared about his clientele as a 4-H agent, Agriculture Agent, County Program Director, District Department Head, and as State Director. He started his experience with Extension as a 4-H member and even in retirement he is dedicated to those he has served. Mr. Dictson began his career as a 4-H agent and soon developed one of the largest most active programs in the state. As an agriculture agent a very large commercial agricultural county his advice and knowledge was solicited by most of his producers. He was know for his agriculture educational programs which drew record attendance. Among his clientele was the state president of Farm Bureau, Chair of the Extension Support Council, state president of wheat and corn growers and other high profile persons. He was able to work with them on their level and be a mentor and source of knowledge for them. He was the spokesman for agriculture in the county and conducted as many as three radio programs daily and one newspaper column per week. Mr. Dictson has demonstrated in his career with Extension those personal characteristics again and again in every position he has been assigned. He had a vision of a better extension service that was demonstrated in every aspect of programing. He kept that vision always, no matter the adversity to keep it moving forward. Because of his vision and ability to plan, to take the initiative, find the resources when they were short, with integrity, and the courage to stand up for county agents to University Administrations in a tactful way. As he was promoted up into administration he exhibited and promoted a philosophy, policies that are spoke of in the Extension Workers Creed. The philosophy of extension work thrives in the man known as Billy Dictson because he holds a deep concern for the well-being of all mankind and that abiding faith in people and their ability to develop and reach their life goals and potential. He served from 1965 to 2002 a total of 37 years.

2014 ABSTRACTS OF THE NATIONAL WINNERS AND FINALISTS COMMUNICATIONS AWARDS CONTEST

Audio Recording National Winner

HORTICULTURE HIGHLIGHTS

Wellman, D.*¹

¹ Agriculturalist, Iowa State University Extension & Outreach, Donnellson, IA, 52625

The Lee and Henry County Extension Offices in Iowa, developed a unique partnership with two local radio stations with the purpose of educating the public on horticulture topics. Radio listeners in Southeast Iowa now have the opportunity to hear 1-minute “Horticulture Highlights” during the growing season and over the holidays. The short format allows the listener to retain the information without losing interest, and makes the segments easy to archive on the ISU Lee County Extension website for future use. Horticulture Highlights were heard on KILJ Radio in Mount Pleasant, Iowa and KOKX Radio in Keokuk, Iowa reaching over 16,000 listeners. Topics included growing season issues or general horticulture information that would benefit listeners of all ages. This educational bit on mosses aired the week of May 27, 2013. Wellman voiced the radio spots, and the segments were recorded and edited at the KILJ radio station by Anna Herried.

NATIONAL FINALISTS

KEYS FOR TRANSITION COW SUCCESS – DAIRY MOOSINGS PODCAST

Moore, S.J.*¹, Durst, P.²

¹ Extension Dairy Educator, MSU Extension, Bellaire, MI, 49615

² Extension Dairy and Beef Educator, MSU Extension, West Branch, MI, 48661

This podcast was written and recorded to address a critical time in the production cycle of dairy cattle. The podcast is one of twenty one written, recorded and produced by Stan Moore and Phil Durst of Michigan State University Extension over the past year. This podcast was released on June 14, 2013

and has since been downloaded 232 times, making it the most popular of the podcasts produced over the past year. The Dairy Moosings Podcast idea was started in 2011 as a way to reach out to busy dairy producers, providing them educational programming that could be listened to “on the go”. Since its inception Dairy Moosings has grown to a total of over 4,300 podcast downloads (1,643 in the past year) by 57 countries. Top five countries include the United States of America, Australia, United Kingdom, Canada, and Ireland.

All podcasts are recorded at the Gaylord Regional Airport in Michigan by Moore and Durst and are edited for final upload by Moore using Audacity. Libsyn.com is used for final on-line publishing, with podcasts accessible through the Dairy Moosings Facebook page and iTunes. The “Keys for Transition Cow Success” podcast can also be listened to via a direct link from Libsyn: http://traffic.libsyn.com/dairymoosings/Transition_Cow_Success.mp3 or by accessing it through Facebook or iTunes. From Facebook individuals can search for Dairy Moosings. When on the page, click on the “Podcast Recordings” link directly under the cover photo.

FLORIDA-FRIENDLY LANDSCAPING™ RADIO SHOW

Davis, J.E.*¹

¹ Residential Horticulture Agent/Master Gardener

Coordinator, UF/IFAS Sumter County Extension, Bushnell, FL, 33513

The Florida-Friendly Landscaping™ radio show is a recorded radio broadcast that airs the first Wednesday of every month and is recorded by WVLG 640 am. Since the first air date in 2008, these broadcasted segments have aired for more than 84 times. The Florida-Friendly Landscaping™ radio program airs for approximately ten to thirty minutes. WVLG 640 am has a listening audience of over 97,000 listeners in The Villages, as well being broadcasted in over five Central Florida counties. The target audience for the radio station is The Villages. The Villages is a large retirement community consisting of residents mostly from other states and climatic regions. Forbes magazine listed The Villages as the fastest growing small town in The United States in 2013. In 2012, Sumter County was the fastest growing county in Florida. The objectives for the Florida-Friendly Landscaping™ Radio Show are to educate new and existing residents on the nine principles of Florida-Friendly Landscaping™, to provide timely topics on lawns and landscapes and to increase awareness of various UF/IFAS Sumter County extension educational events. A survey that was conducted among 481 residents within Sumter County, demonstrated that 74% have lived in Florida for five years or less. Based on the data received from a yearly post evaluation, it has been imperative that UF/IFAS extension programs teach Florida-Friendly Landscaping™ practices to help protect

Florida's natural resources and for residents to maintain a Florida-Friendly landscape.

CLEAR CHANNEL RADIO SPRING GARDENING PROGRAM

Neill, K.C.*¹

¹ Horticulture Agent, NC Cooperative Extension Service, Greensboro, NC, 27405

Spring is an active time for homeowners when it comes to caring for their lawns, landscapes, and gardens. To help listeners get started correctly with their spring gardening, a 15-minute presentation was pre-recorded and aired on Sunday, February 1st. Clear Channel Radio tapes these programs in their studio and replays them on all six of their stations on Sunday mornings. Four or five questions are prepared and given to the host, who then interacts with the agent. Dennis Elliot, the host, has been a friend of Extension for the past 26 years. He often adapts the questions, probing the subject matter more fully. This approach makes the program easy for listeners to comprehend. They have a listenership of 67,800 on these Sunday morning programs. Response from the program has led to increased calls to our Extension Infoline. This is also positive marketing for Extension programming.

Bound Book

National Winner

VEGETABLE PEST ID AND CONTROL VOLUME 2

McAvoy, E.*¹

¹ County Extension Director/Regional Vegetable Extension Agent IV, UF/IFAS Hendry County Extension, LaBelle, FL, 33975

Vegetables are big business in Florida. Graced with an abundance of land, water, and sunshine and favored with mild winters - south Florida - is the nation's winter garden providing fresh vegetables during the winter months. This seed for this book was planted at an Advisory Committee meeting in October 1998 where growers and others indicated a need for information on the incidence and occurrence of pests and diseases affecting vegetables in Southwest Florida. The concept was simple: pests and diseases are a constant threat to vegetable producers and timely and relevant information is required by growers to aid management efforts. A successful IPM program depends on correct and accurate identification of the pest or disease being targeted. This led to the publication of the South Florida Vegetable Pest and Disease Hotline, a beginning in 1998 and the Pest of the Month Column in Florida Grower magazine, a short time later. Vegetable Pest ID

and Control Volume 2 contains profiles of insects and diseases that appeared in the Florida Growers' Pest of the Column over the past 14 years and is intended as a hands-on field guide for growers. This agent wrote the insect and disease profiles in the book and assisted in the assembly of photos and layout of the book. Publishing was done by Meister Media, Willoughby, Ohio. 5000 copies were produced and distributed to vegetable growers and industry reps at the Florida Ag Expo in 2013 and the Southeast Regional Fruit and Vegetable Conference in 2014.

NATIONAL FINALISTS

MIDWEST BLUEBERRY PRODUCTION GUIDE

Gao, G.Y.*¹, Chatfield, J.A.², Draper, E.³, Ellis, M.A.⁴, Gauthier, N.W.⁵

¹ Extension Specialist and Associate Professor, Ohio State University South Centers, Piketon, OH, 45661

² Extension Specialist and Associate Professor, OSU Extension, The Ohio State University, Wooster, OH, 44691

³ Extension Educator and Associate Professor, OSU Extension - Geauga County, The Ohio State University, Burton, OH, 44021

⁴ Extension Plant Pathology and Professor, Department of Plant Pathology, The Ohio State University, Wooster, OH, 44691

⁵ Extension Plant Pathologist and Assistant Professor, Department of Plant Pathology, University of Kentucky, Lexington, KY, 40546

"Midwest Blueberry Production Guide" was developed to address the strong demand for research-based information on commercial blueberry production. The intended audiences were new and existing commercial blueberry growers in the Midwest. The primary author of this award application wrote the chapter on soils, fertilization and mineral disorders. He contributed approximately 50 photos in this extension bulletin. He used a Nikon D90 camera and a Nikon D7000 camera to take the pictures. He also helped with editing and layout of the book. Dr. Nicole Ward Gauthier of the University of Kentucky served as the editor of this publication. A staff person with the University of Kentucky designed the layout of the bulletin. This bulletin was completed in November, 2013 and is available free online at <http://www2.ca.uky.edu/agc/pubs/ID/ID210/ID210.pdf> Three hundred hard copies of this bulletin have been made available by OSU South Centers. The bulletin was printed in full color on heavy duty, glossy, and waterproof paper. It was finished with saddle stitch binding in a magazine style by a local printer in Waverly, Ohio. So far, approximately 100 copies have been sold at \$15 plus shipping and handling. A few complimentary copies have been distributed to co-authors by OSU South Centers.

ALABAMA LID HANDBOOK

Brantley, E.F.*¹, LeBleu, C.², Brown, J.³, Katie Dylewski, K.⁴

¹ Extension Specialist, Alabama Cooperative Extension System, Auburn University, AL, 36849

² Associate Professor, Auburn University, Auburn, AL, 36849

³ Extension Associate, Rutgers University, New Brunswick, NJ, 08901

⁴ Extension Associate, Alabama Cooperative Extension System, Auburn, AL, 36849

Alabama has amazing water resources that are important for ecological diversity, agriculture, recreation, drinking water, and industry. Poor management practices associated with land use change from agriculture or forest to urban or suburban, threatens streams, rivers, lakes, and bays. Low Impact Development (LID) is an innovative approach to stormwater management that seeks to create a more natural hydrologic cycle in a developed watershed. LID uses natural resource based planning and best management practices that carefully consider water, soils, and plants to slow, infiltrate, store and treat polluted runoff. Although LID has been implemented in some states, a coordinated approach to build awareness and understanding of its application in Alabama is needed. The Alabama Department of Environmental Management asked the Alabama Cooperative Extension System and Auburn University for assistance in writing an Alabama LID Handbook. This guidance document provides a comprehensive look at planning, engineering, vegetation, construction, maintenance, and recent research for 11 LID practices. It is critical to engage stakeholders for the long-term success of LID practices. A series of stakeholder workshops and presentations have been conducted around the state to get input into real and perceived opportunities and obstacles. The Alabama LID Handbook is available for download at www.aces.edu/lid

THE AMERICAN INDIAN FARMER AND RANCHER OUTREACH AND ASSISTANCE IMPROVEMENT PROJECT

Emm, S.*¹, Brummer, F.², Frazier, K.³, Singletary, L.⁴, Lewis, S.⁵, Hebb, V.⁶

¹ Extension Educator, University of Nevada Cooperative Extension, Hawthorne, NV, 89415

² FRTEP Agent Warm Springs, Oregon State University, Warm Springs, OR,

³ Instructor, University of Nevada Cooperative Extension, Nixon, NV,

⁴ Interdisciplinary Outreach Liaison, University of Nevada Cooperative Extension, Reno, NV, 89557

⁵ Extension Educator, University of Nevada Cooperative Extension, Gardnerville, NV,

⁶ Instructor, University of Nevada Cooperative Extension, Cherry Creek, SD

Farm Bill provisions offer considerable opportunities for American Indian tribes and individual farmers and ranchers to participate in USDA assistance programs. On most American Indian reservations, however, these programs are underutilized. The American Indian Farmer and Rancher Outreach and Assistance Improvement Project provides hands-on education utilizing curriculum based on the following: 1) Identify which American Indian farmers and ranchers are utilizing the different programs within USDA compared to the number of American Indian farmers and ranchers in the six-state area; 2) Identify barriers and challenges that American Indian producers face on reservations in sustaining agricultural enterprises and utilizing USDA programs; and 3) Report findings and make recommendations on new and innovative ways to more effectively connect the target audience to USDA programs and services. The American Indian Farmer and Rancher Outreach and Assistance Improvement Project curriculum is a major teaching tool in the University of Nevada Cooperative Extension's American Indian training program for USDA and other professionals across a six-state area of the Western United States. Participants gain knowledge about how to create outreach opportunities, communication systems, trust-building and establishing an outreach plan.

Computer Generated Graphics Presentation

National Winner

INVESTING IN YOUTH CARNIVOROUS PLANTS

Holsinger, Jr., A.*¹

¹ Horticulture Educator, University of Illinois Extension, Hillsboro, IL, 62049

Third through fifth grade students across the multi-county Unit of Christian/Jersey/Macoupin/Montgomery Counties learned about the many different meat eating plants, including Venus Fly Trap, Pitcher Plant, Sun Dew Plant, and others that eat live insects. The session, led by University of Illinois Extension Horticulture Educator, Andrew Holsinger, taught kids how carnivorous plants have adapted to capture insects and how to grow a Venus Fly Trap which is native to the United States. Among the methods of trapping are action, adhesive, and pitfall traps.

When the Montgomery County's classroom teachers heard about the program, the phones began ringing in the Montgomery County office. Now, more than 600 youth in 25 classrooms in the county know more about the life of carnivorous plants, and might just think it's cool to one day be a botanist.

The "Carnivorous Plants" program is sponsored by the University of Illinois Extension. It has been well-received by students and teachers alike due to its engaging, alluring nature.

NATIONAL FINALISTS

PESTICIDE RESISTANCE IN CROP PRODUCTION

Stahl, L.*¹

¹ Extension Educator - Crops, University of Minnesota, Worthington, MN, 56187

Pesticide resistance is a significant threat to agricultural production and profitability. Resistance issues with the herbicide glyphosate have received much press, but issues continue to expand in other classes of pesticides including insecticides and fungicides. The University of Minnesota (UMN) Private Pesticide Applicator Training (PPAT) team and the Minnesota Department of Agriculture decided pesticide resistance was of such significance that this would be a training objective in the 2013 – 2015 PPAT training cycle. To address this objective, I developed the “Pesticide Resistance in Crop Production” module by researching the issue and utilizing available resources, and had it reviewed by Jeff Gunsolus, UMN Extension Weed Specialist. The goal was to help educate growers about pesticide resistance and Turning Point questions were included to help growers evaluate their practices to help prevent and manage resistance. The module was distributed to the UMN PPAT team through email and our internal website. PPAT coordinators incorporated parts of or the whole module into workshops. PPAT Workshop attendance was 2,539 at 61 workshops, and 1,823 at 54 workshops across Minnesota in 2013 and 2014, respectively, and the module will be available for use again in 2015. Through Turning Point responses in southwestern Minnesota where I presented the entire module, 95% (426 respondents) and 97% (415 respondents) in 2013 and 2014, respectively, replied “Somewhat Likely” or “Very Likely” to the question “As a result of today’s workshop, I am likely to monitor pests and base treatment on threshold levels” - a key message of the presentation.

TREES AND SHRUBS FOR CENTRAL FLORIDA

Davis, J.E.*¹

¹ Residential Horticulture Agent/Master Gardener Coordinator, UF/IFAS Sumter County Extension, Bushnell, FL, 33513

The “Trees and Shrubs for Central Florida” computer generated graphics presentation was created for residential homeowners who plan on selecting, purchasing and planting ornamental trees and shrubs in Sumter County. In 2012, Sumter County was the fastest growing county in Florida. Sumter County also has one of the fastest growing small towns in the United States, The Villages. The Villages community has a population of over 101,000 residents. The U.S. census bureau listed The Villages as the second fastest growing micropolitan

community in the United States. Due to the increasing number of new residents, most from different climatic regions, it is imperative to educate homeowners on the proper selection of trees and shrubs. When planted in the right place, trees and shrubs can reduce stormwater runoff, attract wildlife, reduce utility costs and increase the value of a homeowner’s property. The objectives for the presentation were to provide some examples of trees and shrubs suited for Central Florida. Based on a post-survey of 481 residents who attended multiple presentations of the “Trees and Shrubs for Central Florida” presentation, residents had planted 567 trees and/or shrubs in their landscape after attending our presentations. 141 residents stated they had selected plants adapted to Central Florida and plants that were either drought tolerant, cold tolerant or both. Survey information was provided by Qualtrics®. The “Trees and Shrubs for Central Florida” computer generated graphics module was created using Microsoft Powerpoint®.

MASTER GARDENER PESTICIDE POLICY

Young, M.*¹, Agenbroad, A.², Hirnyck, R.³

¹ Extension Educator, University of Idaho, Weiser, ID, 83672

² Extension Educator, University of Idaho, Caldwell, ID, 83606

³ Extension Pesticide Coordinator, University of Idaho, Boise, ID, 83702

Idaho Master Gardeners give pesticide recommendations under the supervision of their county Extension Educator. Policies have been established to limit the type of recommendations that Master Gardeners are allowed to give because of the potential risk. It is also important to the program that Master Gardener volunteers are giving good recommendations based on current science and label directions. A need was recognized for more in-depth training regarding these policies and guidance on giving good pesticide recommendations. This Adobe Captivate presentation was created to provide an interactive and fun way to teach these concepts. It also allows individuals to study the material at their own pace and receive feedback to help them learn the material. This presentation is required for all Idaho Master Gardeners to receive their certification.

Link to presentation: <http://extension.uidaho.edu/washington/files/2014/03/MasterGardenerPesticidePolicy.pdf>

Fact Sheet

National Winner

LANDSCAPING FOR WATER CONSERVATION

Wilber, W.*¹, Jones, S.²

¹ Extension Agent III Environmental Horticulture, Gainesville, FL, 32609

² Graphic Designer, University of Florida IFAS, Gainesville, FL, 32611

The “Landscaping for Water Conservation” factsheet was created in the spring of 2014 to support the Florida Friendly Landscaping program™ in Alachua County. This Extension program teaches homeowners how to create and maintain landscapes that conserve water and protect the water quality in Alachua County and the state of Florida. Homeowners in Alachua County have many misconceptions about proper landscape management, care and maintenance. They often do not realize that they are wasting water, fertilizer and pesticides by poor management practices and landscape design. Many are not aware that poor management and design can contribute to the degradation of the environment and our springs through runoff and leaching of fertilizers and pesticides. As Florida’s population increases and our water usage continues to increase, Water Management districts are imposing stricter irrigation restrictions. By teaching homeowners to use the right plant in the right place they can use less water in the landscape. The short format of this 11 x 17 factsheet with clear photos helps homeowners to get a good idea of the plants they should use for water conserving landscapes in Alachua County. The icon key guides them to know what plants are native and best suited to sun or shade and which plant attract wildlife. This factsheet also provides resources where clients can go for more information on water conservation and watering restrictions. 200 copies have been distributed at Florida Friendly landscaping classes, at gardening information tables and at landscaping shows by the agent and Master Gardener volunteers.

NATIONAL FINALISTS

PRODUCT ISSUES WITH STOVER REMOVAL ON RENTED LAND

Leibold, K.L.*¹

¹ Farm and Ag Business Management Specialist, Iowa State University Extension and Outreach, Iowa Falls, IA, 50126

Iowa has had two cellulosic ethanol plants starting to buy corn stalk stover for ethanol processing. In Iowa has over 55% of the land is rented. This has resulted in a lot of concern about who owns the stalks, the value of the stalks, and the impact on

the soils to name a few of the issues.

The fact sheet was written to help both tenants and landlords discuss critical issues so that both sides understand the reasons for selling stover and the potential value selling stover can bring.

The fact sheet was just recently posted to the Extension Web site. <https://store.extension.iastate.edu/Product/Issues-with-Stover-Removal-on-Rented-Land> The publication is intended to be used in the coming leasing programs this summer where it will reach over 1,400 people. It is also going to be posted to a web site that focuses on stover issues along with 25 other publications.

UNDERSTANDING OSHA

Buxton, S.*¹

¹ Association Resource Educator, Cornell Cooperative Extension, Hudson Falls, NY, 12839

In an attempt to prepare farmers for a possible increase in enforcement, this 2-page fact sheet was created to tackle some of the key issues and questions many dairy producers would need to understand when potentially facing an OSHA inspection. While most agricultural employers are exempt from OSHA regulations, there are situations where they apply. The basic areas that OSHA inspects were important to define for employers. Created in Microsoft Word then imported to Publisher, the document was then converted into a .pdf file using Acrobat Distiller in order to minimize the amount of memory required when transmitting the final version electronically. The fact sheet was distributed first at a meeting on 12/12/2013 and then via a series of e-mail lists to people in Saratoga and Washington Counties and at several discussion groups. It was also transmitted to several extension offices and posted on several web sites. More than 1000 fact sheets are helping producers understand the many challenges that could be involved in an inspection.

EASTERN BACCHARIS BIOLOGY AND CONTROL

Enloe, S.F.*¹, Loewenstein, N.²

¹ Extension Specialist, Alabama Cooperative Extension System, Auburn University, AL, 36849

² Extension Specialist, Alabama Cooperative Extension System, Auburn University, AL, 36849

Eastern baccharis is a shrub native to the southeastern Coastal Plain. In recent years it has increasingly become a troublesome weed in forestry and rights of way areas well beyond its original range. Its evergreen appearance coupled with a fall flowering period allow it to stand out in the late fall when most other species have gone dormant. In 2013, Alabama Cooperative Extension Personnel received numerous questions concerning its identification and control. To rapidly address these questions, we created a Timely Information Fact

Sheet that explained the biology, ecology and control methods for this new weed problem. The fact sheet was produced and published on the ACES Timely info website and subsequently advertised via blogs and the Alabama Extension Invasive Plant Facebook Page. Information from the TIS fact sheet has also been presented and distributed at several meetings throughout the State. While it is too early to quantify the impact of the fact sheet, current awareness of the problem among extension clientele has greatly increased.

Feature Story

National Winner

USING SMART IRRIGATION TO SURVIVE A HOT SUMMER

Bachman, G.R.*¹

¹ Horticulture Specialist, Mississippi State, Biloxi, MS, 39532

The summer garden season in Mississippi is long and hot. This means in order to have a beautiful garden and landscape irrigation is a must. This article gives the home gardener options for being water wise and efficient with landscape irrigation. This is especially important during droughty years when many municipalities impose watering restrictions. I took all of the images using a Canon EOS Rebel XT_i DSLR. This article was published in the June 2013 edition of Mississippi Gardener magazine which has a monthly circulation of over 5500 copies.

NATIONAL FINALISTS

JUST HOW DO I TAKE CARE OF MY CHRISTMAS POINSETTIA?

Wick, S.*¹

¹ District Extension Agent, ANR, K-State Research & Extension, Smith Center, KS, 66967

The holidays are such a festive and fellowship time for family and friends. Households are busy decorating with all the traditional favorites such as wreaths, trees and plants. To help citizens with one special traditional holiday plant, I developed a feature, yet informational story on the care of the Christmas poinsettia. The objective of my feature story was to educate citizens on the traditional Christmas holiday plant that needs special care. The purpose was to educate citizens on specific guidelines for caring for the poinsettia during the holidays and possibly keeping it beyond that time along with clarifying

any myths. The feature story was written December 6, 2013 and printed in *seven area newspapers during the week of December 9-13, 2013*.

The story was directed to all citizens and was distributed to 20,250 households. After the information was printed, our District offices received several inquiries about the poinsettia plant and our clientele requested printed material on the care. I wrote and prepared all the information using K-State Research and Extension materials. A word processor and a color copier/printer were used for duplication. As a result of this information published in these area local newspapers, citizens reported that they were better informed of the proper care of the Poinsettia along with extending the longevity of their plants.

HOW HEALTHY IS THE EMPLOYMENT SITUATION ON YOUR FARM?

Schwartau, C.*¹

¹ Regional Extension Educator-Southeast Region, University of Minnesota Extension, Rochester Regional Office, Rochester, MN 55904-4915

As dairy farms in Minnesota and around the country grow, so does the workforce, whether it is family or non-family. Success of these farms and the workforce on them depends on many factors, some obvious and others less obvious.

This article is built around a tool developed by DairyNZ to help farms assess how well they manage six key factors on their individual farms.

- Do you have the right people in the right jobs?
- Do people on your farm know what they should be doing and how they should be doing it?
- Do you employees understand how their job contributes to the success of the entire farm?
- Are employees on your farm satisfied with their working hours and time off?
- How are physical working conditions on your farm?
- Do you model a balance between work and personal life and do you encourage the same in your workforce?

Employers paying attention to these factors have been shown to have more satisfied employees and a reduced workforce turnover rate as a result of that satisfaction.

This article was published in nationally distributed dairy industry magazines in the US and Canada as well as an on-line dairy journal and an Upper Midwest dairy newspaper that reaches all dairy farms in Minnesota and border counties in the surrounding states.

BUYING AND SELLING CORN SILAGE

Jergenson, T.*¹

¹ Agriculture Agent, Barron County, Barron, WI, 54812

Growers of corn silage and livestock producers who purchase corn silage will use a method of price discovery that accurately reflects current market conditions, feed value, and production costs of corn silage.

Buyers and sellers of corn silage do not have an established market price that is tracked and reported such as other agricultural commodities that are openly traded on exchanges or at auction. This creates a dilemma for producers when they try to arrive at an equitable price for corn silage. The author wrote this feature story at the request of the editor of *Progressive Forage Grower* to help their readers overcome the challenges associated with pricing corn silage. The audience for this feature story are readers of *Progressive Forage Grower* which consists of forage growers, dairy and livestock producers, livestock ration advisors and feed consultants from the midwestern states to the west coast of the U.S.

Progressive Forage Grower is a monthly print and electronic publication. «Buying and Selling Corn» appeared in both the electronic edition and print edition of January 2014 issue of this magazine.

“Buying and Selling Corn Silage” was written solely by the author, Tim Jergenson, Agricultural Agent, Barron County UW-Extension, Barron, WI utilizing research-based information from variety of sources from Land-Grant Institutions in the U.S.

Learning Module National Winner

MISSISSIPPI MASTER CATTLE PRODUCER PROGRAM

Parish, J.*¹

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The Mississippi Master Cattle Producer program consists of training modules in eight beef cattle production subject areas. The Mississippi Master Cattle Producer program website is <http://msucare.com/livestock/beef/mcp>. Links to the eight training modules are posted on this website. Beef cattle producers enrolled in the Master Cattle Producer program will complete about 20-24 hours of training which includes the following: 1) Beef Cattle Nutrition, 2) Forage Systems, 3) Beef Cattle Reproduction, 4) Breeding and Genetics, 5) Economics and Marketing, 6) Herd Health and Handling, 7) Beef End Product, and 8) Beef Quality Assurance. The internet-based training features streaming video of speakers and slides. Each module consists of approximately 80 slides. Slides with scripts, reference publications, and certification exams are available

for online viewing or download. The online modules were originally posted in MediaSite and are now being converted to a YouTube format to accommodate more internet browsers and mobile device access. Extension personnel are offered in-service training credit on an ongoing basis for completing these modules. Participants must successfully review all course materials and complete the exams for the eight training topics listed above to be eligible for Master Cattle Producer certification. Participants can view online training modules and download training materials free of charge. Participants completing the program also have the option to receive printed course materials, a metal farm sign, Master Cattle Producer cap, and certificate of completion for a course fee. To date, more than 600 participants have completed this training.

NATIONAL FINALISTS

MANURE MANAGEMENT

Clark, J.*¹, Ted Bay²

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² Crops Farm Management Agent, University of Wisconsin-Extension, Grant County, Lancaster, WI, 53813

Beginning farmers, manure applicators, agriculture professionals, and students interested or working in the livestock production industry often overlook the importance of manure management and how manure is handled and applied. To address the need for manure management education for a broad knowledge-based audience, the author secured a grant through the National Institute for Food and Agriculture (NIFA) and the Building Environmental Leaders in Animal Agriculture (BELAA) project. The grant was used to develop a learning module to help learners increase their knowledge and understanding of manure and nutrient management. The nine-section module includes video, fact sheets, worksheets, a PowerPoint®-based Jeopardy® game, and answer sheets. The module is available online at <http://www.extension.org/pages/65573/managing-manure-nutrients-curriculum-materials> and includes a quiz which participants can print a certificate of completion. The video series was professionally produced by the University of Wisconsin-Extension Distance Education/Digital Media Unit. Team members along with the author developed scripts, factsheets, worksheets, and provided interviews for the video. Forty copies of the module in DVD format were distributed to Wisconsin high school and technical college agriculture classrooms. In 2013 and 2014, over 650 manure applicators used the module for the Level One volunteer certification program for the Professional Nutrient Applicators Association of Wisconsin. The online videos have had over 200 views and the PowerPoint® game has been used over 1050 times. 85% of learners increased their knowledge of manure management. 90% indicated they increased their awareness of environmental impacts related to manure issues.

EXTENSION TRAINING FOR AGRITOURISM DEVELOPMENT

Schilling, B.^{*1}, Carleo, J.², Sullivan, K.³, Wolinski, L.⁴, Chase, L.⁵, Marxen, L.⁶, Melendez, M.⁷, Infante-Casella, M.⁸, Brzozowski, R.⁹, Rozier-Rich, S.¹⁰, Komar, S.¹¹, Bamka, W.¹², Hlubik, W.¹³

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³ Assistant Director, Statistical Analysis, ORA, Rutgers University, New Brunswick, NJ, 08901

⁴ Extension Educator, University of Delaware, Newark, DE, 19716

⁵ Natural Resources Specialist, University of Vermont, Brattleboro, VT, 05301

⁶ Assistant Director, Research Technology, ORA, Rutgers University, New Brunswick, NJ, 08901

⁷ Senior Agricultural Program Coordinator, Rutgers University, Trenton, NJ, 08648

⁸ Agricultural and Resource Management Agent, Rutgers University, Clayton, NJ, 08312

⁹ Extension Educator, University of Maine, Falmouth, ME, 04105

¹⁰ Principal, EnRiched Consulting, Katy, TX, 77449

¹¹ Agricultural and Resource Management Agent, Rutgers University, Newton, NJ, 07860

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¹³ Agricultural and Resource Management Agent, Rutgers University, East Brunswick, NJ, 08902

“Extension Training for Agritourism Development” is a multistate project funded by the Northeast Sustainable Agriculture Research and Education program (award no. ENE11-121). Educational programming was developed and is being delivered to agricultural educators and service providers working with Northeast farmers interested in agritourism development. The training program comprises workshops, webinars, and web-based resources focused on: minimizing farm safety risks, managing liability, mitigating financial risk through enterprise budgeting; and improving marketing strategies.

The core of the training program is a series of five PowerPoint-based training modules:

Module 1 - Introduction to Agritourism

Module 2 - Marketing Agritourism While Providing Quality Customer Service

Module 3 - Financial Management: Budgeting & Pricing for Agritourism

Module 4 - Managing the Safety Risks of Agritourism Farms

Module 5 - Agritourism Liability

These modules have served as the basis for trainings conducted in Vermont, Maine, Delaware and New Jersey. Upcoming webinars will deliver the content to a national audience. These modules have been downloaded 327 times to date from the project website (<http://agritourism.rutgers.edu/training/>). Additional resources include three training videos on agritourism safety and risk/liability management (viewed 150 times), an online budgeting tool for corn mazes, seven farm evaluation checklists (for use by educators/service professionals and farmers), a sample ‘farm accident/incident report form’, and various agritourism-oriented Extension fact sheets. The project has generated interest not only in participating Northeast States, but is also attracting requests for use by professionals beyond the region (e.g., Missouri, Indiana, and North Carolina) and in other countries (e.g., Canada and Antigua).

2013 VIRGINIA BEGINNING GRAZING SCHOOL

Teutsch, C.^{*1}, Campbell, B.², Clarke-Mecklenburg, C.T.³, Wootton, C.⁴, Brown, C.⁵, Gregg, C.L.⁶, Smith, D.⁷, Jones, D.⁸, Groover, G.⁹, McCann, H.¹⁰, Daniel, J.B.¹¹, Overby, K.¹², Siegle, L.¹³, Tucker, L.¹⁴, Shoemaker, R.¹⁵

¹ Forages Specialist, Virginia Cooperative Extension, Blackstone, VA, 23824

² Livestock Ruminant Specialist, Virginia Cooperative Extension, Blackstone, VA, 23824

³ ANR Extension Agent, Virginia Cooperative Extension, Boydton, VA, 23917

⁴ TMDL Conservation Specialist, Piedmont Soil & Water Conservation District, Farmville, VA, 23901

⁵ ANR Extension Agent, Halifax, Virginia Cooperative Extension, Halifax, VA, 24558

⁶ ANR Extension Agent, Brunswick, Virginia Cooperative Extension, Lawrenceville, VA, 23868

⁷ ANR Extension Agent, Cumberland, Virginia Cooperative Extension, Cumberland, VA, 23040

⁸ District Conservationist, Natural Resources Conservation Service, Farmville, VA, 23901

⁹ Extension Economist, Virginia Cooperative Extension, Blacksburg, VA, 24060

¹⁰ ANR Extension Agent, Nottoway, Virginia Cooperative Extension, Nottoway, VA, 23955

¹¹ Forage & Grassland Agronomist, USDA - Natural Resource Conservation Service, Farmville, VA, 23901

¹² ANR Extension Agent, Prince Edward, Virginia Cooperative Extension, Farmville, VA, 23901

¹³ ANR Extension Agent, Amelia, Virginia Cooperative Extension, Amelia, VA, 23002

¹⁴ ANR Extension Agent, Lunenburg, Virginia Cooperative Extension, Lunenburg, VA, 23952

¹⁵ , Virginia Department of Conservation and Recreation, Warrenton, VA, 20136

With fuel, fertilizer, and equipment prices ever increasing, the appeal of making and feeding hay is beginning to lose its luster with Virginia livestock producers. The cost of hay production coupled with a growing interest in grass-fed meats has directed producer attention to better utilization of forage crops across the state, prompting Virginia Cooperative Extension, the Virginia Forage and Grassland Council, and the Virginia Natural Resource Conservation Service to work together to provide producers with adequate information and assistance in getting the most out of their pastures. Together the group developed the Virginia Beginning Grazing School, a two-day course with a nine-part manual to guide producers through the different aspects of a grazing operation: Infrastructure; Plant Growth; Arithmetic; Forage Species; Forage Allocation; Economics; Soils; Forage Quality; and Planning Exercise. Divided into these eight topics, the manual includes copies of the presentations, example grazing plans, publications on various grazing-related topics, results of current research on forage crops, descriptions of different forages, worksheets, and contact information for many of the individuals involved in the development of the manual. Although the school was well-received and educational, with 96% of participants agreeing that it was a good value both in terms of their time and money, the real standout here is the resources participants were able to take with them. The grazing manual serves as a ready reference material for questions and forgotten information, and truly adds value to both the program and to the farms of the graziers that received it.

Newsletter, Individual

National Winner

‘GREEN FLASH - NEWS FOR HORTICULTURE PEOPLE’

Porter, W.¹, Regional Extension Specialist, Mississippi State University Extension Service SE, Lauderdale

The ‘*Green Flash - News for Horticulture People*’ newsletter is a quarterly newsletter designed, produced, and published by the author. This newsletter was created to get useful information to clients on various horticulture topics. The information provided can be used as a planning guide since the newsletter is produced quarterly. Also in the newsletter there is a calendar of upcoming gardening events. The newsletter is e-mailed to 45 counties in Mississippi. The county personnel then have the option to use information from the newsletter in their own newsletters, forward it via e-mail to clients, or print copies for local distribution. The number of copies distributed is constantly increasing since new clients are signed up whenever there is a gardening meeting. Currently, over a 2000 copies are

distributed quarterly, primarily through e-mail. A hard copy mailing list was initiated to get the newsletter to clients who did not have e-mail accounts. Current and previous copies of the newsletter can be found at: <http://msucare.com/newsletters/greenflash/index.html>

NATIONAL FINALISTS

FROM THE FENCE POST

Santangelo, N.¹, Extension Educator 2, Penn State Extension, Potter County

“From the Fence Post” was a newsletter initiated two years ago by new Field & Forage Crops Extension Educator, Nicole Santangelo. The objectives of this newsletter include both relaying timely agronomic information to producers in North Central Pennsylvania, and to serve as a programming connection with a large group of clientele. The newsletter is produced four times each year and distributed to more than 275 farmers, primarily by bulk mail. This mailing list continues to grow as programming reaches a larger audience. Online readership has increased from 12 to 46 subscribers in the last year. The newsletter is edited and often written entirely by the educator, with the exception of an occasional article contributed by a colleague. Information for articles is sometimes gathered from other agencies and universities. The newsletter heading, in part, is contributed by Penn State Marketing Department as a template, but all other content is product of the educator’s work, including most photographs. Some graphics may be the work of colleagues as it relates to research product. County staff assist in printing and mailing each newsletter. Since the original newsletter, the document has evolved to include more information about local on-farm trials and a separate flyer is often contained within the mailing to advertise upcoming events on a more county-by-county basis. Prior to the release of the first issue of this newsletter, a survey was conducted indicating 86% of producers (n=146) preferred programming that included a mailed newsletter in this region.

JOHNSON COUNTY GROWER

Britton, T.¹, Ag Agent-Agriculture, NCCES

The Johnston County Grower is a quarterly newsletter mailed to 1181 growers and dealers, and emailed to an additional 145 growers and dealers in Johnston County and surrounding counties in North Carolina. It covers relevant topics for growers for the following 3 month time period. Information on meetings, important dates, trial results, and potential pest problems are discussed.

SMYTH COUNTY AGRICULTURE EXTENSION NEWSLETTER

Overbay, A.E.¹, Extension Agent, ANR, Dairy Science, Smyth County

The Smyth County Agriculture Extension Newsletter is sent out quarterly to over 800 subscribers in and around Smyth County Virginia. Subscribers include farmers and industry personnel and copies are also mailed, emailed or hand delivered to local, state and congressional leaders. The purpose of the newsletter is to inform readers about trends, solutions to issues, and upcoming events within the program area. Efforts are made to keep the newsletter short, colorful, easy to read, and easy to reference. Response to the newsletter remains positive from both farmers and leaders alike. Farmers share that they appreciate knowing what is going on and legislators have been quoted as saying “Andy keeps me informed.”

Newsletter, Team

National Winner

DOWN THE GARDEN PATH

Polanin, N.*¹, Gyurian, J.², Boney, N.³, Magron, R.⁴, Cowgill, W.⁵

¹ County Agent II, Rutgers NJAES Cooperative Extension, Bridgewater, NJ, 8807

² Horticultural Consultant, Rutgers NJAES Cooperative Extension of Somerset County, Bridgewater, NJ, 08807

³ Rutgers NJAES Master Gardener, Rutgers NJAES Cooperative Extension, Flemington, NJ, 08822

⁴ Research Associate and Horticultural Consultant, Rutgers NJAES Cooperative Extension of Hunterdon County, Flemington, NJ, 08822

⁵ Agri-cultural and Resource Management Agent, Rutgers Cooperative Extension of Hunterdon County, Flemington, NJ, 08822

‘Down the Garden Path’ is an internal newsletter designed by Rutgers Master Gardeners for Rutgers Master Gardeners. This bi-monthly newsletter is posted online six times each year at a password protected Rutgers NJAES Cooperative Extension (RCE) website and distributed via email announcement to the 180 or so active Rutgers Master Gardener volunteers in both Hunterdon and Somerset Counties in NJ. Team members meet regularly to create a storyboard for the year, with deadlines and topics of interest, coordinating with many other teams and committees to reserve space for activity and event announcements. Regular newsletter components include a

President’s Corner, photo montages of past events, a ‘Dear Lilly’ advice column, team reports and highlights, a ‘Plant of the Month’ column, a gardening calendar, continuing education opportunities to fulfill state requirements for recertification, RCE program announcements from faculty and staff, some fun facts or garden word searches or crossword puzzles, and several feature articles from team members. Many of these feature articles highlight landscape design themes, favorite plants, insect or disease challenges in the home garden, or other areas of horticultural interest specific to the individual author. The team also utilizes the newsletter to better inform our volunteers on financial updates and meeting announcements and new or discontinuing volunteer opportunities. Members work in MSOffice Suite 2010 (Word and Publisher) to create the text and style while inserting photos in *.jpeg or *.tiff format prior to finalizing the issue as an Adobe Acrobat *.pdf file for posting.

NATIONAL FINALISTS

UNL BEEFWATCH

Chichester, PhD, L.M.*¹, Richard Randle², Steve Tonn³, Troy Walz⁴

¹ Extension Educator , University of Nebraska - Lincoln, Ithaca, NE, 68033

² Associate Professor - Vet and Biomedical Sciences, University of Nebraska - Lincoln, Lincoln, NE, 68583

³ Extension Educator, University of Nebraska - Lincoln, Blair, NE, 68008

⁴ Extension Educator, University of Nebraska - Lincoln, Broken Bow, NE, 68822

UNL beef focused Extension Educators, Specialists, and Veterinarians try to reach producers and consumers through a variety of web-based options including a website, facebook, twitter, blogs, online courses, and webinars. There was a need for an electronic newsletter that would deliver timely and relevant topics on a regular basis. A team of four took on this project and determined: team roles and responsibilities, the best platform to use by visiting with other groups who also send an electronic newsletter, a newsletter name, and the frequency of the newsletter delivery. The “Crops for the Future” team has an established and successful electronic newsletter called *CropWatch*. We approached them about using a similar name, and they graciously agreed. The *UNL BeefWatch* electronic newsletter was born! Monthly, two team members seek relevant and timely content from all members of the UNL extension beef team. All of the potential articles are reviewed by two team members; the editors send comments and suggestions back to the author(s) for revisions. Finally, the newsletter designer includes all of the content, photographs, and links to other resources as needed. *BeefWatch* is sent out on

the first day of the month to nearly 700 subscribers (persons can self-subscribe). In 2013, *BeefWatch* had published 78 articles by 36 different authors, with an average viewer time of 3:47 minutes per article and a total of 98,649 pageviews! Eighty-eight percent of all visits came from the U.S. In 2014, the *BeefWatch* team plans to market the newsletter to more industry partners.

PEACH ROUND TABLE

Mcavoy, C.E.*¹, England, G.K.², Oswalt, W.C.³, Whidden, A.J.⁴

¹ Multi-County Commercial Horticulture Agent, UF/IFAS, Bushnell, FL, 33513

² Tree Fruit Crop Extension Agent, UF/IFAS, Tavares, FL, 32778

³ Multi-County Citrus Extension Agent, UF/IFAS, Bartow, FL, 33831

⁴ Vegetable Extension Agent, UF/IFAS, Seffner, FL, 33584

The University of Florida, Institute of Food and Agricultural Sciences (UF-IFAS) Plant Breeding Program recently introduced sub-tropical (low chill) stonefruit cultivars. Many central Florida growers have expressed interest in evaluating this crop in their operations. These growers are primarily citrus and other deciduous fruit crop producers looking to diversify. Stonefruit production has an intensive crop management regime when compared to other traditional central Florida crops. Some of the management practices unique to stonefruit are biannual hand pruning, bloom and fruit thinning. These newly introduced crop practices give the central Florida Peach Extension group an opportunity to disseminate UF-IFAS Extension recommendations through field demonstrations, roundtable discussions, and a quarterly team produced newsletter. Each newsletter covers timely pertinent topics growers can utilize to improve their stonefruit production. Team members are responsible for an article every quarter. This team newsletter began in October 2011 and is presently distributed to 150 current and perspective growers electronically throughout an 11 county area. In conjunction with each newsletter, a "Peach Round Table" program is conducted by the team of Florida Peach Extension group with Extension Specialists attending. One hundred and ninety-two attendees have participated in the 4 meetings held during 2013-2014 season. These meetings are intended to expand upon the information presented in newsletter articles and also generate discussion focused on any topic related to peach production and marketing in central Florida.

WILSON PRIDE NEWSLETTER

Stefanski, J.*¹, Barnes, S.²

¹ Extension Agent, UT, Lebanon, TN, 37087

² Extension Agent, UT/TSU Extension, Wilson County, Lebanon, TN, 37087

The *Wilson Pride* newsletter is a collaborative effort between the horticulture and family and consumer science agents in Wilson County Tennessee. The newsletter stems from the creation of the Wilson County Sustainable Agriculture Coalition (*WCSAC*). The *WCSAC* was created to serve as a connection point between local producers and local consumers based on a growing demand for locally produced goods. The newsletter serves to highlight local farms and their products while also providing education related to specific locally produced commodities and other agriculturally related topics. The newsletter is electronically distributed by email on a bi-monthly basis. It is received by approximately 750 individuals, including members of the *WCSAC*, local government officials and community leaders, UT/TSU Extension administrators, along with several local civic organizations. The entirety of the newsletter is the original work of its authors. Since its creation, the newsletter has served to stimulate the local agricultural economy by increasing the exposure of local farms to an expanding and diverse consumer market in Wilson County. Additionally, it has provided valuable educational resources and has helped increase the exposure of UT/TSU Wilson County Extension programming.

Personal Column

National Winner

WEEKLY GARDEN COLUMN – CHARLESTON GAZETTE-MAIL

John Porter

Extension Agent
WVU Extension Service
Kanawha

In May 2013, the Life editor from the Charleston Gazette-Mail, which is West Virginia's largest newspaper and considered to be statewide in scope, contacted this agent and asked him to take on responsibilities of writing a weekly garden column for their Sunday edition. The Sunday has a print readership of 180,000 individuals, plus 440,000 monthly online readers. The weekly articles are written to deliver timely advice to home gardeners on a variety of horticultural subjects on an approachable, yet informative level. Articles often contain historical perspective, scientific background, and other educational content through the use of plain language and humor. Many positive comments have been received about the column, and an assessment survey in November 2013 showed that readers were gaining knowledge and incorporating new practices. This weekly

column has become a major educational outreach effort and has had a large amount of impact in the community. PDFs of articles from the newspaper are also provided, as the article format is too large for scanning and photos of the articles are difficult to read.

NATIONAL FINALISTS

THE COURIER COLUMN

Edwin M. Lentz

Educator

The Ohio State University Extension

Hancock County

Agriculture is an important industry in the community but the majority of the people in the area reside in a town or city. The largest city in the county has a population of about 40,000 individuals. The local paper has requested columns to be written for the non-farming community and not to prepare articles that would only be an interest to farmers. The objective of this column is to inform a non-farm audience about agriculture but still be relevant to the farming community. The column is written once a week for a local newspaper on various agricultural topics. Newspaper circulation is approximately 20,000 and distributed locally to about seven counties. Articles are submitted electronically to a newspaper editor to be edited at their discretion. Major outcomes of the columns have been a greater appreciation for the agricultural industry, awareness of Extension outreach, and knowledge of food production by the non-farm audience. Farm audience has been reminded of their heritage, their role in the agricultural industry, and informed of upcoming Extension events. Results of the column have been increased weekly requests for more information via email, telephone or office visits to the County Extension Office. The columns have also been a means to inform new audiences of Extension activities which have resulted in new audience participants in County programs. The author was responsible for the content of the columns.

FLORIDA-FRIENDLY LANDSCAPING™ARTICLES

James E Davis

Residential Horticulture Agent/Master Gardener Coordinator

UF/IFAS Sumter County Extension

Sumter

Florida-Friendly Landscaping™articles are written for the major newspaper in Sumter County, The Daily Sun. The Daily Sun has a distribution of over 74,000 residents serving a population of over 101,000 people. The Florida-Friendly Landscaping articles focus on topics that promote eco-friendly landscaping practices that protect Florida ecosystems, water quality and also can save residents money in reduction of maintenance costs. According to a post survey distributed to 481 residents who attended workshops, over 50% of those residents knew about UF/IFAS Sumter County extension events by reading our weekly columns and press releases.

Weekly columns occur every Saturday in the Home and Garden Section of the Daily Sun. Photographs were provided by the agent.

NEWS AND VIEW FROM YOUR COUNTY AGENT

Jeffrey E Banks

Agriculture/4-H Youth Agent

Utah State University

Juab County

The objective of the “News and Views From Your County Agent” news column is to inform county clientele and others of pertinent educational information and to address current timely topics. For the past 24 years, the author has provided this bi-weekly column 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: “Why All the Interest in Raising Backyard Chickens”, “Conserving Water By Using Drip Irrigation”, “Battle of the Weeds”, “How to Store Fruits and Vegetables”, “Divide and Conquer”, and “Keeping It Warm and Safe”. 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

2013/2014 MSU DAIRY PROGRAMS BOOKLET

Moore, S.J.*¹, Durst, P.², Lee, K.³, Wardynski, F.⁴

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² Extension Dairy Educator, MSU Extension, West Branch, MI, 48661

³ Extension Dairy Educator, MSU Extension, Lake City, MI, 49651

⁴ Extension Beef/Dairy Educator, MSU Extension, Ontonagon, MI, 49953

The Michigan State University Extension (MSUE) Dairy Team promoted an array of extension programs using the 2013/2014 Dairy Programs booklet. The booklets were mailed to each dairy farm in Michigan (over 2,100) and over 350 allied dairy industry professionals in mid November. This approach allowed the MSUE dairy educators to use their resources more efficiently to inform the dairy industry of upcoming educational programs. Dairy producers also commented that the booklet showed the depth and variety of high-quality programs planned by MSU Extension educators. The program overview, presenters, dates and locations, and a contact person were listed for each event. The booklet also was used to inform the Michigan dairy industry about the MSU Extension Dairy Team's involvement in research programs and projects. In addition, the role of the MSU Extension Dairy Advisory Team was described and a listing of the members (dairy producers and agribusiness professionals) was included. Contact information for the MSU Extension Dairy Educators and Dairy Specialists was provided for anyone needing more information about an event. All content development was coordinated by Stan Moore with content provided by the MSU Dairy Team members (Kathy Lee, Phil Durst, and Frank Wardynski) and other educators within MSU Extension. The MSUE Dairy Team contracted with an outside company to format, print and mail the booklets.

To date the attendance at programs promoted through the booklet have attracted over 800 attendees. Additional programs listed in the booklet are still ongoing.

NATIONAL FINALISTS

LEHIGH CROPS CONFERENCE

Miller, D.L.*¹, Frankenfield, A.D.², Hautau, M.M.³, Snyder, E.⁴

¹ Extension Educator, Penn State Cooperative Extension, POTTSVILLE, PA, 17901

² Extension Educator, Penn State Cooperative Extension, COLLEGEVILLE, PA, 19426

³ Extension Educator, Penn State Cooperative Extension, LEESPORT, PA, 19533

⁴ Extension Educator, Penn State Cooperative Extension, MARTINSBURG, PA, 16662

Agricultural producers need education to keep up with changing technology on the farm and to maintain their pesticide license certification. 2013 was the first year Penn State Extension Educators coordinated 11 statewide Crops Conferences. This allowed the Field and Forage Crops Team to combine efforts in scheduling meetings, obtaining sponsors, and marketing. Building on the success from the previous year, the team held 12 meetings across Pennsylvania in 2014. 13 meetings were scheduled, with one being cancelled due to an ice storm. These meetings took place in strategic locations during the winter meeting season. Over 730 agricultural producers attended these meetings during the winter meeting season. Also, 54 different industry sponsors and exhibitors supported the meetings, generating over \$41,000 in funds to help offset registration fees for producers. The program promotional piece was designed using the assistance of Penn State Ag Communications and Marketing. The piece was used to market all the Crops Conference locations, while enabling the local educator to highlight aspects of his/her local event. Each location was given the flexibility to list individualized topics and other pertinent information. Each location provided mailing lists to the coordinator, and the mailing lists were combined and duplicates removed. The duplication and mailing was done through Penn State University's central campus. Over 10,000 copies were distributed to clientele. Member was responsible for coordinating mailing lists from all locations and working with staff in Ag Communications on designs and approvals of all 13 versions of the promotional piece.

NOT YOUR GRANDFATHER'S GOATS

Jones, J.*¹

¹ Area Agricultural Economics Specialist, Oklahoma Cooperative Extension Service, ADA, OK, 74820

“Not your Grandfather's Goats” rack card is a 4” x 9” informational card used to promote and bring awareness of the Oklahoma State University Cooperative Extension Service's meat goat website and meat goat educational efforts. This rack

card printed in color and on card stock. 5000 were printed as a result of a grant received from the Southern Region Risk Management Center. These rack cards have been distributed to all 77 county extension offices in Oklahoma. These cards have also been handed out at field days, conferences and producer meetings in Oklahoma and across the United States.

These rack cards are used to bring awareness of the OSU's meat goat educational efforts by showcasing existing educational programs, YouTube videos, Face Book page and website that producers can access. These cards highlight the three main meat goat educational efforts offered by OSU. These are the Oklahoma Basic Meat Goat Manual, OSU Meat Goat Boot Camp and the newest effort of on line educational videos. Since the release of the rack cards, views of the videos on YouTube have hit over 50,000 with 330 people subscribing to the OSU Meat Goat channel, OSU's Meat Goat Face Book page has over 150 likes, visits to the OSU Meat Goat website have doubled and there has been an increase in e-mails and telephone calls about meat goat educational programming.

WINTER BEEF SCHOOL

Baker, S.D.*¹

¹ Extension Educator, University of Idaho, Challis, ND, 83226

Beef production is an important driver for the local economy in Custer County. Based on this impact, Extension educators felt it was important to offer educational programming for beef producers to keep them abreast of current industry issues and up-to-date management practices. Winter Beef Schools are held one day a week throughout the months of January and February on topics ranging from Passing on the Family Ranch and Reducing Winter Feed Costs to Marketing Beef Cattle and Herd Health Programs. Custer County is the third largest county in the state of Idaho, but 38th in population which makes advertising for events difficult. To advertise and promote Winter Beef Schools, Extension Educators create flyers to distribute to beef producers through email and mail and to hang up in local establishments frequented by beef producers. This promotional piece is an example of a flyer created by Sarah Baker to advertise a Beef School in January, 2014. Flyers are created using PowerPoint and printed with a color printer on 8.5x11" glossy brochure paper. Twenty five flyers are printed and hung up in town. Flyers are mailed to producers who do not have access to a computer (approximately 150 copies). Approximately 100 flyers are emailed to remaining producers. Beef School attendance varies each week, ranging from 25 to 50 producers. However, when asked "where did you hear about the Beef School?" in post-event evaluations, 100% of attendees indicated they had heard about the beef school through the flyers emailed or mailed to them.

Publication

National Winner

COMMUNITY GARDEN START-UP WORKBOOK

Zdorovtsov, C.*¹

¹ Community Development Field Specialist, SD State University, Sioux Falls, SD, 57103

Communities interested in starting community gardens, as well as staff that provides coaching to these communities can utilize this publication in the development process. Previously, SDSU Extension had published a factsheet on community garden start-up, however this more extensive guide was developed to provide detailed information on garden benefits, visioning, leadership, models, horticultural considerations, budgeting, and operational issues. The new 32-page guide also provides a variety of helpful appendixes include garden rule and application samples, a site evaluation tool, a sample land use permission form, and budgeting tool. Additionally, it allows for workspace, making it very functional for community planning meetings.

Zdorovtsov expanded the content of O'Neill's original publication from 9 pages to 32 pages and also provided the majority of photographs. To date it has been utilized for planning community gardens in seven communities. Link: <https://igrow.org/up/resources/05-5001-2013.pdf>

NATIONAL FINALISTS

BUDGETING FOR A CORN MAZE

Stephen Komar*¹, Bamka, W.J.², Schilling, B.³, Sullivan, K.⁴, Infante-Casell, M.⁵

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³ Assistant Extension Specialist, Rutgers University, New Brunswick, NJ, 08901

⁴ Senior Research Analyst, Rutgers University, New Brunswick, NJ, 08901

⁵ County Agricultural Agent, Rutgers University, Clayton, NJ, 08312

A growing number of farms are developing agritourism enterprises to increase farm income and diversify their business. A corn maze is a popular component of many agritourism enterprises; either as a stand alone activity or in combination with other attractions. Careful budgeting for the establishment and operation of a corn maze is an important component in determining economic feasibility. The **Budgeting for**

a **Corn Maze** publication was developed to assist farmers interested in establishing a corn maze as part of an agritourism operation. The publication has been available since May 2013. The publication provides a budget template summarizing common expenses for design, establishment and operation of a corn maze. A sample budget for a five-acre corn maze is presented. Farm-specific costs can be calculated for each budget category by completing the worksheets included. The publication serves as a companion to an online corn maze budget tool developed by the team. Content for the bulletin was written and developed by the team. Design and layout for the publication was provided by the Cooperative Extension Office of Communications. Printed copies of the bulletin have been provided at various agritourism training workshops within the state and across the Northeast. The bulletin has also been used in an undergraduate agritourism class. The publication is available on the Rutgers Cooperative Extension website. For the period May 1, 2013 through March 12, 2014 there have been 1499 pageviews, of which 1259 been unique pageviews. “**Budgeting for a Corn Maze**” can be accessed at <http://njaes.rutgers.edu/pubs/e343/corn-maze.asp>

BERMUDAGRASS PRODUCTION IN NORTH CAROLINA

Hatcher, A.*¹, Becky Spearman², Dan Wells³, Paul Gonzalez⁴, Randy Wood⁵, Tiffanee Conrad⁶, Tyrone Fisher⁷

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² Extension Agent, Livestock, North Carolina Cooperative Extension, Bladen County, Elizabethtown, NC, 28337

³ Extension Agent, Livestock, North Carolina Cooperative Extension, Johnston County, Smithfield, NC, 27577

⁴ Extension Agent, Livestock, North Carolina Cooperative Extension, Sampson County, Clinton, NC, 28328

⁵ County Extension Director, Extension Agent, North Carolina Cooperative Extension, Scotland County, Laurinburg, NC, 28352

⁶ Extension Agent, North Carolina Cooperative Extension, Richmond County, Rockingham, NC, 28380

⁷ County Extension Director, Extension Agent, North Carolina Cooperative Extension, Harnett County, Lillington, NC, 27546

The objective of the *Bermudagrass Production in North Carolina* Publication is to help farmers learn about production practices to establish and maintain bermudagrass. The audience is livestock and hay producers. The publication had not been updated since 1980 and there was not a North Carolina State University NCSU Forage Specialist for several years. A group of agents worked on updating this much-needed publication. Bermudagrass is very important to our forage system and is found in most state permitted hog operations. Nine agents wrote the publication, although two have left Extension since the publication was approved.

The agents developed the publication including writing the

descriptions, introduction and terminology, formatting the layout and pictures. The publication is organized by different topic areas. The publication was peer reviewed and changes recommended by a NCSU beef specialist, NCSU dairy specialist and a North Carolina Department of Agriculture and Consumer Services Regional Agronomist. Each county prints copies to distribute. This revised publication was first made available to livestock producers in April 2013. Approximately 400 have been printed and given out at county meetings, agent trainings and farm and office visits. The publication is also on county websites and was shared with agents across the State. The publication has been approved and given a Publication number by NCSU Agriculture Communications.

One of the many positive comments that were received from farmers include: «This is a great overview of everything I need to know to grow Bermudagrass.»

PINES OF ARIZONA

Jones, C.K.*¹, Kelly, J.²

¹ Associate Extension Agent, University of Arizona, Globe, AZ, 85501

² Assistant Extension Agent (Retired), University of Arizona, Tucson, AZ, 85721

The University of Arizona Cooperative Extension Publication, *Pines of Arizona* (AZ1584), is a fully illustrated booklet featuring nine native species and eight popular nonnative ornamental pine species used in Arizona landscapes. It includes discussion on botanical background and climate adaptation, landscape use, species selection, planting, staking, pruning, and common pests and problems, including a table of common infections and control measures. Along with each illustration is a detailed description of the species, including recommended planting situations and specific concerns. It is intended for both general homeowner and commercial horticulture audiences. The publication is available exclusively for free download at the UA College of Agriculture & Life Sciences' publications website. The nominee initiated the publication's development with a fellow Extension agent before that agent's retirement, and gathered specimens for a contracted private illustrator to provide high quality visual details of the species featured. The *Pines of Arizona* booklet provides the state with a visually attractive and locally relevant Extension publication that did not exist before and is specific to those trees in the Pine family that grow best in Arizona.

Published Photo & Caption

National Winner

Juanita Popenoe

County Extension Director and Extension Agent III
Commercial Horticulture, UF/IFAS - Lake County

A weekly column written for the local Daily Commercial (HarborPoint Media, 212 East Main St., Leesburg, FL.) newspaper with a circulation of approximately 20,000+ promotes Extension and research-based knowledge. Articles are written by the agent and usually include a photo taken by the agent to illustrate the pertinent points of the article. The Daily Commercial never attributes the photos, only printing that they are “submitted”. The article written December 7, 2013 warned people about leaving Christmas lights on trees for too long. Christmas lights take so long to put up, that many people like to leave them on the trees. This can mean disaster for the tree over time. The photo was taken on an iPhone camera of a crape myrtle tree in a commercial setting with Christmas lights that had been left on more than one year. It illustrated how the tree was being girdled by every wrap of the wire. Proper tree care is a frequent question in our plant clinic and the article reaches more people with similar questions. The article and photo can also be seen at http://www.dailycommercial.com/life/article_88e08a7e-8175-52b3-a29c-5475af16680d.html.

NATIONAL FINALISTS

Mike Staton

Senior Agricultural Educator
MSU Extension
Allegan

Preventable soybean harvest losses average between one and two bushels per acre in the U.S. In response to this, Michigan State University and the Michigan Soybean Checkoff program have cooperated to plan, promote, conduct and evaluate one soybean harvest equipment field day each fall from 2011 to 2013. The goals of the field days were: 1.) to teach participants where and why harvest losses occur; 2.) to demonstrate the latest technology available for reducing harvest losses; 3.) to demonstrate a simple method for measuring losses; and 4.) to provide participants with information about proven management practices for reducing soybean harvest losses. The photo was taken at the conclusion of the 2012 soybean harvest equipment field day in Jonesville, Michigan. This photo is unique because it shows three new combines from competing manufacturers running in the same field at the same time. The photo was published in an article about reducing soybean harvest losses in the September, 2013 issue of the Michigan Farmer and reached over 13,000 producers. The article and photo were also posted on-line. In addition to being published in the attached article, the photo was published in the 2013 SMaRT Research Report, and the 2013 MSU Extension Annual Report to the Allegan County Board

of Commissioners. It will continue to be used in promotional materials for future soybean harvest equipment field days as it seems to get producer’s attention.

Emily G. Adams

Extension Educator
OSU
Coshocton County

Caption with photo in Coshocton Tribune: “Ohio Agricultural Research Development Center researcher Jacob Wenger shows River View agriculture education student Keely Mackey how to scout for soybean aphids.”

This article features research that OARDC entomologists were conducting with soybean aphids in summer of 2013. The photo highlights that this study involves local students in agriculture education classes in one of the county’s high schools.

The weekly OSU Extension Agriculture column in the Coshocton Tribune is geared toward agricultural producers, but is also meant to be general agricultural education for the public. This article strives to show the importance of research to both OSU and to Coshocton County producers.

To date, there has not been an economic problem with the soybean aphid in Coshocton County. However, the pest has been traveling farther south. On-farm research in Coshocton County is an excellent way to prepare our farmers for the future should this pest become more prevalent. The article highlights ways that farmers can begin scouting their own fields, so the photo draws attention to getting into fields to actually begin looking at soybean plants.

Wayne Porter

Regional Extension Specialist
Mississippi State University Extension Service
SE - Lauderdale

Whenever there is an outbreak of some insect, my phone starts ringing. Sometimes the insect is a common one but it appears in large numbers which causes people to wonder why. Other times, as with Golden Silk spider, it is a lesser known insect. Golden silk spiders are most often seen in the fall when they build their webs between trees and shrubs in the landscape. These webs can be several feet in size with the large spider (3-4 inches long including legs) in its center. People get really freaked out when they walk into one of these and the spider lands on them. I tried to take this photo from the spider’s point of view and have fun with it. The photograph was taken using a Nikon D40 digital camera. This photograph was taken by the author in his yard. The photograph was used in a news article (Big, Scary, Yellow Spiders) that was provided to 24 counties

for publication in local newspapers. The article submitted was published in the October 2013 edition of the Scott County Times newspaper. The photo caption for the photo read: "Golden silk spider with scary human". The photo and accompanying article was also published on-line in Gardening in Mississippi (<http://www.gardeninginms.blogspot.com/>).

Video Presentation **National Winner**

SOUTHERN GARDENING

Bachman, G.R.*¹, Brian Utley², Tim Allison³

¹ Horticulture Specialist, Mississippi State, Biloxi, MS, 39532

² Senior Extension Associate, Mississippi State University, Office of Agricultural Communications, Mississippi State, MS, 39762

³ Senior Extension Associate, Mississippi State University, Office of Agricultural Communications, Mississippi State, MS, 39762

Southern Gardening Television is a weekly (52 segments per year), 1 1/2 to 2 minute television segment designed to air within Mississippi television newscasts and as part of the weekly MSU Extension Agriculture show Farmweek. Farmweek is available beyond Mississippi on RFD satellite. Weekly viewers within the state of Mississippi number in excess of more than 500,000. Segments are designed for persons interested in lawn and garden care and seasonal interest. The goal of Southern Gardening Television is to educate and inspire the home gardener in Mississippi.

The following segments are being submitted as examples of the body of work for the weekly Southern Gardening video segments.

Southern Gardening: The Garden Zone, 2:00 min, <http://www.youtube.com/watch?v=mYTv5eyBvcw&feature=youtu.be>

Southern Gardening: Tropical Summer Color, 1:42 min, <http://www.youtube.com/watch?v=vFj8dYGhZvo&feature=youtu.be>

Southern Gardening: Country Pumpkins, 1:58 min, <http://www.youtube.com/watch?v=kpR4b0tnmj8&feature=youtu.be>

Southern Gardening: Singing the Blues, 1:56 min, <http://www.youtube.com/watch?v=jmDzH4bTzW0&feature=youtu.be>

Southern Gardening: Valentines Through the Seasons, 2:00 min, <http://www.youtube.com/watch?v=uskUq76D6c4&feature=youtu.be>

NATIONAL FINALISTS

Bennett, P.*¹, Pamela Jean Bennett²

¹ State Master Gardener Volunteer Coordinator, ANR Educator, Ohio State University Extension, Springfield, OH, 45502

² Springfield, OH, 45502

The Extension Educator worked with the Extension Communications staff to develop a short and to-the-point YouTube video that would provide the audience with information on what to do with their garden and lawn waste. The goal was to show the audience the basic information on how to start a compost pile. The Extension Educator developed the content and script as well as organized the resources and props for the presentation. OSU Extension Communications Staff shot the video and edited the presentation. The link is hosted on the OSU Extension YouTube site and has been viewed 107 times between November 2013 and March 2014.

The video clip is located at: <https://www.youtube.com/watch?v=dvg2ZbwePM0&feature=c4-overview&list=UUcvVUwNkLdrHtvPPC3Fcx7w>

Patterson, R.K.*¹, Gale, J.A.², Worwood, D.R.³

¹ Agriculture/4-H Youth Agent, Utah State University, Price, UT, 84501

² Agriculture/Economic Development Faculty, Utah State University, Richfield, UT, 84701

³ Agriculture/4-H Youth Agent, Utah State University, Castle Dale, UT, 84513

Russian olive is an invasive, woody species that is overtaking riparian areas and pastures in the Western United States. Efforts to remove Russian olive have met with varying degrees of success. Since 2005 field trials on control options have been conducted in east central Utah. The most successful application method is the cut-stump method using 40% glyphosate. This application method is effective year-round with over 95% control. This makes control of Russian olive more convenient throughout the year. This video was originally published in three shorter segments in June 2013, but for this award application the three segments were combined into one video to provide a complete picture. The video teaches landowners/users how to effectively control Russian olive with the first treatment and a follow-up option to control possible re-sprouts. Herbicides used and application practices are discussed as well as some of the potential pitfalls. The authors did the research, application technique development and present the information in the video. The video is located at <http://www.youtube.com/watch?v=bN0HffC2e-4>. The combination of all four videos has had more than 1050 views as of March 10, 2014.

Corbin, A.T.*¹

¹ Agriculture and Natural Resources Faculty, Washington State University, Everett, WA, 99362

Agriculture has the potential to be a large market for commercial compost and Western Washington farmers are continually exploring options for maintaining soil quality. Local compost producers accept curbside-collected food and yard waste and produce compost on a large scale, sometimes dealing with quantities they cannot sell. The Washington State University Snohomish County Extension, Compost in Agriculture Outreach Project began in 2011 with the goal of creating a functioning market for commercial compost in agriculture and explaining the benefits of diversifying soil nutrient sources for a balanced approach to soil fertility. The project has conducted over sixty on-farm compost research and demonstration trials in Snohomish County, WA. Correspondence with participating farmers has revealed varying degrees of success among compost trials and has pinpointed several barriers to adopting compost use including price, time and equipment needed for spreading, plastic contamination in compost, and more. This film introduces us to several farmers participating in the compost trials and explores their attitudes and perceptions about using compost. Additionally the film explores long-term benefits of compost use by highlighting scientific data collected from winter wheat, planted in an area treated with compost in the previous season. Visit our website for more information on the project! www.snohomish.wsu.edu/compost

<http://www.youtube.com/watch?v=LAYRiD1VVw>

Website

National Winner

Garrelts, A.*¹

¹ Extension Educator, University of Wyoming, Douglas, WY, 82633

Writing on the Range (<http://uwyoextension.org/rangewriter/>) is a blog that seeks to teach readers about different aspects of rangeland use, management, and history. It also touches on livestock and wildlife management. The blog was developed to not only educate but allow the educator to explore using creative writing, photos, and videos as educational tools. Typically posts are made twice per month and topics vary by season, the writer's whim, and issue being seen on western rangelands. Posts are written by the extension educator who then incorporates her own photos or photos from government agencies or the creative commons to enhance the written material. Videos that may be relevant to the article are then posted on the Useful Video page and relevant websites or links can be found under the Useful Website page. The blog has been in existence since January 2013 and has a total of 814 views. The posts are announced on the University of Wyoming Range Extension's Facebook page and this is how most viewers connect with the bog. Other viewers find the blog through search engines and the University of Wyoming

Extension website. The blog averages anywhere from 35-80 views per month and 1-3 hits per day. Besides Facebook, the writer has also begun sharing her blog through Pinterest, Twitter, and Google+; however, no hits have yet come from those sites. The blog serves as a great way to educate audiences that may not traditionally be reached by university extension programming.

NATIONAL FINALISTS

Bruynis, PhD, C.L.*¹, David Marrison²

¹ Assistant Professor, Extension Educator & County Extension Director, Ohio State University Extension, Chillicothe, OH, 45601

² Associate Professor, Extension Educator and County Extension Director, Ohio State University Extension, Jefferson, OH, 44047

The Ohio Ag Manager (OAM) Team was formed in 2004 to help provide farm and agribusiness management educational resources and information following a dramatic reduction in farm management faculty. The original website was a static page where the OAM Newsletter was posted monthly. The website was completely redesigned in July, 2010 to allow posting of information and articles as they became available using more of a blog type format. Included in the redesign was the inclusion of the Ask the Expert widget, resource links, and other relevant website links. This web site is searchable and provides clientele access to current and past issues of the OAM newsletter.

Currently, all the County Agricultural Extension Educators in Ohio and 825 individuals and agribusinesses have subscribed to the Ohio Ag Manager electronic list serve. In addition to the direct subscription to the newsletter, the website recorded an average of 35,350 individual page views each month. Articles posted on the OAM website are frequently used by OSU Extension educator for inclusion in their local Ag Newsletters and newspaper articles. During the past 12 months ten articles were reprinted in various state publications such as the Ohio Country Journal and Farm and Dairy.

The url for the site is <http://ohioagmanager.osu.edu>

Zdorovtsov, C.*¹

¹ Community Development Field Specialist, SD State University, Sioux Falls, SD, 57103

South Dakota farmers market managers had made inquiries to Extension including, 'Is there one place where market vendors can see all the rules that apply—what they can sell, what they can't sell, the testing of canned goods, rules for eggs, cheese, or beef, rules about scales and free samples, etc?' A local food information website was launched in July, 2013. Five partnering organization, as well as other SD Local Foods Collaborative members helped plan the structure and content of the site and continue to contribute articles. Zdorovtsov is the site content coordinator and the lead contributor. Content

is updated weekly with 125 articles populating the site to date.

This site meets the needs of market managers, producers and organization who previously had to wade through various websites and agencies trying to find answers. The site works to address all tiers of the local foods system with five sections providing information on current topics, educational and community gardens, handling and processing of specific products, marketing and sales venue options, and regulations and certification information on business and products.

Since its launch several producers have commented on its usefulness. One of several comments collected include: “I had a vendor inquire about meat packaging regulations for our farmers market. The summary on your new local foods site is very helpful and will give them a great place to start.”- SD Market Manager.

From site launch to January, 2014, there were 8,387 pageviews with 5,465 unique (no duplicates) pageviews.

Link: <https://www.iGrowSDLocalFoods.org>

Siegle, L.*¹

¹ Extension Agent, Virginia Cooperative Extension, Amelia, VA, 23002

Blog URL: <http://blogs.ext.vt.edu/central-virginia-ag-spotlight/>

Consumers are increasingly concerned with agricultural issues such as animal welfare and food safety but have limited opportunities to engage with producers. Furthermore, many specialty growers, conventional crop and livestock producers, and beginning farmers rely upon updated research and education on best management practices in order to remain profitable and sustainable. The “Central Virginia Ag Spotlight” blog was created as an educational outreach to non-farming consumers and farm producers. Each blog story features an operation that utilizes best management practices, identifies creative solutions for production and marketing challenges, or produces unique products. Stories are written in simple language, but contain enough technical depth to provide take-home ideas to readers. Stories are written bi-weekly and the blog links are publicized via social media, webpages, and newsletters. The blog’s reach is tracked with Google Analytics. Between its inception in July 2013 and March 1 of 2014, 14 farm stories have been posted on the blog and the site has received 3,817 total page views by 1,578 unique visitors. The site receives views from some non-engaged readers, but engaged visitors from 35 U.S. states and 16 countries have visited the blog . Due to the nature of the blog’s reach, changes in consumer knowledge or farm practices are difficult to measure but several producers from Amelia County noted that they have explored the idea of diversifying their production as a result of reading the blog.

NACAA Member Presentations

2014 NACAA

99th

Annual Meeting

and

Professional Improvement Conference

Mobile, Alabama

Administrative Skills

PUBLIC BOARD TRAINING SERVES CRITICAL NEED

Koenen, J.,^{1*} Campbell, D², DeLong, T³, Whiston, D.⁴

¹University of Missouri Extension Agricultural Business Specialist, Putnam County, Unionville, Missouri 63565

²University of Missouri Extension Agricultural Business Specialist, Schuyler County, Lancaster, Missouri 63548

³University of Missouri Extension County Council Coordinator, Columbia, Missouri 65211

⁴University of Missouri Extension Family Financial Education Specialist, Clark County, Kahoka, Missouri 63445

Missouri has more governmental boards than any other state in the Midwest and many of these board members receive very little or no training before taking office.

Their responsibilities to the public make it increasingly difficult to recruit good board members. Requests from public boards to hold training specifically for them led to several Extension Specialists developing a "Serving on Public Boards" program. Extension Specialties included Agricultural Business, Family Finances and a Local Government Specialist who is now deceased. The 1st time the program was offered in 1992 around 100 persons attended and many of those in attendance requested this to be held on a regular basis. The program was eventually expanded to other locations via Interactive Television or ITV to multiple sites and is now done every other year. In the last 5 years 124 persons have attended the training sessions held. Topics include the Missouri Sunshine Law and how it affects Your Board, Fiscal Responsibilities of Boards, Written Policies and Procedures, Record Retention, How to Hold An Effective Meeting and University of Missouri Extension Resources for Boards. Impacts included 100% of attendees felt board members should be required to attend this program and 89% understood the importance of having written personnel policies and by-laws.

County government and boards know see Extension as a valuable resource related to the Sunshine Law and assistance for them. Specialists respond to local government questions on eXtension from throughout the state now also.

EFFECTIVE COUNTY ADMINISTRATION: THE KEY TO SUSTAINING EXTENSION

*Battle, W.¹

¹ Director/agent, University of Tennessee, Brownsville, TN, 38012

As the population continues to transition from a rural (farm-based) to suburban and urban demographic, Extension agents are being replaced by private consultants, webinars, DIY television shows, and YouTube. Extension must face this challenge of providing educational programs to an ever expanding and changing population. In this day and age of constant change many are questioning the essentialness of Extension. As the internet continues to be a vehicle of rapid information dissemination and cell

phone technology placing answers to questions in client's "pockets and purses", many "solution providing services" (such as Extension) are being challenged to show their fiscal relevancy, governmental purpose, and societal need.

The key dynamic to Extension surviving is the enhancement of its County-based supervisory skill set. To accomplish this task, agricultural agents that have managerial duties must transition to being programmers with administrative responsibilities. As a result of changing the aforementioned perception, participants of this seminar will gain insight into: 1) budget expansion, 2) staff cohesiveness, and 3) gaining the non-traditional audience's trust to expand Extension's ever-changing educational role.

The presentation will utilize as a template for the training the concepts of Laird, D. «Performance Solution Tree» (Approaches to Training and Development, 1978, Addison-Wesley Publishing Company). Also featured are the concepts of Bolger, M. whose work «COACH to Win: Five Tips for Effective Performance Management.» It is the adaptation of these principles which have enabled the author to transition from Agent (Coworker) to County Director.

As part of this seminar, participants will engage in discussion of the aforementioned ideals. It is by this method newly appointed County Administrators can obtain knowledge from experienced Directors. Another by product of this approach is the acquiring of new approaches to administrative matters for other career level Directors.

GETTING TALENTED HELPERS WITH A TIGHT BUDGET

*Mostafa, A.M.¹

¹ Area Agent, University Of Arizona, Phoenix, AZ, 85040

Like many other systems around the country, the University of Arizona Cooperative Extension hit hard with continuous budget cuts that led to shortage in Extension personnel who help deliver effective programming. In collaboration with The University of Arizona Cooperative Extension Sustainability Team, the Field Crops IPM program is getting resident undergraduate students for an externship for the Summer for the last three years. This Externship is a mutual program providing undergraduate students with areal-life, while helping the Extension program's research and outreach components. Qualified externs is paid minimum wage for 10-12 weeks of work. Due to the nature of funding, recruiting of students is limited to those who have at least sophomore standing at the University of Arizona, which make some difficulties for recruiting away from campus. The Agent supervised the extern as a team member of summer students, technicians and RA. The administrative responsibilities of this position include hour reporting, safety training, workplace orientation and academic supervising (see measurable impacts). Changes in student status in 2014 due the Affordable Care Act put the maximum weekly hours at 35 and changed employment category of the students.

For the purpose of evaluation and reporting to the fund agency, the Agent and extern should set some measurable impacts of the extern's activities based on project time-frame

and project scope. These measurable impacts will be discussed during the seminar based on inputs and deliverables of the program.

Agricultural Economics & Community Development

AN OVERVIEW OF ALASKAN AGRICULTURE

*Brown, S. C.¹

¹District Agriculture Agent, University Of Alaska Fairbanks, Palmer, AK, 99645

Agriculture in Alaska is a truly unique endeavor with challenges and opportunities faced by no other state. The Last Frontier is a place that can experience 130 degree seasonal temperature shifts and a land where reindeer are herded on snowmobiles. This presentation will give an overview of Alaskan agriculture and a taste of the far-from-ordinary livestock, crops, and practices utilized in the Arctic and sub-Arctic. Covered in this presentation will be musk ox, yak and reindeer production as well peony flower and rhodiola root cultivation.

TRAINING AGRITOURISM MANAGERS AND EMPLOYEES IN EMERGENCY PREPAREDNESS

*Barrett, E. E.¹

¹ Extension Educator, Agrn, Ohio State University Extension, Canfield, OH, 44406

Emergency preparedness for agritourism operations is a monumental task for most agritourism farm managers. These farm managers must start by writing a plan with a support team of local law enforcement, fire protection and other agencies.

The next step is implementing the plan, something which must involve the entire management team, along with each and every employee at the farm business. Effective training must be done to implement this plan through the entire farm business.

A team of Extension professionals developed a curriculum to help with all aspects of developing and writing the plan. To take that plan to the next step, the team has developed comprehensive materials to train the management team and the employees on plan implementation. The materials include videos, written text and scenarios to use in a training program.

This presentation will share materials, along with instructions on how to conduct a training program for agritourism farm managers across the country. The train-the-trainer approach will assist other educators with plan adoption at agritourism operations across the country.

LESSONS LEARNED-THE TOP TEN THINGS TO DO AND TOP TEN NOT TO DO WHEN DEVELOPING AN URBAN AGRICULTURE PROJECT

Bergefurd, B.¹; Barrett, E.²; *Kowalski, J.³; Mills-Wasniak, S.⁴; Nye, T.⁵

¹ Extension Educator, Ohio State University Extension, Portsmouth, OH, 45662

² Associate Professor, Ohio State University Extension, Canefield, OH, 44406

³ Extension Educator, Ohio State University Extension, Cleveland, OH, 44103

⁴ Extension Educator, Ohio State University Extension, Dayton, OH, 45409

⁵ Extension Educator, Ohio State University Extension, Wilmington, OH, 45177

Urban agriculture projects are being supported by the United States Department of Agriculture, private foundations, and State and local governments as means to train new farmers, revitalize blighted areas, and provide locally grown food for food insecure neighborhoods. Most of these projects are still in their infancy and questions remain with regard to long-term sustainability. Although many urban agriculture projects have been initiated by grass-roots efforts, Extension is being recognized as a critical partner to assist with technical support and project development. In Ohio, several Agriculture and Natural Resources Extension Educators are involved in developing and supporting urban agriculture projects in different metropolitan areas of the state. In the Cleveland area, over fifty urban agriculture enterprises have been initiated in the past six years as well as several in Dayton and Youngstown. Through both quantitative (survey) and qualitative (participant observation, personal conservation) data collection, several key characteristics of individual projects have emerged to help develop best management practices and early mistakes to avoid when developing an urban farm. Some of these characteristics mentioned by urban farmers include appropriate site selection, crop selection, infrastructure choices and not over-estimating capacity. There are many challenges to successful urban agriculture development and often many stakeholders to please. Because most projects are grant funded it is important to reach financial self-sufficiency as quickly as possible and avoid common pitfalls. This presentation will discuss key strategies which Extension personnel can use to guide their urban farming clientele to develop successful agriculture projects.

SOUTH DAKOTA ANNIE'S PROJECT TAKING IT TO THE NEXT LEVEL

Harty, A.¹; *Salverson, R.²

¹ Cow-Calf Field Specialist, South Dakota State University Extension, Rapid City, SD, 57702

² Cow-Calf Field Specialist, South Dakota State University Extension, Lemmon, SD, 57638

SDSU Extension is dedicated to empowering women involved in farming and ranching by providing Annie's Project an educational program dedicated to strengthening women's roles in the modern farm enterprise. In 2012 and 2013, Adele Harty and Robin Salverson led 4 Level I Annie's Projects in South Dakota focusing on providing education within the areas of risk management.

SDSU Extension also recognizes that we need to focus on developing self-driven sustainable learning communities. As a result we have been working extensively with the 4 locations since 2012 focusing on continued learning and networking opportunities beyond the initial 6 weeks of the course including a Level 2 Managing for Today and Tomorrow. Likewise, through strong interest in marketing, Women Managing Cattle will be added in 2014 as a level 2 option for the women.

Since SDSU Extension restructuring in 2011 we no longer have a presence in every county in the state therefore, it creates an opportunity for us to partner with local businesses, government and participants to develop a strong and viable Annie's Project at that site. The value of the program is seen by both participants and sponsors as noted by receiving \$10,570 from regional and local businesses.

Based on evaluations, over half the participants had a significant increase in knowledge in regards to estate planning. Likewise estate planning came to the top as the most valuable topic to them. This encouraged us to take estate planning education to the next level with the women and incorporated Level 2 MTT into SD Annie's Project curriculum which included taking it to Kadoka as a pilot.

Overall Annie's Project in South Dakota has been successful in educating farm and ranch women. Today's women live active lifestyles but are concerned about making the most profitable decisions for their operation and family.

USING MINI-GRANTS FOR COOLING SPACE TO FOSTER ECONOMIC DEVELOPMENT

*Buxton, S.¹

¹ Association Resource Educator, Cornell Cooperative Extension, Hudson Falls, NY, 12839

Often with many micro and small scale farms, there are a number of barriers holding back their ability to expand their operations. In these under \$150,000 budget operations, the farmer does not view cooling as one of their critical

on-farm operations. However, as our applications clearly demonstrated, adding or expanding cooling space was one of the largest hurdles many faced when trying to improve their product quality, increase production or reduce losses.

A \$230,000 economic development grant was obtained to assist these farms statewide by providing about 60 mini-grants of upto \$3000 to provide a 50% cost-share match and some technical assistance. After vetting 124 applications, the approved farms, encompassing vegetables, fruit, meat, dairy and alternative crops, enacted their projected plans. With half the businesses reporting, the project has already provided 5.5 FTEs with a projection of 16.2 FTEs for 2014. More than \$235,000 of planned construction has occurred and the farmers have documented an immediate increase in product value, sales or reduced losses in excess of \$396,000. With some of the larger projects being completed in the later part of the project, the economic impact will exceed the original projection of a 10-25% increase in income. As the expansion was implemented cooperative extension staff provided expertise and education about harvest, building and implementing cooling sheds.

TOUGH FUNDING DECISIONS FOR OUTCOMES-BASED FARM BUSINESS PROGRAMS

*Cannella, M.¹

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One-on-one farm business programs provide intensive business education that enhance decision making and the adoption of best management practices on farms. UVM Extension Farm Viability offers programs ranging from 5 hours of direct educational contact with participants to 20 hours of direct contact over 1 year of business planning. Since 2002 a variety of funding sources have supported these programs at virtually no cost to participants while internal costs range from \$1,000 to \$5,500 per farm.

The program has documented the education improvement of managers, measured business performance and measured economic development indicators that demonstrate the value farmers receive through program completion. Currently up to 30% of applicants are repeat participants accessing programs at no cost. There is concern that repeated free access does not reflect the target outcomes of the program to improve the ability of the business to support itself.

In 2013 110 previous participants completed a survey exploring their interest in future programs. Forty two percent indicated a willingness to pay for future services above the current application processing fee of \$75. The majority of farm owners had a preference for a program providing annual business reviews that could cost up to \$500.

Focus groups were conducted in the Fall of 2013 to get more input from twenty three farm owners. These farmers brainstormed and evaluated the merit of over a dozen program options and assigned prices they would pay that ranged

from \$10 per hour to \$70 per hour. Farmers interested in a management team format demonstrated a willingness to pay from \$100 to \$150 per team meeting. These fees would not cover the full costs of stand-alone programs but would make a significant contribution to a sustained mixed-funding model for repeat participants. UVM Extension Farm Viability is now designing the Pilot fee-based program that will be available in the Winter of 2014-2015.

KAIZEN IN CONDUCTION OF ANNIE'S PROJECT

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After receiving two small grants in 2010 to begin conducting Annie's Project New Jersey, the team has learned a lot along the way. Over 200 women have participated in a variety of Annie's Project New Jersey programs. We continuously review our practices in order to improve each offering of classes. In the interest of preventing other Annie's Project educators from playing the part of the "Monday morning quarterback" we will discuss the improvements that we have learned to make based on our prior actions. From improving the efficacy of assigning homework, to teaching social networking, to better facilitating discussions and more; we have made significant progress over the past 3 years. Teaching an all-women's farm risk management course was new to everyone on our team at first. It is not a simple modification of teaching our traditional mixed audience. Women have their own specific educational needs and interests as a group. We want to share our newfound information with anyone else conducting, or planning to conduct, a women's farm business management program such as Annie's Project.

CONNECTING CASH FLOW PLANS WITH FEED MANAGEMENT PRACTICES

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The past decade has seen widespread, though not universal, adoption of computer use, satellite-based information serves available to farm operators, as well as handheld device access to data entry and monitoring of information. A diverse and wide set of computer based «tools» have also been developed, offered, and adopted by producers. However, within the context of benchmarking to gauge economic performance, substantial opportunity remains ripe for fulfillment. The objective of this project was to work with existing dairy cash flow participants to determine their actual 2013 costs, and the level of implementation of feed management practices. Focus on the feed management practice related to forage quality, specifically corn silage, and the impact on precision feeding and milk urea nitrogen (MUN). The goal is to assess how feed management practices may influence cost of production, milk yield, and environmental implications such as excess nitrogen. To date, initial samples were evaluated for trends and commonalities, including: growing zone trend with percent starch in corn silage and average milk lbs per milking cows; northern soil regions exhibited 5% less starch as a percent of dry matter, and 5-8% lower starch levels, and average of 10 lbs less milk compared to other regions.

Additional records are currently under investigation to evaluate MUN and milk production trends, potential weather impact on crop growth and harvest, and corn hybrid selection.

4-H & Youth

UNL MOBILE BEEF LAB: TRAVELING LABORATORIES BRING HANDS-ON LEARNING TO YOU!

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In 2012, UNL Extension rolled out two Mobile Beef Labs, one in Eastern Nebraska and one in West Central Nebraska. The Mobile Beef Labs come equipped with a team of IACUC (Institutional Animal Care and Use Committee) trained Extension Educators, a rumen fistulated steer, microscope, large television, and story boards. These labs, when requested, travel to schools, fairs, and festivals and provide lessons in microbiology, ruminant nutrition, animal care, animal behavior, and more! The labs are requested for all ages, and the content delivered is adapted to fit the audience. Persons have a chance to put their arm into the rumen and feel the stomach wall, stomach content, and bony protrusions. While not everyone reaches into the steer, many of the youth take advantage of looking into the hole with the help of a flashlight. These experiences provide excellent photo opportunities! Additionally, a sample of the rumen fluid can be removed, and the microorganisms are viewed under a microscope, which can be projected onto a television screen for a large crowd – if time is limited or weather is not conducive a pre-recorded video is shown. Finally, the teaching team provides additional information about forages, grains, monogastrics vs ruminants, and Nebraska agriculture with the help of storyboards. Annually, each of the labs visits approximately 5,000+ persons. In 2013, teacher evaluations indicated that students had a 45% increase in describing the role of agriculture and beef in Nebraska. “If science was like this every day, I would love school” reported one youth!

YOUTH LEARN THAT SOME PLANTS HAVE TASTY APPETITES WITH CARNIVOROUS PLANTS PROGRAM

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Third through fifth grade students across the multi-county Unit of Christian/Jersey/Macoupin/Montgomery Counties learned about the many different meat eating plants, including Venus Fly Trap, Pitcher Plant, Sun Dew Plant, and others that eat live insects. The 90-minute session, led by University of Illinois Extension Horticulture Educator, Andrew Holsinger, taught kids how carnivorous plants have adapted to capture insects and how to grow a Venus Fly Trap which is native to the United States. Among the methods of trapping are action, adhesive, and pitfall traps.

Along with a slide-show presentation, students created a paper puppet of a Venus Fly Trap. They then participated in a hands-on potting of a Venus Fly Trap and were quizzed on their knowledge gained.

Included in the program was an opportunity for participants to have their photo taken with a green screen. Their photos were then composited into a pitcher plant making the appearance of the child being devoured by the pitcher plant. At the end of the session, each child received a packet to help with care of their Venus Fly Trap and the photo from the session was sent to them.

When the Montgomery County’s classroom teachers heard about the program, the phones began ringing in the Montgomery County office. Now, more than 600 youth in 25 classrooms in the county know more about the life of carnivorous plants, and might just think it’s cool to one day be a botanist.

The «Carnivorous Plants» program is sponsored by the University of Illinois Extension. It has been well-received by students and teachers alike due to its engaging, alluring nature.

TIPS FOR CONDUCTING A COUNTY-WIDE AGRICULTURE AWARENESS DAY FOR ELEMENTARY STUDENTS

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Since 2012, OSU Extension in Ashtabula County has been conducting the “Ashtabula County Ag Day” to educate first graders on where their food comes from and to showcase the different types of agricultural commodities which are being grown in Ashtabula County, Ohio. On the first Friday of May, over 1,200 first graders descend on the Ashtabula County Fairgrounds to participate in the event. During this interactive day, students are able to get up close and personal with farm animals, crops, fruits, and vegetables at twelve interactive stations relating to our county’s agriculture. All the public schools in the county have participated the past two years. Over 150 volunteers from our community assist with this program by teaching at the interactive stations, serving as tour guides and by completing behind the scenes logistics. The cost of hosting this event is over \$10,000 (both monetary and in-kind). The main objectives of this presentation is to help Educators learn how to conduct a similar agricultural awareness event and how funding can be acquired to support the program. This includes financial support for program supplies and for the busing cost for all the students. Learn how multiple community organizations partner to conduct this event.

FOSTERING AGRONOMIC CAREER AWARENESS AMONG YOUTH

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To feed 9 billion people by 2050, a strong agricultural workforce is needed. Crop production will need to increase with knowledgeable and skilled individuals leading the way; therefore recruiting youth into agronomy-related careers is essential. In 2012, a 3 ½ day Big Red Camp (BRC) was developed to excite youth about agronomic related careers and college majors. This experiential learning opportunity engages high school youth with University Of Nebraska - Lincoln faculty on campus and teaches youth a variety of topics such as: crop scouting principles, pathology,

entomology, nutrient management, weed science, genetics and irrigation management. These sessions build life skills such as; networking with professionals, researching scientifically based answers; problem solving and public speaking.

Sixteen youth have participated in the BRC the last two years. Survey results from 2012 indicated all seven youth increased their knowledge on basic principles of crop production and all would recommend this to their friends. Three months after the camp, one youth said, "I really loved the camp and am telling all my friends about it." In 2013, as a result of this program, 100% (n=9) of participants learned about a career option, and 100% of participants agreed they learned nine agronomic skills. Three youth narrowed down their careers and three found a connection between their interests and a career area as a result of the Big Red Camp. Six youth reported their plans to seek internships or a shadowing experience related to their career. Plans for 2014 BRC are underway.

TEACHING AG SCIENCE PRINCIPALS TO YOUTH IN INDIANA COUNTY AND SOUTHWEST PENNSYLVANIA

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Almost 3,350 youth have been reached in 19 years of agricultural science programming by this educator. Camping programs with an ag science topic started in 1994. The audiences have been youth in county day camp settings (three per year) and regional camp settings. Evaluation methods have consistently shown that campers learn more about agriculture and selected topics of the camps (animal science, plant science, entomology, food science). Evaluation methods include pre/post tests, camper reports, and daily topic evaluations. Over \$45,000 in grants from the PA Department of Agriculture have been used to support camps, as well as \$2,000 from other sources.

This presentation will share the camp themes, activities, how camps are managed, and more detailed evaluation results.

Example 2013 results - Staff conducted agricultural science programming with 77 youth in a regional camp setting. The camp theme was «Dig Into Pennsylvania Agriculture». The goal was for campers to learn about their state agriculture and food they eat. A life skill evaluation was used to determine whether campers agreed that they had learned camp life skills. The percentage of "agree" or "strongly agree" was 98% or above in 10 areas including treating others fairly, trying new activities, contributing to a team, and respect for other campers. A second evaluation about knowledge gained showed that campers learned about dairy and livestock breeds, soil, poultry, new foods, and horses. 98% of the campers indicated they had learned more about Pennsylvania agriculture, and 96% indicated they learned something about where their food comes from. 98% of the campers were able to answer the question "One thing I will remember about this 4-H camp is..." Some key concepts listed were having fun, making new friends, interacting with friends, what campers learned, the friendly people, campfire, songs, crafts, and the counselors.

AGRICULTURAL YOUTH EXPEDITION

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Union County is the 3rd largest agricultural producing county in North Carolina. Union is also the 3rd fastest growing county in the state. Based on the influx of people taking residence and their lack of agricultural knowledge, the Union County Cooperative Extension Center in collaboration with local commodity producers, Farm Bureau and Carolina Farm Credit offered an educational expedition to youth and community members on agriculture to Union County families and its value to the economy. Fifty-two participants increased knowledge across program areas including local foods, small farm operation, production agriculture and livestock operations. Upon the completion of the tour, the participants listened to speakers of all facets of the industry and learned how Union County Cooperative Extension provides resources to agriculture. Two weeks after the tour an electronic evaluation was conducted of participants. Results showed that one hundred percent of survey participants stated the event was beneficial and they increased their knowledge about each agricultural production system. Fifty percent of the participants surveyed shared what they learned about agriculture with twelve or more people. The remaining shared their knowledge with four or more people, with a total greater than ninety people learning about agriculture from the fifty-two participants. Sixty percent of the group were not familiar with NC Cooperative Extension programs. This program increased program knowledge of agriculture and Cooperative Extension within Union County.

BED BUGS AND BOOK BAGS 4-H YOUTH ENRICHMENT CURRICULUM

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Bed Bugs have become a problem across the United States in the last few years. The can affect every culture, generation, and economic status. At the request of the Duval County Public Schools and the Duval County Health Department a local bed bug task force was formed with the intent of developing educational material for local residents. As a result, in 2011, the Bed Bugs and Book Bags 4-H Youth Enrichment Curriculum was developed for grades third through fifth. Florida and Indiana health standards and national science standards have been linked to each of the 10 activities. To provide standard training to educators who may not know about bed bugs, a 28-minute online training was developed with a quiz and access to the free curriculum at the end. To date, 339 educators, health professionals, master gardeners, and pest professionals have gone through the online training.

Participants hail from all parts of the US and several other countries including Canada, Greece, and Saudi Arabia. During the training, the 339 participants estimated they would impact approximately 51,309 students each year. Additionally, face-to-face trainings have also occurred throughout Florida with teachers and Extension Agents. Pre and post tests were used to measure knowledge gain from eight different groups. One hundred percent of participants showed an increase of knowledge after completing the training. This curriculum was developed through the support of two grants totaling \$40,900, including an Extension Enhancement Grant and a Southern Region IPM Grant. Currently, a sixth through eighth grade curriculum is being pilot tested and face-to-face training is being completed in Mississippi and Georgia.

A SCHOLARLY ALTERNATIVE TO 4-H LIVESTOCK SHOW AND SALES

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Many county fairs and some other regional groups have livestock shows and sales that provide a culminating event for a project that may have significant duration and expense as well as work involved for the youth and their families. Livestock projects are big commitments and have turned into big business in many situations. With some of the amounts of money reported it's easy to see how participants and their families can get carried away and lose sight of the real goal of learning and instead reach for the brass ring, hoping it bears keys to a truck rather than a college dorm room.

The livestock sale portion of these events has turned into a power play where parents and other adults affiliated with the youth ply their sway with sponsors who feel obligated to "reward" the youth of some clients by bidding the animals up and paying for them or providing the seemingly legitimate bid for an animal that will never change hands in reality. It's all done in the name of the kids and providing what is purported to be funding for college expenses. But in reality, the money is handed to kids and/or their parents and the control of its use is lost. Hopefully more of the proceeds from this popular process go toward post-secondary education than buys trucks and coon dogs, but who knows?

This presentation will provide an alternative to the sale and offer agents a program that provides answers for the questions being asked by sponsors and the IRS.

TRAINING 4-H YOUTH IN FOREST ECOLOGY IN ALACHUA COUNTY, FLORIDA

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Many of today's youth are spending the majority of their time indoors and are unaware of the importance of forests to our state. In 2012, the agent and an Alachua County 4-H volunteer recruited 4-H members for the state forest ecology contest. The program's objectives were to help 4-H youth learn more about Florida's forests and ecosystems and improve their critical thinking and problem solving skills. As a result of the practice sessions, the average score on the practice quizzes would increase by 15%. While learning plant and tree identification, the students were encouraged to compare and contrast specimens and draw conclusions. In the map and compass portion of the contest, the students had to solve problems involving distance and direction. From 2012-2014, the agent held a total of 39 practice sessions that included classroom activities and field trips. As a result of the practice sessions, the average score on the team members' practice quizzes increased by 19%. In 2012, the junior team placed third out of seven teams. The entire Alachua County won the High Scoring New Team Award. In 2013, the junior team A won the state contest and junior team B placed second out of nine teams. Alachua County also had the state high individual in the junior division. In addition, the forest ecology team also won the inaugural forestry contest at the 2013 Greater Jacksonville Fair.

MASTER CATTLEMAN YOUTH CHALLENGE

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The Master Cattleman Youth Challenge is a two-day workshop for youth 14 years of age and older, and in at least their second year of the 4-H/FFA beef project. The Youth Challenge was designed to provide more in-depth information than most would get through their project work. The Challenge was held at the James C. Hageman Sustainable Agriculture Research and Extension Center (SAREC) in Lingle, Wyoming. Speakers included Extension Educators, Specialists, Ranchers, and community members. A portion of the two-day event included tours of an area feedlot, sale barn and SAREC. The Challenge was supported through initiative team funding and USDA Risk Management Agency. This was a cross-initiative team effort between the Profitable and Sustainable Agriculture Systems and 4-H/Youth Development. Eight youth from five counties around the state participated. Scheduled presentations included: Goal Development, Risk Management, Partial Budgeting, Niche Marketing, Ultrasound Technology and Genetic Selection/EPDs. Pre and post evaluations were collected. The participants were asked to rate their knowledge

prior to and after the workshop using a Likert scale, 1-5; 1 = very little and 5 = expert. Evaluations showed that each area had an increase in knowledge, with the greatest increase of knowledge in Partial Budgeting: pre=2.14, post=3.38 and Niche Marketing: pre=1.50, post=3.88. A follow up survey was sent out six month following the workshops to see which practices have been implemented.

Ag Issues & Public Relations

GET ON THE BUS: CONNECTING LOCAL FOODS TO SCHOOLS

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Farm to School initiatives are being developed across the country to encourage local school systems to utilize local foods in their school lunch programs as well as for special meal events. Since 2011, OSU Extension in Trumbull County has been helping to make this community connection a reality in Northeast Ohio through a local foods initiative. During the past three years, a major program has been held to encourage school systems to utilize local foods in their school lunch and special meals programs. In 2011, a day conference was held to teach the benefits of using local foods and how schools can connect to local producers. In both 2012 & 2013, a day bus trip was held to help connect schools to local fruits, produce and food. During these day long trips, attendees were able to visit local farms, make connections for purchases, and taste what is available. These road trips were attended by teachers, food service personnel, administrators, and school board members. The attendees of all the programs reported a large increase (over 2.00 gain on 5 point scale) in their knowledge of the benefits of using local foods in the school lunch program, how to access and purchase local foods, and are better able to make the connection to local farms. This presentation will help Extension professionals learn how they can design programs to connect local school systems to agricultural food producers.

DEVELOPING DYNAMIC FARM FOOD SAFETY OUTREACH FOR DIRECT MARKET PRODUCERS

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The increasing focus on farm food safety due to the Food Safety Modernization Act (FSMA) and general customer concern has created a need for education on Good Agricultural Practices for direct market producers. Starting in 2013 Dr. Kline and Meredith Melendez have offered a variety of outreach methods to reach a diversified group of fruit and vegetable producers in NJ. The foundation of this programming is Dr. Kline's farm food safety work which began in 1999 focusing on third party

audits. Typically direct market producers are not affected by third party audits, leaving them without previous farm food safety educational opportunities. A sizeable percentage of direct market growers in New Jersey will qualify for compliance with the impending FSMA, creating a need for quality educational programming on GAPs and FSMA regulations.

Training workshops include PowerPoint presentations on Good Agricultural Practices (GAPs), instruction on writing farm risk assessments and guidance on writing their personalized farm food safety plan. The training manual "Food Safety for Retail Marketers" was developed by Kline and Melendez and focuses on GAPs for retail farm operations. Participants are given checklists, sample documentation forms, and sample risk assessments. Additionally participants are given a USB drive with additional resources and a farm food safety plan template that they use as a starting point for their own plan. Time during the workshop is dedicated to the writing of a farm food safety plan with Kline and Melendez offering support as needed. Farm walk throughs are offered to participants once they have completed their farm food safety plan. Regular updates regarding regulation changes and GAPs are posted on the Rutgers Plant and Pest Advisory online.

Coordination and collaboration with national, state, and local officials along with individual growers, grower associations and commodity groups is essential to providing timely, quality food safety information to NJ producers. Both Kline and Melendez collaborate with the Rutgers Agritourism Working Group, the NJ Direct Farm Market Association, NOFA NJ, Annie's Project NJ and agriculture agents throughout the state. Both Kline and Melendez are members of the Produce Safety Alliance which is collaborating with the USDA and the FDA in creating a nationwide training program for food safety educators. Additionally Kline and Melendez are active members of the New Jersey Food Safety Task Force which is a collaborative effort between Extension, NJ Department of Ag, NJ Department of Health, USDA and grower groups.

TELLING OUR STORY IN AGRICULTURE AND EXTENSION

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As our society in the United States as evolved, we are farther and farther removed from the farm and the realities of modern agriculture. Because of this, our national collective agricultural literacy as declined to the point where people are often mistrustful and misled about agricultural practices. Exacerbating this problem is the fact that we in agriculture and Extension use terminology unfamiliar to the non-farming public. This presentation explores the power of words...the words we choose and the dynamic meanings of the words we choose...when we discuss agriculture and Extension with others. We will examine how a single word can change the total direction of a conversation and our need to educate our farmers and ourselves to consider public perceptions to the words we each use to promote our industry.

Agronomy & Pest Management

SYSTEMATIC TILE DRAINAGE SYSTEM DEMONSTRATION AND EDUCATION

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Missouri has limited number of systematic tile drainage systems. Tile drainage in Missouri is commonly used to drain seeps and empty terrace channels. The MU Regional Extension Agronomist was approached by a local tile supplier to establish a long-term tile spacing demonstration. The goal of the demonstration was to show impact of tile drainage on crop yield. The site was established in a grower field located along a Highway 159 in Holt County Missouri. Installation and supplies were donated with a total cost of \$21,151. Two tile spacing's were established at the site, a 20-foot tile spacing in a Luton clay soil and 60-foot spacing in a Modale silt loam. The 2013 yield results indicated a 10 bushel average corn yield increase in 60-foot spacing and 2 average bushel increase in 20-foot spacing. During the installation of tile at the site in the fall of 2012, an Extension education event was held. Growers surveyed after attending this event indicated that 3,550 acres of new tile would be installed. During late summer 2013, another tiling field day was held at another location. Surveyed growers attending this meeting indicated they would install 1,700 acres of new tile. Missouri data indicates 20% increase in corn yields and 15% soybean yields with tile drainage.

ACCOMPLISH AS A NUTRIENT AND GROWTH ENHANCER FOR CORN PRODUCTION

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In recent years microbial products have been marketed as fertilizer additives that would make soil nutrients more available and increase growth in corn plants. These products were released to the market prior to evaluations by universities in Ohio and other states. A two year study was completed that evaluated the potential corn grain yield and test weight benefits of Accomplish LM, a microbial nutrient enhancer, Corn was established on the OARDC Northwest Agriculture Research Station near Custar, OH in 2012 and 2013 for the study. Treatments consisted of plots that either received only urea-ammonium nitrate or urea-ammonium nitrate plus Accomplish LM. Plots consisted of four rows of corn at 30-inch row spacing. The two center rows were harvested for grain and test weight. Grain yields were similar among the treatments in 2012 but were significantly less for treatments receiving Accomplish LM in 2013. Test weights were similar among treatments for both years. Future research is required to identify beneficial features of microbial products before they should become a part of a standard nutrient program in Ohio corn production.

ALFALFA RUST CONTROL AND RESULTANT YIELDS - A COMPARISON OF HEADLINE AND ROUNDUP POWERMAX

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Two rates of Headline fungicide (6 & 9 oz./acre) and 44 oz./acre of Roundup PowerMax herbicide were applied with and without surfactant to a field planted with Roundup Ready alfalfa that was infected with alfalfa rust (*Uromyces striatus*). The field had two growth stages, allowing curative and preventative disease control/prevention data to be obtained. Roundup PowerMax resulted in significantly better disease control and prevention than other treatments. Best yields were noted from alfalfa treated with the 6 oz./acre rate of Headline, followed by the 9 oz./acre rates, and then Roundup PowerMax. Highest quality of alfalfa hay was noted from the Roundup PowerMax and Headline at 9 oz./acre, with these averaging approximately 25 relative feed value (RFV) points higher than untreated alfalfa.

WESTERN CORN ROOTWORM EDUCATION RELOADED: BACK TO THE BASICS

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One of the most important pests for corn production in the US Corn Belt is the western corn rootworm (WCR), *Diabrotica virgifera virgifera*. Management of the beetle seemed to have been made simple by the development of genetically modified rootworm resistant corn hybrids. Development of resistance to these genetically modified hybrids has already been documented to have occurred in production fields in the Central Corn Belt (Focus Area). Educational efforts are needed to help corn producers develop strategies to manage WCR in areas where resistance has developed (Focus Area) and where resistance has not developed (Fringe Area). Part of the educational effort should include the basic biology of the insect, past management programs before the development of the GM rootworm resistant hybrids, and distinguishing rootworm management from the management other corn pests. This presentation covers the basic biology of the WCR, WCR behaviors, the significance of the 1st-year variant WCR and WCR management strategies in both the Focus and Fringe Areas.

BIOCHAR AS AN AGRONOMIC FERTILIZER

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The utilization of manure as a nutrient source can be limited in sensitive watersheds. On the Delmarva Peninsula some soils are considered to be saturated by phosphorus (P), and may be restricted from any future P additions. An alternative use, such as energy production, must be implemented so manure does not become a liability. One manure to energy process is pyrolysis, of which biochar is a byproduct. Biochar has potential as both a fertilizer and carbon sequestration agent. We set up a ryegrass greenhouse experiment with biochar produced from five manure sources: dairy, beef, poultry, swine, and turkey. Ryegrass yield were generally similar whether biochar or chemical fertilizers were used. Therefore, biochars have the potential to still supply P for crop needs. Due to the lower weight of biochar compared to the initial feedstock manure, transportation costs can be cheaper, assisting in exporting the P from nutrient sensitive watersheds.

PROTECTING WHITE CLOVER WHILE CONTROLLING HAIRY BUTTERCUP IN PASTURES

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Hairy buttercup is an aggressive winter annual weed found throughout Southeastern US pastures. Its rapid spring growth and ability to completely dominate pastures have made it a serious concern in cool season forage production. There are currently few published studies that have examined its control. Furthermore, a lack of herbicide selectivity is frequently an issue when broadleaf weed control is needed in mixed grass-legume pastures. To address this problem, we tested low rates of several herbicides including 2,4-D, imazethapyr, hexazinone, and aminopyralid + 2,4-D at December and February application timings for hairy buttercup control and white clover tolerance in pastures. Dimethylamine, diethanolamine, and ester formulations of 2,4-D controlled hairy buttercup at very low rates and did not reduce spring white clover cover. Imazethapyr was also effective in controlling hairy buttercup with no clover injury but hexazinone did not control hairy buttercup and also resulted in a considerable reduction in white clover. Aminopyralid + 2,4-D provided excellent hairy buttercup control but completely eliminated white clover cover. In general, effective herbicide treatments worked at both application timings. These studies indicate that hairy buttercup can be controlled in mixed white clover/grass pastures with multiple herbicide options without damaging white clover populations. These results have been widely disseminated to over 12,000 producers through Alabama Cooperative

Extension Presentations and Alabama Cattleman magazine articles.

THE USE OF CROP SENSORS AND VARIABLE RATE TECHNOLOGY FOR PRECISION APPLICATION OF NITROGEN TO COTTON

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The management of nitrogen (N) in the production of cotton (*Gossypium hirsutum* L.) is one of the most important decisions producers make during the growing season. . The under-application of N can result in stunted plants, lower boll production and reduced yield. Over application can cause excessive vegetative growth, restrict boll production, and the loss of unused N into the environment. The use of optical crop sensors and normalized difference vegetation index (NDVI) to determine plant health and growth gives producers options to consider along with environmental conditions and yield potential. Merging NDVI, past and current seasonal conditions, and yield potential into an on-the-go application of N at early bloom gives producers flexibility and increases efficiency in managing N.

“FORAGES: PAST, PRESENT, FUTURE” 2013 ALABAMA FORAGE AND GRASSLAND CONFERENCE

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The 2013 Alabama Forage and Grassland Conference, “Forages: Past, Present, and Future” was held December 12, 2013 at Lake Guntersville State Park in Guntersville, AL. This one day conference, put on by the Alabama Forage and Grassland Coalition, brought entities from the public, private, and producer sectors together to obtain valuable information from some top forage experts from across the country. The ACES Animal Science and Forage Team played an integral role, as members of the Alabama Forage and Grassland Coalition, in the organizing, advertising, and execution of this well attended event. The conference not only discussed basic management techniques to improve operations but also encouraged attendees to think bigger and broader when it comes to their own forage operations. Based on the evaluation provided at the conference, the average value of the information presented/knowledge gained was \$5355.00 per attendee with an overall value of information equating \$969,255. There were 181 attendees from 7 states represented, and the total impact for the conference valued at \$990,669.00. Conference proceedings and highlights can be found at <http://www.aces.edu/anr/forages/AFGC2013.php>.

2013 EVALUATION OF IN-FURROW AND FOLIAR FUNGICIDES FOR DISEASE CONTROL OF PEANUT CONTROL IN JAY, FLORIDA

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Soilborne diseases are a devastating problem for peanut producers in Santa Rosa County. Peanut producers need both economical and sustainable options to reduced disease impacts and increase peanut yields. Fungicide programs used for disease management are the largest expense associated with peanut production. Resistant varieties and both foliar and in-furrow fungicides are used to combat soilborne disease. This research trial evaluated the efficacy of foliar and in-furrow fungicides against white mold (*Sclerotium rolfsii*). In-furrow use of fungicides is a new practice for our peanut growers in Santa Rosa County and there is interest and a need for local data on this practice compared to our traditional foliar applied fungicide programs. The plots were randomized complete block experimental design with four replications. They were managed following University of Florida recommended practices. The results of this trial will be reported in terms of disease control visual evaluations, final yields, cost of the fungicide programs and net returns.

EVALUATION OF CROSS TEAM PROGRAMMING FOR AGRONOMY AND ANIMAL SCIENCE & FORAGES IN NORTHEAST ALABAMA

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Northeast Alabama serves as a host to a mixture of livestock, hay, and row crop production. As resources and budgets tighten, innovative approaches to programs must be considered. Agriculture agents in Alabama are regional based with specific topic areas such as agronomy and animal science & forages. The first cross-team program launched in winter 2013 titled “Soybean and Forages Lunch & Learn” including topics covering: forage management; poultry litter use for forages and crops; soybean production update; soybean disease management; soybean insect management. The second cross-team program was titled “Weeds and Insect Pests” including topics related to: fescue management; bermuda stem maggot; invasive weed species; herbicide resistant weeds; soybean

insects; performance of BT corn in Alabama. Both programs were held in late winter allowing forage topics to be attended before lunch and row crop topics after lunch. The lunch was sponsored by the county farmer’s federation chapter. The average topic rating for all topics was 4.44 on a 1 to 5 rating scale, with 1 representing poor and 5 representing excellent. Evaluations indicated the average economic impact was \$3,593.95, average knowledge increased by 25 percent. Acres represented ranged from 5 to 500 acres with an average of 210.3 acres and a total of 6,310 acres impacted by these programs. Attendance increased by 44 participants from year one to year two. Cross team programming proves to be a successful way to combine resources and deliver quality programming in Northeast Alabama. This program will continue as an annual event.

USING BY-PRODUCTS FOR AGRICULTURAL PRODUCTION

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Prior to the early 20th Century, most soil amendments used to improve agricultural production were by-products of some other process, usually animal manures. As industrial development spread, these by-products became important sources of nutrients or soil liming materials such as ammonium sulfate (by-product of coking) and basic slag (by product of iron and steel manufacture). With the use of concentrated chemical fertilizers and ground, agricultural limestone, modern agricultural production is less dependent on by-products as soil amendments. However, as society strives to recycle and become “greener”, we must find a way to integrate more and more by-products into our agricultural production systems. We will review several agricultural and industrial by-products that have been researched and adopted or rejected as soil amendments to enhance agricultural production. Each will be reviewed with respect to four questions that need to be considered. (1) Does my by-product have any obvious properties that could be potentially harmful to the environment (soil, plants, animals, water) if land applied? (2) Does it have any value if land applied? (3) Can we logistically and economically apply it to either our own land or offer it for public use? (4) Will there be any public objection to a land application program?

COVER CROPS AND SOIL QUALITY IN THE DEEP SOUTH

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By the late 1800s, most soils in the Deep South had been eroded and degraded from continuous cotton production. A young professor at the Agricultural and Mechanical College of Alabama (now Auburn University), Professor J.F. Duggar, said, "Alabama agriculture will come unto its own when her fields are green in winter." This was a profound statement for a time when all lands were fall plowed and left to "mellow" over the winter months. He tested his theories by planting winter and summer cover crops in an experiment known today as the "Old Rotation" (circa 1896), the oldest cotton experiment in the world on the campus of Auburn University. We'll share information learned from this historic old experiment, learn how cover crops have influenced soil quality/soil health and how we propose to put this information into practical use by the Auburn University Soil Testing Laboratory to measure soil quality.

EVALUATION OF VARIOUS MATERIALS FOR REDUCING PLANT INJURY BY THIELAVIOPSIS BASICOLA TO FLUE-CURED TOBACCO SEEDLINGS GROWING IN A T-RAIL GREENHOUSE SYSTEM

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A variety of fungicides (Topsin, Folicur, Quadris, Procure) were applied as drench treatments to trays of seedlings in which *Thielaviopsis basicola* had been diagnosed as the cause for stunted and yellowing plants. Plant vigor ratings and growth measurements were taken. There appear to be materials that may be helpful to growers who find seedling resulting from *Thielaviopsis basicola* early in the production season.

INTERCROPPING CUCURBITS AND COTTON- ECONOMIC FEASIBILITY AND GROWTH COMPATIBILITY

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Intercropping planting systems have been evaluated for feasibility with cotton being planted in cantaloupes and watermelons. Results over three years (2010-2012) are very positive with increase returns per acre and more efficient utilization of resources. Twenty-seven fields totaling 813 acres have been evaluated. During the cantaloupe/watermelon (CW) growing season the field was managed for CW production.

After the conclusion of the CW harvest, the field was managed for cotton production. Fields were monitored for growth challenges, insect, and weed management. CW yields were comparable to the farmer's average yields of CW only fields. Economic feasibility of intercropping cotton in CW showed very positive returns to the producer. Due to the growers response and success other crops were evaluated in intercropping systems in 2013.

MULTI-YEAR (2009-2012) RESEARCH OF IN-FURROW AND TOPICAL PROTHIOCONAZOLE TREATMENTS ON SEVERITY OF CYLINDROCLADIUM BLACK ROT AND WHITE MOLD DISEASES OF PEANUT

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The impact of soilborne diseases on peanut production in Effingham County has been a problem that needs to be addressed with additional on-farm research. Peanut acreage has increased in the county over the past several years and the problems associated with peanut production have become more widespread, due in part to shorter rotations between peanut crops. The producers' current best line of defense to combat these problems involves selection of more-resistant varieties, judicious use of fungicides, and soil fumigation with metam sodium to reduce severity of *Cylindrocladium* black rot (CBR). In on-farm research demonstrations, the effectiveness of prothioconazole (Proline) applied in-furrow at planting and over-the-top after emergence was evaluated for the management of peanut diseases. Provost (prothioconazole + tebuconazole) and Artisan (flutolanil + propiconazole)/chlorothalonil were evaluated with Proline (prothioconazole) to assess the best program for overall disease protection. Data collected in this study included severity of leaf spot diseases, White mold, and *Cylindrocladium* black rot. As an in-furrow fungicide with known activity against *Cylindrocladium* black rot and over-the-top activity against white mold may also improve seedling health as well, it was hoped that this practice would not only improve control of CBR and White mold, but possibly seedling disease and TSWV as well. Because use of prothioconazole is a relatively new practice for our peanut growers, there is a serious lack of data on this type of application in the southeast that has been collected in large-plot, on-farm trials. The data will exhibit the effectiveness of prothioconazole on improving control of CBR and White mold soilborne diseases that negatively impact yield and quality. This data played an important role in recommendations for the use of prothioconazole in Effingham County and the Southeast.

UF RANGE CATTLE RESEARCH & EDUCATION CENTER WEED GARDEN

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The South Florida Beef Forage Program (SFBF) Weed Garden Committee

The significant population increase, in Florida, has fueled urbanization with an associated loss of land devoted to agriculture. Extension agents and specialists are required to deliver research based information to agriculturalists that enhance the quality of lives, and encourage profitability and sustainability. Weed infestations decrease productivity and profitability. For example, a 20% infestation on 100 acres has 20 un-grazable acres. The recommended stocking rate is 5 acres/pair, implicating 20 acres carry 4 sellable calves - the rancher is forfeiting \$4,532.00 (550lb. calf X \$2.06/lb. = \$1,133/calf X4 = \$4,532). Florida is hospitable to an abundance of undesirable weeds. Identification is key and enables the producer to select proper control and avoid over application of chemicals. To educate livestock producers, SFBF members designed a “weed garden” at the UF Range Cattle Research & Education Center. The garden consists of common pasture weeds and grasses growing in South Florida. Each plant is contained in a box with a label indicating the common and scientific name. Throughout the year the REC hosts several programs and participants are welcomed into the garden where the weed scientist is available to answer questions. In addition to providing producers a quality education, the garden also hosts in-service trainings for extension agents to stay acquainted with weed production. Proper identification alone can increase profits, save lives – if dealing with poisonous plants, and prevent the application of ineffective chemical controls. Approximately 500 producers visit the garden, annually, and according to evaluations, it exceeds 100% of their expectations.

PERFORMANCE OF SEVENTEEN PUMPKIN VARIETIES GROWN IN NORTHERN UTAH

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We trialed 15 hybrid (Camaro, Challenger, Charisma, Connecticut Field, Corvette, Cougar, Gladiator, Magic Lantern, Magic Wand, Magician, Mustang, New Moon, Orange Rave, Racer, Sorcerer, Summit, and two open-pollinated pumpkin varieties (Connecticut Field and Howden). We measured marketable yield, color, stem strength, size and shape. Seeds were planted in a randomized, complete block design with ten plants representing an experimental unit (n=3). All marketable fruit was evaluated. The highest yielding varieties of marketable fruit were Challenger, Cougar, Summit and Magic Lantern (32.4 tons/acre [t/a] 29.5 t/a, 25.9 t/a and 25.7 t/a respectively). Over 70% of marketable fruit from Magic wand, Corvette and Magician met retail market specifications: weight from 15 to 25 pounds and dimensions of 10 to 15 inches in both height and width. However, Corvette and Magician bore 3 tons less per acre. Conversely, Camaro, Connecticut Field, Cougar, Howden and Summit showed a more variable size range, which was desired by u-pick style operations. Over 75% of fruit from Challenger and Mustang weighed over 25 lbs. Lowest producing varieties included Charisma, Gladiator, Magic Wand, Orange Rave and Sorcerer. Marketable fruit from all varieties had acceptable stem strength (except New Moon) and color.

Animal Science

BEEFSD: AN INTEGRATED AND INTENSIVE EXTENSION CURRICULUM FOR BEGINNING BEEF CATTLE PRODUCERS IN SOUTH DAKOTA

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SDSU Extension and South Dakota Farm Bureau are partnering to provide a multi-year educational program to assist beginning beef cow-calf ranchers in South Dakota become economically, ecologically, and socially sustainable producers. The goal is to present a curriculum that will provide them the tools to make wise management decisions to contribute to ongoing agricultural production, land stewardship, and rural community viability. The learning objectives are to provide (1) evaluation of alternative production systems, (2) an integrated understanding of the entire US beef cattle industry, and (3) development of individual cattle enterprise plans. The first core group is 21 beginning beef cattle operations (33 individuals, with several couples), and 9 beginning beef cattle operations (16 individuals) in the second core group. The curriculum is comprised of six major kinds of activities (1) instructional workshops, (2) case studies of established successful producers using a variety of production systems and management practices, (3) evaluation of post-weaning performance of participants calves, (4) mentoring from established beef ranchers and other industry professionals, (5) web-based interaction, and (6) travel study trips to learn about other segments of the beef cattle industry. Outcomes are evaluated using surveys of the participants beginning at 12 months into the program and thereafter at 6-month intervals. Responses indicate that meaningful outcomes have occurred. For example, when asked the impact of the program on their operation, on producer indicated: "I just had to tell you guys that our net worth has increased by \$37,000. If we can continue to be diligent we can either keep 30+ bred heifers or operation on our own money by the end of the year." Other participants reported comparable impacts. In conclusion the beefSD program has been successful at fostering positive outcomes for the beginning producer participants.

IMPROVING HERD HEALTH OF BEEF CATTLE IN SOUTH FLORIDA

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In the twelve counties served by the South Florida Beef Forage Program, there are over 770,000 head of beef cattle. That amounts to over two-thirds of Florida's beef cattle. Losses that are caused by poor herd health represent a major obstacle to

the profitably and sustainability of beef cattle operations. Poor animal health can result in animal death, decreased reproduction efficiently, and decrease in growth and productivity. A herd health management plan is vital to profitable beef production. Investment in the prevention of disease is less than the cost of treatment. Many animal health problems can be controlled with good management, proper nutrition, and vaccination against infectious diseases. Preventing diseases through the use of a herd health management plan saves time, money, and reduces inputs. The South Florida Beef Forage Program agents offered the 2013 Herd Health program designed to increase participant knowledge and skill in sustainable herd health management practices and techniques. The program had multiple speakers some of whom are experts in the herd health field. The speakers educated participants on subjects such as herd health feeding, internal and external parasites, herd health requirements, and updates on Trichomoniasis in cattle. The educational objectives are to identify, demonstrate, and encourage adoption of a sustainable herd health care program that can be used in both small and large scale operations. Ninety-five (95) participants have attended the Herd Health program in the past two years. According to pre-/post-tests, 86% of participants will implement new or change current practices based on their 30% increase of knowledge from attending this program. According to evaluations, a majority of respondents plan on changing deworming schedules and having yearly bull soundness exams that includes Trichomoniasis testing.

300 DAYS GRAZING PROGRAM INCREASES SAVINGS FOR PRODUCERS

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Van Buren Countys most abundant agriculture commodity is cattle with a total inventory of cattle and calves at 20,500 head. With the rising cost of inputs such as feed, fertilizer, and hay, producers need methods to implement that reduce these costs. It is a proven fact that the cheapest way to harvest forage is through grazing. In 2009, the University of Arkansas, Division of Agriculture began the 300 Days Grazing program to assist producers in reducing supplemental feeding days to reduce costs. The projects that could be utilized to assist producers with achieving 300 Days of Grazing included stockpiled forages, grazing management, complimentary forages, adding legumes, and hay management. This program had opportunities for producers throughout the state to participate as "whole farm" programs in which several of the projects would be conducted on the farm to assist with increasing grazing days to reduce input costs.

A cow/calf operation in Van Buren County Arkansas was selected to participate in the 300 Days of Grazing "Whole Farm" program starting in 2009. This farm also participated in a legume establishment project in 2008 providing grazing

data for 2008. From the fall of 2008 through the fall of 2011, the producer saved an average \$3,187.75 per year with a total \$12,751 saved by increasing grazing days. The producer implemented clover in fescue pastures to decrease fertilizer input, utilized electric fencing and added water tanks for grazing management, and stockpiled forages to reach this goal.

In the Spring 2010, a 300 Days Grazing Multi-County Field Day was conducted with 32 producers gaining knowledge of the projects utilized to achieve these grazing goals. One new project on grazing management was started in 2012 with a field day participant. The 300 Days of Grazing Program has been successful for producers in Van Buren County providing them an opportunity to reduce input and supplemental costs.

OSU MEAT GOAT BOOT CAMP

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Meat goat production has become a rapidly expanding livestock enterprise in Oklahoma and the U.S. Oklahoma now ranks third in total number of meat goats for the U.S. With this growth in meat goat operations, have come new educational opportunities. Many producers interested in meat goat production have had little or no experience in agricultural production. Even those producers with general livestock production skills have found it difficult to adapt to the differing production needs of a meat goat operation versus traditional livestock enterprises.

In response to this growing need the Oklahoma Meat Goat Boot Camp was created. The boot camp is a three day program that combines hands-on activities, class room exercises, and traditional power point presentations. Producers attending not only have the opportunity to learn how to perform certain production practices, but also have the opportunity to practice these production practices on live goats as many times as they feel necessary. Production methods taught and demonstrated include ear tagging, hoof trimming, castrating, herd health practices, kidding, neonatal care, FAMACHA, fecal egg counts, forage management, ration balancing, forage testing, reproduction, pregnancy detection and business management.

The response to the workshops has been outstanding, not only in Oklahoma but across the U.S. There have been 10 camps held since 2007 with an overall attendance of 498 producers from Oklahoma and 24 other states. Evaluations have showed a favorable response to the workshops with producers wanting more education. Pre and Post tests have shown an overall increase in knowledge of 37.9%. Producers have also indicated that the education received has an average perceived value of \$312,868 per boot camp.

The next evolution of the boot camps was the creation of a series of videos. Twenty five videos were recorded and placed on the OSU Meat Goat YouTube channel. Since being placed on YouTube in November 2013, the videos have had over 58,000 views from producers in Oklahoma, U.S. and the world.

SOUTH FLORIDA WINTER SUPPLEMENTATION SEMINAR

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South Florida is a unique environment to raise cattle. Producers are able to graze year-round providing forage for their cattle. Issues arise when forage quality and quantity declines and cows begin declining in body condition score (BCS) when suckling a calf. The extension agents in South Florida noticed a need for providing information that producers could use to properly and economically supplement their animals through the winter months. The South Florida Winter Supplementation Seminar was developed to meet these needs. The seminar covers cattle nutritional requirements, forage supplementation, winter supplementation programs and managing cost of supplementation. Each topic is explained by extension specialists and agents to assist producers in gaining a full understanding of how to properly provide supplemental nutrients to their animals. Research has shown that BCS is directly correlated to reproductive efficiency. In a state where the cow-calf enterprise is the predominant sector of the cattle industry this becomes important. When explained to producers that the difference between a cow in a BCS-3 versus a cow in a BCS-5 can mean a difference of \$223 or more in calf weaned per cow exposed they begin to understand the importance. In two years 87 producers have attended the course. In response to post program surveys 45 percent have reported an increase in knowledge and 89 percent plan to implement techniques they learned during the seminar. One of the techniques which producers are implementing is to begin the supplementation program before you begin to see BCS decline in your cattle

REGIONAL APPROACH FOR VALUE ADDED LIVESTOCK OPPORTUNITIES IN VIRGINIA AND WEST VIRGINIA

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Livestock commodity leaders teamed up with business and professional representatives to study, design and build a regional agricultural center in the Allegheny Highlands of Virginia and West Virginia. The steering committee, organized and advised by Extension, used USDA grants to determine producer needs and feasibility for an educational, marketing, and livestock harvest/processing facility to provide the needed infrastructure that will enhance the sustainability of a fleeing agriculture community. The results included a private donation for land, many volunteer hours, a \$480,000 low interest government loan, and producer and private investment in stock for one million dollars to build the Allegheny Highlands Agricultural Center, LLC. The facility includes scales and pens to accommodate 600 head of cattle or sheep for live sales, a USDA inspected slaughter and meat processing center to handle 20 beef equivalent per week, and a multipurpose room for youth and adult educational activities. Eight years of evaluation, planning, designing and construction have yielded a first class facility that opened fully in the first quarter of 2012 and continues to add services to livestock producers. This facility was designed so that it can be replicated in other rural communities that have a similar infrastructure need.

EFFECT OF COW SIZE ON EFFICIENCY

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In order for beef producers to achieve maximum profit, it is necessary for their cows to produce a calf per year and rebreed with the least amount of input. The cows need to meet a specific average percent of their body weight when compared to their calves' adjusted 205 day weight. If this percent is too low, the cow is putting too much input into her own maintenance and not enough toward producing milk for the calf. If too high, she has difficulty re-breeding. Three herds were randomly selected and tracked for a period of three years. Cow weights were taken the same day as the calves 205 day weights. No creep feed was fed to calves and no supplements were fed to cows. Significant fluctuations were found in cow weights each year due to drought but it was discovered that for cows raising heifers, percent body weights each year due to drought but it was discovered that for cows raising heifers, percent body weight needed to be between 39% and 44% and for cows raising bulls, percent body weight should be between 44% and 49% in order to reach maximum efficiency.

EVALUATING THE IMPACTS OF GRAZING MANAGEMENT CLINICS IN ALABAMA

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Forages account for roughly four million acres across the state of Alabama. Grasslands are second only to forest land and serve a critical role in ecosystems throughout the state. Proper management of these grasslands is vital for healthy, productive soils, clean waterways and profitable farms. The Alabama Grazing Management Clinic was developed as a project of the Alabama Forage & Grassland Coalition to teach proper grazing management techniques in a one-day format. Instructors include both Extension and Natural Resource Conservation Service personnel. Topics include: physiology of forages, minimizing hay, economics, grazing systems, fence/water technology, and forage allocation. A total of 28 clinics, averaging 25 in attendance, have been held to date. Evaluations have documented the impact of the clinics and easily justify a \$75 registration fee. Over the last two years, responses show that 19,635 acres are being managed more intensively with a return per acre for attending the clinic of \$51.48. Evaluation results indicate that 98% of participants plan to implement at least one new practice within 12 months, primarily cross fencing and rotational grazing. A total impact of \$946,017 is reported for the last six clinics.

GRAZING MANAGEMENT SCHOOL

The South Florida Beef Forage Program

Baucum, J.¹, Carlisle, B.², Crawford S.¹, Davis, C.B.⁴, Hogue, P.⁴, Kirby, C.³, Prevatt, T.³, Sellers, B.⁶, Silveira, M.⁶, Vendramini, J.⁶, Wiggins, L.F.^{*1}

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In Florida, the population has grown significantly,

from approximately five million to sixteen million people in the last 55 years. This three-fold increase has fueled an increase in urbanization with an associated loss of land devoted to agriculture. Extension agents and state specialists are required to deliver research based information to agriculturalists that enhance the quality of lives, and encourage profitability and sustainability. The South Florida Beef Forage Program offered the Grazing Management School to educate participants about utilizing native range, pasture establishment, soil fertility, weed control, and forage management. Participants are taught grazing management concepts and methods in a classroom setting and the presented information is supported by practical applications in the field during a tour of local ranches. Improvement of water quality via pasture management is another aspect covered extensively at the Grazing Management School; for example, management practices to maximize fertilizer benefits while preventing nutrient run-off, especially phosphorous, are presented in the classroom and field visits. Thirty-two participants attended the School; representing 6 Florida counties, Equator, the Cayman Islands, and Brazil. According to pre/post tests and follow-ups, 95% of participants have implemented new practices or exhibited a behavior change based on a 65% increase in knowledge.

BOVINE RESPIRATORY DISEASE RISK REDUCTION FROM BLOODLINES TO FENCELINES

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The 2007-2008 USDA National Animal Health Monitoring System Beef Study documented that Bovine Respiratory Disease (BRD) is a serious health challenge for U.S. beef cow-calf producers: respiratory disease is the most common cause of death in calves over three weeks old. The Washington State University (WSU) Beef Team, already engaged in a five-year USDA-funded project called “An Integrated Approach to Control of Bovine Respiratory Diseases”, obtained additional funding from the Western Center for Risk Management Education to fund an outreach series to present newly-developed, evidence-based educational materials to cow-calf producers throughout Washington. Team members conducted workshops in five locations, directly reaching 132 producers. At each workshop, producers were asked to complete a self-assessment of their ranch’s BRD risk, received notebooks with 11 educational modules, interacted with Extension professionals delivering educational content and were encouraged to request an on-farm BRD risk assessment conducted by team members. Educational module topics focusing on reducing BRD risk included managing pregnant cows; calving management; optimizing calf care; weaning procedures; cattle handling; vaccinations; preconditioning;

transportation; biosecurity; health at feedlot arrival; and documenting BRD incidence and health costs. An audience response system measured knowledge gains immediately after each workshop. Results indicate substantial increases in all evaluated areas. The fact sheets generated through this program will enter the WSU publication system to increase their access and impact. In the coming months, team members will visit cow-calf ranches to conduct requested BRD risk assessments and help producers develop management plans to lower the BRD risk of their herds.

Climate & Agriculture Sessions

ADAPTING AGRICULTURE TO CLIMATE CHANGE USING COVER CROPS AND NO-TILL

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Agricultural management needs to adapt to climate changes due to increases in greenhouse gasses of carbon dioxide (393 ppb), methane (1850 ppb) and nitrous oxide. USDA-SARE (2012) reports indicate that atmospheric moisture will increase thirteen percent from July-August with approximately ten percent increase in total moisture in the Midwest. However; the intensity, duration, and the number of rainfall events are also expected to increase with a five-fold increase in high precipitation events; leading to increased soil erosion, and water and nutrient runoff. Nighttime temperatures are projected to increase along with increased winter nighttime low temperatures. The projected results are increased frequency of major floods, droughts, and a longer growing season. Cover crops and no-till farming are management practices that allow farmers to adapt to these climate changes. Soil Organic matter (SOM) decreases summer and increases winter soil temperatures. The Ohio Agronomy Guide, 13th edition shows that water infiltration increases four-fold when the soil surface has 80 percent soil residue cover versus none. A one percent increase in SOM results in 0.5 to 0.8 inches increased water storage capacity per foot of soil (Hudson, 1994). Crop residue and plant cover decreases soil erosion and nutrients losses. A CTIC (2013) farmer survey (N=150) shows that cover crops yields increased 5 to 10 percent over no cover fields and increased resiliency to poor weather conditions. SOM buffers changes in soil temperature, increases infiltration and water holding capacity, buffer pH and cation ion exchange capacity, and serves as a reservoir for soil nutrients.

CLIMATE CHANGES MAY AFFECT VARIETAL DEVELOPMENT AND SELECTION OF WINTER CANOLA

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Winter canola is still a potential new crop for Ohio and other eastern Corn Belt states. Limited variety selection and proximity of delivery points have prevented expansion of the crop. Varieties have been shown to be adapted to Ohio conditions in recent years but weather variations caused by climate change may cast doubt on the suitability of these varieties in future years. In 2012, March and April temperatures were unseasonably warmer than previous years at the Ohio Agricultural Research and Development Center's Northwest Agriculture Research Station, Custar, OH. A winter canola variety performance test had been established at this site since 2004. Each year 45 to 55 winter canola varieties were evaluated for fall establishment, winter survival, flowering date, plant height, and grain yield. In the 2012, stand establishment and winter survival was very good across entries as a result of moderate weather conditions. Unusually warm temperatures in March and April of 2012 resulted in entries bolting and flowering about 30 days sooner than the long term average. Entries were approximately 50% less in height than previous testing years. Grain yields were 35% less than previous years. This yield reduction may have been the result of temperatures dropping to near freezing after initial pod set causing pod abortion. Observations from this study have shown that an abnormally warm and early spring may result in early bolting and flowering, shorter plants and yield reductions in winter canola. Adjustments to the way varieties are developed and selected may need to occur to adapt to a wider variation of late winter and early spring conditions for successful winter canola production in the eastern Corn Belt.

TRANSFORMING CLIMATE INFORMATION INTO USABLE TOOLS TO SUPPORT MIDWESTERN AGRICULTURAL PRODUCTION

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Authors: Schmitz, H. F., Hart, C., and Widhalm, M.

There is a close connection between weather and climate patterns and successful agricultural production. Therefore, incorporating climate information into farm management is likely to reduce the risk of economic losses and increase profitability. While weather and climate information is becoming ever more abundant and accessible, the use of such information in the agricultural community remains limited. Useful to Usable (U2U): Transforming Climate Variability and Change Information for Cereal Crop Producers is a USDA-funded research and extension project focused on improving the use of climate information for agricultural production

in the Midwestern United States by developing user-driven decision tools and training resources. The U2U team is a diverse and uniquely qualified group of climatologists, crop modelers, agronomists, and social scientists from 9 Midwestern universities and two NOAA Regional Climate Centers. Together, we strive to help producers make better long-term plans on what, when and where to plant and also how to manage crops for maximum yields and minimum environmental damage.

Several tools are currently available, with more under development, that will allow the agricultural community to examine the financial, production, and environmental outcomes of different management options and climate scenarios. Researchers are using existing data and agro-climate models to investigate the impact of climate conditions on key topics such as crop yields, fieldwork opportunities, nitrogen management, and the cost-effectiveness of irrigation and tiling. To ensure relevance and usability of U2U products, our social science team is using a number of techniques including surveys and focus groups to integrate stakeholder interests, needs, and concerns into all aspects of U2U research. Through this coupling of physical and social science disciplines, we strive to transform existing climate information into actionable knowledge. This presentation will provide a demonstration of two tools currently available.

VEGETATION IMPACT PROGRAM: OPERATIONAL DECISION SUPPORT TOOLS FOR CLIMATE EXTREMES

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In response to historical costly and damaging freeze events in the north-central United States, the Midwestern Regional Climate Center (MRCC) has teamed up with the National Weather Service (NWS), state climatologists, and local vegetation experts like Extension and growers to develop an operational online decision support tool to help monitor, assess, and mitigate these extreme weather phenomena. The MRCC began the nationwide Vegetation Impact Program (VIP) in spring 2013 to provide a partnership opportunity among these stakeholders to monitor and assess vegetation and climate. The VIP offers an online portal to operational climate assessment tools, a means of communicating status of vegetative growth and climate conditions in the region, and multiple methods of communicating between sectors and stakeholders. The Frost/Freeze Guidance (FFG) project is the first impact-monitoring project within VIP and was inspired by NWS forecasters requesting decision-making assistance and guidance tools relating to damaging freezing temperatures with both the NWS community and local vegetation experts. The FFG project is currently guiding NWS offices throughout the country in issuing frost/freeze headlines. However, greater participation and partnership from the community of vegetation experts is needed to provide guidance on the susceptibility of local vegetation to freezing temperatures.

DEVELOPMENT AND IMPLEMENTATION OF AN ADVANCED IRRIGATION MANAGEMENT PROGRAM

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North Florida farmers make a significant investment in irrigation equipment and energy to produce their crops. Information that assists producers to make more informed irrigation decisions will increase their yield potential, and may decrease input costs.

The objective of this work was to irrigate crops on-farms using a Growing Degree Day (GDD) based irrigation model specific to Florida and Southeastern USA crop, climate, and soil conditions.

A GDD-based irrigation model was developed for corn and peanuts which allows the use of an advanced system to assist irrigation decisions without the complications of tracking and recording evapotranspiration and other climate factors. The model appears to accurately estimate crop water demand at critical plant development stages.

An online portal was developed which integrated weather data and on-farm conditions including rainfall and irrigation. The user interface and output included an irrigation recommendation according to the specific crop and site conditions. Wireless soil moisture instrumentation was included to augment the farmer's decision making process.

Farmers were willing to adopt this technology and have integrated it into their production system. One farmer reported eliminating four 1" irrigation events on 180 acres. This resulted in water savings of about 19 million gallons.

CLIMATE CHANGE RELATED EXTREME WEATHER EVENTS AND RISK MANAGEMENT OPTIONS FOR FAMILY FORESTS

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In the context of climate change, models suggest increased frequency and intensity of hurricanes, tornados, wildfire, and drought events as having an increasing impact on forests. Risk management is a critical, but often overlooked, aspect of forest management. The recently developed Extension education program addresses strategies to plan for and mitigate the risk of extreme weather events impacting forests. Instruction includes face-to-face training (short courses), web-based instruction, and a series of new Extension publications on risk management of extreme weather events and forest management. The program explains how to use silvicultural practices and economic decision-making to reduce risk. Specific topics covered in the educational program include

salvage of storm damaged timber, thinning and timber stand improvement, uneven-aged management, IRS timber casualty loss provisions, timber insurance, seedling survival, and the choice of whether to manage or regenerate a forest following an extreme weather event. This program expands Extension programming in an underdeveloped, yet much needed subject area as climate change related extreme weather events represent one of the single most costly risks facing family forest owners in the southeastern U.S. The Extension program and its implementation will be described.

NEW CATTLE STRESS INDEX - COMPREHENSIVE CLIMATE INDEX

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Traditionally cattle stress has been monitored using separate cold and heat stress models that did not include solar radiation as a weather variable. A new model developed in Nebraska by Dr. Terry Mader (Comprehensive Climate Index) has been implemented as an operational statewide, year-round Cattle Comfort Advisor in Oklahoma through the Oklahoma Mesonet weather network. This presentation will explore the science behind this new livestock stress model and the map, graph and table products available to producers on the Oklahoma Mesonet Agriculture section. Oklahoma's highly variable weather shows the utility of this cattle stress model. Weather variables monitored for the model include: air temperature, relative humidity, wind speed and solar radiation. Heat stress is increased by higher relative humidity and solar radiation. Higher wind speeds help mitigate high air temperatures. In cold stress conditions, higher relative humidity and higher wind speeds add to cold stress. Solar radiation helps mitigate low air temperatures.

1895 TO 2013 PRECIPITATION AND AIR TEMPERATURE WEATHER AND CLIMATE GRAPHING TOOL

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Graphed time series data provides an easy to interpret picture of weather and climate patterns. That same data in a table format is much more challenging to interpret and almost useless for presentations. A new 'Historical Climate Trends Tool' for graphing precipitation and air temperatures from 1895 to the most recent full year for all 48 continental USA states has been

created by the Southern Climate Impacts Planning Program. With this free, online, interactive tool, users can select any state or climate division within a state and create a presentation or print ready graph of annual, seasonal or monthly average air temperature or total precipitation from 1895 to the most recent full year. Graphed data from the National Oceanic and Atmospheric Administration's National Climate Data Center show high and low ranges over the last century. Graphs include a 5-year running average to show periods when temperatures or precipitation trended above or below the long-term average. A brief history on the joint development of this graph by the USDA Grazinglands Research Laboratory in El Reno, Oklahoma and the Oklahoma Climatological Survey will be included. The presentation will also cover how this long-term graph has been used by agriculture researchers and industry leaders in Oklahoma to better understand and communicate climate trends. This product is online at [www.southernclimate.org 'Data Products.'](http://www.southernclimate.org/DataProducts/)

ENGAGING FARMERS, RESEARCHERS AND EXTENSION TO INTEGRATE CLIMATE INFORMATION TO ROW CROP PRODUCTION SYSTEMS IN THE SOUTHEAST

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In the past, providing climate based scientific information and presenting it to farmers to use in their decision making process

without an understanding of production systems has proven ineffective. Objectives: The Tri-State Climate Working Group was created to build a shared understanding of the impacts climate has on row crops and potential adaptive responses. Methods: The working group has created opportunities to exchange information among innovative farmers, Extension agents and specialists from Florida, Georgia and Alabama. The group meets twice a year to discuss climate related information, its effects on production systems and discuss the weather forecast. Questions discussed have included: How might a La Niña or an El Niño affect crop yields? How have growers adapted to seasonal variations and extreme climate events in the past? How might future changes in climate affect agricultural production in the southeast? Results: The group has met 9 times since 2010 and 142 participants have attended these meetings. The core group (30 participants) has increased knowledge of climate related effects and how they affect row crop production; seven technologies to reduce climate-related risks have been identified. Extension agents have gained a better understanding of perceived changes in climate and the informational needs of farmers to manage associated risks. Conclusions: Group participants are now able to share climate related information with other Extension agents, growers, local government decision makers, water management district personnel, insurance agents, and crop consultants. This effort has been led by the Southeast Climate Consortium and the Florida Climate Institute.

REGIONAL APPROACHES TO CLIMATE CHANGE IN PACIFIC NORTHWEST AGRICULTURE

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Some of the most productive wheat land in the world can be found in the inland Pacific Northwest region (IPNW). The tremendous importance of cereal-based agriculture greatly impacts local economies and influences regional culture and communities. The REACCH, Regional Approaches to Climate Change, project is designed to enhance the sustainability of cereal production systems in the IPNW under ongoing and projected climate change, while contributing to climate change mitigation by reducing emission of greenhouse gasses. It is projected that warmer summers and wetter winters will dominate the IPNW, and shift production zones and create a new zone that has not existed in our region before. How will wheat production systems need to change to adapt to this shift? REACCH is a comprehensive response to this projected

climate change for the already challenging task of managing cereal production systems for long-term profitability. Scientists from many disciplines including engineering, climate science, agronomy, sociology, economics and extension, are working together in a transdisciplinary approach to ensure greater relevance of information to regional cereal farmer and their associates. Our aim is to conduct the best agricultural science relevant to regional climate productions and needs for adaptation and mitigation, and extend this science to stakeholders.

Early Career Development

USING AUTONOMOUS GROUPS TO DELIVER QUALITY PROGRAMS

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Educators working with adult audiences face the challenge of planning, pricing, and promoting a program and then hope there is sufficient attendance to hold the program. Every educator has at some point in their career invested significant effort and resources with minimal or no impact because of low attendance or the cancellation of the program. One of the strategies an educator could use is to develop autonomous groups that partner with Extension to provide their educational needs and pay for the costs associated with the delivery of the educational program. This eliminates the need for Extension to collect registration, handle money, and worry about attendance. There are different organizational models that can be used to accomplish this objective. These groups can be self funded or externally funded by a third party. A self-funded group may generate operating funds through membership fees or through fundraising activities. An externally funded group typically has a business sponsor that believes that funding the educational event for its members creates a benefit for their business greater than the cost. These autonomous groups have a long history in Ross County, Ohio of partnering with OSU Extension for educational programming.

WORK LIFE BALANCE FOR THE EXTENSION PROFESSIONAL

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Finding a balance between life and work can be challenging for extension professionals. No matter how much we love our jobs, the never ending to do lists, client demands and institutional requirements can leave us feeling overwhelmed and exhausted. Prolonged periods of unbalance can lead to burnout and extreme dissatisfaction with our careers. There is good news, with just a little planning, you can find balance and love what you do again. This presentation will focus on

simple tools such as setting priorities and goals, saying no and asking for help that all extension professionals can use to find balance.

HOW TO GET PUBLISHED IN THE JOURNAL OF THE NACAA

*Brown, S. C.¹

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Whether you are in a tenure track, tenured or non-tenured position, getting published in a peer reviewed journal will have a tremendous positive impact on your resume. 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 is published in June and December of each year. It publishes articles on research, case studies of Extension programs and innovative ideas. Because the Journal requires at least one author to be a member of the NACAA, it has a relatively low submission rate. Consequently, it can be a very friendly experience 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 NACAA. Topics will include potential article ideas, submission requirements, navigating the online submission process, the peer review process and more.

Horticulture & Turfgrass

GARDENING QUESTIONS ONLINE VIA ASK A MASTER GARDENER (AKA ASK AN EXPERT)

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In 2011, Ohio State University Extension (OSUE) had several retirements in the area of Agriculture and Natural Resources which left a void in many counties in the area of answering home gardening questions. In addition, several counties were left without Master Gardener Volunteer (MGV) leadership in the counties which meant that these counties were struggling with meeting clientele needs. At the same time, the eXtension Ask an Expert program was implemented. The Educator realized this need and recruited MGVs to answer questions via the eXtension online program.

The goal for the OSUE Ask a Master Gardener program was two-fold: 1) to assist counties that did not have Agriculture Educators as well as those counties whose MGV programs

were small or struggling; and 2) to become the go-to resource for consumer gardening information in Ohio. Extension Administration supported this program by providing money for a 40% FTE Program Manager to help oversee the questions and answers and financial resources to develop marketing materials for the program. The Program Manager position is ongoing and the marketing dollars are for a three year period of time to get the program up and running.

The Educator recruited MGVs who would be interested in this position. They were required to be recommended by their County Coordinator and had to attend two online training programs in order to participate. During the first and second year of implementation, the MGVs answered more than 2/3 of the total questions coming into the OSU Extension portals.

The Educator and Program Manager worked with a professional public relations firm to develop advertising materials which included a rack card, magnets with the web address, and an icon for the website, and a table top display. The table top display was used at the State Fair and more than 1,600 visitors stopped to ask questions. Other marketing materials have been distributed by MGV programs throughout the state and more than 20,000 magnets and 10,000 rack cards have been distributed.

In 2013 we had 93 MGVs in 34 counties answering questions. During the May through August growing season, they answered 911 questions out of a total 1,396 that came into OSU Extension overall. This indicates that there is a need for trained volunteers to answer home gardening questions.

We provided 15 training webinars for the volunteers and paid their registration fee for statewide Diagnostic Workshops and other programs. We also provide them with resources to improve skills.

We recruited new volunteers in November and December and targeted those counties that did not have a representative. The MGVs have been overwhelmingly supportive of this effort and have responded to questions in less than 24 hours. In 2013, they spent approximately 680 hours answering questions and contributing their services to OSUE. They are eager to learn and develop skills in the area of diagnosing plant problems.

ELDERBERRY CULTIVAR DEVELOPMENT IN MISSOURI

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The Missouri Elderberry Development Program was initiated in 1997, to foster the development of Missouri's commercial elderberry industry. Development of adapted cultivars is a priority project in the program and includes the collection of native germplasm, initial evaluation of germplasm and available cultivars, replicated evaluation of promising selections at multiple locations, and release of superior cultivars. Evaluation criteria include phenology, plant growth, harvest

and yield characteristics, insect/disease susceptibility, and juice quality/antioxidant capacity. Two cultivars from the project, 'Bob Gordon' (2011) and 'Wyldewood' (2010), are planted on over 100 acres in Missouri and elsewhere. A third release, 'Marge' (2014), is a European type elderberry with midwestern adaptation. Additional selections are under consideration for future release. These cultivars appear to have potential for regional production.

ORGANIZATIONAL STRUCTURE AND TRAINING OF NEW VOLUNTEERS FOR GROWTH AND RETENTION IN A RURAL MASTER GARDENER PROGRAM

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Many rural counties have relatively small Master Gardener programs compared to urban counties. Since the pool for potential new members is relatively small, it is important to retain existing members and add new members to have an effective Master Gardener program. This presentation is a case study how a rural county implemented changes in a program that was in decline and had a retention rate of only 10 – 20% of new members within two years of completing their training. The results of the changes was a 80% retention of new members within two years of completing their training and the size of the organization moved from a stable number of 10 members to a consistent number of 50 in six years. Changes that were implemented included moving from a informal committee organization to an organization with by-laws, officers and leadership succession procedures. In addition, training of new members used methods that gave them confidence in answering consumer horticulture questions after becoming Master Gardeners – eliminating frustration, which may have encouraged them to drop out of the program in previous years.

THE BUCKEYE YARD AND GARDEN LINE NEWSLETTER: A NEWSLETTER WITH MULTIPLE IMPACTS

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The Buckeye Yard and Garden Line (B.Y.G.L. pronounced «Beagle») Newsletter was originally developed as a simple vehicle to communicate horticultural research, developments and information to «Green Industry» personnel in Ohio. The newsletter is a product of a team of Extension Educators from across Ohio with members of the team functioning as editors, authors and photographers. Over the 20 years that BYGL has been in production, it has evolved to take advantage of resources that have developed during that time such as the world wide web. This presentation looks at the history and development of BYGL, how BYGL is evaluated and impacts of the BYGL both internally to the team that develops the

newsletter and externally to the clientele who receive the newsletter.

CONSTRUCTING HORTICULTURAL BARRIERS FOR STORMWATER MANAGEMENT AND COASTAL LAKE PROTECTION

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On October 29, 2012, “Superstorm” Sandy severely damaged the shoreline of New Jersey; including many of these existing coastal rain gardens, sandy berms, planted dunes and artificial barriers. Besides the severe human and housing toll, the oceanic storm breached beaches, eroded roadways and contaminated over a dozen coastal lakes on the Jerseyshore. An unforeseen problem was the immense sand surge that clogged weirs and piping infrastructure leading to rampant flooding. To mitigate this new problem, a demonstrational pilot project of a much larger natural barrier called a Maritime Forest was constructed on a 1 acre oceanfront property. The protective design featured elevated terraces installed 50 meters from the ocean in front of a coastal lake bordering Ocean Grove and Bradley Beach, NJ. This ocean coastal woodland is just beyond the beach dune area but within range of the salt spray. Native trees, shrubs and herbaceous perennials were planted into a sandy loam soil amended with humus to create an integrated wetland ecosystem. Tree specimens included the deciduous red maple (*Acer rubrum*), grey birch (*Betula populifolia*), black cherry (*Prunus serotina*), sassafras (*Sassafras albidum*) and blackjack oak (*Quercus marilandica*) as well as the evergreens American holly (*Ilex opaca*), eastern red cedar (*Juniperus virginiana*) and pitch pine (*Pinus rigida*). Additionally, 8 species of understory shrubs were utilized in this test along with 7000+ plugs of perennial grasses and herbaceous plants. Long-term assessments establishment success, growth, durability and resiliency.

ENGAGING HOMEOWNER ASSOCIATIONS TO REDUCE NUTRIENT RUNOFF IN STORMWATER PONDS

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Community stormwater ponds are important for water quality because of their ecological function, they also serve an aesthetic purpose and increase property value. Homeowners often demand pond managers to utilize short-term chemical

solutions for aesthetic issues which can create long-term problems for water quality. With a community based social market approach, this project emphasizes that by helping to keep the ponds in good condition homeowners are helping the environment and their own property investment. Homeowners are more engaged in the health of their ponds through an advisory board which is helping design strategies to work with homeowners' associations for neighborhood ponds and helping determine what type of shoreline plantings and buffer zones homeowners would be more receptive to being introduced in their neighborhoods. With information gathered at focus groups, advisory board meetings, and pre-surveys motivating factors and barriers to change have been identified and will help direct the best ways to make change easy and enjoyable for the homeowners.

SCHOOL GARDEN SUPPORT: SUCCESS STORIES AND LESSONS LEARNED

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School garden popularity is increasing every day in Pinellas County. Our objective was to increase Extension education in at least ten school gardens in Pinellas County in 2013, while also increasing the quality of those gardens and their learning opportunities. First we identified one of our horticultural staff who could assist this agent with providing information and guidance to new and expanding school gardens. Next, we reached out to every public school in the county through email to offer our services. This agent and staff provided site visits, emails, fact sheets, grant funding information, links to the Farm to School program for school gardens, curriculum material information, and a one day school garden summer camp for teachers. The results have been successful; we have aided in the establishment, expansion, or rejuvenation of eleven school gardens. We have also linked three Master Gardener volunteers closely with several of these new school gardens for ongoing education. Along the way we have learned many lessons about the logistics of how Extension can support school gardens. Some of those lessons include how to communicate with school board employees, visiting schools in light of increased school security measures, aligning our outreach with school and test scheduling, and how to coach school staff on the time and resource requirements for a successful school garden. Most importantly we have learned to manage the schools' expectation of what Extension can provide (education, resources, volunteer support) as well as what we cannot provide (labor, free plants, free curriculum materials).

LEARNING FARM-TEACHING AGENTS AND PRODUCERS

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The Learning Farm is a unique program in that it is conducted on a private farm as a «Horticulture Verification» farm. It is being used as a model for other fruit producers in the area. We are also using the Learning Farm as an educational farm to teach area agents and producers, proper pruning, pest identification and management, and different orchard management strategies. The Learning Farm program has been in place at its original location in Howard County, AR for three years and is the model for new Learning Farms in other parts of the state.

IMPROVING WATER QUALITY THROUGH FERTILIZER AND IRRIGATION EDUCATION: MY BREVARD YARD FOR THE PROTECTION OF THE INDIAN RIVER LAGOON

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The Indian River Lagoon contains the most diverse ecosystem in the continental United States. Years of nutrient loading from septic systems, fertilizers, and storm-water runoff have contributed to the IRL's impaired status. In Florida, landscapers are required to have a license to apply fertilizer and receive continuing education to keep their licenses valid. Homeowners that also apply fertilizer and irrigation require no such education or licensing. Realizing this need, UF/IFAS Brevard County Extension horticulture agents adapted the Green Industries Best Management Practices training to develop My Brevard Yard, a creative approach to teach homeowners how to apply fertilizer and irrigate their properties in an environmentally sound way. My Brevard Yard consists of a one hour classroom and 'hands-on' workshop plus an optional site visit. Collaboration with local municipalities helps promote the workshops in their local communities. Five My Brevard Yard workshops with 64 participants have been held. Pre and post tests indicated a 23.4% knowledge gain in topics such as proper walking speed for applying fertilizer, the recommended amount of slow release nitrogen for turfgrass, and the importance of using soil tests to develop a fertilization program. The My Brevard Yard workshops and site visits were designed to capture a variety of practice changes. These changes can range from applying the recommended amount of fertilizer, applying fertilizer at the correct time, and using proper irrigation practices. The adoption of various practices, multiplied by a large number of residences, can result in the improved health of the Indian River Lagoon.

HARNESSING VOLUNTEER SKILLS TO BUILD AN EFFECTIVE MASTER GARDENER PROGRAM

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Master Gardener (MG) volunteers have diverse backgrounds with varying skill sets. These skills can be harnessed by empowering volunteers to build an effective MG Program. The purpose of this workshop session is to teach participants how to identify and utilize MG skills by assigning meaningful tasks. The University of Florida, Institute of Food and Agriculture Sciences (UF/IFAS) Extension Marion County has 110 active MGs. MGs serving on the board are assigned directorship positions. Each active MG serves on a committee. MGs take full leadership for planning and implementation of activities assigned. Examples of activities that are volunteer-led in the MG program are: an annual Spring Festival that has over 8,000 attendees; maintenance of a 1,000 square foot greenhouse and half-acre propagation area, the plants from which generate approximately \$7,000 each year; and local coordination of the first ever statewide MG Leadership Conference. One MG indicated she feels "a sense of ownership in the MG program" and another indicated that she has "been able to accomplish much more than she would have ever imagined being able to do in her retirement years." The Marion County MG program serves as a model in the state of Florida and has received numerous state MG awards and received an international MG award in 2013.

HANDS-ON WORKSHOP AND DEMONSTRATION PLOTS HELP ORNAMENTAL CONTAINER GROWERS FIGHT WEEDS

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Weeds are a considerable economic pest for woody ornamental plant growers. Pre-emergent herbicides and hand weeding are typically used to control weed seed germination and minimize impacts from weeds for environmental horticulture container growers. A regional hands-on workshop was developed to assist growers to manage container weeds more efficiently and economically. Class subjects covered weed identification, nursery weed best management practices, and a weed management success story. A hands-on, herbicide calibration education section was held outdoors to teach proper granular herbicide application. Growers viewed demonstration plots that were created to screen 19 pre-emergent herbicides and organic mulch combinations for efficacy against fall/winter weeds commonly seen in woody plant production. Growers were able to assess herbicides and weeds combinations that would work for their situations. Class time was allowed for a shared discussion of plot observations. Participants reported 87% change in herbicide/weed knowledge, and 100% reported that their practices would change from the workshop.

96% believed that the workshop would save them money and estimated savings of \$3,700 per year

NOXIOUS WEEDS: A GROWING CONCERN

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Many of the 10,000 residents in Juab County enjoy the benefits of home horticulture. This includes vegetable and flower gardening, landscape design, and fruit production. One thing all of these have in common is weed control. Weeds around homes are a general nuisance, mar the natural beauty of landscapes, and decrease the value or marketability of residential properties. Weeds ruin lawns, gardens, and flowerbeds. Weeds may cause hay fever, contribute to fire hazards, and harbor insects or diseases. To assist county residents with weed control, the Juab County Weed Awareness Program has been offered. The program is sponsored by the Juab County Weed Department, Nephi and Eureka Cities, and the USU Extension office. The purpose of the program is to make the public aware of the problem with noxious weeds and to provide herbicides to individuals who want to spray their weeds. Program participants receive information and fact sheets on weed identification, control methods, and proper handling of herbicides. In addition to the resources, a pint bottle of a commercial broadleaf herbicide is provided to all program participants. During the program, participants have the opportunity to view over 20 common weed samples in the area. In 2013, 425 individuals participated in the program. This represents nearly 20% of all households in the county. During the 2013 program, \$21,250 was saved by program participants and 212 acres of weeds were sprayed. Because of the annual program, Juab County residents are learning how to win the war of controlling noxious weeds.

A DO-IT-YOURSELF HIGH TUNNEL FOR HIGH WINDS AND SPACE UTILITY

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High tunnel production is increasing in popularity in commercial and personal operations. Wind protection, and warmer soil and ambient temperatures promote greater early-season growth. Fruit quality and yield can be very good in a properly managed high tunnel. It is important for growers to have a positive initial experience using high tunnels. The high tunnel should be durable and affordable in addition to allowing efficient space utility. A significant challenge is the initial cost of commercial high tunnels. While there are government programs to help with construction costs, many growers wish to be self-sufficient rather than depend on government programs for their success. The high tunnel described in

this presentation was designed to withstand the high spring winds of Utah, provide efficient use of space and most of the materials can be purchased locally even in rural communities. In addition, it is fairly easy to relocate. Straight sidewalls make it easier to use all of the valuable space. High density planting and vertical growing practices can provide even better use of the space. The design has been presented to Utah audiences with positive response.

A GUIDE TO COMMON ORGANIC GARDENING QUESTIONS

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«A Guide to Common Organic Gardening Questions» features research-based organic gardening information for Utah residents. The 280 page guide was written by two senior authors with contributions from 16 additional writers. «Ask an Expert» sections are featured throughout the guide and highlight topics of interest written by specialists and researchers with expertise in featured fields of study. Other highlighted sections include «Garden Myth» sections where popular «garden remedies» are explored for scientific validity. The guide is a follow-up to «A Guide to Common Gardening Questions» which explores both inorganic and organic gardening recommendations. Due to interest from Utah residents in organic gardening techniques, the previous guide was adapted and expanded to provide step-by-step recommendations for gardeners with organic preferences. The organic version of guide was printed and disseminated in March 2014. This presentation will highlight the organization of the guide and discuss preliminary evaluation results of its content.

Natural Resources & Aquaculture

REGIONAL INVASIVE SPECIES MANAGEMENT AS A STATEWIDE EFFORT

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Although invasive species are on the horizon in every state, this presentation will share a unique coordinated statewide effort of eight geographic areas. These areas are focusing on the same core functions bringing together a comprehensive, cost-effective endeavor toward invasive species management of all taxa.

The formation of eight Partnerships for Regional Invasive Species Management (PRISMs) were one of 12 recommendations of the New York State Invasive Species Task Force to the Governor and Legislature. The cooperative effort of the PRISMs is to help prevent or minimize the harm caused by invasive species to the environment, economy, and human health. The PRISMs are a partnership

of diverse representatives that include government agencies, organizations, private businesses, and concerned citizens in specified geographic regions throughout the state. The role of each of the PRISMs is to coordinate invasive species management including connecting to efforts of partners within the region, recruiting and training citizen volunteers, education and outreach of invasive species, establishing early detection monitoring procedures, and implementing direct eradication and control efforts.

The presentation will share the organizational efforts of a PRISM including volunteer recruitment and training, the various types of education and outreach efforts, early detection, mapping, and monitoring networks, as well as some of the attempts to eradication and restoration.

UNDERWATER AERATION AND ARTIFICIAL FLOATING WETLANDS TO TREAT WATER QUALITY NUTRIENT ISSUES IN PONDS

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Hopkins Pond, New Jersey, experiences cyanobacteria blooms due to thermal stratification, and eutrophication caused by excessive phosphorous levels. In 2013, a diffused aeration system was installed in the pond designed to maximize water lift rate and transfer rate of dissolved oxygen by the release of extremely fine air bubbles along the pond bottom. The rising bubbles draw bottom water along with them to the surface creating an artificial circulation. This circulation mixes water that otherwise would thermally stratify, and increases the dissolved oxygen content throughout the water column. Oxygenating deeper waters near the pond bottom results in a decrease in the release of phosphorous from the sediment. In addition to the aeration system, as a demonstration project, we designed and installed 350 sq.ft of artificial floating wetlands (AFWs) using a biological filter substrate and wetland plants for nutrient removal. AFWs reduce nitrogen and phosphorous in a water body using natural microbial action in the filter substrate and uptake by obligate aquatic vegetation. Microbiological activity plays a major role in nutrient removal in wetland systems and the large surface area of the woven floating wetland material provides a tremendous amount of substrate for the growth of bacteria. The AFWs are anchored offshore in water depths that exceed the normal habitat requirements for the plant material and yet are able to continue to provide the same water treatment ecosystem services as their land based counterparts. Since installation of these treatment devices phosphorous levels dropped from 0.126 mg/l down to 0.08 mg/l.

WATERSHED PARTNERSHIP DETERMINES SOURCES OF FECAL CONTAMINATION IN THE UPPER COHANSEY WATERSHED

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Like many watersheds in New Jersey, the Upper Cohanse River has a history of being impacted for phosphorus and fecal bacteria, including a TMDL for fecal coliform bacteria in the uppermost reach proposed in 2003. Of local importance was the regular closing of the swimming beach at Sunset Lake in Bridgeton for exceedances of fecal indicator bacteria. Mixed land use in the watershed suggested the possibility of any of a variety of sources of fecal contamination including human, livestock, or wildlife, and results from a Rutgers Cooperative Extension Data Report in 2009 indicated some human contribution in some sub-watersheds. Partnerships of county government, local government, non-governmental organizations, and university educators undertook concerted efforts to address the fecal contamination in the watershed, including the elimination of human sources in violation of standards, education programs, and wildlife management actions. In 2012 and 2013, the Cumberland County Health Department, in partnership with Rutgers Cooperative Extension and the Cohanse Area Watershed Association, initiated an expanded sampling program in the watershed in 2012 and 2013 to determine the sources and extent of fecal contamination. Results indicated that exceedances could occur throughout the watershed, particularly in summer months or in response to precipitation events. Microbial source tracking indicated no contamination of human origin, suggesting wildlife is the likely source.

THE EXPLORATION OF A FISH EXCHANGE TO REDUCE HUMAN CONSUMPTION OF CONTAMINANTS IN NEWARK, NJ

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Across the country, there are many impaired waterways that are deemed “unfishable.” Fishing bans are enacted in those rivers and streams, but fishermen often ignore the signage describing the contamination of the waterbody. The concept of a fish exchange, where a clean fish is provided after the turning in of a contaminated one, has been explored in many

watersheds, most notably San Francisco Bay and the Lower Duwamish in Washington State. Despite these explorations, as of this writing there have been no fish exchange trials in the United States. Here, the viability of a fish exchange program in the Lower Passaic River in Newark, NJ, was examined. Previously collected data was reviewed, interviews of current fishermen were conducted, and a trial aquaponics system was implemented for fish production based on the need and community acceptance of swapping a contaminated fish for a healthy one. The greenhouse system and fish farm were maintained by unemployed U.S. veterans participating in an extension-based job skills training program for eventual workforce re-entry. The training program included sustainable landscaping, stormwater management, aquaponics, and small business management topics. The veterans not only managed the aquaponics system, but also provided the education and outreach needed to implement the fish exchange in the Newark community. The lessons learned during the preparation and running of this program could lead to improved fish exchange implementation in impaired watersheds across the country.

NATURE-BASED ENTERPRISE OPPORTUNITIES FOR PRIVATE LANDOWNERS

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The Natural Resource Enterprises (NRE) Program was established in the Department of Wildlife and Fisheries and Cooperative Extension Service at Mississippi State University to educate non-industrial private landowners in the Southeast about sustainable natural resource enterprises and compatible habitat management practices. The NRE Program is focused on effectively delivering information to landowners and community leaders that will encourage informed decision-making regarding the management of land and enterprises. The primary objectives are for landowners to learn about and implement conservation practices on their lands and establish new NRE business start-ups and revenue generation due to participation in NRE programming. The primary outreach method is site-specific workshops targeting landowners, agricultural producers, and local community and elected officials in sustainable nature-based tourism and conservation practices on private lands. Workshops consist of subject matter experts providing relevant information on conservation planning, evaluating revenue potential, writing a business plan, liability and legal consideration, and marketing. Landowners offer testimonials of the success of their NRE start-ups. The latter half of the workshop is a guided tour of the host property with presentations at selected stops. Secondary outreach is via web-based training (podcasts and articles) with more specific information on various topics. Attendees complete a questionnaire about their experience at events and their rating of content, instructors, the learning environment, and how they plan to use the information. In 2012, 98% of

survey respondents (N=149) attending NRE workshops reported that the information they learned at events would help increase revenue potential on their properties. Ninety-six percent (N=137) indicated the information would help them meet habitat conservation and wildlife management goals on their lands. The average respondent expected to earn approximately \$23,167 in additional income using the knowledge gained at the workshop, resulting in an aggregate cash flow of approximately \$1.82 million per year. Seventy-eight percent (N=118) intended to change their land-use practices using knowledge gained at the event. Additionally, participants are asked to complete a more detailed Natural Resource Enterprises Landowner Survey within one year of attending a workshop. Private landowners and producers can diversify incomes and increase conservation on their lands by developing fee-access outdoor recreational enterprises, but landowner knowledge in establishing and operating these types of businesses is limited. Thus, the NRE Program is perfectly positioned to provide educational workshops to train landowners and producers in developing outdoor recreational businesses on working lands.

A YEAR OF AQUATIC PLANT MANAGEMENT ASSISTANCE AS A REGIONAL AGENT WITH THE ALABAMA COOPERATIVE EXTENSION SYSTEM: A LOOK INTO PRIVATE DEMAND, ISSUES, AND EDUCATIONAL OPPORTUNITIES

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Alabama landowners and managers of water bodies throughout the state can be impacted by native and non-native aquatic plants. The role of the Alabama Cooperative Extension System (ACES) and, specifically, the Regional Forestry, Wildlife, and Natural Resources (FWNR) agent is to provide non-biased, research-based education and technical assistance towards all aspects of the state's natural resources. The recommendations, assistance, and education towards the prevention and control of aquatic plants by FWNR agents is focused towards increasing the worth and use of water resources and are presumed to be services of great need and value. Examined were the client enquiries made to a regional FWNR agent serving eight northeast Alabama counties throughout the 2013 calendar year. Enquiries regarding aquatic plant management were the most common and dominated all primary methods of contact: 66%/field visits, 46%/phone calls, 43%/office visits, and 32%/emails. Additionally, 25 in-county pond alkalinity and hardness tests were conducted in respect towards aquatic plant prevention. The most common issues addressed via telephone included general aquatic plant control/prevention techniques, filamentous algae control, stocking grass carp *Ctenopharyngodon idella*, controlling duckweeds *Spirodela polyrhiza* and *Lemna valdiviana*, fish kills via oxygen depletions, fertilization, herbicide labeling/application, and controlling pondweeds *Potamogeton* spp. In -field issues most often included the development of all-

inclusive pond management plans, and control of duckweeds, filamentous algae, pennywort *Hydrocotyle umbellata*, and parrotfeather *Myriophyllum aquaticum*. The demand for aquatic plant management information and technical support in this region and the state is prevalent and several opportunities for further outreach and education exist.

THE ALABAMA COOPERATIVE EXTENSION SYSTEM'S ENVIRONMENTAL STEWARDSHIP CLINIC SERIES: A UNIQUE EXAMPLE OF PARTNERSHIP, FORMAT, AND IMPACT

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Because of increasing public awareness and interest towards watershed management and natural resource stewardship, the Alabama Cooperative Extension System (ACES) partnered with the Alabama Department of Environmental Management (ADEM), Cherokee County Soil & Water Conservation District, and the Weiss Lake Improvement Association through a 319d Impaired Waterway Grant to host a pilot series of clinics designed to educate towards best management practices (BMPs) throughout Cherokee County, AL. This free Environmental Stewardship Clinic Series was open to anyone interested in learning more about watershed management issues and building or adding to their environmental stewardship toolbox. The series consisted of monthly, 2-hour workshops from January – June 2013 at varied locations throughout the county. Clinics addressed a wide array of topics through a classroom presentations and outdoor/hands-on demonstrations. Participation was incentivized through signage and t-shirts bearing a clinic logo, certificates, and logging and forestry continuing education credits. Participant backgrounds varied from livestock producers, gardeners, loggers, foresters, poultry producers, ACES agents, and home, pond, and lake property owners, etc. Participant evaluations proved favorable with satisfaction ratings averaging 96% while average increase in knowledge was 21%. A 92% likelihood of adopting the information and techniques covered and a 96% probability of attending future clinics/ ACES related events was indicated. The program and partnership was one of few examples of the successful coordination of a contract between ACES and ADEM to complete the educational component of a 319d Impaired Waterway Grant and interest has been shown to replicate and deliver similar programming at the state level.

EXPERIMENTAL STEWARDSHIP PROGRAM IN CENTRAL IDAHO BRINGS RANCHERS AND LAND MANAGERS TOGETHER

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The Challis Experimental Stewardship Program (CESP) was created by Section 12 of the Public Rangelands Improvement Act of 1978. One of the original primary objectives of the CESP was to mitigate grazing reductions to area ranchers and help stabilize the local ranching economy. Another major objective was to foster cooperation among agencies, landowners, public land users, and other entities in the pursuit of proper, as well as innovative, rangeland management. The CESP had many early successes throughout the '80s and '90s. However, in the late 2000s, the CESP became inactive. Ranchers and land management agencies approached University of Idaho Extension to help keep the CESP a viable program in Custer County, an area in the heart of Central Idaho rich in public lands. From 2009-2013, University of Idaho Extension successfully organized and held two business meetings each year for the CESP. In addition, a rangeland tour was held each year to get people on the ground to discuss land management issues, develop solutions to problems, and plan ways to sustain multiple uses on rangelands for the future. Since 2009, over 250 ranchers and land managers have attended a CESP rangeland tour. Topics, demonstrations, and discussion have been held on the Endangered Species Act (ESA) consultation process, fisheries management, Multiple Indicator Monitoring (MIM) protocols, demonstration of the Standards and Guide Assessment for measuring uplands, how to meet end-season standards and mid-season triggers on allotments, photo monitoring tips, permit renewals, effects of fire and noxious weeds on sage-grouse habitat, limitations on management imposed by litigation, and stewardship of Idaho's rangelands. On post-tour evaluations, 95% of attendees ranked the CESP tours as "outstanding" and the remaining 5% ranked them as "good" when given 5 options (outstanding, good, average, poor, not worth my time). One attendee commented, "By far the greatest accomplishment of the CESP has been the significant improvement in the attitudes and spirit of cooperation of the people involved. There is a developing feeling of trust and respect throughout the group and local community with ranchers and agency people talking to each other and listening to what the other has to say." With over 48% of Idaho classified as rangelands, and nearly 97% of Custer County consisting of public lands, the need for cooperation and coordination between ranchers and land managers is eminent. With the help of UI Extension, the CESP will continue to educate public land users on sustainable rangeland management practices, foster cooperation among land managers and ranchers, and ultimately continue the rich heritage and economic importance of ranching in Central Idaho.

RE-VEGETATION PROJECT FOR EMIGRATION CANYON SALT LAKE COUNTY

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Emigration Canyon in Salt Lake County, a popular and historic biking thoroughfare with intermittent housing and businesses, has over time become depleted of native vegetation. This contributed to erosion problems, weed invasion, safety concerns, and aesthetic degradation to the canyon. Salt Lake County approached Utah State University Botanical Center (USUBC) and the Salt Lake County Extension to help plan and re-vegetate the canyon, while educating the public. Many of the concerns dealt with unstable slopes and rocks that would become a safety issue after an erosion event. In the fall of 2013, a collaborative effort between the Salt Lake County Office of Township Services, USUBC, Master Gardeners, and local volunteers planted over 1,100 native species, re-vegetating the canyon with native plant materials. Over 250 volunteers helped in the re-vegetation project and received training on the importance of maintaining a healthy native plant community, using proper planting techniques, and how plants can help maintain the integrity of slopes which in turn creates a natural safety barrier along the roadway. This project brought together many different organizations and volunteers and made a large positive impact on the local community and County.

NON-POINT SOURCE WATER QUALITY RISK ASSESSMENT FOR GRAZING AREAS

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Acute and growing social and legal conflict over regulation of non-point source pollution in Washington State is straining proactive efforts to improve water quality, especially as it relates to livestock management. Farmers and ranchers caught in the socio-biological conflict over water quality experience legal risk, reduced quality of life, and serious financial risk. Resolution of this conflict requires addressing the drivers of water quality from a watershed scale and application of an education and outreach method that is palatable to landowners. The state agency responsible for implementation and enforcement of the Clean Water Act has been only minimally successful in either educating landowners about pollution risks or motivating landowners to take proactive steps to reduce risk. Washington State University Extension, in partnership with the National Riparian Service Team and conservation districts,

developed a water quality risk assessment outreach program to focus landowners and livestock managers on riparian and upland vegetation, the drivers of riparian function and water quality, rather than water quality monitoring data which are collected sporadically. We provided training and created professional videos on the relationships among site conditions, grazing practices, and water quality to help producers develop specific management changes for their own land or lands where they control grazing animals. To date, the project has resulted in approximately 40% of producers initiating repeat photography to document condition change, using temporary fence to influence livestock distribution in riparian zones, and establishing a new grazing plan with shorter grazing periods and shifting timing of use in riparian areas.

THE EFFECT OF LARGE FIRE ON ASPEN RECRUITMENT

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Aspen is an important part of our forests in the western U.S. In contrast to conifers, aspen stands have a diverse understory of vegetation beneficial to wildlife and numerous other organisms. Fire is important to aspen, because fire is the catalyst which initiates new aspen growth. Due to the fire suppression strategies of the last century, many aspen stands have become overgrown with conifers choking out the aspen. Most efforts to restore fire to the landscape have been limited to small treatment areas. Wildlife and cattle are attracted to burn areas because of the lush, palatable vegetation which is initiated after a fire. The 2000 Oldroyd Fire- a 1329 acre managed fire in central Utah, experienced complete clone failure (no aspen recruitment) due to grazing. It was hypothesized that larger treatment areas would lower grazing pressure on vulnerable aspen shoots resulting in better aspen recruitment. Aspen recruitment areas on the 1996 Pole Creek Fire- a 7113 acre wildfire twenty miles west of the Oldroyd Fire, were identified and mapped on the ground using GPS technology. Geographic information system software was used to identify and quantify potential aspen recruitment areas through the use of pre-fire aerial photography. The resulting data revealed that 71% of the potential aspen recruitment area of the large fire had achieved aspen recruitment. These results indicate a significant correlation between larger disturbance areas and increased aspen recruitment.

Sustainable Agriculture

“VACANT TO VIBRANT” DAYTON, OHIO URBAN AGRICULTURE PILOT PROJECT

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The need to explore new uses for over six thousand vacant lots within the city limits resulted in the “Vacant to Vibrant” Urban Agriculture Pilot Project being conceived. The City of Dayton and the Ohio State University Extension program areas, Agriculture and Natural Resources and the Expanded Food and Nutrition Education Program, were major partners in this endeavor. The marketing plan was to produce vegetables for the area’s Middle-Eastern ethnic population on a vacant lot, thus helping to eliminate one “food desert.” Sudanese and Somali refugees provided the labor. In mid-July 2009 the one-third acre lot was planted with over 600 vegetable transplants, 500 flower transplants, and several row crops. Over 1000 pounds of produce was harvested before the first frost. A cover crop was sown in late 2009. Building on the positive aspects of the project and trying to minimize what were found to be limiting factors, the project was expanded by increasing the number of lots managed every year since 2009. Two major benefits from the pilot project were that a vacant lot was given a new environmentally sustainable life and purpose and that the city, neighborhood, Extension, and culturally diverse groups collaborated to make a positive difference. Secondary benefits were; an underserved population was able to get fresh local ethnic produce, the refugees learned English and job skills, and limited resource participants learned to combine the use of ethnic and local food for healthy nutritional choices.

USING PHOSPHORUS SPECIATION, COVER CROPS AND NO-TILL TO REDUCE PHOSPHORUS RUNOFF

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A phosphorus (P) speciation study (N=50 soil samples) was conducted on a Hoytville clay soil (Wood County, Ohio) to address P runoff. Phosphorus speciation fractionizes the P into plant available soluble reactive phosphorus (SRP), exchangeable organic P (ExP), and non-plant available inorganic P (calcium P (CaP), iron oxide P (FeP), and aluminum oxide P (AlP)). SRP is causing major harmful algae blooms in Lake Erie. SRP levels varied by management and was significantly lower (P<.05) on conventional tillage (0.69a) versus no-till fields (0.93b) and by manure type (dairy =0.56a and poultry =1.37b). Significant differences (P<.05) were also found in the inorganic forms

(CaP, FeP, AlP) related to management. Lake Erie soils are high in iron content (20-30%). FeP is unstable under saturated soil conditions, releasing SRP when Fe³⁺ (ferric state) is reduced to Fe²⁺ (ferrous state). Keeping soils well drained reduces the amount of SRP in surface water by keeping the FeP tied up in the ferric state. SRP was significantly less (P<.05) with a red clover cover crop (0.34a) than fields with no cover (1.42b). Cover crops had significantly (P<.05) more organic ExP (1.23b) than no covers (0.14a) or 8.8X higher ExP. ExP (organic) and SRP (inorganic) are plant available forms of P but the ExP is a larger stable molecular form of P. Ongoing research is quantifying how this affects P runoff. Cover crops had significantly higher levels of P in an organic form which is both plant available P and more stable than fields without any covers.

TRAINING IN SUSTAINABLE AGRICULTURE FOR BEGINNING FARMERS AND RANCHERS

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In 2004, a SARE grant was received to initiate a Farm Beginnings® Program in Nebraska. University of Nebraska-Lincoln (UNL) Extension, the Nebraska Sustainable Agriculture Society and the Center for Rural Affairs cooperated on this project. The first program began in 2005, followed by 5 others in the next 9 years with 39 farms or prospective farmers completing the training. UNL Extension administers and facilitates this program. The training consists of 10 classroom style sessions that focus on farming holistically and sustainably. Most of the presenters were farmers that have been successfully farming sustainably for several years. The farmers discussed production, finances and marketing on their farm. We also have UNL Extension Educators and representatives from other agencies, i.e. the Farm Service Agency (FSA) serve as presenters providing information on sustainable agriculture, ag budgets and marketing, loan opportunities and tax programs for beginning farmers and ranchers. As part of the program, we invite past participants to present at one of our classroom sessions. The goal of the program is for each farm to complete a business plan by the end of the class. Seventy-two percent (28 of 39 farms) that participated in Farm Beginnings® are currently involved in production agriculture. One class participant said, “This program had a huge impact. I have improved my business plan and my overall efficiency.” In 2013 a USDA Beginning Farmer and Rancher Grant was also used to conduct 6 workshops across Nebraska where 90 people learned about different sustainable farming practices and farm business planning.

THE WEST VIRGINIA URBAN AG CONFERENCE: SUPPORTING URBAN AG FROM THE GROUND UP

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While the Mountain State of West Virginia is ruggedly rural, pockets of urban life, such as the capitol region around Charleston, add variety to the population. As with most cities, interest in agriculture is booming, even in the most urban of places. Finding inspiration in the burgeoning interest in urban agriculture, extension found a new way to educate new clientele and help guide the direction of urban agriculture for years to come. Beginning as an idea for part of a SARE Professional Development Program, an urban agriculture training idea blossomed into a two-day conference involving multiple agencies. The conference attracted 230 participants from across the state, many of whom were new to extension programming. The participants were enthusiastic, and indicated that the conference will help encourage new and inform existing urban ag practices. This conference also led to an unprecedented level of cooperation between the 1862 and 1890 land-grant institutions, which fostered a relationship that will improve outreach to urban ag clientele. Not only was the conference meant to help sustain the urban ag movement in the area, but the planning team approached the conference in a way to make sure that it is sustained for years to come.

AQUAPONICS 101: A BEGINNER'S WORKSHOP TO SUSTAINABLE FOOD PRODUCTION FOR HOME GARDENERS AND SMALL FARMERS

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There is great interest in sustainable food production in today's society. Aquaponics is an exciting production system where fish and plants grow in harmony. The aquaponic system can be a fun project for the home gardener but can also become a new farming venture. The objectives of the event were to attract a minimum of 30 interested participants, 75% of participants were to gain knowledge on several topics, and for participants to construct a small aquaponics system. The full-day workshop began with presentations on aquaponics topics including fish, plants, systems, and rules and regulations. The hands-on afternoon session allowed participants to build a small aquaponics system and a field trip to a small commercial aquaponics farm. A total of 40 people attended the event, 30 filled out an end of program post-pre test evaluation. Evaluations indicated 86% gained knowledge

on the basics of aquaponics, 86% gained knowledge of plants in aquaponics, 90% gained knowledge of fish in aquaponics, 93% gained knowledge on Florida rules and regulations, and 86% gained knowledge on construction of an aquaponics system. 86% of participants indicated that they have plans to start an aquaponics system or expand a current system. Additional research will be conducted to further evaluate the system design and production capabilities. A follow-up survey will be conducted in six months to determine additional results of the workshop.

Teaching & Educational Technologies

BLENDING THE USE OF TECHNOLOGY WITH TRADITIONAL EXTENSION PROGRAMMING

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Due to small class sizes during recent Master Gardener training in several counties in Southern Ohio, coupled with some counties have vacancies in the Agricultural and Natural Resources Educator position, a group of Educators decided to offer training using a blended teaching approach. By using CarmenConnect (OSU licensed Abope Connect) to deliver educational programming, multiple locations could be taught at the same time. Instructors either taught the lesson from one of the three training sites or remotely from their office. Additionally, instructors were requested to provide 20–30 minutes of hands-on activity, complete with materials list and facilitator instructions to complement the lecture portion of each class. Either the local host educator or a previously trained Master Gardener Volunteer facilitated the interactive portion of the lesson. Feedback from existing Master Gardener Volunteers revealed that the trainings were equally as effective as an entire face to face program and better integrated existing volunteers with the new recruits through the hand-on activities.

IMPROVED ONLINE EVALUATION RESPONSE FOR MULTI-DAY PROGRAMS: A NOVEL SURVEYMONKEY APPROACH

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Participant evaluation is a critical component to the success of any extension program. Quantifying participant understanding and intended or actual adoption/implementation of presented information can be a daunting task. Online survey systems (such as SurveyMonkey®) have helped improve efficiency and collection of the evaluation responses. Most research suggests that 30% is the average response rate for online surveys. A new methodology was developed and utilized for multi-day events. The methodology allowed participants to evaluate the events of a given day, or events from the previous days. Upon the completion of the event, participants had one week to reply to any section of the survey. Two programs were used to test the success of the methodology: The JCEP Galaxy IV Extension Conference and the Penn State Extension Dairy Nutrition Workshop. The Galaxy IV conference had 2,403 participants, and achieved a 43% survey completion rate and a 64% response rate. The Dairy Nutrition Workshop has utilized online surveys for its typically 400 or more participants since 2003, and averaged only 20% response rate during that time. The response rate to the 2013 Dairy Nutrition Workshop achieved 43% as a result of the methodology. Utilization of this survey methodology achieved greater completion rate of evaluations and thus better assessment of the respective programs, and will be used in future programmatic efforts.

FROM THE FIELD TO THE CLASSROOM: EXTENSION AGENTS PROVIDING UNDERGRADUATE EDUCATION

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A team of County Agricultural Agents and Extension Specialists developed an undergraduate course for Agricultural and Natural Resources students enrolled at Rutgers University. The course, 11:015:315 Direct Farm Marketing and Agritourism was offered to undergraduate students enrolled during the fall, 2013 semester and was designed to prepare students to manage an agritourism or direct marketing operation. Participating students (n=17) were surveyed following completion of the 15 week course to assess the effectiveness of the curriculum. The student's assessments were overwhelmingly positive with an overall rating for the course of 4.7 (1= Poor, 5= excellent). Teaching effectiveness of the instructors was highly rated (4.9) with the students agreeing that they learned a great deal during the course (4.6). The information presented was rated favorably with the majority of the students reporting the course as generating interest in the topics covered (4.8) and the format effectively encouraged students to learn the material (4.8). When asked for general comments, the students overwhelmingly reported that they enjoyed the realistic nature of the scenarios presented during the course and enjoyed meeting with actual agritourism operators to discuss the "real world" issues facing producers. Due in part to the positive feedback from the students, this course is now a required course for agricultural majors. The success of this program demonstrates the important contribution that off-campus faculty such as County Agricultural Agents can make to the success of undergraduate education.

DESIGNING INTERACTIVE NON-LINEAR EXTENSION PRESENTATIONS WITH SOZI

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In education and business, there is interest in delivering presentations in an interactive, non-linear style, in contrast to standard slide set presentations. Non-linear presentations may have more interest and appeal for the audience, but also these presentations allow for representing the relationships of concepts visually, since the whole presentation can be

mapped out as one large conceptual diagram. The emerging commercial standard for this type of presentation is Prezi, which uses a polished interface and offers templates that allow users to create attractive presentations quickly and easily. The free education plan that is somewhat limited by requiring presentation editing to be done online and limited storage space, though presentations can be downloaded for remote use. An alternative to this software is Sozi, which is a free, open-source, cross-platform plugin for the free vector graphic editing program Inkscape. Sozi creates files in the .svg format, which can be viewed on most desktop and mobile browsers, so it does not require any special software for viewing, and can be viewed by a variety of operating systems. While Sozi has the advantage of giving the author full control over the graphical elements of the presentation, creating presentations with Sozi may require a greater investment of time until users become familiar with creating graphics in Inkscape

ENHANCING DAIRY PRODUCER TOOLS AND EDUCATION THROUGH TECHNOLOGY

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Evaluating financial records is challenging on a dairy farm. In order to effectively track key profitability measures like Income Over Feed Costs (IOFC) producers must accurately maintain and regularly monitor production and financial data. Extension educators sought to develop a comprehensive program to help producers track records and aid decision making for risk management and planning initiatives. The dairy cash flow “Know Your Numbers” program uses a complex spreadsheet that integrates dairy herd rations, cropping plans and financial data to help producers calculate their breakeven milk price and IOFC. The spreadsheet incorporates downloadable pricing data so PA dairies can compare their own costs to current market prices. The program evolved into four mobile apps for dairy producers and consultants combining a multi-state risk management initiative with one-on-one producer meetings to help individual farmers more fully understand their finance and production plans. Participation in the hands-on program doubled from 2012 to 2013, adding an advanced program in 2014 to assess forage and feeding management. Ninety-eight percent of 2013 participants reported increased understanding of the cost to raise their own feeds. As a result of this program, 23% of 2013 producers received lender approval for a loan and 58% changed their cropping strategy to reflect discussion with their educators. Mobile application use has maintained steady adoption rates: DairyCents showed a 100% user increase from its first year of availability to the second. Currently DairyCents, Dairy CentsPRO and CropCents maintain 2,530 registered users from 46 countries.

REACHING A BROADER AUDIENCE WITH YOUTUBE VIDEOS

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The way people find information is changing. Also, people want to access the information when they want to access the information, not necessarily at a scheduled time. YouTube videos are a popular information source that provides access flexibility. In order to serve the people Extension needs to adjust the way they reach out to clientele. With the recent economic woes there has been an increased interest in growing gardens, and there are a lot of gardening videos available on the internet, many of which provide a wealth of misinformation. While Extension has a history of providing good information, good information is useless if it does not reach people. At the same time, the information needs to be easy to understand. YouTube is an excellent educational tool. Since 2012 the author has produced 26 videos, mostly on gardening topics that have garnered more than 85,000 views. This presentation will discuss reaching the audience with non-studio video production and marketing them with social media and other outlets. The playlist of gardening videos is found at <http://www.youtube.com/playlist?list=PLMnDQoXFVBEZsWRvO0aQQ399yu1UMJ2A5>.

2014 AM/PIC SPEAKER PROFILES

Dana Chandler has worked in a variety of capacities within both the private and public sectors. A trained surveyor, civil engineer and project manager, he has helped to design and build projects throughout the South and nation. In later years, Chandler has worked specifically with corporations seeking to start up recycling facilities in the U.S. and Latin America. He has also helped with a number of archaeological digs and surveys in the U.S., Mexico and Belize. A trained archivist and historian, receiving his graduate degree from Auburn University, Chandler now works as the University Archivist and an assistant professor of history at Tuskegee University. Currently he is the lead archaeologist for “The Ridge: A Macon County Archaeological Project.”



A world traveler, he has conducted research on a variety of topics at some of the most prestigious archives in the world. Chandler has, likewise, published a number of articles and spoken on Archaeological related subjects, primarily concerning the Maya. He currently has a book contract with the University of Alabama Press.

Since 1994, **Damian Mason** has spoken in all 50 states and 8 foreign countries to some of the biggest names in agriculture. His presentations are hilarious, high energy, and occasionally edgy.



In a conversational yet comedic style, Damian will address contemporary issues impacting the industry of food, fuel, and fiber. More importantly, Mr. Mason will share his views on what it will take to keep the county extension agent relevant for the next century.

Damian says,

“I’ve known every county extension agent in Huntington, Indiana from the time of my childhood. I understand the value they provide and I respect how and why the position was created. But rural America has changed. It’s imperative that the county extension role adapt to this new landscape.

From hobby farmers to large scale agricultural producers, to an ignorant consumer, there’s still a tremendous need for the sort of guidance and university extension that was created 100 years ago.

The internet, paid consultants, and industry sponsored advisors, aren’t the agent’s competition. In many ways, these things point to an even greater need for what the extension agent provides: impartial, research based information.”

ANNUAL MEETING AND
PROFESSIONAL IMPROVEMENT FUTURE CONFERENCE DATES

2015

Sioux Falls, South Dakota....July 12-16

2016

Little Rock Arkansas....July 24-28

2017

Salt Lake City, Utah....July 9-13

