

National Association of County Agricultural Agents



Proceedings

**98th Annual Meeting and
Professional Improvement Conference**

September 16-20, 2013

Pittsburgh, Pennsylvania

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2012-2013

NACAA Report to the Membership

NACAA President **Paul H. Craig, Pennsylvania**



In 2008 the members of the PA Association of County Agricultural Agents, working cooperatively with the other agent associations in the North East region, proposed to the voting delegates the opportunity to become a full participant in Galaxy IV. How time flies! Here we are less than 50 days away as I write this. The PACAA and NE Agents are excited to showcase their contributions to the conference and many NACAA members from other states have “stepped up to the plate” and provided their expertise and leadership to ensure an outstanding meeting in Pittsburgh, September 16 – 20th. I cannot express my appreciation enough to everyone involved.

Early registration numbers indicate that this will be a conference unlike any that I have attended before. At this time there are more than 2300 registrants, from all JCEP organizations. NACAA has 554 registered for the conference, with over 500 signed up for the Thursday night banquet. The tours on Monday have proven to be a highlight for many of the conference registrants with more than 550 signed up. Over 800 will be attending the Pittsburgh Pirates baseball game on Tuesday.

If you have ever been to Pittsburgh you know what an exciting city it is. If you have never been to Pittsburgh you will find a dynamic city that has transitioned from a history of steel and heavy industrial manufacturing to the 21st Century with a strong foundation in technology, energy, financial, educational and medical science. Pittsburgh is known as “the City of Bridges” having a record 446 bridges within the city boundary. These bridges cross 3 rivers which meet at the Point, a triangular shaped, heart of the city close to where the conference will be held. Be sure to travel up the incline to Mount Washington for an amazing view of downtown Pittsburgh.

Our national committees have been working extra hard this year to provide our members with the professional development and program recognition opportunities so valuable to NACAA. These dedicated men and women have tirelessly planned and coordinated activities throughout the conference. In addition the Galaxy Planning committee has prepared a program that will be unlike any conference that I have ever attended. When you see Chuck Schwartau, Mark Tucker, Andy Londo, Karen Vines and Lee Stivers in Pittsburgh be sure to give them a pat on the back

for their outstanding leadership and contributions in planning this event.

This year, in Pittsburgh will be an election of the next vice president of NACAA. Three candidates will be running for this office: Liz Felter, FL; Cynthia Gregg, VA and Tim Varnedore, GA. Congratulations to all three for offering their service to our organization.

I would encourage you to review the agenda for Galaxy IV on the website before you arrive. There are so many opportunities for professional development that it may seem overwhelming when you receive your program during registration. One event that has been changed since the on line registration started is the Committee Chair/Vice Chair Recognition event. Originally listed as a luncheon on Wednesday at the David Lawrence Convention Center, this event will now be held on Tuesday morning, 7 -8:30 AM at the NACAA conference hotel, Marriott City Center. All previously registered members should have received a notice of this change. Any national and state committee members are invited but registration is requested. You can make a change to your registration on the Galaxy website if you wish to attend.

I am pleased to report that in 2013 your national association membership has increased by 175 to 3093. This has resulted by the outstanding efforts by state associations to retain, recruit and introduce new Extension hires to the benefits of membership in NACAA, Life members now total 2750.

One opportunity that I am looking forward to is the building association that NACAA has initiated with the Outstanding Young Farmer program. Earlier this year Wes Smith, GA was selected to serve as a liaison with this organization to assist recruitment of applications from NACAA. This year submissions from NACAA have tripled. Thank you for your support. The deadline for submissions has passed but I would encourage every state president to appoint a member to serve locally to nominate at least one candidate from their state next year.

The JCEP Leadership Conference was held in Memphis, TN in February. This conference is evolving to provide outstanding leadership opportunities for members of any Extension professional association. This year’s speaker was Jay Rifenburg whose message on core values, accountability and personal integrity could not have been more applicable for today’s Extension educators.

The Public Issues Leadership Development Conference in Washington, DC in April provides development in delivering

the Extension message to federal stakeholders. During the conference the NACAA leadership meets with representatives from USDA and the National Institute of Food and Agriculture.

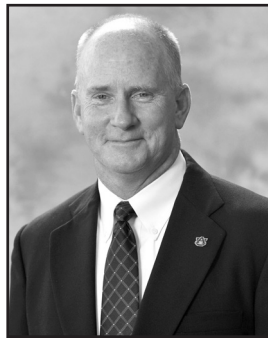
I would like to also express my sincere appreciation to the members of your national board of directors. These individuals take time out of their busy schedules to provide direction for our organization. I could not be more proud having served with them during the past year.

I also want to thank all of you for your contributions to NACAA. Your involvement in local, state and national activities is what makes the extra effort rewarding. NACAA is a bottom up organization. We need your contributions to continue to make NACAA relevant in the 21st Century. It starts with you and your co-workers. I encourage you to continue to develop your professional growth by becoming active in NACAA. It has been a very rewarding experience for me. Thank you for the opportunity.

President-Elect

Henry D. Dorough, Alabama

There is an old saying “Time flies when you’re having fun.” I’d like to add “and the memories collected along the way will enrich your life forever.” Serving on the NACAA board the past few years has without a doubt been the highlight of my Extension career. Working this past year as your President-Elect has added to my personal and professional growth beyond anything I could have ever imagined.



Each NACAA job has its unique set of responsibilities and challenges. The NACAA President-Elect is responsible for a number of things, but none is more important than the role of fundraiser; primarily with “New” donors. I set a lofty personal goal for new donors and with the help of a few members was able to identify several likely partners to support NACAA activities at Galaxy-IV in Pittsburgh, PA.

Unlike our traditional AM/PIC, our participation in Galaxy presented several challenges limiting our fundraising endeavors to securing donors supporting award functions and a few activities specific to NACAA. Beyond that and in all fairness donor funds were to go into the general Galaxy pool to support the unified program. Finding that special niche with new partners for awards and professional development at Galaxy presented a great challenge as most of the programming, outside of NACAA’s super seminars and awards were coordinated through Galaxy.

We were able to form a new partnership with Central Pet & Garden to sponsor the Agricultural Awareness & Appreciation Award. Other potential new donors have expressed interest in partnering with NACAA in the coming years.

Each year, you have heard the president-elect sing the praises of our Executive Director, Scott Hawbaker. While I am

not much of a singer, I do believe in heaping praise where it is deserved. We are very fortunate as an organization to have someone like Scott serving as our consistent face and voice for our current donors and with the skill of selling “all things special” about NACAA to potential new donors. Scott Hawbaker deserves all the credit for maintaining existing partnerships, identifying opportunities for donor/member interaction within the constraints of this year’s Galaxy model and providing the recognition they so properly deserve. Thank you Scott for everything you do for NACAA and for making my job as president-elect a very easy one.

Donor support for the NACAA AM/PIC is paramount to maintaining a relatively low-cost but world-class professional development meeting. New donors are vital to creating and maintaining value of our programs. Because our members are on the front lines and communicating regularly with agribusiness, NACAA developed an incentive program to reward those who nurture fruitful partnerships between new sponsors and NACAA. In essence, members who contact new sponsors contributing \$2,000 to \$4,999 have their AM/PIC registration fee reimbursed. Members who secure sponsors contributing \$5,000 and \$9,999 are rewarded with registration reimbursement and \$500 to attend the AM/PIC. If a member helps NACAA partner with a donor contributing \$10,000 or more, they receive the registration reimbursement and \$1,000 for travel to the AM/PIC. These significant benefits make the effort to help recruit new sponsors truly rewarding for members.

As your President-Elect, 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 also attended the JCEP Leadership Conference in Memphis, TN. The conference theme was “Discovering Your Leadership Potential” and featured a dynamic speaker, Jay Rifenburg from Saratoga Springs, NY. His powerful message stressed the link between possessing a solid base of strong and meaningful core values and a person’s ability to grow and develop as an individual, parent, spouse, professional and community leader. His lesson was thought provoking and certainly helped me identify my core values and how they define me with respect to my career and personal life. His presentation “No Excuse! Incorporating Core Values, Accountability and Balance in Your Life and Career” is something every Extension professional should explore.

During the PILD conference in Alexandria, VA, I had the responsibility of scheduling meetings with various officials in USDA and NIFA with the help of Bill Hoffman, NIFA liaison to the JCEP Board. Past President Paul Wigley, President Paul Craig, Vice-President Mike Hogan and I spent an entire day meeting with Dr. Meryl Broussard, USDA/NIFA Deputy Director for Agriculture and Natural Resources; Dr. Ann Bartuska, USDA Deputy Undersecretary for Research, Education and Economics; Dr. Frank Boteler, USDA/NIFA Assistant Director, Institute of Bioenergy, Climate, and Environment; Dr. Deborah Sheeley, USDA/NIFA Assistant Director, Institute of Food Production and Sustainability;

Dr. Jill Auburn, USDA/NIFA National Program Leader and Dr. Louie Tupas, USDA/NIFA Division Director, Global Climate Change. Together, we were able 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.

As I close this report, I would like to thank the hard working women and men on NACAA committees and the Board for their dedication to the task at hand and friendship.

My sincere gratitude also goes to my colleagues in the Alabama Association of County Agricultural Agents and Specialists and to the ACES leadership team for their never ending support of my service to NACAA.

I look forward with great enthusiasm and deep humility to serving as your president. Standing with my Alabama coworkers, we are excited to host you in Mobile, AL for the 99th NACAA Annual Meeting and Professional Improvement Conference. This will mark the first time in NACAA history for our AM/PIC to be held in the Great State of Alabama and my colleagues are working diligently to ensure you experience awesome educational opportunities on Gulf Coast agriculture and natural resources and abundant southern hospitality. Y'all Come! And don't forget to take time to enjoy the moment so the memories you collect will enrich your life for years to come.

Vice President

Mike Hogan, Ohio



The role of the NACAA Vice President is to provide leadership for the operation of NACAA's three councils and 18 standing committees. It has been a pleasure and a privilege to serve as your Vice-President since we met in Charleston, SC last July. I have thoroughly enjoyed working closely with such dedicated and professional Council Chairs as Mary Sobba from Missouri; Dan Kluchinski from New Jersey; and J.J. Jones from Oklahoma. Most NACAA members, even the Committee Chairs and Vice Chairs, probably aren't aware of the tremendous number of hours the Council Chairs log each year working on behalf of our professional association. When you see Mary, Dan, and J.J. at Galaxy in Pittsburgh, please join me in thanking them for their outstanding service to NACAA. J.J. Jones will be completing his term as Council Chair for the Program Recognition Council, and we will welcome Dick Brzozowski from Maine as the new Council Chair for the Program Recognition Council at the conclusion of the Galaxy Conference.

The 18 National Committee Chairs and 62 Regional Vice Chairs also log many hours carrying out the many NACAA awards and professional improvement programs, and deserve special thanks for their hard work. These folks have worked

extra hard this year, and done an amazing job to fit NACAA programming into the Galaxy Conference format. I think you will be pleased at the quality of the NACAA programs when you participate in the Galaxy Conference in September.

Council Chairs and Vice Chairs should take note of the changes in our traditional schedule of NACAA leadership meetings and events normally held at the AM/PIC. We have typically held a luncheon meeting for all NACAA Committee Chairs and Vice Chairs on Sunday and a Committee Members Breakfast on Thursday at the AM/PIC. This year, at Galaxy, we will combine these two events and hold a Committee Members Luncheon on Wednesday from 11:30 am to 1:30 pm. All members of all NACAA committees are invited and encouraged to participate in this luncheon meeting.

If you are not currently serving on an NACAA committee as a State Chair, a Regional Vice Chair, or a National Committee Chair, please consider doing so. Your professional association works for you because of the volunteer leadership of so many dedicated members. Many of your colleagues who have served in these leadership positions have said that their personal growth and leadership skills had benefitted tremendously as a result of serving their professional association in one of these leadership positions.

I have appreciated the opportunity to be part of the leadership team representing NACAA at several conferences this past year including the JCEP Leadership Conference in Memphis TN and the PILD Conference in Washington DC. While at the PILD Conference, President Craig, President-Elect Dorough, Past President Wigley and I had the good fortune to meet with several USDA and NIFA agency leaders in their offices. As we visited with these leaders, we beamed with pride as these leaders shared with us their understanding about the impactful and dedicated work each of you do every day across this country. I could not have been more proud to represent my colleagues as we walked around Washington DC that day.

I have appreciated the opportunity to serve as your Vice President this past year, and thank you for the trust you have placed in me. I look forward to visiting with each of you at Galaxy IV in Pittsburgh very soon.

Secretary

Richard Fechter, Kansas



It does not seem possible that I am completing my second year as NACAA Secretary. It has been a very rewarding, and challenging venture.

Many colleagues have asked me why I wanted to be NACAA Secretary 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 linking of all board meeting documents, with the exception of financial reports, as attachments to the minutes posted online. 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 has completed his term as the Journal of NACAA Chair and has done an excellent job. Stephen has been reappointed to the Journal of NACAA Chair position for another term. 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. The secretary is charged with collecting annual historically significant documents for storage at 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. We are also looking at other potential venues to store our historical documents. In addition, the board has talked about trying to establish a display at the National Agricultural Center & Hall of Fame in Bonner Springs, Kansas celebrating the "County Agent." Many of you may remember the National Agricultural Center & Hall of Fame from the 2011 AM/PIC. It is where we had supper following the Professional Improvement Tours.

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 this past year. 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 Pittsburgh at Galaxy IV.

Treasurer

Alan B. Galloway, Tennessee



It is my pleasure to report the financial condition of NACAA is sound. Due to careful investments and a growing economy we have seen our assets grow during my first year as your treasurer. After receiving the records from past treasurer, Parman Green, effective January 1, 2013, I have strived to maintain the accuracy of the data and process all payments in a timely manner.

Often one's ability to do a job is impacted by the person who did the job before them. There is no doubt, I inherited an accurate, streamlined set of records. My duties this year were made easier because of Parman's efforts over the previous three years. He set a high bar. My continuing challenge is to maintain the system he improved during his term and seek new methods to ensure NACAA's financial security. With an association the size of ours the financial records are quite complex. It does take a while to comprehend the system to accurately record income and expenditures.

My commitment to members during last year's NACAA AM/PIC was to "Watch the Road" financially. Part of "watching" includes carefully reviewing expenditures, recording income and its source correctly and reporting regularly to the NACAA board. The second part of "watching" entails trying to predict the best and safest future investments for our funds. I endeavor to stay abreast of current financial conditions that might impact the returns on our funds and consult often with our financial advisor.

2013 brought new challenges with NACAA's participation in Galaxy IV. The change has both simplified and complicated our accounting system. Due to not handling as many incoming funds related to registration and sponsorship there have been fewer transactions prior to the AM/PIC. However, planning for the expenditures and unique challenges of a Galaxy meeting has been confusing at best.

The NACAA board has been careful, conservative stewards of the association's funds. Through strict reimbursement procedures and tracking of income sources NACAA remains on solid financial ground.

I greatly appreciate the trust placed in me by the members of NACAA and I will continue to do my best to "watch the road".

Past President

Paul Wigley, Georgia



What a ride it has been. The last seven years that you have allowed me to serve as an officer in this association will definitely be one of the highlights of my life. You have allowed me to give back a small fraction of what I have received by being a member of NACAA. For this opportunity I will always be grateful.

As I leave the office of Past President I hope that you can agree with me that NACAA is at least as good a professional improvement organization as it was when I became Vice President four years ago. It was my goal that I leave the organization in as good a condition or better than when I became an officer. Financially, the organization has reached unprecedented levels. We are fiscally sound due to the many years of proper management of our funds. This board has continued the tradition of diligence and moderation that has led to the current security of our organization. After several years of declining membership, NACAA has experienced a resurgence in membership. This is due to the quality of professional improvement opportunities that is available through our association. As new employees have been hired they have been quick to grasp the importance and value of being a member of this organization.

I have had the opportunity to travel to four of our sister extension professional organization annual meetings. At each one I have been proud to be a member of NACAA and share what we do for our membership. We are still the only family oriented annual meeting that is held among all extension professional organizations. Our level of professional improvement opportunities and opportunities to learn from the best extension professionals in the country sets us apart from all other professional improvement organizations.

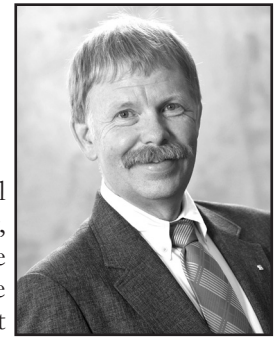
During the last year I have been on the JCEP board and have seen the amount of work it takes to put together the GALAXY meeting that we are attending. When you get the chance please thank the NACAA members who have served on the planning committee. Without their work and diligence our portion of the program would not be what it is today.

My last function will be presenting the 2014 budget to the delegates this week. I hope that you will find that we are looking forward and not backward as we plan for the next year.

The list of those to which I owe a huge thanks is too long to print here. Those of you that have had an impact on my life in the last seven years as I served as NACAA Treasurer, Vice President, President Elect, President, and now Past President know who you are. The debt I owe you is immense. As I move to the long awaited life member status, please join me in supporting our new officers as they lead us to even greater heights.

North Central Region Director

Larry Howard, Nebraska



As I complete my second and final year as the North Central Director, it is hard to believe how fast the last four years have gone by. I have enjoyed the opportunity to represent the North Central region as your Vice Director and Director of NACAA. As I shared in my report to the membership last year, this has been a great experience and one I will remember for a long time. It has allowed me to strengthen the many NACAA friendships I have made over the years and make many new ones. I have been an Extension Educator (County Agent) and NACAA member for twenty-eight years and will be attending my 21st Annual Meeting and Professional Improvement Conference (AM/PIC) at the Galaxy in Pittsburgh, PA in September. This opportunity to serve on the NACAA Board has provided me with several professional improvement experiences which have been the best in my Extension career.

This past year I attended ten of our state meetings in person, one by electronic means, while Brad Brummond (Vice Director) attended one as I was at another state meeting. We accomplished my goal of reaching all twelve North Central states both years we served. The NACAA membership continues to impress me with the commitment to their jobs and more importantly to the clientele that they serve. The educational programs are outstanding and are keeping Extension relevant. We appreciated the outstanding hospitality while at your state and enjoyed the visits with the members, Extension Administration, and in some of the states, your producers and agribusinesses as you conducted tours. Thanks for your dedication to making Extension and NACAA stronger.

After some decline in state budgets and membership it was refreshing to see some of the states with new hires and getting them as new members. We need to continue to retain our current members and recruit new ones. I encourage our members to take the time to become more involved in NACAA and share the many opportunities with others. Please take the time to apply for awards, posters, and presentations or other professional improvement activities. Some of the areas have low participation and we need a stronger commitment of our members so we can maintain our sponsors. Also consider submitting an article to our Journal of NACAA. As we visit your states we see the outstanding work that has been accomplished. Please share it with the Association and be recognized for your efforts. I also want to challenge the members to consider being more involved in NACAA leadership; consider the committee positions when they are announced. I have never regretted my involvement.

I have a great appreciation for the time commitment, dedication, and leadership of the entire National Board. The

officers, directors, and especially Executive Director Scott Hawbaker, are committed to maintaining and improving our Association. Thanks go to a great group of friends I have had a chance to work with these past two years.

The North Central region has come together to help South Dakota as they prepare to host the 2015 AM/PIC in Sioux Falls. I encourage the states to continue to work together as the planning continues and assist where they can.

Once again, I want to thank the Nebraska members for trusting me with this opportunity to serve NACAA. It is truly a “once-in-a-career” chance in our region. I also appreciated the support of the Nebraska Extension Administration, my co-workers at the Cuming County Extension office, and our Extension Board and volunteers which allowed me to fulfill this NACAA assignment. And finally, a special thanks to my wife, Mary, who took care of things at home while I traveled. She was able to participate in some of the activities and enjoys the friendships we have made over the years.

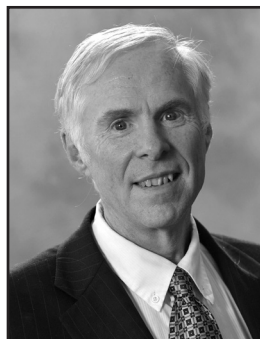
I look forward to seeing the members at Galaxy IV in Pittsburgh in September. At the conclusion of the conference, Brad Brummond will take over as Director and Ohio will be presenting Chris Bruynis for the incoming Vice Director for our region.

North East Region Director

Stephen Hadcock,

New York

As my term on the Board comes to an end, I want to tell all of you what an honor and pleasure it has been to serve as your Director. The places I have visited, the new friends I have made and professional improvement I have received will last with me for the rest of my Extension career and beyond. I appreciate the opportunity that NYS Ag Agents have afforded me to serve as Vice Director and Director.



Once again, membership in the Northeast continues to grow. One good recruiting tool that helped NYS this past year was to invite prospective members to the state annual meeting. After seeing the camaraderie and professional improvement opportunities, several signed up to be members. While some states saw their numbers dip for 2013, others added new members and overall the Northeast continues to grow.

The Planning and Development Committee (one of the Board’s standing committees) worked on various projects during the year. President Craig asked the committee to review recommendations from the futuring committee and implemented some this year. One that was enacted was to ask Executive Director Scott Hawbaker to develop “Quick Start Guides” for submitting a scholarship application, completing an awards application and some others. Some ongoing

activities of the committee is learning how states curate Agricultural Agent Association in their respective state.

This committee also reached out and worked with two NACAA committees this year to host two different webinars. The first webinar was a collaboration with the Teaching and Educational Technology Committee. The chair of the committee, Mark Blevins, gave a presentation on the usefulness of Google+ Hangouts for conducting meetings. The second collaboration was with the Administrative Skills Committee. Chair Ayman Mostafa arranged to have Monica Pastor to give a presentation on enhancing relationships with government officials. Monica was County Director of Maricopa County, Arizona and was able maintain if not increase county funding for Extension. The video can be viewed at: <http://youtu.be/3EzYZmBNmYM>

Agents in Pennsylvania and throughout the Northeast have been working hard to provide a pleasant and educational experience for those traveling to Pittsburgh, PA for the Galaxy IV conference. Part of the time for the past year has been assisting where I could to find tour guides and communicate to states the progress of plans for the conference. I want to thank all of the Ag Agents that stepped up and helped with the planning for this event.

Finally, I would like to encourage others to take leadership positions within NACAA. Helping fellow Agents from your region and across the nation to enhance their professional career is definitely rewarding. Talk to most anyone that has held a national leadership position and they will tell you that the experience of participating was well worth the time involved. To paraphrase a popular politician, all advancements start at the local level. Start by taking a leadership role within your state association, then from there, look for opportunities to serve on a national committee or other possible avenues. Your involvement, will make for some everlasting memories.

Southern Region Director

Jerry Clemons, Arkansas



As my term as Southern Region Director is coming to an end, all I can say is what a great opportunity it has been to serve on the National Board. Last year I wrote about giving back to our association. I shared that you only get back what you put into it. Well, let me tell you, I believe I have received far more than I ever imagined.

I have had the opportunity to serve on the Public Issues Development Conference planning committee for the last two years. Serving on this committee has given me the chance to work with representatives from all of the six Extension Associations. In April, when we had our last meeting, many of the participants commented that this meeting was one of the better ones they have attended. I know that Pete Nitzsche and Lenny Rogers will do a great job representing our association

on this committee.

I also worked with all the other directors and vice-directors on the JCEP meeting in Memphis in February. Our association had over 35 states represented at this meeting.

This year I attended seven of the state meetings in the Southern Region. I so appreciate the hospitality shown to me when I attended these state meetings. I was privileged to see first-hand many exemplary programs presented by these states' outstanding agents. I am planning to try some of them in Arkansas. If everyone will remember, the past president spoke about keeping Extension relevant. From what I have seen, I believe Extension is indeed relevant and will remain that way for years to come. As to the effort that all of us put into our work, I would like to say thank you and keep up the good work.

I'd also like to say thank you to the NACAA board members I have served with. Yes, we've faced some challenges, but at the end of the day came to agreement on decisions we thought were best for our membership and association.

I want to thank my fellow Arkansans for giving me this opportunity to serve NACAA. This is a once in a career opportunity and I will always be grateful to every one of you. A huge thank you goes out to the Arkansas Extension administration for their support. I also want to say thank you to the Clark County Extension staff. I know that I will never be able to tell you how much I appreciate your help over the last four years.

And, last but not least, much thanks to my wife Debbie and our three kids. I'm glad you were able to keep things together at home while I spent so much time on the road. I look forward to seeing everyone in Pittsburgh for the Galaxy IV meeting.

Southern Region Director

Gene McAvoy, Florida

My time as the Southern Region Director this past year has been an exciting and exceptional opportunity. Although I have been a member of NACAA for over 17 years and held worked my way through the officer rotation in the Florida Association of County Agricultural Agents serving as state president in 2004-05, the chance to serve 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 the many state association meetings that I have been privileged to attend this year as I had the opportunity to travel across the South from the mountains of Eastern Tennessee to the Louisiana bayous and the Hill Country of Texas. Each and 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.

I 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 first year as Director. I also want to extend special thanks to Tim Varnedore and Jerry Clemons 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 I have attended. 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, as well as get an insight into needs and concerns of our members, that has better prepared me to represent their opinions to the NACAA Board.

Beginning with my confirmation as Junior Southern Region Director at the 2012 AM/PIC in beautiful Charleston, South Carolina, I have had the good fortune to attend state meetings in Alabama, Florida, Louisiana, Tennessee and Texas, as well as attending the JCEP meeting in Memphis, TN, Winter Board in Pittsburgh, PA where the NACAA Board had the opportunity to preview the site of the 2013 Galaxy Meeting and NACAA AM/PIC, and the NACAA Spring Board in Nashville, TN.

The past year has provided me with a new perspective and appreciation for the hard work and tremendous dedication of county agents across this great land to act as agents for change and empower their clients and communities. It has also reinforced the unique nature of our association in providing professional improvement opportunities while incorporating love of country and family values into our meetings and professional activities.

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. 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.

While I sincerely hope that my service to NACAA and the Southern Region will help 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.

Western Region Director

Mark Nelson, Utah

I am proud to have had the opportunity to represent the western region this past year and I am really looking forward to another great year. 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. This past year 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 presenting a bid at the upcoming Galaxy meeting to host 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 am really looking forward to another great year as the Western Region Director.



everyone informed with slightly different formats and changes in schedules. The extra efforts have been much appreciated.

There will be a variety of presentations in Pittsburgh by NACAA members on Tuesday, Wednesday and Thursday. Forty-five presentations are being planned, which will encompass all six programmatic areas.

The horticulture committee has planned an educational and fun post conference tour. Thank you to the sponsor – EcoScraps. On Friday the tour will include a stop at Bob O'Connor Golf Course at Shenley Park, Harvest Valley Farms and Quality Gardens. The tour continues on Saturday with two more stops to Janoski's Farm, and Gardens of Ogelby Resort. The tour has about fifty percent less people registered than most years, but expectations are the participants will increase for AM/PIC 2014.

Sustainable Agriculture had the largest pool of applicants for the fellows program this year. They have chosen four new fellows and will have a special luncheon on Wednesday.

Agronomy and Pest Management has planned a special two-hour seminar on Tuesday titled "Essentials For Conducting Successful On-Farm Research". Ag Economics has planned a special seminar on "Preparing Farm Families for Disasters" on Thursday. Both should be very interesting presentations with widespread interest.

The NACAA committee structure is an excellent way that members can 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. There are many opportunities and it is an excellent way to learn about our organization. Our committees welcome feedback and ideas from members, so please share comments and suggestions.

The committee chairs and vice chairs and state chairs have been really stepped up to the challenge of planning educational opportunities for the Galaxy Conference. Some committees have already begun planning events for AM/PIC 2014! Thank you all very much. Your hard work and dedication this past year is greatly appreciated and it truly takes each of you to make our organization successful. I am looking forward to seeing the results of our work in Pittsburgh.

Professional Improvement Council Chair

Mary Sobba, Missouri

The Professional Improvement Council is structured to further the professional development of our members. The Professional Improvement Council consists of six committees: Ag Economics & Community Development, Agronomy & Pest Management, Animal Science, Horticulture & Turfgrass, Natural Resources/Aquaculture and Sustainable Agriculture.

The committee chairs have done an excellent job of taking on the extra challenges of a Galaxy meeting and communicating within their committees. This year took extra effort to keep



Agronomy and Pest Management

Joni Harper, Missouri

Agronomy/Pest Management Committee Members:

Northeast Vice-Chair –

Paul Cerosaletti (New York)

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



West Vice-Chair – Norman Nagata (Hawaii)

Southern Vice-Chair - Wade Parker (Georgia)

My first year as chair of the Agronomy and Pest Management Committee has been quite a learning experience. I would like to thank the regional vice-chairs and the state chairs for their support and all the hard work they've done getting ready for the Galaxy conference. Wade Parker was appointed to complete the vice-chair position in the southern region. We are glad to have Wade aboard.

On Tuesday, September 17 at 1:00 pm we will be hosting a two hour "Super Seminar" titled "Essentials for Conducting On-Site Research". This workshop will include presentations on proper planning, guidelines, and methodologies of conducting field research. Our main speaker will be Ron Hoover, Senior Project Associate with Penn State. Also featured will be NACAA members Jeffrey Carter and Kent Shannon talking about their respective projects "Champlain Valley Crop, Soil and Pasture Team" and "On-Farm Research – An Educational Tool for Implementing and Validating Precision Agriculture Technologies".

We are excited about the lineup of presenters we have made available for you in the regular Agronomy/Pest Management category this year. Due to the Galaxy format, there have been some slight changes in both the number of speakers and the presentation schedule. There will be seven presentations spaced out over three days (Tuesday, Wednesday, and Thursday) rather than our normal one day of presentations. Sessions 4, 5, 7, 9 and 10 have been designated for Agronomy. You will be able to find the times for these presentations in the program you receive when you check in at Galaxy. 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 2014 AM/PIC in Mobile, AL we anticipate that we will return to the traditional schedule of presentations you've become accustomed to over the last several years. At any rate, we should have more time available for presentations so I encourage each and every one of you to submit abstracts. For 2014, our committee is promoting presentations on Cover Crops/Soil Health and/or Techniques for Improving Yields. 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 South Dakota in 2015. If there is a topic you would like to see included, do not hesitate to contact me or one of the regional vice-chairs.

Ag Economics & Community Development

Willie Huot, North Dakota

Committee Members:

North Central Region Vice Chair and National Chair – Willie Huot, ND

Western Region Vice Chair – Del Jimenez, NM

North East Region Vice Chair – Sandra Buxton, NY

Southern Region Vice Chair – Megan L. Bruch, TN

When the Agricultural Economics and Community Development Committee met last July in Charleston, SC, the members identified several potential topics to consider in designing an educational program to be incorporated into the 2013 Galaxy Conference. Ranked highest among the suggestions was a session focusing on Extension's role in helping citizens prepare for and recover from natural disasters.

From that recommendation our committee has organized a two hour "Super Seminar" titled "Preparing Farm and Ranch Families for Disasters". This session is scheduled from 9:00 – 11:00 am Thursday, September 19, 2013. Specific topics and presenters for this seminar include:

Billy Dictson, Former Extension Director, New Mexico State University Extension Service and Director, Office of Biosecurity for College of Agriculture Consumer and Environmental Sciences. Dictson was also the NACAA National President in 1986.

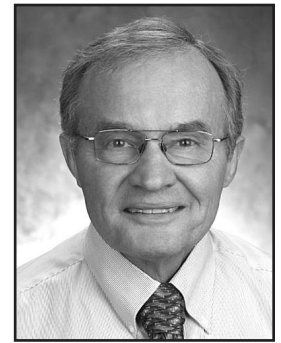
Topic – Extension's role in helping citizens impacted by disasters; how our role has changed and how it remains the same. Use of EDEN and other resources. Lessons learned regarding disaster preparation and recovery.

Dr. Laurence Crane, VP, Education and Communication, National Crop Insurance Services

Topic – Understanding the role of crop insurance in managing agricultural risks.

This seminar is designed to provide information and resources that will strengthen the ability of extension agents to provide educational programs for families, especially those from farms and ranches. These programs will improve their ability to prepare for and recover from natural disasters, especially those caused by weather events. All extension agents involved in risk management education and disaster preparedness are urged to attend.

This seminar is made possible by the very generous sponsorship of the National Crop Insurance Services (NCIS), Overland Park, KS.



Our committee is especially honored to be able to present this educational opportunity as part of the Galaxy Conference and hopes to be able to continue providing educational opportunities targeting risk management education in future AM/PIC meetings.

This year a total of 26 abstracts for presentation proposals were received. Topics varied considerably. All abstracts were ranked by our committee. A total of 10 were selected to be presented at the Galaxy Conference. We invite you to attend any or all of these sessions.

A very special thanks to the National Vice Chairs and to the NCIS for all the work and support that has made it possible to include the “Super Seminar” as part of the Galaxy Conference in Pittsburgh.

Animal Science

Tammy Cheely, Georgia

Committee Members:

Southern Region Vice-Chair and National Chair – Tammy Cheely

Southern Region Vice-Chair – Brian Beer

North Central Region Vice-Chair – Eldon Cole

Western Region – Scott Jensen

Northeast Region – Bruce Loyd

Each year one of the major responsibilities of the Animal Science Committee is planning and carrying out a two-day Pre-AM/PIC Animal Science Seminar and Tour. The committee members did a survey of the people that have gone on the tour in the past to see if leaving it at the beginning of AM/PIC or moving it to the end would work better with Galaxy. The consensus was to move it to the end of Galaxy. With that decision made, the committee moved forward with plans, fundraising and accepting applications. Bruce Loyd, Northeast Region Vice-Chair put the itinerary together for the tour. We didn't receive many applications to attend the tour by the original deadline, so we decided to extend the deadline and hopefully increase the number of participants. Extending the deadline didn't help participation so the committee decided to cancel the tour this year. We agonized over this decision but felt it was the right thing to do. This is not meant to start a trend of not having an Animal Science Tour along with AM/PIC. We have already started work on the next Pre-AM/PIC Animal Science Seminar and Tour that will be held on July 18-19/2014 in Mobile, Alabama. It promises to be a great one!

Again, this year the committee worked hard on the professional improvement seminars. Seven of our co-workers will be presenting seminars on their successful Extension programs during the concurrent sessions at Galaxy.

The Animal Science Committee has made arrangements with the American Registry of Professional Animal Scientists (ARPAS) to offer continuing education unit's (CEU's) for those who participate in the seminars. Contact any of the Animal Science Committee members for more information.

The committee continues to offer professional improvement opportunities throughout the year. This has been accomplished by developing electronic training via webinars in collaboration with other professional organizations.

Another goal of the animal science committee was to update the promotional poster utilized at AM/PIC. Former Animal Science Committee Chair, Randy Mills from Oregon volunteered to handle this task. Thanks to Randy, the committee will have a new poster promoting participation and highlighting past committee activities.

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

I would like to thank the regional vice-chairs for all of their contributions to the Animal Science Committee.

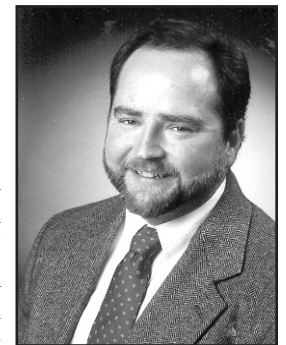
Natural Resources & Aquaculture

Dan Downing, Missouri

In 2013 the Natural Resources and Aquaculture Committee comprised of Dan Downing – University of Missouri, Laurel Gailor – Cornell University, Katie Wagner – Utah State University, and Steven Patrick – University of Georgia had a productive year reviewing and selecting papers from 26 requests for presentations at Galaxy, filling vice chair positions being vacated, and planning for a new pre-conference 2014 AM/PIC tour.

Steven and Libbie (incoming Southern region vice chair) took the lead in planning the new 2014 pre-conference educational tour and pursuing sponsorships to help offset costs. The educational tour will be offered as a two day, or one day only at the participants choosing. The draft agenda for the educational tour focuses on the rivers, ecosystems, and natural features of the Mobile-Tensaw delta which includes portions of four counties in Southwestern Alabama. A flyer will be distributed at Galaxy with details of the educational tour. Highlights of the tour will include an interpretive kayak trip, interpretive hikes, and an interpretive trip to the beach examining coastal oil spill recovery. More details will be shared as they become available.

Also due to the coastal venue for the 2014 AM/PIC the committee felt it was appropriate for the Natural Resources and Aquaculture presentations during the concurrent sessions to feature an emphasis on Sea-Grant efforts. Although Sea-Grant will receive special consideration, presentations from all



areas of natural resources and aquaculture will be considered.

Rotating off of the committee after Galaxy will be Steven Patrick, Southern Region. His vacated position will be filled by Libbie Johnson – University of Florida. Laurel Gailor, Northeastern Region will be serving another two year term.

Horticulture and Turfgrass

Stacey Bealmear, Arizona

Members-

Stacey Bealmear- Committee Chair

Sara Denkler- North Central Region Vice Chair

William Sciarappa- North East Region Vice Chair

Annette Meyer Heisdorffer- Southern Region Vice Chair

Ronald Petterson- Western 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. You will leave Galaxy with new ideas and energy for improving your programs.

At this year's conference we will be providing four educational sessions. Look for horticulture programs in sessions 4-7, 5-9, 9-7 and 10-8.

Topics include:

- 1) Germination of Desert Olive, Stansbury Cliffrose and Curl-Leaf Mountain Mahogany in Three Substrates Varying in Water Holding Capacity
- 2) Organic Land Care Program for Professional Landscapers in New Jersey
- 3) Optimizing Spray Technology
- 4) Feasibility of Growing Pierce's Disease Tolerant American and French-American Hybrid Bunch Grape Cultivars in Alabama
- 5) Starting an Endowment for Your County's Master Gardener Program
- 6) USU Extension Protectors of Urban Pollinators (PUPs) Program
- 7) Internal Fruit Rot and Premature Seed Germination of Field Grown Colored Peppers



We will also be having our Horticulture and Turfgrass Committee meeting Tuesday September 17th. Our discussion will focus on educational programs outside of AM/PIC. A member contacted the committee suggesting a second horticulture tour and we would like to get input from other members. Stop by with any ideas or concerns you may have had over the past year.

The 2013 horticulture tour will be held as a post tour this year (September 20th and 21st 2013) due to Galaxy. Our Pennsylvania hosts have put together an OUTSTANDING tour that includes horticulture, local foods, turf and more.

September 20th-

Stop 1) Bob O'Connor Golf Course at Schenley Park. This course is Audubon certified to enhance wildlife habitat, reduce pesticide use and other possible harmful impacts.

Stop 2) Master Gardener demonstration garden, followed by lunch with the Master Gardeners.

Stop 3) Harvest Valley Farms, a fourth generation family farm that provides produce through CSAs, farm markets, and roadside stands.

Stop 4) Quality Gardens of Valencia. This nursery/garden center offers landscaping services, educational seminars and a farmers market.

September 21st-

Stop 1) Janoski's Farm and Greenhouse is a 200 acre farm that grows vegetables and fruits for sale year round in their farmers market. They offer seasonally available produce, along with freshly baked goods made on site. They also have a greenhouse where they grow a variety of plants from Easter flowers, spring bedding plants, fall mums and Christmas flowers.

Stop 2) Gardens of Ogelby Resort and Conference Center for lunch and a garden tour. The gardens are a re-creation of many that existed in Oglebay in the early 1900s. Visitors are enticed to wander on red brick paths through the ever-changing flower displays, hanging baskets and majestic trees. These lovely sites are made even more memorable by the addition of soft landscape lighting and water displays.

Sponsorship for the tour has been attained from EcoScraps thanks to Jim Hruskoci, a former NACAA member and extension educator. Thanks to Jim for continuing to participate with NACAA and for helping to make the tour affordable for our members. We also have to thank Tom Butzler and all the agents in Pennsylvania participating in this tour. We appreciate your hard work setting everything up for us!

We are looking forward to seeing all of you at Galaxy!

Sustainable Agriculture

Steve Van Vleet, Washington

The Sustainable Agriculture Committee is fortunate to have the continuous support of the USDA/NACAA Sustainable Agriculture Research and Education (SARE) for the NACAA Fellows Program. The continued success of this program can be attributed to valuable collaborative partnerships between USDA-SARE, NACAA and the SARE Fellow recipients.



Of seventeen total applicants in 2013, four Fellows have been selected, one from each of the four NACAA regions. The 2013 Fellows are:

Jennifer Blazek (WI), Northcentral Region

Tianna Dupont (PA), Northeast Region

Laura Anne Sanagorski (FL), Southern Region

Matt Palmer (UT), 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 retiring SARE Fellows from 2010 will present on their experiences at the SARE Fellows luncheon on Wednesday, September 18, 2013, at the Galaxy Conference in Pennsylvania. The luncheon is sponsored by SARE and the 2013 SARE Fellows will be recognized at the luncheon.

The SARE Fellows program is not the only function of the Sustainability Committee. The committee spends a great deal of time reviewing abstracts to be presented at the sustainable agriculture professional improvement seminars in Pittsburgh. This is the fifth year that we have provided professional improvement seminars under the topic of "Sustainable Agriculture." 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 SARE Fellows Program has made and continues to make a positive impact on my life 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. Everyone involved in this NACAA program would like to give a special thank you to USDA-SARE and in particular Kim Kroll, Associate Director of the USDA-SARE Program, and the folks in Wyoming, especially Joleen Pantier and James Freeburn, for their tremendous efforts. 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 -- Agricultural Issues and Public Relations, Early Career Development, Administrative Skills, and Teaching and Educational Technologies -- help members improve their skills related to the art and science of extension practice. This focus on teaching various skills and methodologies to conduct extension work effectively makes NACAA unique from other subject specific professional organizations.



The Council's efforts at the 2013 Galaxy IV Conference include 16 presentations as part of 9 concurrent sessions featuring selected NACAA member proposals. Additional educational offerings will include a Super Seminar titled "Using Mobile Devices to Enhance Extension Efforts" on Thursday morning sponsored by the Teaching and Educational Technologies Committee and Epsilon Sigma Phi. We hope you will join us for these informational offerings.

Over the year, educational programming was extended beyond the confines of the AM/PIC through four webinars. Three sessions are archived and available for those who missed the live broadcasts:

- "Using Technology to Reach a Changing Clientele" was offered by the Agricultural Issues and Public Relations Committee. A recording is available at <http://tinyurl.com/NACAA-Using-Tech-Reach-Clients>
- "Same Stuff Different Day", a review of the Galaxy IV Conference program and registration process, was offered by the Early Career Development Committee and Pennsylvania Association of County Agricultural Agents. A recording is available at <http://tinyurl.com/NACAA-Galaxy-IV-Registration>
- "Developing a Successful Partnership with Your County Government" was offered by the Administrative Skills Committee. A recording is available at <http://tinyurl.com/NACAA-Partner-with-Govt>
- "Using Google+ Hangout to Facilitate or Conduct a Business Meeting" was offered by the Teaching and Educational Technologies Committee.

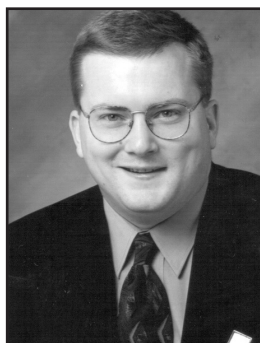
Our relationship as a co-supporter of the National Outstanding Young Farmers program with Jaycees and sponsor John Deere has been strengthened. The Agricultural Issues and Public Relations Committee has historically been a liaison with the program. Wes Smith from Georgia was recently appointed by NACAA to a three-year special assignment to work with the committee to seek applicants and develop press for the program. This will provide year-to-year continuity and connection 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 and Regional Committee Vice-Chair.

Finally, I offer my sincere appreciation to our committee chairs, regional vice-chairs and state chairs as well as Vice President Hogan for their individual and collective leadership and guidance during the past year. 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, Mark Heitstuman 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 2012 NACAA-AMPIC included several outstanding professional development presentations focusing on a wide variety of issues facing the agricultural industry from science-derived food safety metrics to coordinating international envoys to showcase agricultural production in our communities. Each program highlighted a novel way that Agricultural Extension agent provides impact within the communities they live and serve.

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 OYF annual meeting in Albuquerque, NM with Past President Paul Wigley, Georgia. We were both proud to represent NACAA at this event and were extremely impressed with the outstanding candidates from all across the United States. It was humbling to witness the station that the OYF affords it relationship to NACAA. The OYF 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, OYF Alumni are assuming the responsibility of the program, the annual meeting and daily operations of the organization. Starting this year at the bequest of the past president and AI & PR committee, the NACAA National Board has agreed to further strengthen our relationship between NACAA and OYF. NACAA, in addition to the past president and AI&PR chair, will also fund a special assignment liaison position between OYF and NACAA. This assignment is a three commitment.

Responsibilities for this special assignment will include maintaining relational continuity between organizations and ensuring that OYF nominees get as much exposure nationally and locally as possible. This position was created to play to the strengths of both organizations and strengthen the relationship between both organizations. This special representative reports directly to the National Board. Our selected representative for this new position is Wes Smith from Georgia. Wes is a very active NACAA and GACAA member and will serve us well in forging this enhanced relationship.

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 the National AI&PR Committee Chair for this outstanding organization. I will continue in this position following the 2013 AM/PIC for one more term. I look forward to continuing my service and appreciate your support.

Early Career Development

Dr. Laura Griffeth, Georgia



The Early Career Development Committee has been busy during this past year thanks to the efforts of our committee members – Amber Yutzy, Pennsylvania, Nathan Winter, Minnesota, 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 2013 Galaxy IV in Pittsburgh, PA. Three abstracts were submitted for review, with two selected to present seminars in Concurrent Session 8-5 on Wednesday afternoon, September 18, beginning at 4:30 pm. These topics are applicable to all of us, not just those in the early stages of their career.

Session A Grant Writing and Evaluating – Begin With End in Mind!

Laurie Wolinski, University of Delaware
Cooperative Extension

Session B Informal Mentoring: A Common Sense Tool for a New Extension

Dr. Laura Griffeth, University of Georgia

Cooperative Extension

Justin Shealey, University of Georgia
Cooperative Extension

Robert Smith, University of Georgia
Cooperative Extension

The other main program developed by the Early Career Development Committee was the Same Stuff Different Day Webinar held on Wednesday, June 26, 2013 which included participation from all four Early Career Development Committee members. The purpose of this webinar was to better prepare participants for Galaxy IV by reviewing the conference program and the registration process. 23 participated during the live session, while 36 have watched the archived session in June and July. This archived session is still available to watch at <http://tinyurl.com/NACAA-Galaxy-IV-Registration>.

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 Galaxy IV. It will be Tuesday, September 17 at 11:00 am. Your ideas will be useful for the development of goals for the 2013 – 2014 year and the 2014 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 Pittsburgh!

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 2013 The Administrative Skills Committee Provided NACAA members with key program focus areas include:

- Partnering with NACAA Board to bring members a webinar by Monica Pastor on Developing a Successful Partnership with Your County Government. The webinar with well-attended and provided some techniques members could use working with your County Government.
- Several high quality seminars will be presented at Galaxy IV in Pittsburg. These will include:
 - Caring for Your Customers by Gary Hall
 - Bridges Cost Money: Finding Grant Opportunities by Kate Flewelling
 - Collaboration Methods for Developing Programs and Curriculum within Extension Teams by Eric Barrett

The Administrative Skills Committee consists of

- Ayman Mostafa, National Committee Chair and Western Region Committee Vice-Chair;
- Ken Balliet, Northeast Region Committee Vice Chair;
- James Cowden, Southern Region Committee Vice Chair;
- Chris Bruynis, North Central Region Committee Vice-Chair.

Teaching & Educational Technologies

Mark Blevins, North Carolina



What an exciting time to be part of a committee like this as new technologies with applications for our profession are emerging at what seems like a daily rate! The changes aren't easy to keep up with, so that's why our committee selected the presentations you'll see at Galaxy during several of the sessions. Some of our most innovative colleagues are

sharing their use of (mostly) simple technology that works for planning, promoting, implementing and evaluating programs just like yours.

Thursday's Mobile Technology Super Seminar is an exciting partnership with Epsilon Sigma Phi that you won't want to miss. Join 399 colleagues to hear from a Tech Executive on trends for the future, engage with a panel of our peers on practical ways they use technology in their programming, and try your hand at some challenging skill builders during this session. There are ways to get involved before and long after the session; just go to #ExtG4MobileSS on Facebook to be part of the action.

The fun doesn't stop at Galaxy because there are more opportunities to come as we explore other teaching and educational technology topics collaboratively. So the Google+ session was only the beginning. This is a great committee of regional representatives who care about your professional development, so get word to any of us and the state chairs as you think of ways we can better serve each other.

Finally, give yourself some credit. The input we've received and analyzed about technology use among our peers is rather impressive. There are so many great examples of simple ways that you and your neighbors are making today's technology work for you instead of the other way around. Plenty of excuses are offered about why folks aren't using new devices or updated applications, but most of the ones I've heard revolve around know-how or finding a place on the early adopter to laggard scale. This means that if we're willing to give some of these things a chance and to ask some questions to the right people, we can be part of some exciting innovations that are happening all around us and we can share these benefits with our clients.

Program Recognition Council Chair

JJ Jones, Oklahoma

It is the responsibility of the Program Recognition Council to oversee and conduct the numerous award programs offered by NACAA for its members. There are seven committees that make up the Program Recognition Council. Without these committees and the members that have stepped up to participate in the committee leadership, it would be impossible for the NACAA to offer such an award program.

In 2012-2013 these seven committees were chaired by: 4-H and Youth, Chris Penrose, OH; Communications, Sherri Sanders, AR; Professional Excellence, Keith Mickler, GA; Public Relations, Paula Burke, GA; Recognition and Awards,

Cynthia Gregg, VA; Scholarship, Rick Ensley, GA; and Search for Excellence, Dick Brzozowski, ME. These seven individuals along with the regional vice chairs and state chairs have put forth a lot of effort and time to make sure that the NACAA membership are recognized for their outstanding educational programming. These committees have made my third year as Program Recognition Council Chair an easy task. Dick Brzozowski and Ricky Ensley have completed their terms as national chairs. I would like to thank them for all of the hard work that they have done. Chris Penrose and Sherri Sanders have chosen to serve another term as the 4-H and Youth and Communications committee national chair.

These committees help the NACAA recognize the outstanding work that our members do for their respective states. Each year the committees go through hundreds of submitted entries to determine regional and national winners. This year has been exceptionally challenging due to the process of combining our typical AM/PIC with Galaxy. These committee members have worked extraordinarily hard to make sure that our members are recognized for their outstanding efforts. Without these members willing to take the time to perform these tasks the NACAA would not be able to have the outstanding awards program that it does.

Each year it is a challenge to fill vacancies within the national committees. Members should take a look at becoming a committee member. If any member is interested or curious about being a committee member and the time commitment, I encourage them to speak to the current committee members or attend the committee meetings during the AM/PIC. I think that they will find that the fulfillment of the committee work far outweighs the time commitment.

There are several categories of awards for which members can apply. Recognition is provided to those selected at the state, regional and national levels. Most awards carry a cash award as well as certificate and plaques. Members need to become familiar with these awards and apply. There is outstanding extension programming being conducted all over the U.S. Our membership needs to be encouraged to apply for these awards and be recognized for their effort.

As the last year of my council chair position comes to a close I can only reflect back and be gracious for the opportunity to serve as the Program Recognition Council Chair. This opportunity has been a challenge and a blessing at the same time. This role would be impossible if not for the excellent group of chairs and vice chairs that have helped with this council's duties. I would like to thank each member that has been a chair and vice chair for their time and hard work. Also, I would like to thank the NACAA board for allowing me to serve as the council chair.



Communications

Sherri Sanders, Arkansas

The communications committee is pleased to report that Bayer has continued sponsorship of the Communications Awards Program for 2013. 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.

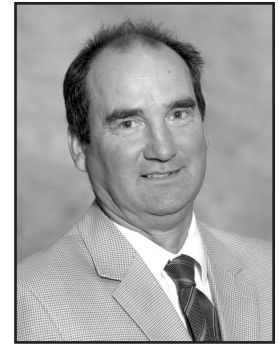
- *Audio recording had 35 entries
- *Published Photo and Caption had 35 entries
- *Computer Generated Graphics had 42 entries
- *Promotional Piece had 79 entries
- *Personal Column had 60 entries
- *Feature Story had 57 entries
- *Individual Newsletter had 53 entries
- *Team Newsletter had 38 entries
- *Video Recordings had 50 entries
- *Fact Sheet had 54 entries
- *Publication had 51 entries
- *Web Site had 37 entries
- *Learning Module had 21 entries
- *Bound Book had 20 entries

I am appreciative to the regional vice-chairs for the communication committee. The regional vice-chairs are: North Central Region Chair Gary Hall (Iowa), 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 JJ Jones and Scott Hawbaker for their assistance throughout the year with questions and concerns.

Search for Excellence

Richard J. Brzozowski, Maine

The current Search for Excellence (SFE) committee is comprised of four regional vice chairs and me. The regional chairs include Stanley McKee or Pennsylvania; Jesse Clark of Arkansas; Wendy Becker or Montana and Travis Harper of Missouri.



To get things underway for the 2013 SFE awards, our team held a meeting via a 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. We also confirmed the division of responsibilities as to the SFE categories each would lead. The responsibilities were as follows for 2013:

Landscape Horticulture – Jesse Clark

Livestock Production – Wendy Becker

Crop Production – Travis Harper

Young, Beginning or Small Farmer/Rancher – Richard Brzozowski

Remote Sensing & Precision Agriculture – Jesse Clark

Farm & Ranch Financial Management – Stanley McKee
Farm Health & Safety – Jesse Clark

Sustainable Agriculture – Richard Brzozowski

We checked in as a team again in March. Each regional chair was responsible for organizing the team of judges for their respective category(s); judging the entries and submitting scores to me by May 1, 2013.

All entries received and screened by the states were judged by early May and national and state winners were notified by mid-May. The number of entries per category was as follows:

Landscape Horticulture	6 completed entries
Livestock Production	8 completed entries
Crop Production	15 completed entries
Young, Beginning or Small Farmer/Rancher	10 completed entries
Remote Sensing & Precision Agriculture	6 completed entries
Farm & Ranch Financial Management	6 completed entries

Farm Health & Safety	5 completed entries
Sustainable Agriculture	10 completed entries

Several categories are low in the number of entries again this year. The Search for Excellence program is an important vehicle for individual and team recognition nationally as well as an effective vehicle for Extension colleagues across the country to obtain new programming ideas for possible application in their respective counties and states. We owe it to ourselves and our generous sponsors to have a robust and meaningful representation of programming for consideration and recognition. The NACAA leadership should consider why low participation in SFE is occurring in some categories and implement ways to increase participation. Individual members should consider submitting an entry in 2014. Entries may also be submitted by teams of two or more individuals.

Because AM/PIC will be held at GALAXY IV, the schedule of award luncheons had to be changed from the normal schedule. All eight luncheons will be held at the same time. This meant finding facilitators for three award luncheons. Volunteers from the Pennsylvania Association of County Agricultural Agents graciously stepped forward. The SFE committee met by phone in June to discuss how to effectively facilitate each award luncheon, recognize all winners and thank all sponsors.

Suggestions for 2014:

- It is evident that the Search for Excellence program continues to be underused and perhaps underappreciated by NACAA members. The entry process of submitting work is not difficult. It is probably easier to assemble SFE entries than many reports that members are currently writing for their accomplishments and work. The number of entries submitted in each of the eight categories should be increased. I recommend we (the committee and NACAA) do a better job of promoting the SFE program and in recruiting members to enter projects and programs. This might mean using a targeted approach of articles, special email messages and setting state targets.
- It continues to appear that not all SFE state contacts know what to do with entries in making sure they are received and complete. Because state SFE chairs may change each year, the regional vice chairs need to check in with state contacts early in the year to help them understand their role. Scoring all entries is also a weakness for some states.

Thanks:

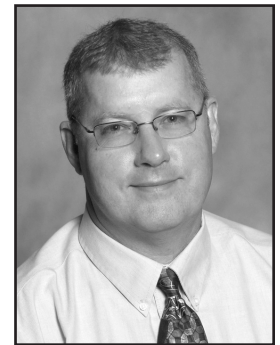
- Thanks to each state chair for their efforts in promoting SFE among members and selecting state winners.
- Thanks to each Regional Chair for performing effectively this past year. This was not an easy task for them especially during one of the busiest times of their year in Extension work.

- Thanks to all those who served as judges. Judges for each category included NACAA members as well as non-members.
- Thanks to Program Recognition Council Chair, JJ Jones of OK for his support and encouragement during the process. JJ always had thoughtful and accurate answers to the questions I posed.
- Thanks to NACAA Executive Director, Scott Hawbaker for his support and encouragement to me with problems and situations that arose with entries and other related situations.

Everyone with whom I have dealt has been supportive in this process.

4-H Youth Recognition

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 21 entries for awards this year, up from eight last year. One task the committee worked on the past year was to increase the number of entries for awards and the committee was successful in that effort.

The committee was able provide eight awards this year. We had four Regional Finalists, three National Finalists and our National winner is Brenda Jackson, from Georgia. Brenda will present her winning program at the awards luncheon at Galaxy. All eight of the award winners will attend the awards luncheon at Galaxy to be recognized.

Another charge of the committee was initiated four years ago when the committee proposed, and the board approved, the establishment of the Excellence in 4-H Program Workshop. Due to the Galaxy Conference this year and all the program areas participating at the conference, the Excellence in 4-H Program Workshop will not be held. Members had the ability to submit 4-H program presentations through the Galaxy Conference this year. The program will resume next year for the AM/PIC in Mobile.

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

The Professional Excellence committee is responsible for organizing the poster session at the AM/PIC. The poster abstracts are reviewed by the Vice Chairs and Chair; numerous judges are secured so that all posters are peer reviewed at the AM/PIC.



NACAA endorses the poster session as a very important method of presenting Extension Programs and Applied Research results to members. Syngenta Crop Protection is the sponsor for 2013 awards luncheon. All posters abstract were submitted on-line with lead authors being notified that their abstracts were accepted or rejected.

Poster abstracts were peer reviewed at the regional level by Regional Vice-Chairs. Thanks for a job well done! The current regional Vice Chairs are Ron Meyer, Western Region; Brian Cresswell, Southern Region; Mike Haberland, North East Region; and Jefferson McCutcheon, North Central Region.

This year, we had 90 abstracts accepted for the Galaxy IV meeting in Pittsburgh PA. There were 23 entries in the Applied Research category and 67 entries in Extension Education programs. Summary sheets listing poster authors and titles will be prepared and distributed to all Galaxy attendees at the poster session so you can easily find posters that may be of interest.

Due to the AM/PIC being a combined meeting of all associations at Galaxy, posters will be displayed a little differently than in the past. The Extension Education poster will be displayed on Tuesday, September 17 from 8:00 am until 5:00 pm and the Applied Research poster will be displayed on Wednesday, September 18 from 8:00 am until 5:00 pm., check the galaxy program for times on “Meet the Author.”

Copies of the judging score sheets and criteria are posted on the website for participants to consider prior to preparing abstracts and posters. Judges’ scores will also be shared with participants in an effort to improve future posters.

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 three or four posters from each group will then be evaluated by additional judges to select the top poster recipients in each category! Awards will be presented at the AM/PIC Poster Session luncheon on Thursday, September 19 at 12:00 pm. The top three posters in each category received cash awards and plaques, the regional winners received a certificate and the remaining top 20% received finalist recognition ribbons.

We thank the volunteers that will be helping judge poster at Galaxy. Without your help, we could not accomplish the task at

hand. I also want to thank our state and regional Professional Excellence Committee Chairs for the job they have done. The Professional Excellence committee has to set up the Poster Session, organize, judge, and recognized the winners in a span of three days. It takes a lot of dedication and hard work to make this happen, and without the Vice-chairs this would not happen.

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 18 entries this year, which was up from 10 in 2012. 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 Mickey Cummings from Georgia, who is the A4 program National winner. Mickey will present his winning entry on the Union County Farmers’ Market during the A4 awards recognition luncheon. Congratulations also go national finalists Carol Schurman from Pennsylvania, Joanna Coles from Kentucky, and Monica Kilcullen Pastor from Arizona. Regional finalists are Amanda McNulty from South Carolina and Don McMoran from Washington.

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

The Public Relations committee is looking forward to having entries from all of the four regions in 2014. The Public Relations committee challenges each of you to submit an entry in the NACAA awards programs especially A4.

A special thank you to Central Garden & Pet Company for sponsoring the Agriculture Awareness and Appreciation Award this year.

Recognition and Awards

Cynthia L. Gregg, Virginia

I would first like to say thank you to the NACAA Board and Membership for the honor and privilege of serving as the National Chair of the Recognition and Awards Committee for the first year of my second term. I would like to say Thank you to the members of the Recognition and Awards Committee: Chet Hill, North Central Region Vice-Chair; Ronnie Helmondollar, Northeast Region Vice-Chair; Kevin Lyons, previous Southern Region Vice-Chair; Keith Perkins, who stepped in as Southern Region Vice Chair; Kurt Nolte, Western Region Vice-Chair and all of the State Chairs. You did an amazing job this year! I would like to say Thank you and express much appreciation to all of the State Chairs and Presidents, you make the Achievement Awards, Distinguished Service Awards, and the Hall of Fame Awards the premier awards they are and maintain such a strong foundation for these prestigious awards for NACAA. Thank you for all you do for your respective states and for NACAA.



On Tuesday Morning, 57 Achievement Award recipients will receive their awards at a Breakfast in their honor. This is the thirty-ninth year that NACAA has presented this award with this year's recipients joining 1,875 fellow Achievement Awards winners. This year's winners were based on two percent of the Membership of their respective states as of February 15. The 2013 Achievement Award winners have provided quality programming for their clientele, have respect of co-workers and have accomplished this in less than 10 years. A special thank you goes to NACAA President Paul Craig and American Income Life's Bill Viar, who will assist with the awards presentation on Tuesday morning. We anticipate several Regional Directors and State Chairs to be in attendance as well.

This year in Pittsburgh, the Committee is once again responsible in the awarding of the Hall of Fame Awards for the eighth year. The four outstanding Hall of Fame winners will receive their awards on Thursday evening during the Annual Banquet. The recipients have received many awards of achievements during their careers and beyond in assisting their clientele, along with fellow agents and specialists of the Extension Programs in their respective states and regions of the country. They have extensive achievements and provide 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-sixth year to present the Distinguished Service Award. Thursday evening at the Annual Banquet the Distinguished Service Award will be presented to 59 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 2013 and join 7,034 past recipients. The members 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 Committee wishes to express a special thank you to the sponsors of the Awards that will be given during Galaxy IV. Thank you to Deere and Company for their sponsorship of the Hall of Fame award for the eighth year. We want to express our appreciation for the continued support of the Achievement Awards Breakfast by American Income Life Insurance Company for forty years and they have provided sponsorship for forty-five 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 like to express the Recognition and Awards Committee's Congratulations to all of the Achievement Award, Distinguished Service Award and Hall of Fame Award winners this year.

It has been a busy year for the Recognition and Awards Committee. We have continued to work on electronic submission of all three awards: Achievement Award, Distinguished Service Award, and Hall of Fame.

I would be remised if I also did not thank the NACAA Board, President Paul Craig and the Regional Directors along with Program Recognition Council Chair JJ Jones 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 very much appreciated by the Recognition and Awards Committee. Thank you also goes to the Pennsylvania Agents along with the Galaxy Committee for an upcoming wonderful meeting.

To the NACAA Members, the Recognition and Awards Committee National Chair, Regional Vice-Chairs, and State Chairs would like to encourage you to continue providing recognition for the outstanding extension educators in your respective states. In your state association you have members who you can nominate 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 you do, as you do make a difference in your communities, counties, parishes, areas, states, and regions.

Scholarship Committee

Ricky Ensley, Georgia

I would like to say a big thanks to the NACAA Board and Membership for the honor and privilege of serving as the NACAA Scholarship Chair for the past 2 years. I would like to thank the members of the Scholarship Committee:



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.

You did a great job this year!

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

\$100 - \$249

Scott Gabbard, Chris Mondak, Sherilyn, D. Hoyer, Sorrel Brown, David W. Baker, Frank Albertsen, Delta George, John Fech, Dennis Kahl, Bradley T. Brummond, Alan Sundermeier, Richard Brzozowski, Kathryn M. Hopkins, Virginia Rosenkranz, Audrey Reith, Robert Pollock, Emelie Swackhamer, Ronald W. Britnell, David E. Derrick, Paul L. Mask, Jerry Clemons, Elizabeth Felter, Elena M. Toro, M. Brent Allen, Paul M. Bullock, Clay Talton, Paula J. Burke, Greg Henson, James W. Burkhalter, Dean Jousan, Art Bradley, Keith Walters, Sam Groce, Steve Meadows, Thomas J. Bryson, Patricia E. Dehond, Sandy MacNab.

\$250 - \$499

Nicholas Polanin, Dwane L. Miller, Rex Herring, Terry Delvalle, Jule-Lynne Macie, Wade Hutcheson, Donna Hamlin Beliech, Eileen A. Coite, Charles W. Davis, Jr., Roy Walston

\$500 - \$999

Stanley J. Moore, Henry D. Dorough, Wes Smith, William A Hogan, Jr. Fred Miller, Delbert E. O'Meara.

\$1,000 - \$2,499

Sherry Beaty

\$15,000 and over

Eddie R. Holland

The Scholarship Committee has been working with state scholarship chairs to encourage donations to the scholarship fund .

The NACAA Scholarship criteria states:

Members need to be vested at \$40 in the scholarship fund to be eligible for up to \$1,000 in scholarship awards.

- Members need to be vested at \$100 in the scholarship fund to be eligible for up to \$2000 in scholarship awards.

No more than \$1000 can be awarded within any year.

This year ten scholarship applications were submitted to the Scholarship Committee that will be reviewed at the Galaxy IV meeting.

Journal of the NACAA

Stephen Brown, Alaska



I am pleased to have been asked by the NACAA board to serve another 3-year term as the National Chair and Editor of the Journal of the NACAA. It is an honor for me to work with our numerous authors and the National Peer Reviewers that make our journal possible. I have heard many times that publishing in the journal or serving as a reviewer made the difference in a promotion or tenure review.

The journal now 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 2012/2013 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 Harty – 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 thanks go to NACAA officers and board for permitting my continued endeavor of representing our association on the Extension Journal Inc. Board. The Extension Journal Inc. offers two products, The Journal of Extension and the National Job Bank. However we are better known as JOE.

I am currently serving my last of four year as treasurer for the Extension Journal Inc. Just like Cooperative Extension one of the most important foundations is marketing of who we are and what we provide. We need all of academia to realize that the Journal of Extension is not average journal. The Journal of Extension is a scholarly, double-blind peer reviewed online journal representing the best of Cooperative Extension across the nation.

Publishing in JOE is not a tranquil task nor should it be. 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 an enormous achievement towards tenure and/or promotion.

As of July 15, 2013 -151 submissions were received for 2013 and reviewed with 15% being rejected as unsuitable for JOE, 32% returned to author for revision and 53% accepted for publication. Currently there are 105 accepted submissions waiting to be published. JOE is published six times per year.

Another product of the Extension Journal Inc. 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.

Check out the JOE website at <http://joe.org> .

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 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.

2013 NACAA

98th Annual Meeting and Professional Improvement Conference Schedule

Sunday, September 15, 2013

12:00 PM - 8:00 PM Galaxy Registration
3:00 PM - 5:00 PM NACAA Council Workshop
3:00 PM - 5:00 PM NACAA Nominating Committee
3:00 PM - 5:00 PM NACAA Vice Directors Mtg.
3:00 PM - 5:00 PM NACAA Scholarship Committee Mtg.

Monday, September 16, 2013

8:00 AM - 8:00 PM Galaxy Registration
6:00 AM - 5:00 PM Professional Improvement Tours
4:00 PM - 6:00 PM First Timers Event
4:00 PM - 6:00 PM Life Members Networking Event
5:00 PM - 9:00 PM Galaxy Welcome Event on the Gateway Clipper
9:00 PM - 11:59 PM Dance

Tuesday, September 17, 2013

7:00 AM - 9:00 AM Breakfast on Your Own
7:00 AM - 8:00 AM NACAA Achievement Award Breakfast
7:00 AM - 8:30 AM NACAA Committee Members Breakfast
8:00 AM - 6:00 PM Galaxy Registration
9:00 AM - 9:30 AM Opening Session- Welcome
9:20 AM - 11:00 AM Keynote Address
9:30 AM - 2:00 PM Spouse/Youth Seminar - National Aviary
11:00 AM - 11:45 AM NACAA Committee Meetings
11:00 AM - 1:00 PM NACAA State Officers Workshop
11:00 AM - 1:00 PM Box Lunch
12:00 PM - 1:00 PM NACAA Search for Excellence Luncheons
12:00 PM - 1:00 PM Dedicated Exhibitor Hours
12:00 PM - 6:00 PM Poster Session I
12:00 PM - 6:00 PM Silent Auction Bidding Begins
1:00 PM - 5:00 PM Concurrent Sessions 1-4
5:00 PM - 6:00 PM Dedicated Exhibitor Hours
6:00 PM - 10:00 PM Pittsburgh Pirates Baseball Game
6:00 PM - 10:00 PM State's Night Out

Wednesday, September 18, 2013

6:30 AM - 7:30 AM NACAA Delegate Breakfast
7:00 AM - 9:00 AM Breakfast on Your Own
8:30 AM - 10:30 AM NACAA Regional Meetings
8:00 AM - 6:00 PM Galaxy Registration
8:00 AM - 4:00 PM Silent Auction Bidding Continues
9:30 AM - 5:00 PM Spouse Tour - Heinz History Museum
9:30 AM - 3:30 PM Youth Tour - Carnegie Science Center & Highmark SportsWork
10:15 AM - 10:45 AM National Institute of Food Agriculture (NIFA) Presentation - Know Your Farmer, Know Your Food (KYF2)

10:45 AM - 11:30 AM General Session & Ruby Lecture Presentation Sponsored by ESP
11:00 AM - 1:00 PM NACAA SARE Fellows Workshop/Luncheon
11:00 AM - 1:00 PM Box Lunch
11:30 AM - 4:30 PM Life Member Tour - Duquense Incline, Grandview Saloon, National Aviary
12:00 PM - 1:30 PM Dedicated Exhibitor Hours
12:00 PM - 5:00 PM Poster Session II
12:00 PM - 1:30 PM ESP Ruby Banquet
1:30 PM - 5:30 PM Concurrent Sessions 5-8
3:00 PM - 5:00 PM NACAA Delegate Session
4:00 PM Silent Auction Bidding Closes
5:30 PM - 8:00 PM Live Auction & Dinner Style Reception
8:00 PM - 10:00 PM Galaxy IV Dance

Thursday, September 19, 2013

8:00 AM - 9:00 AM Continental Breakfast
8:00 AM - 9:30 AM Dedicated Exhibitor Hours
8:00 AM - 4:00 PM Galaxy Registration
8:00 AM - 12:00 PM Poster Session III
9:00 AM - 10:00 AM Special/Super Seminars
ECOP Session, Part I - The Importance and Significance of Smith Lever to Extension Today
9:30 AM - 3:00 PM Pittsburgh Zoo and Aquarium
10:00 AM - 11:00 AM Special/Super Seminars
ECOP Session, Part II-The Skills and Attributes of 21st Century Extension Professionals
10:30 AM - 11:30 AM Dedicated Exhibitor Hours
11:30 AM - 12:30 PM NACAA Life Members Luncheon
11:30 AM - 12:30 PM NACAA Professional Excellence Luncheon
12:00 PM - 1:00 PM NACAA Communications Award Luncheon
12:00 PM Exhibit Hall Closes
1:00 PM - 3:00 PM Concurrent Sessions 9-10
5:00 PM - 6:00 PM Association Receptions
6:00 PM - 9:00 PM NACAA DSA Awards Banquet
10:00 PM - 11:00 PM NACAA Post Banquet Reception

Friday, September 20, 2013

8:00 AM - 12:00 PM Galaxy Registration
9:00 AM - 11:00 AM Galaxy Brunch
11:30 AM - 12:30 PM Closing Session

Poster Session

Applied Research

2013 NACAA

98th

Annual Meeting

and

Professional Improvement Conference

Pittsburgh, Pennsylvania

INVESTIGATION TO DETERMINE EXPOSURE OF URBAN BACKYARD GARDENERS TO HEAVY METAL CONTAMINANTS

Michele Bakacs, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Carol Baillie, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Brian Buckley, Rutgers University, Environmental and Occupational Health Sciences Institute

Beth Ravit, Rutgers University, Center for Urban Environmental Sustainability

Urban soils often have high lead (Pb) levels due to contamination from lead based paint, and emissions from leaded gasoline. The consumption of produce grown in Pb contaminated soil may pose a health risk to urban gardeners. In New Brunswick, New Jersey many Latino immigrants grow culturally important vegetables and herbs directly in the soil of their yards. Soil testing on these backyard gardens has shown significant Pb contamination. However, Pb bioavailability under local soil conditions is not known, nor is the rate that popular herbs and vegetables are taking up Pb. In light of the potential health risks associated with Pb, it is important to understand what chronic long-term dietary Pb exposure New Brunswick gardeners may be experiencing. In 2012, Rutgers researchers, in collaboration with local community groups, began to investigate Pb uptake rates of locally popular garden produce and develop a human risk assessment based on a typical New Brunswick Latino diet. Utilizing contaminated soil from five New Brunswick backyards, three popular herbs (papalo, ruda, and cilantro) and two popular vegetables (chile de arbol and tomatillo) were planted in the Rutgers greenhouses. Three pots per species were planted using soil from the same yard. Two plants of each species were also planted in pots using control soil (soil from a New Brunswick yard with low lead concentrations). Plant tissue analysis was conducted to determine lead uptake by individual species. Results of the lead uptake analysis will be presented. Next steps include developing a dietary risk assessment based on typical consumption of the popular foods composed of the herbs and vegetables analyzed. The risk analysis will be used to develop best gardening practices that minimize potential Pb exposure through various ingestion pathways. Lead contaminated garden soil is a ubiquitous problem in urban communities across the nation. Other Extension professionals that deal with lead education and remediating urban garden sites will benefit from learning about the results of this research project as well as the methodology used to determine risk associated with gardening in contaminated soils. Extension agents need to insure that we are developing programming and research projects that address the changing demographics within our communities. This research project aims to help develop Extension programming that will educate the Latino immigrant community on safe gardening practices, thereby

relating directly to the new era of Extension theme of the Galaxy meeting.

INCREASING FORAGE PRODUCTION WITH RYZUP SMARTGRASS ON FESCUE PASTURE

Chris L. Bruynis, Ohio State University Extension

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Following the summer drought of 2012, cattle producers in Ohio were looking for options to grow additional forage. This research was designed to determine the effects of gibberellin (Ryzup SmartGrass) on short term pasture production in late fall when grasses typically do not grow as rapidly. A fescue pasture at the Ohio Agricultural Research Station in Jackson Ohio was selected for use in this research. Cattle had just been removed from the pasture which was actively growing and with little thatch. A random block research plot containing three replications was used to compare the treated verses untreated strips. Application of 15 gallons of water, 0.4 oz RyzUp SmartGrass, and crop oil concentrate was applied to the treated strips. Soil test showed that the pH was 6.2, phosphorous 19 ppm, and potassium 144 ppm. No additional fertilizer was applied during the research trial. Pasture mass (yield) was measured collecting 30 readings per strip using a calibrated rising plate meter both pre application and 29 days later in all plot strips. Plots treated with RyzUp SmartGrass yielded an additional 397.46 pound of dry matter (LSD 320.43, p=0.05) per acre over the non-treated check strips. Adjusting the additional forage to 88% moisture, the gain equals an additional 451.66 pounds of hay. Estimating the value of fescue hay at \$80.00 per ton, this would have an additional value of \$18.00 per acre. The cost of the RyzUp SmartGrass with application was estimated at \$8.00 resulting in a net gain of \$10.00 per acre for this research results.

SOYBEAN YIELD RESPONSE IN 30 INCH ROWS AT VARYING PLANT POPULATIONS DURING A DROUGHT YEAR

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Farmers are presented with soybean seeding rate decisions annually with those decisions being made before knowing if the growing season will experience drought stress. According to the Ohio State Climatologist, NW Ohio experienced drought conditions 4 out of 10 years during 2003-2012. This study conducted in 2012 shows the yield response of soybean seeding rates under severe drought conditions. A plot was established in a randomized complete block design with five different planting population treatments per acre (80K, 100K, 140K, 180K, 220K). Treatments were replicated six times and planted, May 14. Each treatment

area was four 30-inch rows measuring 10 feet wide by 30 feet long. Stand counts were conducted when soybeans were at VE/VC growth stage on May 31 and repeated on June 8 at V1 growth stage. Plots were harvested with a small plot combine with an on-board calibrated scale to determine yield measurements. Yield from the lowest planting population of 80,000 seeds per acre was significantly lower than planting populations of 100,000 and 220,000 seeds per acre. There was no significant difference in yield of the four highest planting populations. The differences between target and actual populations were large. Actual populations at V1 for treatments 80,000, 100,000 and 140,000 were 53%, 59% and 56%, respectively, of the target population. Rainfall shortages during emergence are believed to have reduced actual stands of all treatments. The planting population of 100,000 seeds per acre showed the highest net return (\$875.30/acre) because of the highest yield (70.1bu/acre) and lower relative seed cost (\$36/acre). Overall yields for the field were excellent for a drought year that was six inches short of normal rainfall. Late season rainfall, especially in August and September, was timely to support critical yield producing periods of the soybean growing season.

CONTROLLING WIREWORMS WITH THIAMETHOXAM INSECTICIDE IN WHEAT

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Wireworm (*Limoniusspp.*) populations and crop damage increased in wheat (*Triticum aestivum L.*) production across eastern Washington. At the inception of this project thiamethoxam, a seed applied neonicotinoid insecticide for wireworm control, was used primarily at 0.07 g ai/100 kg. The goal of this project is twofold;

1. to determine if increased long-term use of higher rates of thiamethoxam can improve yield and reduce wireworm populations, and
2. to determine if incorporating no-till fallow into the rotation can reduce wireworm populations.

In 2008 an on-farm test (OFT) was established near Davenport, WA to examine spring wheat treated with 0, 10, 20 and 39 g ai thiamethoxam/100 kg impact on grain yield and economic return over costs. A no-till fallow system was also included as a treatment. In 2009 a second OFT was established near Wilbur, WA. The OFT were maintained four years with the treatments being sequential each year. Both locations were randomized complete block designs with four replications. Wireworm populations were measured by placing four modified solar bait traps in the plots each spring (April) prior to seeding. Within the insecticide treatments, a significant location x treatment interaction was detected.

At the location near Davenport, yield and economic return over costs was increased 30 and 24 percent. However, wireworm populations were not significantly different among insecticide treatments. At the location near Wilbur, yield and economic return over costs were increased only four percent and wireworm populations decreased 80 percent with increased insecticide rate. Some of this interaction may be related to the wireworm species present. At Davenport *Limoniusspp. californicus* (Mannerheim) is the predominate species and at Wilbur *Limoniusspp. infuscatus* (Motschulsky) is the predominate species. Within the no-till fallow system, a significant location x treatment interaction was not detected meaning both locations had a similar response. Overall at both locations, incorporating a no-till fallow system into rotation averaged 53 percent less wireworms than a spring wheat cropping system with seed applied insecticides.

MEASURING SOIL QUALITY AND COMPARING NUTRIENT TESTING METHODS IN MAINE HIGH TUNNELS GROWING TOMATOES

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There is little research available about soil quality in high tunnels, and nutrient recommendations often rely on soil testing methods developed for field conditions. This study evaluated soil quality and soil and plant nutrient levels in 29 high tunnels used to grow tomatoes. The tunnels varied in age, and 66% a year or less old. All but one of the tunnels had received compost or manure between the fall of 2010 and late summer 2011. Soil samples were collected between June and August 2011 and were analyzed for soil quality parameters and nutrients using standard soil test methods and saturated media extract (SME). The saturated media extract method has been suggested as an appropriate method of evaluating nutrients in long-term high tunnels. Tomato leaf samples were collected from 22 of these tunnels at least 28 days after the soil samples were collected.

Most soils had organic matter and potentially mineralizable N levels above optimum (48% and 50% of samples, respectively). Seventy-two percent of soils had optimum levels of soil biomass/active carbon. Most soils had below optimum plant-available water (86 % of samples) and water-stable aggregate levels (72%).

The majority of soils had optimum pH (6.0-7.0), although 17% were below 6.0. Fifty-nine percent of soils had pH below 6.5, a level below which tomato production may be reduced. All soils had salt levels below the recommended threshold of 3.5 mmohs/cm, although 17% had levels above 2.5 mmohs/cm, which can be detrimental to some crops.

Results from standard soil test, SME, and foliar methods were compared for the 22 tunnels that included all these

analyses (21 samples for nitrate-N and %N measurements). Standard soil test methods showed that most soils had above optimum levels of nitrate-N (76%), P (73%), and K (59%). Most soils had optimum levels of Ca (64%) and Mg (64%). However, using the saturated media extract, most soils tested below optimum for nitrate-N (62%), P (100%), K (86%), and Ca (82%) and within optimum levels for Mg (55%). Given the constraints of the study, we cannot determine which analytical method and recommendation levels better predict yield. However, foliar nutrient levels provide a limited view of whether or not the plant had adequate levels of nutrients available. Most foliar samples had below optimum levels of N (68%) and P (82%), mirroring the SME results. For K, most foliar samples showed optimum (50%) or below optimum (45%) levels, results which are similar to the below optimum SME results. Foliar calcium levels were mostly above optimum (82%), unlike either soil method. Foliar Mg levels were mostly optimum (86%), similar to standard soil levels. The differences in number of optimum samples with different methods could be the result of the methods extracting different pools of a nutrient, with one better estimating plant-availability during the season. Or, they could be the result of more or less appropriate definition of optimum ranges. Further research is needed to identify which methods are most appropriate.

HELIOTHIS MOTH TRAPPING IN PHILLIPS COUNTY ARKANSAS

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HeliothisMoth Trapping inPhillipsCounty Arkansas Cotton production in Phillips County Arkansas is a major crop for the producers of the county. To assist producers in making decisions in controlling bollworms (*helicoverpa zea*) and tobacco budworms (*Heliothis virescens*) an annual series of moth traps were established to sample populations of each species during the growing season. While this knowledge was established primarily for cotton, an added aspect has been found to aid producers in control of heliothis species in both soybeans and corn. The overall purpose of this project was to see if an increased moth count could be predicted by using historical data. This information would allow both local suppliers and producers to be more aware of the situation as well as being prepared ahead of time to react to this increased populations. A series of 18 sets of traps was established for each species at approximately the same location in the county for three growing seasons. Data was gathered and analyzed from 2010 to 2012 to try to predict the peak flight period of both bollworm and tobacco

budworm moths. Initial examination showed increase activity for bollworms around early July each year, with an added peak (but smaller) later on in the month. Tobacco budworm moth flights have increasing numbers in late July for all three growing seasons. By knowing the general time period of increased moth populations, recommendations can be made by local Extension agents and area consultants to promote higher profitability in area cotton fields. The knowledge of this timing will also benefit other Extension agents in cotton growing areas as well as other grains to assist with Integrated Pest Management decisions concerning Lepidoptera control. This program will continue Phillips County to provide information to local producers to assist in making management decisions.

ECONOMIC AND BIOLOGICAL IMPACT OF COMPANION CROP PLANTED ONIONS AND NON-COMPANION CROP PLANTED ONIONS ALONG THE FRONT RANGE OF COLORADO

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Onion production across the United States has been impacted by Iris Yellow Spot Virus (IYSV) which is vectored by the onion thrips (*Thrips tabaci*). Reducing thrips populations can sometimes help reduce infection rate of IYSV in onions. In Colorado, companion crops (living mulch) such as barley and spring wheat planted with onions to reduce wind and water erosion, has sometimes had an effect on thrips populations. The objectives of this study were to determine:

1. which thrips predators and parasites inhabit the barley or spring wheat companion crop and what other insects/arachnids dwell in this living mulch,
2. if there is a relationship between the densities of predators/parasites and thrips populations,
3. if there is a relationship between thrips populations and IYSV incidence and severity, and
4. if there is a relationship between predator/arachnids populations and onion market yields.

Two farm locations had both companion crop and non companion crop treatments replicated four times. Up to six beneficial predator and parasite families and seven plant feeding arthropod families were identified from the two field locations. At both locations there were numerically more thrips and beneficial arthropods in the companion crop treatment compared to the non companion crop treatment. There were significantly more beneficial populations in the

companion crop treatment than the non companion crop treatment at one field location. There was a positive trend between thrips populations and IYSV incidence at both locations. There were no significant differences in thrips per plant, incidence or severity of IYSV, nor onion market yields between the companion crop treatment and the non companion crop treatment at either location. This study also showed that low field population levels of IYSV carrying thrips can have a significant effect on IYSV incidence and severity.

LAKE AERATION TO BREAK UP THERMAL STRATIFICATION AND REDUCE CYANOBACTERIA BLOOMS

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In eutrophic lakes and ponds, conditions of warm, calm water with elevated nutrients, can cause photosynthetic blue-green algae (cyanobacteria) to increase dramatically. These “blooms” may be visible as floating scum that resembles blue, green or even red paint on the surface of the water. Blue-green algae can spoil water quality producing pungent odors or a thick scum, affecting recreational use, reducing oxygen levels, as well as impacting other plants and animals in the water. When these cyanobacteria respire they use oxygen that can alter the balance of the ecosystem to the point of causing fish kills. Decomposition of the bloom also consumes oxygen in the pond. In addition, some species produce toxins that can cause human, pet or livestock illness. The 5 acre Hopkins Pond located in Haddonfield, New Jersey, part of the Camden County Parks System, experiences intense blue-green alga blooms due to thermal stratification, and eutrophication caused by excessive nutrients. Increased nutrients enter the pond as runoff from nonpoint sources such as fertilized lawns or recreation fields, soil erosion, allochthonous material, or from bottom sediments. High phosphorous and low nitrogen levels lead to blue-green algae blooms during warmer, sunny weather with little wind. This pond was fitted with a Hydro Logic “Airlift” diffused air aeration system designed to maximize the water lift rate and transfer rate of dissolved oxygen by the release of bubbles ranging in size from 500 to 100 micron in diameter along the pond bottom. The rise of bubbles to the lake surface draws bottom water along with them creating an artificial circulation. This circulation mixes water that otherwise would thermally stratify, increasing the dissolved oxygen content throughout the water column. By oxygenating deeper waters near the sediment, there may be a decrease in the release of phosphorous from the sediment. The circulation also keeps blue-green algae moving through the water column and doesn’t allow it to reach nuisance conditions.

DAIRIES UTILIZING HIGH STOCK DENSITY GRAZING IN THE NORTHEAST

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High density stock grazing (i.e. mob grazing) is a practice that is being evaluated and used by experienced and new grazing dairy farmers. We have since learned that most dairy farmers call mob grazing, “high density stock grazing”. The cattle are grazing pastures higher and leaving higher grass residuals, while the farmers are still striving for high quality forage. High density stock grazing is a very new practice in dairy production and the study captures some of the ground-level practices of the innovative farm families. There is very little research-based information for farmers, extension personnel and conservation professionals to use. Each farm has resource challenges and opportunities that impact the ability to use this type of grazing. Our goal was to collect pasture data and interview the farmers to understand their management goals and practices. We developed a sampling protocol and questionnaire. The questionnaire was used to capture a variety of responses from 5 farm families. This information included indicators of profitability, sustainability and community. Case studies will be developed in winter 2013 and are designed to create a “snapshot” of the farms. Outreach will be conducted in the growing season of 2013. Pasture data was taken in advance of cattle grazing a paddock. Data includes grass height, BRIX measurement, forage analysis, botanical composition, soil testing and soil bulk density. Measurements are being evaluated the winter of 2013, with additional measurements being taken in spring of 2013. Outcomes for behavior change will be monitored by evaluating participants at the proposed field day and other items. The project assisted 4 partners to work in a collaborative fashion and would benefit their own understanding of this practice by innovators.

ANIMAL HEALTH PRODUCT HANDLING AND MANAGEMENT IN IDAHO

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A comprehensive vaccination program is a key component of maximizing production efficiency and minimizing production losses in beef cattle herds. A well planned and implemented vaccination program leads to reduced morbidity and mortality rates, reduced treatment costs, and improved gains. Additionally, Federal Regulatory Code states that biological products shall be protected at all times against improper storage and handling, including improper refrigeration temperatures. This code further states that biological products shall be considered worthless after the expiration date has passed. Studies conducted in Arkansas and Nevada identified problems with vaccine storage and handling, which could ultimately lead to vaccine failure. These problems included being set improperly, temperature variations in the function of the refrigeration unit, variability due to location, poor maintenance of the unit, etc. Such variations lead to incorrect storage conditions for animal health products which may ultimately compromise the effectiveness of the product. Chute-side practices can also affect vaccine efficacy. Ineffective animal health products may affect the quality of beef delivered to the consumer. Animals vaccinated with ineffective products are more likely to become sick and need antibiotic treatment. Stress caused by disease/sickness can reduce carcass quality. Idaho beef producers and animal health product retailers participated in a study to gather data on the handling and management of animal health products. Data loggers were placed in 176 refrigerators (129 producers and 47 retailers), recording temperatures in 10-min intervals for a minimum of 48 h. The approximate age, type, and location of the producers' refrigerators were recorded, along with where the products were stored in the refrigerator. An inventory of each producers' refrigerator was taken with expired and opened products recorded. Most producers were careful to store vaccines in refrigerators however, only one-third of the producers' refrigerators maintained the recommended temperature range of 2 to 7°C >95% of the time. Additionally, approximately one-third (32.6%) of the producers' refrigerators maintained the recommended temperature range <5% of the time. Thirty-four percent of the retailers' refrigerators were within the recommended temperature range >95% of the time, and 17.0% were in the range <5% of the time. In addition to temperature readings and refrigerator characteristics being documented, surveys of producers and retailers were also conducted. The producer surveys showed 93.8% of producers used the neck area of beef cattle for injections, 87.6% mixed modified-live vaccines as-needed and protected them from sunlight, while 93.8% kept vaccines in a cooler. The retailer survey showed 44.0% had thermometers to monitor refrigerator temperatures, and 41.0% did not monitor their refrigerators. Sixty percent of retailers trained their employees to handle animal health

products and 67.0% trained their employees to answer questions about animal health products. 67% of rancher refrigerators and 66% of retail refrigerators tested failed to maintain temperatures within the recommended range for vaccine storage. Hard data regarding animal health product storage and management should positively influence Idaho cattle producers to improve "on ranch" practices. Improved practices should lead to more effective use of animal health products, result in fewer disease/sickness problems, and improve beef carcass quality.

PROGRAM EVALUATION BEHAVIORS, ATTITUDES AND SKILLS OF COOPERATIVE EXTENSION AGRICULTURE AND RESOURCE MANAGEMENT PERSONNEL IN NEW JERSEY

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Cooperative Extension is facing an era of increased need to demonstrate to traditional and new funders our relevance, impact and return on investment. A survey of Rutgers NJAES Cooperative Extension's agricultural and resource management field faculty and staff was conducted to determine their program assessment and evaluation behaviors, attitudes and skills. The objective of the assessment was to identify educational training and resource needs to enhance skills and increase efficiency of conducting various types of program assessment and impact evaluation. The results indicated that during a prior 12-month period 79% conducted some level of program evaluation. Most frequently evaluations measured "end of event" reactions and changes in knowledge, skills, attitudes or aspirations (KASA); less frequently were participants contacted to assess changes over time in KASA or long term conditions. In practice, survey respondents indicated the realities of actual program evaluation behaviors. Fifty-three percent (53%) indicated they usually drag their feet about doing program evaluations, and 30% agree or strongly agree that doing program evaluation takes time away from the "real" work of Extension. A strong majority (65%) believes Extension professional's performance assessments should include criteria related to program evaluation, and 71% believe there are consequences (personal, professional or programmatic) in not doing program evaluation. Survey recipients were asked about their confidence in conducting various levels of evaluation. Eighty-seven (87%) percent were moderately or very confident in conducting program participant reaction evaluations, 69% for KASA assessment at the end of an educational event, 51% for time delayed post-test KASA evaluation, 51% for measured changes in behaviors or practices, and only 36% for measured changes in long term conditions. The majority of respondents indicated that time prioritization issues (44%) was the greatest barrier to performing program evaluations. Nearly 90% sought information on program evaluation over the

past year. Survey respondents expressed the desire to learn more based on their current skill level, and expressed that they “need a bit more skill” on 9 of 12 practices, including conducting needs assessments, writing measurable objectives, developing evaluation plans, selecting evaluation methods, developing a survey instrument, choosing sampling techniques, analyzing evaluation data, using evaluation results, and preparing evaluation reports, while expressing they “need a lot more skill” on 3 skills -- testing a survey instrument, conducting group focus groups, and getting review and approval of survey protocol through IRB. As an outcome of the assessment, training and resource materials have been developed and shared.

ONE YEAR IN THE LIFE OF A NATURAL RESOURCES BLOG IN NEW JERSEY

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In extension, there is interest in using blogs and social media to efficiently reach clientele. For a natural resources blog in New Jersey, web-based services were used to enhance and evaluate the blog, beginning in 2012. The services were employed with the following objectives: 1) extension of information; 2) accessibility for clientele; 3) clientele feedback and social media; 4) impact data; and 5) reaching new clientele. Tumblr was the blog platform used, and Google Analytics was used to provide impact data. Over an 11-month period, the blog received 2,191 page views from 924 visitors, with 698 unique visitors. The average duration of a visit was over four minutes. Visitors from New Jersey, Pennsylvania, and New York accounted for 93% of traffic. Forwarding the blog posts to a Twitter feed and to an RSS feed increased the accessibility for readers, and the Twitter feed gained 57 followers, mostly non-governmental and other organizations. Eleven percent of traffic was from search engines, and 19% was from RSS and email subscriptions. The rest of the traffic was presumably from direct links, university webpages, or social media. Together these observations suggest that readers will find or follow a blog through a variety of methods, and that social media is valuable in furthering outreach. While most of the services used in this study are free, they vary in the skill required to implement them on a blog, for example with Google Analytics requiring the insertion of code into the blog’s HTML. This suggests that these services may have valuable extension and outreach tools, but require an initial and ongoing investment of time.

DISEASE MANAGEMENT PROGRAMS FOR BASIL DOWNY MILDEW

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Basil is one of the largest specialty crops in US. During the summer of 2007, a severe foliar disease was noted on basil grown in south Florida and subsequently across the US.

The disease was characterized by foliar chlorosis, frequently delineated by leaf veination, with a light grey fungal growth evident on lower leaf surfaces. Initially observed in the lower canopy, the disease subsequently developed in the mid to upper canopy. Severely infected leaves frequently dehisced. The disorder displayed fungal signs associated with and was ultimately determined to be downy mildew. Crop losses in individual fields ran as high as 100%, with a number of basil shipments being rejected at delivery due to symptom development in transit. To identify prospects for chemical control of this disease, a number of field experiments were conducted during fall 2007 through spring 2008. Trials were conducted in commercial fields. The crop was direct-seeded on 20-cm raised beds in four rows set on 25-cm centers, with an in-row plant spacing of approximately 2.5-cm. The experimental design consisted of 3-4 replications of fungicide treatments arranged in randomized complete blocks. Experimental units were composed of 4 basil rows, 4 meters in length, separated by 2-m non-sprayed buffer plots. Fungicides were applied using a backpack sprayer equipped calibrated to deliver 580 l/ha at 2.1 x 105 Pa. High levels of natural inocula in the area and long dew periods created ideal conditions for downy mildew development. Disease conditions were severe and all tests were judged definitive. A number of different chemistries showed promise, among them various phosphonic compounds, mandipropamid, fenamidone, dimethomorph, propamocarb, and azoxystrobin. Tank-mixtures and/or alternations of phosphonic fungicides with the aforementioned other chemistries, provided for excellent control when applications were initiated before disease onset and were applied on a weekly basis.

CHAPARRAL SEEDHEAD SUPPRESSION OF KY 31 TALL FESCUE PASTURES FOR GRAZING COW/CALF PAIRS

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Tall fescue (*Festuca arundinacea*) is one of the most common cool season grasses in the southeastern United States. However, tall fescue is attributed with costing over \$600 million in losses to the livestock industry each year by causing a syndrome known as tall fescue toxicosis. Toxicosis is caused by an endophyte present in the seedheads of mature fescue plants. Numerous management strategies have been researched and suggested to help producers deal with the effects of tall fescue toxicosis. A new strategy under research and development is suppression of the seedheads through the use of Chaparral pasture herbicide. The objectives of on farm trials and demonstrations were to conduct seedhead suppression trials to evaluate producer assessments of the pasture treatment and evaluate animal performance between those grazing treated and untreated pastures. Five farms were each treated with Chaparral at

2 ounces of product/acre applied at green up. Thirty acres were treated on each farm and cow calf pairs were grazed through the spring and summer months. Use of Chaparral reduced forage yield but improved nutritive value. Animals on treated pasture had 0.68 pounds higher daily gain and experienced reduced fescue toxicosis symptoms over those grazing untreated pasture. Additionally, producers observed greater weed control in pastures. On farm trials conducted indicated Chaparral seedhead suppression could be a new tool to mitigate effects of fescue toxicosis.

ANALYSIS OF TWENTY-EIGHT YEARS OF LAMB CARCASS DATA

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OSU Extension-Muskingum County has conducted a lamb carcass evaluation competition since 1980 for youth enrolled in market lamb projects. Lambs were exhibited and ranked in a live show a week before the county fair and then processed at a local meat processor. Carcass data was collected by Ohio State University Meat Science graduate students with the ranked results being shared with the exhibitors and family members at the processing facility. The Muskingum County Sheep Producers Improvement Association paid premiums to exhibitors based on the respective rankings. Lambs were then either marketed to a local grocer or to the exhibitor's family for their own consumption. Carcass data for 341 market lambs in twenty-eight classes since 1980 were evaluated in this study. There were four years when the carcass evaluation activity was not conducted due to various reasons. A statistical analysis of the carcass data produced some interesting results. There were differences in the yearly averages using the Least Square Means with Standard Errors of several data measurements used in the carcass evaluation. Loineye Area (LEA) measurements showed an increase ($p < 0.0001$) starting at 2.3 ± 0.1 square inches in 1980 while the most recent measured 3.1 ± 0.1 square inches. Backfat measurements increased ($p < 0.0001$) from 0.1 ± 0.03 inches in 1980 with a measurement of 0.23 ± 0.02 inches in 2012. Hot carcass weight averages increased ($p < 0.0001$) over the years from 58 ± 3 lbs. to 71 ± 3 lbs. Dressing percentage averages increased ($p < 0.0001$) from 57 ± 2 percent to 58 ± 1 percent. One carcass measurement, Percent of Boneless Trimmed Retail Cuts (BTRC), was only calculated since 2000. BTRC decreased ($p = 0.045$) from 48.7 ± 0.71 to 47.5 ± 0.66 . Review of the results showed that a number of families have had two generations of exhibitors participate in the carcass competition. The county sheep association continues as a key partner of the evaluation activity. Members conduct the live exhibition, transport lambs to the processor, provide premiums to the exhibitors and assist in the marketing of the lambs. In recent years, the top two lamb carcasses have been auctioned off at the county lamb banquet, creating more interest and enthusiasm in the competition. Participant families have indicated over the years that the carcass evaluation competition has provided

important feedback in making management decisions for their sheep operation. Participants and their families have had the opportunity to observe and handle a variety of live market lambs and then view the same lambs hanging in the meat locker as a carcass. From the data collected over a thirty-three year period, carcass traits generally improved but these improvements were relatively small.

DEVELOPMENT OF A SYSTEM FOR DETERMINING RELATIVE PLANT GROWTH REGULATOR REQUIREMENTS FOR COTTON VARIETIES IN GEORGIA

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Plant growth regulator (PGR) applications are often necessary in cotton to reduce vegetative growth and maintain a manageable crop. However, PGR sensitivity varies widely among varieties and environments. Some varieties need to be monitored closely and heavily managed while some are sensitive such that overuse may negatively impact yield. Research in 2010, 2011, and 2012 investigated the response of various varieties managed with either no PGR applications or a heavy PGR regime which included multiple applications made pre-bloom and during bloom. Growth parameters and lint yield and fiber quality were used to assess the growth potential of a variety and document the impact a heavy PGR regime has on development and yield. From this data, a classification system was developed which grouped varieties in order to more adequately define relative PGR requirement of cotton varieties in Georgia. Four classifications were utilized, from varieties which may require no PGR management up to varieties which will need to be heavily managed with multiple applications. Varieties were grouped together based on similar growth patterns and response to PGR applications. After examining data from 2010 and 2011, standard varieties were identified and utilized to compare new varieties in 2012 to more easily predict their PGR requirements.

ORGANIC HEIRLOOM TOMATO VARIETY TRIAL

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Extension personnel strive to provide information the agricultural industry needs to maintain profitability. There is an increasing demand for information regarding organic crop production. Sales of organic food in the U.S. increased from \$1 billion in 1990 to \$26.7 billion in 2010 . There is also a trend of increasing popularity of heirloom vegetable cultivars, particularly tomatoes (Jordon, 2007). Based on this and the general small amount of scientific literature available on this topic, there is certainly a need for additional information. In particular, there is a need for practical production information for a growing industry Since 2006, Purdue University has maintained one acre of certified organic production at the Southwest Purdue Agricultural Center in Vincennes, IN. Nine heirloom tomato cultivars were evaluated for yield, plant vigor, and disease resistance. As a control, a tenth cultivar, a hybrid, was used for comparison. The experiment was randomized complete block design with 4 replications. Data gathered includes yield, plant vigor, and disease incidence/severity. The hybrid, Martha Washington, had greater yield (117.5 lbs/plot) and total fruit number (261.8 fruit/plot) over the entire season as compared to any of the heirloom varieties (Table 1). This was an anticipated outcome as the heirloom tomato varieties are grown for their fruit quality characteristics as opposed to yield. Increased yield is frequently one benefit of using hybrids. However lower yields of heirlooms can be offset by higher prices as the current demand for them exceeds the supply in most areas (UK CES, 2009). Fruit of Martha Washington were smaller than most of the varieties in the trial (Table 1). Amongst the heirloom varieties, Rose had greater yield (69.8 lbs/plot) than five of the other eight varieties but a similar trend was not present in the total number of marketable fruit (80.8 fruit/plot) (Table 1). The lower fruit number of Rose while having high yield is likely a result of the large average fruit weight (0.85 lbs) (Table 1). Other varieties not significantly different with respect to yield as compared to Rose include: Brandywine, Pruden's Purple, and Moskvich. Although there are statistical differences amongst varieties regarding yield, it is apparent that heirloom vegetables varieties selected for cultivation are not chosen solely based on yield. In fact the fruit quality, including taste, color, and texture are more important. Having a diverse selection of tomatoes to sell as a commercial producer might be a better marketing option. If looking for both a combination of yield and for an organically produced tomato, the aforementioned varieties could be possible options.

EVALUATING CORN HYBRIDS IN A LATE PLANTING OR DOUBLE CROPPING SITUATION

Cliff Riner, University of Georgia Cooperative Extension

Corn prices have shown a long term upward trend due to the new federal ethanol requirement. Tattnall County corn producers also receive an average \$0.70/bushel premium on locally delivered corn to Claxton Poultry, a local poultry integrator. Tattnall County has a large amount of irrigated cropland planted in Vidalia Onions that are not harvested until mid-April through May, past the traditional corn planting window. Traditionally, onions are followed by soybeans, peanuts, or cotton, but an increased interest in planting late corn has been shown by producers due to high prices. In 2011, 8 corn hybrids were planted and evaluated based on yield. The trial is was planted on May 23, 2011 in six 36" rows X 500' long plots, each variety was replicated 3 times. In 2012, 9 corn hybrids were evaluated based on yield, and Exserohilum turcicum (Northern Corn Leaf Blight) and Puccinia polysora (Southern Corn Rust) incidence. In 2011, hybrids 2023, 31P42, and 6697 were statistically better than the trial in terms of bushels/acre. In 2012, hybrids 6209, and 6469 were statistically better in terms of bushels/acre. This study suggests that variety selection is critically important for double cropping corn behind Vidalia onions. Although hybrids have variable differences in disease resistance, selection of variety shouldn't be based solely on a hybrids resistance to a disease.

YIELD RESPONSE OF WHEAT FOLLOWED BY DOUBLE-CROPPED SOYBEANS WHEN WHEAT IS FERTILIZED WITH POULTRY LITTER AND COMMERCIAL NITROGEN FERTILIZER

Eric Schavey, Alabama Cooperative Extension System

Mark Hall, Alabama Cooperative Extension System

Timothy Reed, Alabama Cooperative Extension System

Alabama farmers commonly use poultry litter pre-plant to fertilize wheat but there was no research-based information on the yield response of wheat fertilized with litter or the yield of soybeans planted behind this wheat. The objective of this 2010-2012 study was to compare the yield response of wheat followed by double cropped soybeans when wheat was fertilized with different poultry litter and commercial nitrogen fertilizer treatments. The study was conducted in north Alabama on non-irrigated plots with initially high levels of P and K. Ammonium nitrate was used as the commercial N fertilizer. Treatments were applied to the same plots for 3 consecutive years. There were 5 fertility treatments with 4 replications/treatment arranged in a RCB design. The 5 wheat fertilizer treatments were as follows with the abbreviated name for each treatment in brackets: (1). 2 tons litter/A pre-plant {L} (2). 2 tons litter/A pre-plant +

1.5 tons litter top-dress/A {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 topdress [LC] (5). 100 lbs. commercial N pre-plant as a N rich strip [NRS]. No wheat yields were obtained in 2010 due to poor stands caused by cold weather and Hessian fly confounded wheat yield results in 2012. Wheat yields in 2012 were significantly greater in the 3 litter treatments ($P>F=0.008$, $LSD\ 0.1=7.5$) (yield range = 32.6 to 37 bu/A) than in the 2 commercial N treatments (yield range=14.5 to 25.5 bu/A) During 2011 the L treatment yielded significantly less ($P>F=0.0027$, $LSD\ 0.1=9.8$) wheat (86.4 bu./A) than the other 4 treatments (yield range = 91.7 to 100 bu/A). There was no significant effect on soybean yields with respect to fertility treatments in 2010 with drought conditions ($P>F=0.71$) (yield range = 13.8 to 16.2 bu/A) or in 2012 with abundant rainfall ($P>F=0.41$) (yield range = 43.7 to 50.6 bu/A), but all 3 litter treatments had significantly greater soybean yields ($P>F=0.0027$, $LSD\ 0.1=4.42$) (yield range=33 to 35.5 bu/A) than the 2 commercial N treatments in 2011 with moderate rainfall (yield range= 23.9 to 28 bu/a). Soil samples taken in plots during June of 2011 following two applications of all treatments revealed that levels of P_2O_5 , K_2O , calcium and magnesium in all 3 litter treatments were either statistically greater or numerically greater than that in the two commercial N treatments. Also, the pH of 6 in the NRS treatment was significantly lower ($P>F=0.0052$, $LSD\ 0.1=0.18$) than that in the other 4 treatments (pH range=6.3 to 6.4).

EFFECT OF COW SIZE ON EFFICIENCY

Wes Smith, University of Georgia Cooperative Extension

Brenda Jackson, University of Georgia Cooperative Extension

In order for beef producers to achieve maximum profit, it is necessary for their cows to produce one 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 percentage 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 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. If cows had too high a percentage, greater than 60 percent, they did not rebreed easily and most of those were younger cows. If too low, she did not recover the cost of her production input. It takes about 5 years of additional production for a producer to recover their cost of developing a cow. If she is sold before then, for any reason, producers lose income.

This information is necessary for beef producers so they can be more efficient, due to the continuing rising costs of production.

ON-FARM EVALUATION OF TWIN-ROW CORN AND SOYBEAN IN SOUTHERN MINNESOTA

Lizabeth Stahl, University of Minnesota Extension

Jeffrey Coulter, University of Minnesota Extension

Seth Naeve, University of Minnesota Extension

Steve Quiring, University of Minnesota Extension

Tom Hoverstad, University of Minnesota Extension

In a twin-row system, crops are planted in row pairs six to eight inches apart, while 30 inches separates the center of the row pairs. It has been theorized that planting crops in twin rows may result in higher yields since plants are spaced more equidistantly, compared to when crops are planted in 30-inch rows. This study was initiated to determine:

1. if corn (*Zea mays*) and/or soybean (*Glycine max*) yield could be increased by planting in twin-rows compared to 30-inch rows and
2. if the response to planting population differs in twin rows compared to 30-inch rows.

Replicated trials were established by Welcome (2010 to 2012) and Wilmont, MN (2010 and 2011) with two producers who had been planting crops in twin rows for a number of years. Twin rows were compared to 30-inch rows at 3 planting populations in corn (33,000, 38,000, and 43,000 live seeds/ac) and soybean (100,000, 140,000, and 180,000 live seeds/ac). Stand counts were taken after emergence in both crops and again in soybean prior to harvest to determine percent stand loss. At harvest, grain yield and moisture were recorded for both crops and stalk lodging and test weight were also recorded for corn. Results were analyzed by ANOVA and means separated by using Fisher's Protected LSD at the 0.05 significance level. Soybean yield was not affected by row spacing or the interaction between row spacing and population. Corn yield was affected by row spacing one of five site years, where the greatest yields were found in twin rows at the highest population. These results are similar to previous trials conducted in southern Minnesota in 2003 and 2004 where no clear yield advantage was observed for corn or soybeans planted in twin rows compared to 30-inch rows.

BUCKHORN PLANTAIN CONTROL IN HIGH MOUNTAIN PASTURES

Allan Sulser, Utah State University Cooperative Extension

Buckhorn plantain (*Plantago lanceolata* L.) is a weed

with increasing significance in Wasatch County, Utah. It competes for soil nutrients, water, and light and crowds out desirable plant species. Reduction of desirable plants species decreases forage yield and increases management costs for livestock producers. Initial observations in 2011, using spring applications of herbicides where buckhorn plantain is listed as controlled on the label demonstrated control of 35% with chlorsulfuron, 65% control with metsulfuron, 35% control with triclopyr, 95% control with a tank mixture of 2,4-D amine and dicamba, and 90% control with 2,4-D amine. Control estimates were completed using a random sampling technique of tossing a quarter square yard quadrat, 10 times in each treated section on monthly intervals for three months following application. In 2012 a field trial was conducted to evaluate chemical control of buckhorn plantain with chlorsulfuron, metsulfuron, 2,4-D amine, dimethylamine salt of dicamba, chlorsulfuron + dicamba, metsulfuron + dicamba, chlorsulfuron + 2,4-D amine, and metsulfuron + 2,4-D amine. The experiment was designed as a randomized complete block with individual plots measuring 10 by 30 feet. Treatments were replicated four times. Herbicides were applied on May 14, 2012, when buckhorn plantain was in the early rosette stage, approximately 1-2 inches in diameter. All treatments were applied using a CO₂-pressurized backpack sprayer calibrated to deliver 18 gpa at 35 psi. The objective of the trial was to determine which herbicide would be most effective in controlling buckhorn plantain and which would be most economical. Visual ratings showed metsulfuron and metsulfuron mixtures to be most effective in controlling buckhorn plantain in irrigated pasture. No significant visual symptoms were observed on the pasture grasses in this study from any treatment. Buckhorn plantain populations were reduced most significantly by metsulfuron and metsulfuron combinations. However, significant reductions in weed populations were not observed until 59 days after treatment and weed populations in treated plots were increasing by 92 days after treatment. Metsulfuron and metsulfuron mixtures were the least expensive herbicide treatments evaluated in this study. The current per acre cost for metsulfuron alone was only 33% (\$5.29) of the average cost per acre (\$15.36) of all herbicide treatments evaluated. Metsulfuron + dicamba cost was \$9.00 per acre or 59% of the average herbicide treatment in this study.

Poster Session

Extension Education

2013 NACAA
98th
Annual Meeting
and
Professional Improvement Conference

Pittsburgh, Pennsylvania

URBAN ON-FARM RESEARCH-NEW DIRECTIONS FOR COUNTY EDUCATORS IN URBAN SETTINGS

Jacqueline Kowalski, Ohio State University Extension

On-farm research agricultural research has historically been performed on rural farms. As urban agriculture continues to grow and have significant impact on local food systems, it is important to conduct research in order to increase profitability of urban farms as well as to maintain environmental stewardship. However, on-farm research in urban setting faces unique challenges and should be approached differently than traditional rural on-farm research. The objective of this poster is to discuss process of developing an urban agriculture research project, challenges and benefits to untraditional partnerships and how urban extension educators can benefit from conducting on-farm research projects. A Warner Grant for Sustainable Agriculture was awarded to the East Coit Urban Farm Project in partnership with the Ohio State University ANR Educator, Cuyahoga County to determine the feasibility of using municipal leaf humus as growing media. This research question was developed by the farmers as they have been the receipt of several free, partially decomposed loads of leaf humus from the City of East Cleveland. Once the research objective was determined, five major elements of the study were addressed: logistics, establishment, maintenance, data collection and reporting. Logistics of getting material and storing materials can be challenging. Often urban agriculture projects are located in areas that are difficult and expensive to deliver to. The educator may have to spend time assisting with establishment in order to ensure that experimental design is adhered to. The farmer should do regular maintenance and data collection (ensure that the farmer is adequately trained to collect and record data). Reporting and data analysis requirements will vary by project and the requirements will determine whether the farmer or educator will complete this. Most of the challenges facing in conducting urban agriculture projects usually infrastructure and maintenance-related. However, defining roles and responsibilities at the beginning of the project will help to avoid confusion. Until very recently, urban agriculture research was largely non-existent. Participating in these types of studies will help not only the farmers solve problems that they might have but will also help the Extension Educator (and their respective institution) build relationship with the farmer and the community in ways which they previously had not.

EXTENSION RESPONSE TO PIGEON FEVER OUTBREAK IN NORTHWEST FLORIDA

Jennifer Bearden, University of Florida/IFAS Extension

Extension programs should be designed to meet the educational needs of the community. When problems become evident, Extension Agents should evaluate whether Extension can address the need. If the answer is yes, then an educational program should be planned, implemented and evaluated in a timely manner. In early April 2012, the Okaloosa County Agriculture agent, Jennifer Bearden, was alerted of a disease, Pigeon Fever, in horses and cattle in Okaloosa and Walton counties. This disease is common in other areas of the country but not in Northwest Florida. By early May 2012, the disease was continuing to spread at an alarming pace. The need for an educational program was evident by the number of calls and emails about the disease from horse and cattle owners. Based on the urgent need for an educational program, the agent planned, advertised and implemented the program in just 10 days in order for the material to be present in a timely manner. The educational program to consist of three presentations on: Pigeon Fever in Horses; The role of Florida Department of Agriculture and Consumer Services in response to diseases; Specific Cases of Pigeon Fever in Okaloosa and Walton Counties. The program was advertised using electronic media (such as blogs and social media) and printed flyers at local businesses. Over 120 people attended the program. Reporters were present to interview speakers about the disease. The program was filmed by a reporter and is available online for livestock owners to view if they couldn't make it to the program. Seventy participants responded to a survey at the end of the program. Ninety-four percent of those 70 people were satisfied or very satisfied with the program overall. It is evident by the high attendance despite the short advertisement period that the program responded to a community-based urgent need.

THE PENN STATE PESTICIDE EDUCATION PROGRAM'S OUTREACH FOR A NEW ERA

Christina Becker, Penn State Extension

Nationwide, poison centers annually report a high-rate of accidental poisonings in children less than 6 years of age. A first grade poison prevention educational lesson was developed to address this critical health concern using the PA State School Curriculum Standards for 1st grade. The standards list the importance of learning what a chemical is, what toxicity means, ways to prevent accidental poisonings, and identifying the signs and symbols to prevent accidental poisonings. The lesson provides required information

to school-aged students and their teachers that meets the yearly curriculum requirements in health, safety and environmental education. Additionally, the lesson presents an opportunity to indirectly reach younger children and parents in the home through information sharing. The curriculum learning objectives teach the importance of preventing poisonings, safe practices to prevent accidental poisonings, and what to do if an accidental poisoning is suspected or has occurred. The targeted lesson outcomes were to increase the use of safe practices at home and to teach younger siblings and friends to identify, and stay away from, anything that has the poison symbol (Mr. Yuk) placed on it. The program implementation month is March to coincide with the National Poison Prevention Awareness program. The outreach program encourages first grade students to disseminate the poison prevention information to their parents/guardians by completing a homework assignment with them. They are asked to list 10 products in their home that have a signal word and place a Mr. Yuk sticker on it. The students are also encouraged to “teach” their younger family members and friends the importance of staying away from anything that contains the poison symbol. The outreach program has grown tremendously over the past three years—from 9 counties and 900 students to 22 counties and 8,200 students. The success of the program is the ease of implementing it. The outreach program is made available for use to county Master Gardener programs and high school Agriculture and gifted students. Those interested in using the program contact schools to schedule the 35 minute presentations. Presenters are provided lesson plans, large posters, teacher packets (including a classroom poster, activity book, and evaluation information), and parental packets (including a letter about the presentation, a homework assignment, Mr. Yuk Stickers, and an activity sheet for the student. Program evaluation was conducted with students and their parents as well as with outreach educators. A family homework assignment was designed to be returned and used as an evaluative tool. Data indicates families are using the educational information at home by incorporating safe practices. Classroom teacher evaluations were conducted through an electronic survey. Over ninety-five percent of the teachers indicated the lesson to be a valuable addition to their curriculum.

YOUTH LEADERSHIP ACADEMY – BRIDGING THE GAP OF AG LITERACY

Tracy J. Behnken, University of Nebraska - Lincoln
Extension

Understanding the basics of agriculture can help a person make better decisions in his life regarding nutrition. Agriculture literacy can help students to understand and bridge the gap between how food is made and how they can

make better food choices. Agriculture literacy is not only about the products produced by agriculture, but it is also the laws and issues facing agriculture industry shaping it to what it is today. YLA (Youth Leadership Academy) is a program directed at high school juniors in the local trade area that informs, develops leadership skills, and encourages community involvement. YLA is a program of the local Chamber of Commerce and Leadership Alumni Association. It is a collaboration of professionals from all areas of the community working together to strength the local area. Seeing the need to bridge the gap of agricultural literacy, the local Extension Educator took leadership in developing and implementing a hands-on agricultural literacy field day that was held in the greater part of the county and neighboring county. YLA participants were given the opportunity to make farm visits - grain, dairy and beef operations; hear a variety of guest speakers – Alliance for the Future of Agriculture in Nebraska (A-FAN), Nebraska Corn and Soybean Board staff, a former Nebraska Pork Ambassador, and a local veterinarian; take part in a demonstration of the UNL Extension Mobile Beef Lab; and tour the Fremont Wastewater Treatment Facility. The Dodge County Farm Bureau sponsored the lunch and miscellaneous costs. Post-event evaluation data was collected from hard copy forms that were distributed to the YLA participants upon the Ag Literacy Session conclusion. The rate of reply was 100% from the nine student participants. Evaluation forms included a Likert scale of 1 = “no increase” to 5 = “extreme increase.” The average overall “Increase in Knowledge” was 3.45/5.00. The evaluation results indicate the percentage of responses that were a “Moderate Increase” or higher: General Knowledge of Agriculture (88.9%); Global Issues of Agriculture & Feeding the World (77.8%); Agriculture’s Benefit to the Economy (88.9%); Technology Used in Farming/Agriculture (88.9%); Water Issues (44.4%); Grain Production/Farming (66.7%); Corn Production & Products (88.9%); Soybean Production & Products (88.9%); Dairy Farming & Milk Production (100%); Animal Care & the Importance to Agriculture (77.8%); Difference Between Production & Companion Animals (77.8%); Beef Production (88.9%); Science of the Ruminant Animal (88.9%); Swine Production & Pork Products/By-products (88.9%); Careers in Agriculture (77.8%); Mobile Applications for iPad/iPhone (55.6%); Use of Bio-solids in Farming/Agriculture (66.7%). FROM THE YOUTH LEADERSHIP ACADEMY BLOG: Alexis posted about the Ag Literacy Session . . . “Today has been pretty interesting. We went to a farm where they talked to us about agriculture and how much will be needed in the near future. It really surprised me how the population of the earth right now is about 7 billion and I think we eventually reach 9 billion within a few years. If that’s the case we will need more farmers to grow crops and raise livestock to feed the growing population.”

CINCINNATI FOOD HUB PROJECT

Brad Bergefurd, Ohio State University Extension

Tom Snyder, Ohio State University Extension

Christie Welch, Ohio State University Extension

The poster will provide information on a new local foods Extension education program established by the OSU Extension South Centers in cooperation with community and industry stakeholders. Based on the proven success of Spain's Mondragon Worker-Owner Cooperative model, the project was initiated by the OSU Extension South Centers and the Ohio Cooperative Development Center and consists of extension education systems to train and support urban and rural specialty crop growers, incubator training farms, grower Cooperatives, Community Supported Agricultures (CSA) marketing, contracted and hub owned farms and a food hub center for aggregation, processing, marketing, sales, and distribution of local farm products. By locating operations in the Greater Cincinnati area training and employment opportunities are being provided for members of the urban community using a newly developed Specialty Crop Grower apprenticeship and training curriculum, to develop local food programs to address the issues of business and economic development, food deserts, employment, health, nutrition and food security. Through this educational program new markets are being developed for locally grown farm products including organic food products.

300 DAYS OF GRAZING - DROUGHT RECOVERY WITH FORAGE BRASSICAS

Jesse Bocksnick, University of Arkansas Cooperative Extension Service

Following an extreme drought in 2011 and record drought in 2012 producers were forced to liquidate their beef herds or feed up winter hay supplies very early. Farmers and Ranchers were eager to learn different methods of wintering their cattle and reducing feed cost with the price of hay and commodities continuing to rise. In response to these concerns and to combat soaring feed and hay cost the CES agent teamed with local farmers and ranchers to establish demonstration plots of forage brassicas and annual rye grass mixtures which were new to the area especially for beef cattle. Using a clean till method of planting due to an ongoing field recovery project the Marshall Rye Grass was applied at 17lbs per acre and then over seeded with Appin and Seventop Turnips at 4.5lbs per acre in separate plots. Another demonstration plot was planted with a local farmer of tillage radishes to explore the possibility of grazing the green tops by first measuring forage yield. The fall and winter forage demonstrations yielded impressive and somewhat eye

opening results for not only the producers involved but their peers who were also struggling and eager for a more cost effective alternative to what they had traditionally planted. Cutting samples taken in January on the day of cattle turn in yielded 2,368lbs of dry matter per acre on a 30% stand for the Appin, 1,903lbs on a 70% stand for the Seventop, and 2,657lbs on 97% coverage. Calculating the amount of forage produced, cost of planting, and cost of hay that this demo replaced the producer saved \$231.60 per acre or \$1,158 on this demo. Several other producers are planting more winter annuals this year as a result as well as an increased number of demos this year to further explore the seed mixtures and options.

JACKSON BEEF AND FORAGE FIELD NIGHT

Chris Bruynis, Ohio State University Extension
David Apsley, Ohio State University Extension
Brad Bergefurd, Ohio State University Extension
David Dugan, Ohio State University Extension
Jeff Fisher, Ohio State University Extension
John Grimes, Ohio State University Extension
Kenny Wells, Ohio State University Extension

Beef cattle production is an important industry in the Ohio State University (OSU) Extension's, Ohio Valley Extension Education and Research Area (EERA). County based OSU Extension educators and state beef coordinator, joined with the Ohio Agriculture Research and Development Center (OARDC) Jackson, Ohio branch manager to design and deliver the second annual educational field night program. Topics included being a beef industry advocate, processed hay demonstration, noxious weed control, annual forage crop demonstration, and managing drought stressed pasture. Fifty six people attended the field night program. Retrospective pre/post evaluations using a six point Likert scale completed by the participants showed knowledge gained on the following topics: I am comfortable in having a simple conversation with any consumer about food production (0.92). I understand what works and what doesn't work when talking to consumers (1.68).I understand that there is significant misinformation about red meat in today's media (0.82).I can identify pasture weeds common to the area (2.14). I know the best time to control pasture weeds based on weed biology (1.79).I understand the different options available for pasture weed control (1.60).I recognize the benefits of shorter stem length in hay relative to hay waste at the feeder (1.40).I know the best "beef" management practices to follow during a drought (1.47).I understand the forage options available to produce emergency feed (1.24).I understand the correct steps to take to renovate drought stressed pastures (1.31).When asked what the most important thing they learned at the field night, participants responded the importance of being a better advocate for their

industry, weed control options and concerns in permanent pastures, and to increased digestibility of shorter fiber length forages. Additionally, participants were asked what changes they would make to their operations as a result of knowledge gained at this workshop. Their top four responses were: improve the weed control in pastures, develop better pasture rotations with improved post grazing management, invest in hay processing equipment to shorten hay length, and use annual forages in the future to increase feed for cattle herd during years with forage shortages. Working through the Ohio Valley EERA and partnering with OARDC, a larger group of participants were educated through this educational beef and forage field night program.

THE MANY FACES OF FUNGI

Jim Chatfield, Ohio State University Extension
Curtis Young, Ohio State University Extension

Fungi are many things. Some are plant pathogens that parasitically plague trees and pester tree lovers and we will key plant pathogenic fungal profiles. Some fungi are even human pathogens...what yonder itch doth plague my toes? Most fungi are saprophytes that thankfully decompose organic matter, without which we would be quickly buried in organic debris. This decomposition is critical, nature's recyclers transforming this organic matter into nutrients for plant growth. Some fungi ruin the longevity, safety and flavor of food. Yet some fungi are the essence of fine cuisine. Some fungi enter into mutually beneficial relationships with tree roots (mycorrhizae), other fungi with algae (lichens). Fungi are an incredibly diverse group of organisms (over 100,000 species) that have lived on Earth for over 600 million years, Fungi are so diverse, so difficult sometimes to even see in their microscopic forms, and so difficult to classify that Linnaeus himself, the Swedish botanist who gave us the Latin binomial system for classifying organisms in the 18th century grew to loathe fungi and their illusive nature. Linnaeus threw up his hands and declared there was only one species of fungus – Chaos fungorum!. We will also discuss key fleshy woodland fungi that attract the interest of arborists, and we will include the wonders of fungal names. These organisms and their names run the gamut: from "hated amanita" to the "admirable bolete", from angel's wings to dead man's fingers. Sometimes the fungus itself seems somewhat conflicted. Consider, for example the - elegant stinkhorn. One favorite fellow traveler is - wolf's milk slime (*Lycogala epidendrum*), which is actually not a fungus, but rather a slime mold, but it is in the woods, it is sort of fungal like, and it is cool name and a cool organism. Many fungi have food allusions in their very names, though not all of these are truly edible. There is apricot jelly, fried-chicken fungus, and even the black-and-blue pairing of beefsteak polypore and blue-cheese

polypore. For breakfasts in Wonderland, scrambled-egg slime, and for dessert - chocolate tube slime. Good both for the fungi Slippery Jack (*Suillus luteus*) and equally so for Slippery Jill (*Suillus subluteus*) if not for characters in the real world. Rest assured, though, the mantra of: "There are old mushroom hunters and bold mushroom hunters but no old bold mushroom hunters" will be heeded in our poster. We will go to great lengths to insure that in the end your final exam - will not truly be your last meal, nor will you be awarded the "dunce cap fungus" or the "pig's ear gomphus" award.

PROGRESSIVE RANCHER FORUM USED TO DISSEMINATE INFORMATION STATEWIDE

Kellie Chichester, University of Wyoming Extension

For more than 10 years, University of Wyoming Extension has provided educational opportunities for participants of the Wyoming Stock Growers Association's winter convention. The convention draws members from all four corners of the state. Many producers, ranchers, farmers and those passionate about agriculture get together in December for the opportunity to exchange and collect new ideas and visit with old friends. Planning for the Progressive Rancher Forum is done by a team of Educators. The forum is divided into five concurrent sessions with four presentations each, filled with tools to help livestock producers meet their needs. Participants were asked to rate the educational value of the Progressive Rancher Forum. Fifty-seven percent of the respondents (n=113) indicated the forum was highly valuable and 36% indicated it was moderately valuable. As a result of attending the forum, 52% indicated they would try one new idea learned at the forum, additionally, 12% and 13% said they would change a production practice that would decrease production costs and increase production, respectively. Of those responding, 98% indicated they would share information from the forum with others. The results will be used to offer direction to future Forums and also provide educational opportunities throughout the state during the year.

FOUR-STATE ANIMAL CARE WEDNESDAY WEBINAR SERIES FIRST YEAR IS A SUCCESS

Lindsay Chichester, University of Nebraska - Lincoln Extension
Dave Aiken, University of Nebraska - Lincoln Extension
Mike Anderson, Iowa State University Extension and Outreach
Kellie Chichester, University of Wyoming Extension
Heather DePra, University of Nebraska - Lincoln Extension

Dee Griffin, University of Nebraska - Lincoln Extension
Amie Schleicher, University of Nebraska - Lincoln Extension

In 2012, four-states collaboratively brought the Animal Care Wednesdays Webinar series to their colleagues in Nebraska, Iowa, Missouri, and Wyoming, respectively. A total of 10 webinars were offered throughout the pilot year. In 2013, South Dakota joined the team, making this a 5-state effort. All sessions are presented as a webinar via Adobe Connect to extension personnel, producers, consumers, and industry experts. Nearly all webinars are recorded and archived so they could be made available to the general public and listened to later. As of August 2013 the total number of times any of the sessions (live or archived) were accessed was 1,200 times! Speakers range from University Specialists and interns to producers and industry professionals. Speakers are selected based upon their expertise on a given topic. To evaluate the program effectiveness, a survey tool was developed in Qualtrics, and disseminated to extension personnel in the four states (at the end of 2012). Of the completed surveys (n=50), 80% and 81% of respondents indicated they found the Animal Care Wednesday Webinar topics/content and speakers to be very useful or useful, respectively. In addition, 98% of respondents indicated the webinars were worth their time. When asked how the information they had learned in the webinars will be used, 40% indicated it was to keep them informed and 32% indicated it was to be more knowledgeable to answer questions and help others. When asked how many of the webinars they watched, 59% of respondents indicated they watched 1 to 3 webinars, 30% watched 4 to 6 webinars, 7% watched 6 to 8 webinars, and 4% watched more than 8 webinars. Plans for 2014 include continuing to highlight various animal care issues and implementing suggestions generated from the survey.

TEACHING OHIO'S AG LENDERS MAKES IMPORTANT IMPACT ON REACHING OHIO FARMERS

Wm. Bruce Clevenger, Ohio State University Extension
Chris Bruynis, Ohio State University Extension
Rory Lewandowski, Ohio State University Extension
Barry Ward, Ohio State University Extension

Ohio State University Extension professionals have organized agricultural lender education seminars for over 25 years. Seminars are one-day events that are taught by OSU Extension professionals, professional guests and agency representatives. Seminar topics are selected based on the needs and knowledge gaps identified during agricultural lender interviews and evaluations. Three seminars were taught in 2012 with four topics as the core of the agenda with each location adding local or regional topics. To

develop meaningful impact outcomes of the seminars, extension educators developed an evaluation instrument to collect data and how knowledge will be used to serve the Ohio agriculture industry. OSU Extension educators serve Ohio's 75,000 farms engaged in \$7.8 billion crop and livestock production. While the 2012 seminars reached nearly 100 Ag lenders, the lenders reported having 9,500 farm customers that are served with knowledge gained from OSU Extension. Knowledge gained resulting from the 2012 agricultural lender seminars was measured by using a post/pre survey instrument that lenders self-measured their pre and post knowledge on the seminar topics. Extension educators found that lenders improved their knowledge levels by 30% (Examining Potential Profitability for 2013) to as high as 73% (New Dairy Technologies) across nine topics. Extension educators also found that information taught will be used by lenders directly (speak with customers as it relates to their farming operation), indirectly (use information to review customer portfolios), and as background (professional development and industry awareness) with their farm customers. Three topics were identified as having high percentage of lenders directly using knowledge gained with customers: Farm Transition Planning Tools and Information (76%), Examining Potential Profitability for 2013 (66%) and Returns to Farm Drainage (60%). Two topics were identified as having high percentage of lenders using knowledge gained as background use with customers: Many People and Less Poverty in 2050-Feeding the World (66%) and Ohio Energy Development-Wind, Solar, Gas (55%). Other topics were identified as having a balanced use by lenders between direct, indirect and background include: Future Resource Needs in Soil Fertility Management, Ohio Livestock Care Standards, New Dairy Technologies and Ohio Farm Business Summary. Knowledge gained by lenders following the OSU Extension agricultural lender seminar will reach a diverse demographic of farm customers based on the \$2.5 billion agricultural portfolio reported by participating lenders. The total agricultural portfolio reached was farms producing grain only (48%), dairy/livestock only (15%), grain and livestock (13%), specialty crops (11%), small and beginning farms (11%), agribusiness (1%), and rural housing (1%). Participating agriculture Lenders indicated that OSU Extension can best serve lenders and their customers by offering unbiased information for farmer customers, being a resource for lenders and providing updates, providing current trends in the agricultural industry and continuing extension at the county level. As a result of evaluating the agricultural lenders participating in the 2012 educational seminar, OSU Extension educators better understand the important multiplier effect of teaching a group of professional agricultural lenders and reaching nearly tenfold the number of Ohio farmers.

FLORIDA FRIENDLY LANDSCAPING™ TO NEW RESIDENTS

Jim Davis, University of Florida/IFAS Extension

Sumter County has a population of over 97,746 people according to the 2011 U.S. Census Bureau (<http://quickfacts.census.gov/qfd/states/12/12119.html>). Majority of the population resides in one of the largest micropolitan areas in the United States, The Villages. The U.S. Census Bureau listed The Villages as the second fastest growing micropolitan areas from April 1, 2010, to July 1, 2011 in the United States. Due to the increasing population of new residents moving to Sumter County, UF/IFAS Sumter County Extension has developed a workshop specifically for new residents moving to The Villages, focusing on Florida Friendly Landscaping™. Florida-Friendly Landscaping™ is a cost-efficient method of landscaping that uses nine integrated landscape principles; Right Plant Right Place, Attracting Wildlife, Reducing Stormwater Runoff, Protecting the Waterfront, Watering Efficiently, Fertilizing Appropriately, Mulching, Managing Pests Responsibly and Recycling Yard Waste. Educating new residents moving to The Villages will create an aesthetically pleasing landscape, reduce maintenance costs and protect Florida's natural resources. Methods: During 2012, one workshop was held every month at the Colony Cottage Recreation Center in The Villages. The New Residents workshop lasts 2 hours and implements a variety of teaching tools. Visual media aids, gardening products and hands-on instruction using irrigation components, fertilizer labels and insect specimens were all incorporated into the workshops. Results: A post evaluation, using Survey Monkey, was distributed at the end of the year to measure behavior change of participants from the New Residents Workshop. 86.7% (n=90) now apply the recommended 1/2" to 3/4" of water to their turfgrass, 97.8% (n=90) now water between the recommended times of 2:00 a.m. to 7:00 a.m., 95.6% (n=90) now apply fertilizer evenly around the canopy of ornamental plants, 81.1% (n=90) now know methods of integrated pest management, 74.4% (n=90) now read the label when applying pesticides and 92.2% now apply the recommended 2" to 3" of mulch around landscape plants. Conclusion: The New Residents Workshop has proven itself as a successful UF/IFAS Sumter Extension workshop. This can be verified based on the results and positive measurable behavior change from participants attending the Florida-Friendly Landscaping™ for new residents workshop.

LOCAL EXTENSION DAIRY SERIES MEETS 21ST CENTURY NEEDS

Diane DeWitte, University of Minnesota Extension
Laura Kieser, University of Minnesota Extension

In 2009 dairy producers struggled with the lowest milk prices in 6 years. In response, UMN Extension Educators in neighboring Scott & LeSueur Counties organized local dairy programming. The objectives included:

1. provide local, current education to address dairy farmers' immediate needs;
2. improve local dairy farmers' awareness of Extension's research & resources;
3. develop a following of dairy farmers who choose Extension as their primary information source;
4. improve local dairy farm long-term profitability.

Since 2009, the Scott LeSueur Summer Dairy Series has been held in 3 on-farm sessions during the summer between June and August. We feature farms where the farmer/owner excels in specific areas of management. Program topics are chosen based on the farmer's ability to make small changes which yield measurable returns on the farm. Topics covered from 2009-2012 addressed: metabolic issues, milk quality, forage quality & storage, heifer development, cow comfort, dairy farm families, renovating facilities, improving genetics, feeding systems, and automatic calf feeding & housing. Classic methods & new technology advertised the program, & made it financially affordable. This included sponsorship from Scott/LeSueur ADA & the Dairy Profitability Enhancement Program, in-kind & financial support from agribusinesses for publicity & refreshments, direct & electronic mailings to local dairy producers, as well as Facebook & Twitter posts. Local, regional & University Extension staff collaborated with 3 different farm family hosts each year. 2009's June start date conflicted with early summer field work. Farmer feedback requested the Series be adjusted to start in July. We measured increasing attendance during the course of the Series each year. 2009's Series was attended by 104 while 2012's total attendance was 225. Farmer feedback indicated appreciation for this local event. Agribusiness support increased. In 2009, we provided refreshments sponsored by the local ADA. The final site had a meal provided by an ag business. By 2012, multiple sponsors enabled us to provide food & materials at every session. In 2012, we created an online link to our brochure. From June-September while the Series brochure was posted, there were 421 'hits'. Evaluation of the Series' 2009-2011 program results: 100% of the survey respondents indicated that the noon-2pm time of day was convenient for them; they found it useful to have lunch provided; and all respondents found the Series beneficial (83% very beneficial & 16% somewhat beneficial). When asked to estimate the value of the Series to their farm, 66% estimated \$1/cow/month; 25% estimated \$10/cow/month. 50% indicated seeing & learning from other farms & farmers as their reason for attending. 30% noted that they what they learned was different ways of farming or doing business. When asked

what changes they made as a result of the Series, answers included: identification for dry cows, freestall comfort, cow cooling and ventilation. “These are excellent seminars for anyone involved in the dairy industry.” “We know our neighbors but never get a chance to visit their farm.” “Sometimes the socializing (farmer to farmer) can have a more positive impact for our personal lives than we know.”

FARM AND SMALL BUSINESS RECORD KEEPING EDUCATION OFFERED IN PARTNERSHIP WITH NORTHWEST TECHNICAL SCHOOL

Randa Doty, University of Missouri Extension

Financial record keeping is important in the operation of a farm or small business. Since 2009, three Farm and Small Business Record Keeping classes have been offered by a University of Missouri Extension Specialist, in partnership with Northwest Technical School. The class uses QuickBooks™ training software to teach agriculture producers and small business owners to manage their financial records. Partnering with Northwest Technical School has benefited the classes. The technical school advertises courses offered in their Adult and Community Education course book, which reaches a diverse audience in a large geographical area. They also provide computer labs for use in the classes, which allows for hands-on training for participants. Through this partnership, 38 people have learned how to use QuickBooks™ software to maintain their financial records. In all classes, 100% of the participants sat up a company, tracked expenses and deposits, and ran reports in QuickBooks™. In one class, six participants said that they seldom or almost never used computer based software to record deposits for their business. As a result of the program, five of them said that they will be using accounting software to track their deposits.

RADIANT ENERGY RETENTION OPTIONS FOR FURTHER EXTENDING THE GROWING SEASON IN WYOMING - ACRES STUDENT FARM HIGH TUNNEL DEMONSTRATION

Jeff Edwards, University of Wyoming Extension
Erin Anders, University of Wyoming Extension
Milton Geiger, University of Wyoming Extension
Urszula Norton, University of Wyoming Extension

Wyoming is not top-of-mind when the production of specialty crops is discussed. However, federally funded programs such as the specialty crop block grant have allowed an increasing number of high tunnels for the production of specialty crops to be constructed and placed into production - even in Wyoming. Conditions in Wyoming

are challenging and individuals expect to be able to grow at least a portion of their own food in locations which range in elevation between 3500-8000 feet with 120 to a minimum of 30 frost free days - traditional single layer high tunnels have allowed 30 day (plus) extensions to either side of the growing season across the state. The intention of this demonstration is to investigate the use of known and economically sound tactics that could be incorporated into high tunnel production that would further expand the growing season in Wyoming. For this demonstration five traditional 12-ft X 32-ft hoop houses were constructed using a modified design developed by Del Jimenez (Extension Specialist, NMSU). Laramie, WY (elevation 7200 feet) was selected as the demonstration location, the 5 structures were each oriented east to west with a 25-ft clear ground buffer between each. All treatments were positioned on a block north to south in the growing area. The treatments include: the control which is covered with a single polyskin layer, one treatment incorporated a double polyskin layer, one incorporated high density polyfoam insulation (R-value of 9) barrier buried vertically around the perimeter to a depth of 18-inches, one incorporated poly barrels filled with water painted black, and all treatments were combined (Double polyskin, Insulated foam barrier, and Painted water filled poly barrels) in the last treatment. Early observation indicate that the addition of heat sink and heat retention structures can positively impact the length of Wyoming's growing season and specialty crop production - as cabbage were harvested on December 5th, 2012.

AN “EERA” FOR EXCELLENCE IN PROGRAM AND EDUCATOR DEVELOPMENT

Jeff Fisher, Ohio State University Extension
David Dugan, Ohio State University Extension
John Grimes, Ohio State University Extension

Decreased Extension funding necessitated reorganization of program delivery through creation of Extension Education and Research Areas (EERAs). The Ohio Valley EERA is comprised of ten counties in south-central Ohio staffed by five Agriculture and Natural Resource (ANR) Educators. Quarterly meetings determine program needs, delivery, specialization, and applied research. Educators are required to deliver “Signature Program” education at the county level. This EERA took a new approach and switched emphasis from programming in agronomic crops, crop insurance, and farm programs to collectively work on forages which better reflected the need in our EERA and utilized our expertise. Collaboration with an Ohio Agricultural Research and Development Center, allowed the educators to conduct applied research in forage management, heifer development, and environmental concerns on grass based livestock operations. Subsequent field days were held to

report and demonstrate research initiatives. One project example utilized annual forages to extend the grazing season, reduced the need for stored forages, and provided an emergency source of forage. In this demonstration, 41 crossbred heifers grazed a rotation of oats, turnips and rye over a 58 day period. Heifers gained 1.29 pounds/day. Variable feed costs averaged \$1.18 per head/day which is significantly below industry average for replacement heifers. This project demonstrated how to synergistically reduce costs with heifer development and forage production. Educator specializations have been developed in farm management, marketing, and technology. This enhanced programs for clientele and improved recognition of ANR educators as specialists in signature programs and innovators in program delivery within the EERA and beyond.

SCHOOL IPM COORDINATOR SURVEY: HELPING SCHOOLS MAKE THE IPM GRADE

Madeline Flahive DiNardo, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Tim Boyle, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Patricia Hastings, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

William Hlubik, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Arthur Pierfy, New Jersey Association of Designated Persons

The New Jersey School Integrated Pest Management (IPM) Act of 2002 established a public policy requiring NJ public and private schools to implement integrated pest management practices. The law requires the appointment of a School IPM Coordinator whose responsibilities include implementation of the school IPM policy. The law requires the coordinators to attend a NJ Department of Environmental Protection (NJDEP) approved training session. In cooperation with the NJ Association of Designated Persons, the NJ DEP and pest control industry representatives, Rutgers Cooperative Extension offers training programs through-out the state reaching over 1,500 school administrators, faculty and grounds and maintenance professionals. The training is a half day workshop featuring lectures on the School IPM regulations and compliance; IPM strategies for indoor insect pest management; and IPM practices for turf management. In spring 2013, a survey of School IPM coordinators was conducted to evaluate the training program and determine future training needs and resources. The web-based survey inquires about use of current IPM resources, such as the Rutgers School IPM website www.pestmanagement.rutgers.edu/IPM/schoolIPM.

. Participants rate their knowledge of various aspects of integrated pest management techniques for indoor and outdoor pest management on a Likert scale. Questions

are related to indoor and outdoor pest identification and management, monitoring techniques, and familiarity with pesticide regulations. Adoption of IPM techniques such as monitoring, sanitation and the use of low impact pesticides are documented. School IPM coordinators need support from administration, faculty, maintenance / grounds staff, contractors and students to implement a successful IPM program. The survey gives the School IPM Coordinators an opportunity to identify areas they need assistance with to improve their IPM program. Participants rated the types of training programs and resources needed. For traditional lecture style workshops, participants provided information about appropriate times and locations for training sessions. The survey also inquires about interest in web based training programs. The survey results will provide Extension professionals with an assessment of the effectiveness of the current training program. It will identify topics in the program that need to be expanded upon or perhaps offered as a separate training to a smaller target audience such as groundskeepers, teachers or athletic directors. New curriculum materials and other resources materials will be developed based in the results of the survey.

COMMERCIAL DRIVER LICENSE STUDY GROUP GETS CROPS TO MARKET

Sandra Frost, University of Wyoming Extension

Ron Cunningham, University of Wyoming Extension

Dallen Smith, University of Wyoming Extension

Commercial Driver License Study Group Gets Crops to Market Frost, S. M. 1 1. Profitable and Sustainable Agriculture Systems – Crops Educator, University of Wyoming, Powell, WY 82435 Prior to 2013 Agricultural producers in the Big Horn Basin of Northwestern Wyoming did not have enough drivers with Commercial Drivers Licenses to get crops to market safely. The University of Wyoming Extension Educator in Park County created a CDL Study Group – five days of training to prepare participants for written exams and pre-trip truck inspection tests. Goals were to provide information and develop networking among participants. Wyoming Highway Department Troopers answered questions about Wyoming laws and demonstrated truck inspection levels. A local trucking company hosted the group for inspection of tankers and combination vehicles. Local fire department officials discussed hazardous materials. Local producers volunteered their vehicles for practice inspections. Northwest College worked with UW Extension on publicity, registration, and lunch. The study group was offered six times in four locations. Thirty-eight participants completed the study group by January 11, 2013. Evaluations were received from approximately thirty-two participants. Eighty-one percent learned CDL requirements in the class. Fifty-six percent learned safe driving information;

seventy-two percent learned to transport cargo; seventy-eight percent learned about air brakes; eighty-four percent learned about combination vehicles; of 15 respondents, ninety-three percent learned about doubles and triples; ninety-two percent learned about tank vehicles; and eighty-four percent learned about pre-trip inspections. Thirty reported they were more prepared to study and take the CDL written exam; twenty-eight thought the class made them a safer driver; and thirty-one thought the Wyoming Highway Trooper was helpful. Follow-up letters will go out to assess economic impact and find out how many participants actually obtained their Commercial Driver's License in May 2013.

MANAGING MULTIPLE MASTER GARDENER WORKING GROUPS IN A LARGE, DIVERSE COUNTY

Rick Gibson, Arizona Cooperative Extension

Pinal County, Arizona is a large and diverse county. According to census records, the county has a total area of 5,374.09 square miles (13,918.8 km²), of which 5,369.59 square miles (13,907.2 km²) (or 99.92%) is land and 4.50 square miles (11.7 km²) (or 0.08%) is water. The county's population more than doubled between the years 2000 and 2010. The 2010 census reports a population of 375,770. In 2000, the population was 179,727. Travel costs to manage Extension programs are significant because of the distance between communities. To drive from Mammoth in the east to Maricopa in the west or Marana on the south to Apache Junction on the north takes about two hours. There are thirty-one communities of varying size in our service area. The demographics show a diverse population with 72.4% reporting themselves being White, 28.5% Hispanic or Latino, 5.6% Native American, 4.6% black, 1.7% Asian, and 0.4% Pacific Islander. Tremendous in migration of people new to the desert coupled with rapid urbanization and increased rates of landscape installation created a significant teaching and demonstration opportunity for Cooperative Extension. Unfortunately, it was also a time of budget cutbacks that limited the availability of professional faculty and staff to meet the demand. In addition, existing Master Gardener volunteers were centered mainly in Casa Grande, the community housing the local Cooperative Extension office. Much of the county was mostly under served by Master Gardener volunteers. Recognizing that emerging and changing conditions would create a new operational landscape for garden and landscape programming, the agent and existing volunteers began a radical upgrade of the program's organizational structure. The objective was to create a platform that would facilitate a county wide expansion. Even at that early stage, we recognized the dawning of a new era in Extension programming. We

would need to adapt. Existing volunteers and the agent together assessed the future needs of the program and developed a unified plan. The first step increased the number of volunteer training sites annually from two to four. Two were held in the spring and two in the fall. The agent organized and conducted these training sessions. Four working groups were then organized, one to a community. Master Gardeners were assigned to a working group near their home and together began to address local priorities. Local projects were identified and selected by the volunteers themselves under the direction of the agent. A chair was selected to provide local leadership. The four working group chairs were appointed to a Master Gardener Advisory Committee to assist in the development of standardized policy and programming. The decentralization of supervision, the local management of programs, the use of social and electronic media to enhance communications and the ability of the advisory committee to unify and standardize has given the program the flexibility to meet the needs of an ever expanding clientele. Since the year 2001, the number of hours donated by volunteers, the number of volunteer projects, and the number of clientele reached has increased steadily each year.

AUDIENCE RESPONSE DEVICES IMPROVE COVER CROP WORKSHOP IMPACT

Max Glover, University of Missouri Extension

Adult learners have a wide range of education and experience. Many Extension education programs offered face-to-face require the presenter to make assumptions as to the existing level of expertise and experience of attendees. In many situations, immediate feedback from participants enables delivering information that will have the biggest impact on participant learning. Research results indicate that cover crops offer great potential to improve soil health and reduce erosion of topsoil in row crop systems. Programs that provide information on cover crops may attract an audience with diverse education and experience. Audience response devices used at a "Soil Health and Cover Crop" workshop offered by USDA NRCS, the Shelby Soil and Water Conservation District, and MU Extension enabled out of state farmer-expert speakers to provide information pertinent to Shelby County growers. The audience response devices also provided impact information to the funding agencies that awarded grant funding to support the workshop. With more detailed impact information both granting agencies and workshop sponsors can provide more effective educational programs, enabling growers to use cover crops to improve soil health, reduce erosion, and improve the long term profitability of their farming operations.

PESTICIDE USE AND SAFETY EDUCATION AMONG THE ANABAPTIST COMMUNITIES OF LANCASTER COUNTY PENNSYLVANIA

Jeffrey Graybill, Penn State Extension

Lancaster County, PA has a large and diverse Anabaptist farming population. Census findings indicate about 30,000 Amish and nearly an equal number of Mennonite and other groups reside within the county. A primary vocation being farming, it is estimated that over 1,500 individuals (typically the male head of the farming household) take responsibility for pesticide use and safety on their own farms. While most of these farmer applicators have obtained their private pesticide applicator's license, a significant number have not. Amish and Mennonite schools provide practical education through the 8th grade. While lessons are generally conducted in English, most students do not develop a technical vocabulary such as is found on a pesticide label or on the state pesticide licensing exam. Surveys and interviews found that many of these "Plain sect" farmers were not practicing safe pesticide use; including state mandated recordkeeping requirements. A 2008 survey found that 28.4% (318 farmers, n= 1118) of plain sect private PA pesticide license holders were not recording their pesticide use. Additionally, many applicators were not practicing safe storage and handling practices. Based upon this survey, several grants (NIOSH: grant #2 U50 OH007542- administered by NYCAMH, & Pa Dept. of Ag. Regional Pesticide Education Funds) totaling over \$5,000.00 were obtained to create, publish and disseminate a pesticide recordkeeping log book. From 2008 to 2010 approximately 15 "pesticide points" meetings were attended annually by the educator, at which time the log books were disseminated as well other educational materials. Log books have also been distributed to other educators, adult farmer instructors and vo-ag teachers working within the county and surrounding counties. 5,000 record books were produced from 2008 – 2010, with approximately 3,000 distributed within Lancaster county. A follow-up survey, anecdotal evidence, and continued strong demand for the books indicate their acceptance and use within Amish and Mennonite farming communities. Pesticide education has improved with numerous annual meetings held at Amish and Mennonite farm stores and businesses to take the information into the communities where it is needed. Most of these meetings are conducted without the benefit of electricity and utilize handouts, games, demonstrations, and flip charts as well as question and answer sessions to emphasize the importance of pesticide use and safety. Two pesticide study sessions are offered each year in January at Amish businesses which prepare and educate about 55 individuals to take the state applicators test, which is then administered by a PA department of Ag representative. The large number of children, livestock and pesticides found on

Lancaster farms is a cause for serious health concerns, both environmentally and for farm families. Extension pesticide education efforts have helped the plain farmers of the county better understand the risks and benefits of pesticide use; and how to safely use these products by reducing exposure to themselves, their families and local environments.

300 DAYS GRAZING PROGRAM INCREASES SAVINGS FOR PRODUCERS

Daniel Griffin, University of Arkansas Cooperative Extension Service

John Jennings, University of Arkansas Cooperative Extension Service

Kenny Simon, University of Arkansas Cooperative Extension Service

Van Buren County's 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.

SENTINEL STREAM CROSS SECTIONS

Mike Haberland, Rutgers NJAES Coop Extension
Craig McGee, Camden County NJ Soil Conservation District
Chasity Williams, Camden County NJ Soil Conservation District

Development and changes in land use can have a direct impact on the receiving stream corridor. These changes may occur over a long period of time and may be difficult to observe and even more difficult to measure. In Watersheds experiencing very rapid development, even with the use of current stormwater management practices, the ultimate impact to the stream corridor is unknown. We've created a series of sentinel cross-sections at key locations within the watershed to monitor changes within these stream corridors. Permanent monuments (sentinel cross-sections) were installed throughout the watershed. Each location was selected downstream of areas where development is proposed, to observe and quantify any changes to the stream corridor. Some cross-sections are on first order tributaries, while others are further downstream. At each site a cross-section was surveyed, end points marked and mapped with GPS, field sketches locating end points in relationship to prominent local features, longitudinal profile surveyed, bankfull elevations estimated and photographs taken. All the information was recorded and then summarized on a "Cross-Section Detail Card" to be used in the field for relocating the monuments. As development takes place, even with current stormwater management practices, it is likely that the stream corridor will evolve to accommodate the new runoff patterns of the developed watershed. The cross-sections will be re-surveyed and compared to the initial survey. Changes to the cross-section will be analyzed to determine if they are representative of natural channel evolution or of changes in the contributing watershed's hydrology.

YOUTH LIVESTOCK SKILLS EDUCATION

Cindy Ham, University of Arkansas Cooperative Extension Service

Projects are the foundation of 4-H work. Project work can help youth achieve goals in life by teaching them life skills through learn-by-doing activities. Youth in Franklin County learn about livestock production and management through individual project work in beef, swine, sheep and goats. In addition to the hands-on knowledge gained through their own individual livestock projects, youth were also trained through educational workshops, skill-a-thon activities, showmanship competitions, participation in the state fair junior ambassador program, and exhibition

in junior livestock shows on the county, district, state and national level. The Livestock Skills activities give youth the opportunity to exhibit their knowledge gained through their beef, swine, sheep and goat projects, educational workshops and livestock shows. Through participation in Livestock Skills activities youth gain additional knowledge in the production and management of meat animals. Livestock Skills education involves identification of breeds, livestock equipment, retail meat cuts, and livestock feeds, a written exam of the total livestock industry, evaluation of livestock feeding and performance and management decisions based on quality assurance. Four youth from Franklin County represented Arkansas at the National 4-H Livestock Skills competition in Louisville, Kentucky in 2011 as a result of winning the state livestock skills contest.

PROMOTING YOUTH AGRICULTURE & FOOD SAFETY THROUGH HAM/BACON CURRICULUM IN WEST VIRGINIA

Greg Hamons, West Virginia University Extension
Shirley Wilkins, West Virginia University Extension

Over the past decade food handling, food safety and livestock quality assurance have become key issues in food systems throughout the United States. Over this same period the Ham/Bacon Project in West Virginia has evolved from a traditional skill which took place at home sites of 4-H/FFA students into a precisely regulated activity that emphasizes food handling and safety and takes place at centralized meat processing facilities constructed within participating school districts.

Over a decade ago, participants in the ham-bacon project cured their hams and bacons at each of their home sites. Unfortunately, less than desirable conditions existed with no climate control and lack of constant monitoring at these various sites and eventually the West Virginia Department of Agriculture determined that the facilities to process, cure and smoke the hams and bacons were not acceptable with regards to food handling and safety. This eventually led to the recruitment of funds and the construction of an exceptional meat processing facility at Pocahontas County High School that would become a prototype for other ham and bacon curing facilities around the state. The resulting facility includes an overhead carcass transport system, multiple cooling and freezing areas, a drying room, a meat smoking room and smoker unit and a meat processing room which meets or exceeds state and federal meat processing facility requirements.

The Ham and Bacon curriculum has created a unique learning opportunity for 4-H/FFA students; it allows them to see every aspect of animal agriculture; from raising, feeding and caring for their project animals to processing the finished carcass to putting a food product on a consumer's table. Students

get hours of hands on experience handling, processing and labeling meat products for public consumption all while learning the proper techniques for processing and curing meat products and are rewarded for their efforts through the sale and consumption of products at the culmination of the project each year. Monies received from these sales typically are reinvested by youth into future 4-H/FFA projects or towards higher education opportunities.

SWEET CORN INTEGRATED PEST MANAGEMENT IN MAINE: AN EXTENSION-FARMER PARTNERSHIP

David Handley, University of Maine Cooperative Extension
James Dill, University of Maine Cooperative Extension

Sweet corn is a very important retail vegetable crop in Maine, due to high consumer demand for fresh corn during the summer months. However, an aggressive insect pest complex, including European corn borer, corn earworm and fall armyworm, combined with very low consumer tolerance for insect damage can make this crop challenging to grow profitably. High rates of insecticides used in the past to achieve high crop quality are no longer considered economically, environmentally or socially tolerable. For more than 25 years, the University of Maine Cooperative Extension has been working with local farmers to develop and support IPM practices for sweet corn production. This program was the first to introduce pest monitoring techniques and the use of economic action thresholds to Maine sweet corn growers. The program now reaches over 100 farms statewide, and is part of a network to provide information throughout the Northeast region. More than twenty farmers work with Extension to provide monitoring sites and pest information each season, which is shared with over 100 growers via weekly electronic newsletters, blogs and our web site. Farmers have participated in applied research projects throughout the program, including projects to evaluate trap types and placement, specialized silk treatments, and parasite releases. Program evaluations indicate that participating growers have modified their pest management practices as a result of their participation, most often reducing the amount of pesticide used. Most have seen an improvement in their crop quality, and have found that IPM has improved their crop profitability.

WSU MEAT ANIMAL EVALUATION, ANALYSIS AND TECHNOLOGY TEAM: ADDING VALUE TO MEAT PRODUCTS FROM FARM TO TABLE

Mark Heitstuman, Washington State University Extension
Jan Busboom, Washington State University Extension
Susan Kerr, Washington State University Extension
J. Shannon Neibergs, Washington State University Extension
Mark Nelson, Washington State University Extension
Janet Schmidt, Washington State University Extension
Sarah Smith, Washington State University Extension

Meat Animal Production is significant to the economy of the State of Washington. According to 2011 data, cattle ranked 6th and eggs ranked 12th in total commodity value. Due to Washington's location on the Pacific Rim, the state exports meat products throughout the world. From niche producers to large scale commercial operators and packing plants- individuals are seeking information to gain a better understanding of food production from farm to table. Since 2006, the Washington State University Meat Animal Evaluation, Analysis and Technology (MEAT) Team has addressed the need to provide state-of-the-art food production information through beef, lamb, pork and poultry education programs. 300-level programs provide 30-hours of hands-on instruction addressing production, processing, distribution and merchandizing of livestock and meat products. 200-level programs are condensed 1.5-day versions of the advanced 300-level programs and are held throughout Washington. 100-level programs provide basic information and target beginning livestock producers and youth. Unique facets of the 200 and 300-level programs include teams processing a quarter or half of beef, lamb or pork into wholesale and retail cuts; and a session led by the WSU Executive Chef pairing meat products with wine and other beverages. All MEAT Team programs focus on adding value to meat products at the farm/feedlot, processor and retail levels. Innovative producers, industry leaders, and Extension faculty from WSU, Oregon State University and the University of Idaho use the latest technologies and research to address critical and emerging issues, regulations and quality standards. Topics discussed during each program include: Marketing, Live Animal and Carcass Evaluation, Fabrication/Processing, Food Safety and Taste, and Adding Value to Products. Over 350 individuals have participated in MEAT Team trainings. Evaluations indicate that participants have increased their marketing skills by 86%, increased their live animal and carcass evaluation skills by 87%, and increased their understanding of food safety and quality assurance by 100%. Seventy-three percent of survey respondents said that the programs positively impacted the economic status of their operations. Plans

for 2013 are to offer programs in Spanish; and to develop on-line learning modules to provide additional information to beginning and small farm producers. MEAT Team members are also available to provide training, technical assistance and notebooks/resource materials to other Land-grant universities interested in replicating these successful programs.

2012 DROUGHT FORCES IMPROVED MANAGEMENT

Matthew Herring, University of Missouri Extension
Ken Bolte, University of Missouri Extension

The 2012 drought will be remembered as one of the hottest, driest and most devastating to occur in Missouri in the past 60 years. The drought that began in May became progressively worse through June, July and the first week of August. University of Missouri Climatologist Pat Guinan provided information that Missouri experienced the third driest May through August period on record with 8.23 inches of rain, less than half of average rainfall during this period. He also reported the time period as the third warmest with temperatures about 3.5 degrees above normal. Crop and livestock producers were both affected by the drought. Crop farmers, who generally have no irrigation options could only watch while crop conditions declined. Cattle producers were faced with forages that stopped growing and evaluating purchasing hay and other feed supplies that increased in price as the drought continued. University of Missouri Extension faculty worked in multiple ways to reach farmers with information and recommendations for managing the impact of the drought. Many farmers realized that their corn crop was likely not going to make much grain and considered chopping or baling it for feed. Some cattlemen who had never made silage before evaluated their options including harvesting corn for silage from a neighbor who did not have cattle. For farmers who had never made silage before there were many questions and a steep learning curve. Nitrate testing forages using diphenylamine was a common way to make an initial contact with a farmer. Some farmers would bring multiple corn and warm season annual grasses to be tested for nitrates. This qualitative testing gave farmers an initial idea of their options for using these crops for feed. Follow up discussions via phone and in person covered crop and forage management options. A newsletter and meeting covered topics including nitrates in forages, forage harvest management, emergency forages, weed control, nitrogen management and aflatoxins. Over 300 farmers were reached in Franklin and surrounding counties through meetings, newsletters and one on one consultation. Farmers minimized the impact of the drought by finding new ways to assure necessary forage for livestock including making silage from drought stressed corn and

warm season annuals, planting cool season cereals in late summer and fertilizing fescue to increase fall growth. Farmers learned to evaluate forages for nitrates and grains and silages for aflatoxin. Farmers also realized benefits from unused fertilizer nutrients.

NEW DIRECTIONS IN PROGRAM EVALUATION FOR AGRICULTURAL EDUCATORS

Elizabeth Hill, University of Maryland Extension
Shannon Dill, University of Maryland Extension
Teresa McCoy, University of Maryland Extension

Extension educators nationwide are being asked to report program results through impacts and outcomes. To understand and address these requests, a structured program evaluation plan is critical to ensure Extension's ongoing success and to document Extension's value. However, dwindling resources and the lack of evaluation training for staff make it difficult for educators to conduct anything beyond basic evaluations that do not fully utilize collected information. University of Maryland Extension has started the development of step-by-step guidelines that can be shared with Extension professionals across the country to effectively improve evaluation methods and utilize results. The guidelines address:

1. the design of evaluative surveys that integrate with one another so that aggregated—and not just individual—reports can be compared and shared;
2. the maximum value of collected data by creating surveys that easily link with data from external datasets, such as the U.S. Census and the USDA Agricultural Census; and
3. statistical correlative and response models that help educators better understand their target audiences.

Such guidelines will not only aid educators in designing, implementing, and successfully using evaluative outputs, but will also sharpen Extension's ability to create sustainable long-term educational outcomes.

BEGINNING CATTLE MANAGEMENT 101

Mindy Hittle-McNair, University of Florida/IFAS Extension
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Jennifer Bearden, University of Florida/IFAS Extension
Shepard Eubanks, University of Florida/IFAS Extension
Mike Goodchild, University of Florida/IFAS Extension
Allison Meharg, University of Florida/IFAS Extension
Charles Simon, University of Florida/IFAS Extension
Pete Vergot, University of Florida/IFAS Extension

The local grown food movement has piqued individuals' interest in how they can either raise or obtain food from

local sources. Whether for health reasons, hobbies, or just being tired of the hustle and bustle many Americans are looking for ways to get back to nature and agriculture. Due to the numerous calls and visits from clientele, a demand for basic level knowledge and skill programs was shown. Walton County, Florida has more new or novice agricultural producers than full time long term successful producers. Instead of thinking of the elite producers and meeting their needs, the focus of Extension agents' time and programing went to the beginner and novice producers. A variety of beginner programs came to life. The first beginner program developed was Cattle Management 101. Reaching the beginner or novice producers allowed Extension to gain new clientele and bring life back into agricultural programing. The new clientele are eager for all of the information possible. The Cattle Management 101 course consisted of five, two hour sessions, held over a two month period. The course was offered to several counties via internet enabled interactive videoconference equipment. The course was designed to deliver basic knowledge, skills, and resources to small and beginner cattle farmers. The educational program emphasized how to get started in the cattle industry covering: cattle breeds, genetics, nutrition, forage management, herd health, reproduction, facility development and management, marketing, poisonous plants, equipment, and beef quality assurance. Local agents coordinated the program with subject matter specialists from UF/IFAS Extension and the Alabama Cooperative Extension System providing individual topic expertise. A notebook containing cattle management Extension publications was provided to each participant. Each week agents displayed items, tools, and resources to match the topics being discussed to give a more hands on approach. The final night of the program series was an industry tradeshow. The tradeshow allowed participants to meet their local beef cattle industry representatives and see equipment, tools, and supplies first hand that were discussed during the series. Both participants in the class and industry representatives were very pleased with the opportunity to meet each other and start relationships. A total of 49 participants registered in Florida and Alabama counties (5). Initially, 68% (32 of 47) rated their knowledge of beef cattle and the industry as very little to some, but by the end of the series, 46% (24 of 47) rated their knowledge of beef cattle and the industry as knowledgeable to very knowledgeable, reflecting an 85% knowledge gain. Of the 47 respondents, 89% reported a greater understanding of Beef Cattle Genetics, Reproduction, and herd health, 85% have greater confidence in establishing or expanding their cattle herds, 93% had a greater understanding of the importance of Marketing, Facilities, and Equipment, and 91% had a greater understanding of beef cattle Best Management Practices and Beef Quality Assurance.

SUSTAINABLE AGRICULTURAL TRAINING TO ENHANCE SOIL QUALITY, SOIL HEALTH, AND ECOSYSTEM SERVICES

James Hoorman, Ohio State University Extension
Wm. Bruce Clevenger, Ohio State University Extension
K. Rafiq Islam, Ohio State University Extension

A SARE Professional development grant (2011-2012) was obtained to do sustainable agriculture training in four states for 200 professional teachers. Each training session covered topics related to using cover crops with conservation tillage to improve soil and water environmental issues. Selection, seeding, management, and termination of cover crops along with conservation tillage methods were discussed and how these practices could improve environmental services. The workshops also discussed climate change and how sustainable agriculture practices could adapt to extreme weather conditions. Socio-political issues with modern agriculture were also covered. A combination of sustainable agricultural practices like cover crops and conservation tillage could reduce issues with nutrient management (use less commercial fertilizer), surface runoff, soil compaction, integrated pest management (reduce pesticide and chemical usage), and improve water infiltration and water storage. The objective was to develop multi-state training workshop (four to five day workshops) on sustainable agriculture and ecosystems services. Participants would include Extension professionals, government agencies, crop consultants, farmers and farming organizations, and environmental groups. Participants were provided with teaching materials that included a teaching outline, fact sheets, notebooks, cover crop field guide, websites and a CD to conduct training sessions for local farmers. The overall goal was to improve and enhance environmental services by improving soil quality and soil health. The Extension Educators developed several short-term, intermediate, and long-term outcomes for this training. Increasing knowledge on ecosystem services and sustainable agricultural practices was a desired short-term outcome. An intermediate outcome was to have professionals transfer this knowledge about soil health, and soil quality using no-till and cover crops to the farming community. Benefits would include increased nutrient management, reduced pests and chemical applications to control pests, and improved soil and water quality. The overall goal was to increase consumer knowledge, acceptance and implementation of these sustainable agricultural practices. Long-term, the goal is to increase adoption of No-Till and cover crops by 20-30% within a fifteen year time period. If legume and clover cover crops could be increased by 20%, the goal is to reduce nitrogen fertilizer usage by 10 to 20% possibly a 35% reduction within ten to fifteen years. This project was completed in 2012 but was extended for another year. Four sessions were completed with 315 participants from 21 states

and additional sessions are planned in Illinois, Missouri, Iowa, and Indiana. Sessions were conducted in Michigan, Minnesota, Ohio and Texas. The Midwest Cover Crops Council, Ohio No-Till Council, and Conservation Tillage Conference, and National Soil and Water Conservation Society supported this project. A gain in knowledge of 20% was recorded for nutrient management, crop diversity, conservation tillage, soil compaction, and soil ecology. Participants reported that increasing their knowledge reduced barriers to implementing sustainable practices and that increasing soil organic matter was the best way to improve soil quality, soil health, and ecosystem services.

RUTGERS NJAES AGRITOURISM WEBSITE+

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Richard VanVranken, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

The Rutgers NJAES Agritourism Working Group developed a detailed website focusing on agritourism issues in New Jersey that was launched in 2011. The goals of this website and the agritourism program are to find and deliver answers to agritourism related issues, to serve as a resource for Agritourism in New Jersey, and provide timely information as it becomes available. Topics found on the website include: researching accepted practices; defining markets; facilitating collaboration and encouraging entrepreneurship; helping farm families transition from a wholesale to a hospitality business model; helping farmers understand risk management issues in agritourism enterprises; informing and educating policy makers and economic development planners interested in the economic opportunities seen with agritourism; building consensus on regulatory issues to allow agritourism to flourish while being sensitive to public

needs; training agricultural professionals to convey methods discovered through scientific research that yield profitable, environmentally sound agricultural practices while managing financial risk; and raising consumer awareness about the benefits agritourism provide to their families and communities. Tabs on the website are organized and can be selected based on who is visiting the site. Sections were created and tailored for farmers, agricultural educators, tourism professionals, planners and policy makers, and for farm visitors. Additionally, a “file cabinet” tab is prominently located and houses educational materials from past educational events, extension fact sheets, and links to other website resources related to agritourism. Past webinars presented on subjects related to agritourism can also be viewed through links listed in the file cabinet section. Rutgers NJAES faculty and staff who are active members of the Agritourism Working Group are listed on the site and can be emailed questions directly from the site. Promotion of this new website has been done via newsletters, email distribution to clientele, by using advertising give-a-way items (pens, cups, sticky notes) at major agricultural events, public and association presentation opportunities, and word of mouth. The website is updated regularly and will soon have instructional videos that are related to agritourism safety topics. Additionally, the team is working on budgets and cost analysis to aid in business planning for agritourism farms. To view the website visit <http://njsustainingfarms.rutgers.edu/agritourism.html>.

HONORING AGRICULTURAL INNOVATORS TO HIGHLIGHT DIVERSE AGRIBUSINESSES IN NORTHWEST FLORIDA

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Mindy Hittle-McNair, University of Florida/IFAS Extension
Judy Ludlow, University of Florida/IFAS Extension
Doug Mayo, University of Florida/IFAS Extension
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Agriculture in the Florida Panhandle has a long family tradition, but is increasingly innovative and diverse.

In 2011, University of Florida Agriculture Extension Agents and Farm Credit of Northwest Florida began an annual recognition program for agricultural innovators from across the panhandle to highlight the diversity of farming industries and demonstrate the value of Extension programming. In the past two years, the program has honored 22 innovative farmers and ranchers. Objective: Annually, 10 innovative producers from counties within the northwest district of Florida will be nominated and recognized at an annual banquet to highlight inventive advances in small and large scale agriculture production and bring positive attention to local agriculture. Methods: UF IFAS Agriculture Extension agents from the Northwest District submitted detailed nominations for innovative producers in his/her county. The standardized nominations had three criteria with points allotted to each: Describe the innovation displayed by the nominee (50 points), Describe how the nominee has worked with Extension to improve Agriculture in the Northwest District (25 points), and What impact has this producer had on agriculture in the region? (25 points). The county nominations were ranked by judges from outside the region so that an overall nominee would be selected to represent the Panhandle as the Agricultural Innovator of the Year. From the award nominations, an awards booklet was created highlighting the creativity of each operation and the leadership provided by the producer to the agricultural community. These biographies included contact information to encourage attendees to continue sharing ideas with each other after the event. Each Extension agent created a short multimedia presentation highlighting the accomplishments of their county's agricultural innovator. These were compiled into one overall presentation and used at the luncheon. The same information was shared with mass media and multiple websites following the event, providing further recognition of these dynamic agribusinesses and creating agricultural awareness with the general public. Outcomes: From an end of program evaluation administered to award recipients and their families at the 2012 luncheon, the following results were gathered:

- 100% (23 of 23) of respondents felt that the program was very worthwhile to recognize farming innovations and contributions to this region.
- 96% (23/24) reported gaining new ideas from the innovator program that they can use in their own operations.
- 87% (20/23) planned on contacting one of the other agricultural innovators in the future for ideas to implement on their own farm.

The biographies of the various agricultural innovators were published on numerous media platforms reaching an estimated two hundred thousand non-farm readers district-wide. Impacts: This program has multi-level impacts. It highlights the diversity of our farming industries as well as

demonstrating the value of Extension programming and resources to the non-agriculture population. It reinforces a strong partnership between IFAS Extension and Farm Credit of Northwest Florida. The ultimate impact of the program, however, is that it provides both recognition of agricultural innovators, and fosters future innovations by building relationships among creative farmers across 13 counties, and the Extension Agents who serve them.

BULL BREEDING SOUNDNESS EXAM PAYS

Mark Keaton, University of Arkansas Cooperative Extension Service

Beef production is one of the main agriculture commodities in Baxter County and is very important to the counties' economy. There is approximately 20,000 head of beef cattle. Across the United States and in Arkansas, 20% of bulls tested for breeding soundness fail. Also, trichomoniasis (trich) in cattle has been increasing in states west of Arkansas and spreading eastward. Trich is a venereal disease of cattle and decreases reproduction. Reproductive performance is key to realizing maximum returns from the beef cattle enterprise. Both cow and bull must be reproductively sound to produce a live calf. However, the bull has a much greater impact to reproductive success of the herd than a single cow. It is possible to lose an entire calf crop, if the bull is infertile. Also, if a bull is a marginal breeder, he could cause delayed conceptions, which lead to a longer calving season and decreased animal performance. To address this growing problem we conducted Breeding Soundness Exam (BSE) clinics to teach producers how to avoid trich and other bull fertility and breeding problems. From the BSE clinics conducted, there were 3 bulls that did not pass the semen evaluation and no bulls tested positive for trich. Each of these 3 unsatisfactory bulls would be expected to settle 25 cows, but let's assume they only produce a 50% calf crop, meaning a total loss of \$26,280 (25 cows x 50 percent = 12 calves x 500 lbs. weaning weight = 6000 total pounds x \$1.46 per lb. selling price = \$8,760 x 3 bulls = \$26,280 total loss). All the cattle producers involved in the clinics were presented this economic information and it got their attention, with 100% indicating they would utilize a Breeding Soundness Exam as a management practice in the future. We expect this to positively impact beef production over time in the county.

USING MASTER GARDENER VOLUNTEERS AS EXTENSION INSTRUCTORS TO 'GROW' PROGRAMMING

Eric Barrett, Ohio State University Extension
Harold Kneen, Ohio State University Extension
William Snyder, Ohio State University Extension

Volunteers are a tremendous asset to any Extension program. Well trained volunteers who can teach aspects of Extension programs provided additional value. Data from two counties shows that through adding a teaching exercise to the Master Gardener Volunteer training programs, Extension programs have expanded the reach of their programming at the local level and beyond. Each year through the training program, trainees are required to teach a 20-30 minute session on their favorite gardening topic. The presentation must include an outline and a matching factsheet from any land grant institution to support the unbiased, research based information mission. Volunteers report increased confidence in their ability to teach, gained skills in creating presentations and satisfaction from increased programs and activities.

PIPELINE EASEMENTS, A NEW ERA FOR LANDOWNERS

Mark Landefeld, Ohio State University Extension
Peggy Hall, Ohio State University Extension
Steve Schumacher, Ohio State University Extension

Pipelines perform an important role in this country to move fuel and other petroleum products above and below ground to various destinations for refinement and use. According to the U.S. Department of Transportation, a pipeline provides the safest mode of transportation for petroleum products and reduces the quantity of refined products conveyed over highways and railway. The new era of Utica and Marcellus shale production in our region has created a high and urgent need for miles of new pipeline infrastructure. Programs, factsheets and other informational materials were developed to educate landowners about easements and help them understand the scope of granting a right-of-way across their land. These educational programs have reached hundreds of individuals who own land in this area. Post program participant evaluations confirmed the knowledge gained and impact of these meetings.

DEVELOPING A SUSTAINABLE FRESH FRUIT AND VEGETABLE COOPERATIVE

Willie Lantz, University of Maryland Extension

While consumers are interested in purchasing local produce, they are often challenged to change their purchasing habits in order to participate in typical methods by which local produce is sold. Tailgate markets and farm stands require customers to plan their shopping trips especially for farmers markets that are only open a few hours a week. A majority of consumers purchase fresh fruits and vegetables while shopping for other grocery items. While it might seem logical for farmers to marketing to grocery

stores, this presents many challenges for farmers and grocery stores. Most grocery stores and restaurants purchase their fruits and vegetables from a limited number of sources. Dealing with many farmers who produce specific fruits and vegetables is time consuming for grocery store managers and restaurant managers. In order to satisfy grocery and restaurant managers, fruit and vegetable producers need to band together and operate like a single company. To accomplish this task, a group of eleven fruit and vegetable producers in Garrett County started the challenging task of organizing a producer cooperative. The group formed an agricultural cooperative (Garrett Growers Cooperative). Without facilities to aggregate and package, they planned to put in place a customer ready pickup and delivery system. With this system, delivery days were established and the coordinator let the farmers know what was to be picked up. The farmers prepared the fruit and vegetables according to standards established by the cooperative. The cooperative began the process by conducting a survey and interviews with produce and grocery store managers and restaurant owners. The information they gathered was used to develop a chart that estimated the weekly need for various types of fruits and vegetables throughout the year. Producers then estimated the amount of production that would be needed to fulfill the demand. Producers committed to producing predetermined amounts of specific vegetables for specific weeks of the year. One of the goals of the group was to have production from Memorial Day to Labor Day. Many of the producers have high tunnels and one producer has a hydroponic tomato house which helped the cooperative to meet the demand during the entire summer tourism season. The cooperative delivered \$28,000 of local produce to twelve restaurants and grocery stores in 2012. A survey conducted with cooperative members indicated 86% had increased the percentage of farm income from fruit and vegetables in the past two years. After participating in the cooperative for two years, the farms averaged 44% of their produce sold to wholesale outlets. All of the participants indicated they were satisfied or very satisfied with marketing their fruits and vegetables through the cooperative. All of the participants also indicated that marketing fruits and vegetables through the cooperative was important or very important to the success of sustaining or increasing profitability on their farm. 86% indicated that they planned to increase sales to the cooperative in the future.

INCREASED INMATE EMPLOYABILITY THROUGH HORTICULTURAL CERTIFICATION

Matthew Lollar, University of Florida/IFAS Extension

Research shows that an unemployed offender is three times more likely to return to jail than an employed offender.

A study by the New York Department of Labor indicates 83% of offenders who violated probation or parole were unemployed at the time of violation. A study conducted by the Texas Department of Criminal Justice stated 74% of offenders' ranked employment as their number one problem after release. Educational Methods: The Seminole County Inmate Education Program uses an existing curriculum to allow inmates the opportunity to become Florida Green Industries Best Management Practices Certified. This certification will become mandatory in 2014 for all individuals applying fertilizer for-hire in the state of Florida. The training consists of five horticultural modules which were broken up into seven days (in seven weeks) of training to allow a day each for pre- and post-testing. Results: 24 participants began the training in the first week and only 4 completed the training. This was due to scheduling conflicts and the high rate of inmate relocation within a county jail environment. One hundred percent (n=4) of inmates who took the final exam became certified. Conclusion: The Seminole County Inmate Education Program will continue to grow and promote best horticultural practices in a new era of environmental awareness. The training will be reduced to a two week period to increase participant retention.

USING A NEEDS ASSESSMENT TO BUILD A FOUNDATION FOR AGRONOMIC EXTENSION PROGRAMMING IN CENTRAL ARIZONA

Shawna Loper, Arizona Cooperative Extension

A needs assessment survey was conducted among producers, Pesticide Control Advisers, and other agricultural industry professionals in Central Arizona. A big challenge has been that a large portion of the area has been without contact from an agricultural agent for several years. So, one of the big tasks has been to reconnect with those individuals and groups to get their input. The survey focused on agronomic topics in field crop production and preferred methods of communication. Participants were asked to identify which agronomic topics they were interested in for their operations and whether they were interested in new research, education opportunities, or both. Results from the survey were used in the development of services and programs by the area agricultural agent. A follow-up questionnaire was done the following year to reassess stakeholder's interests.

LEADERSHIP APPRECIATION BREAKFAST

Kevin Lyons, Kentucky Cooperative Extension Service
Lynn Blankenship, Kentucky Cooperative Extension Service
Amber Huffman, Kentucky Cooperative Extension Service
Pat Margolis, Kentucky Cooperative Extension Service

Chris Milam, Kentucky Cooperative Extension Service
Steve Osborne, Kentucky Cooperative Extension Service
Paula Tarry, Kentucky Cooperative Extension Service
Tracy Thornton, Kentucky Cooperative Extension Service
Janet Turley, Kentucky Cooperative Extension Service

Workforce development is a key issue affecting our clientele. Many individuals are in need of educational opportunities to help them expand their business and workforce skills in order to compete in the current economic conditions, and the circumstance they will face in the future. Extension can play a vital role in helping them overcome their challenges and realizing their potential. The agents of the ten county Mammoth Cave Area in south central Kentucky have provided many avenues for clientele to receive assistance with workforce development. Programs such as the Entrepreneurial Coaches Institute; Connecting Farms to Markets; and Annie's Project are just a few examples. Participants learned the fundamentals of business plans; marketing plans and strategies; legal issues; and leadership. In order to promote the value of Extension in workforce development, a Leadership Appreciation Country Ham Breakfast was held for county and state elected officials of the Barren River Area Development District. During the breakfast, the Director of the Kentucky Cooperative Extension Service thanked our guests for their support of Extension. The highlight of the program was a video of local entrepreneurs telling their success stories, and how they were assisted by Extension. The ten minute video featured participants of economic development programs delivered by area agents. The message of the local stakeholders emphasizing the role of Extension in transforming their lives was greatly appreciated by the decision makers in attendance. The video can be viewed at www.youtube.com/watch?v=Ag0_WWODpIw Events like the Leadership Appreciation Breakfast are crucial to Extension's future. Individuals and families must continue to have access to quality Extension programs. But it doesn't stop there. Extension must continually strive to tell our own story to stakeholders, taxpayers, and elected officials. We often take for granted that everyone is aware of how valuable a resource we are to our communities. That is a mistake we cannot afford to make. We must advertise our services, promote our brand, and tell our story in order to build a stronger bridge to the future.

SPRAY TECHNOLOGY ROAD SHOWS FOR NEW GROWER GROUPS

Timothy J. Malinich, Ohio State University Extension
Heping Zhu, USDA Application Technology Research Unit
Randal Zondag, Ohio State University Extension

Increasing economic and environmental pressures have opened the door to introduce methods to optimize spray parameters, including the calibration process, as a means of saving inputs and reducing environmental pressures. This has created interest among producers not usually attracted to these topics; the initial targeted audience was nursery growers but the educators are now also working with grape growers in the region as well. Simple methods of demonstration (in field or classroom setting) are used to prove the concepts to growers. Then, in the grower's own fields, water sensitive paper is used to test sprayer function prior to any optimization work on the equipment. Faults with the sprayer or spray coverage are identified by participants. Optimization includes not only calibration but also adjusting output to meet individual crop demands. A digital reader (such as a spray coverage scanner or paper scanner) and free software are used to quantify the data. The ability to put one's "hands on" the evidence makes the demonstration memorable and computer assisted feedback provides firm data to support the optimization work. Up to four sprayers can be optimized during the typical day-long program. After calibration and optimization, the field test is run again and the results compared. Workshop participants benefit from having an optimized sprayer. Participants have stated their intentions to not only use the information within the season, but have also requested additional programs at other local farms. These sessions with field demonstration and quantifiable data have renewed interest among producers, bringing them back to extension programs outside of the yearly pesticide recertification classes. The workshop methodology can provide a more tangible experience for participants. Requests for these programs indicate that calibration services can provide cost recovery funds in some areas. Video, handouts, software, hardware, websites and program outlines have created a replicable curriculum. Workshop evaluations and personal communication indicate that growers are using skills learned in the operation. Those operations adopting new technology along with sprayer optimization have realized spray volume reductions of over 50%.

A NEW ERA IN COMMUNICATION: MERGING TRADITION AND TECHNOLOGY

Jennifer Matthews

Robin Brumfield, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Jenny Carleo, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

April Lippet-Faczak, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Meredith Melendez, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Barbara O'Neill, Rutgers New Jersey Agricultural

Experiment Station Cooperative Extension
Nicolas Polanin, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Annie's Project New Jersey is a seven-week, farm business management course for women delivered by Rutgers Cooperative Extension. We used a combination of webinars and in-person meetings to educate the participants. Evaluation surveys were given on the last day of class, three months post-class and six months post-class. Results showed that a new era in extension education may not necessarily be leaving the traditional methods of communication behind, but instead merges traditional communication with social media. Data was gathered using a combination of in person, online and telephone surveys and showed that the vast majority of surveyed respondents shared the knowledge gained with a variety of others through different communication methods. Data revealed that 61.3% of participants used social media, yet 93.5% shared the information they learned. The women participants in our course freely shared information with those closest to them, but were less likely to share outside their inner circles. Collecting this type of data enables extension professionals to gain insight into where their information goes when they are done teaching it. Knowing who participants shared their information with also gives you insight into who they did not share it with, enabling educators to expand and improve outreach efforts to include more diverse audiences.

AREA FIELD DAY BRIDGES KNOWLEDGE BETWEEN GENERATIONS

Eugene Matzat, Purdue Extension

Crop producers need fact-based information in order to remain productive and competitive in agriculture. Researchers and Extension specialists need a forum at which to share their practical research with farmers who can then benefit from adoption of the results. A field day at one of Purdue's Ag Centers provides an opportunity to meet both needs. By hosting a field day that encourages specialists to share their latest research on various crop production activities or pest management practices with local farmers and others through field tours and concurrent sessions, an efficient means of getting results to a multitude of those who can benefit from them is attained. The Pinney Purdue Field Day is an annual event that is a collaboration between Pinney PAC, Area County Educators, Purdue Extension Specialists, and some outside partners. Besides a full morning of four to six presentations, a health fair is sponsored by an area partner, a sponsored meal is served by volunteers. After lunch is served, a Purdue Ag Economist provides an outlook for commodity prices. Those who attend can also receive credits for their private or commercial pesticide applicator

licenses and Certified Crop Advisers can get continuing education units. An evening program is also hosted on the same day for folks that work during the day. The primary purpose for the evening program is to offer private pesticide applicator credits and share research results. Field day presentations typically cover corn, soybean, cover crops, nutrient management, producer safety and insect and disease pests. This continues to be the best attended field day hosted by an Ag Center for Purdue Extension (350 for day; 80 for twilight) and provides a great forum for vendors and sponsors. The poster presentation will share impact results from responding participants as to the acreage of crops grown, the impact from knowledge gained at the field days, and changes made to farming practices as a result of attending a field day. Since this field day has been conducted successfully for generations, its legacy now attracts university administrators, elected officials, a significant number of sponsors and vendors who support the event and many farmers from both the local area and from other regions of this state (Indiana) and nearby states.

WHITEFLY MANAGEMENT EDUCATIONAL PROGRAM+

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Vanessa Campoverde, University of Florida/IFAS Extension
Adrian Hunsberger, University of Florida/IFAS Extension
Catharine Mannion, University of Florida/IFAS Extension
Teresa Olczyk, University of Florida/IFAS Extension

Miami-Dade County is the most populous county in Florida with close to 2.5 million residents and encompasses more than 2,000 square-miles. The county is limited on the West/East by Everglades-National-Park and Biscayne-Bay-National-Park. Since 2007 heavy infestations of new whiteflies were damaging Florida landscapes. The Ficus whitefly, *Singhiella simplex*, caused the death of thousands of Ficus trees and hedges. Also, introduced in 2009 the Rugose Spiraling Whitefly, *Aleurodicus rugioperculatus* infested many species of trees, and covering plants with “honeydew” produced by the insects. The black fungus called sooty mold, growing on the insect’s excrements, caused damage to cars, pool decks, and patio furniture located under infested trees. The devastation was so visible, that the Miami-Dade County-Board of County-Commissioners passed a resolution allocating money to the Miami-Dade Public-Works-Parks and Recreation-Department to start an “eradication” campaign. In response to a growing need for information about management of whiteflies, Miami-Dade Extension implemented the “Whitefly Management Educational Program” targeting residents, pest control operators, landscape professionals, and ground maintenance employees from the county, cities, and municipalities. The objective was to teach the community how to identify

whiteflies and their damage, as well as, educate landscape professionals and pesticide applicators how to treat whiteflies without damaging the environment. Educational efforts included: workshops, field consultations, office visits, plant/pest identification clinics, YouTube videos, updates to the Extension Website, newspaper articles, and radio/TV interviews. Educational materials and Power-Point presentations were developed in English/Spanish. The educational programs/activities included Town-Hall meetings, newspaper articles, radio interviews in Spanish, emails, phone calls answered by agents, program assistants and Master Gardener volunteers. Site-visits/office-visits were follow-up for proper identification of the infestation. Various technologies were used to implement this large scale educational effort. Audio-visual equipment was used to provide up to date information about whiteflies and their management to the participants. Power Point presentations developed by Extension Agents and University of Florida entomologist were used to disseminate information related to the topics discussed during the workshops. Stereoscopes and dissecting microscopes connected to an LCD projector were used for the hands-on trainings. The educational videos http://www.youtube.com/watch?v=wPx8DBmZIYU&feature=player_embedded <http://www.youtube.com/watch?v=ybBnLF0tSg4&feature=related> were produced “in house” with the use of digital video-cameras and editing software. Several educational materials and publications were developed and placed on the Miami-Dade Extension website <http://miami-dade.ifas.ufl.edu/> As a result of the programs 1,500 pest control operators, commercial landscapers, and ground maintenance employees from cities, parks, and municipalities have participated in the trainings and workshops since 2007. After the educational programs were delivered a post-seminar questionnaire indicated that 81% of 986 surveyed (799) increased their knowledge about whitefly pests. A follow-up survey conducted to 296 participants six-months after the workshops indicated that: 100 % (296) are able to identify the pest, 89% (263) are scouting for juvenile stages of whiteflies, 75% (222) are doing equipment calibration, 100% (296) read the insecticide label, 62% (183) have an insecticide plan rotation in place, and 82% (242) are able to identify the natural enemies. Due to the high demand of the programs more training will be provided during 2013.

CREATING A COUNTY LAND USE PLAN

Mark Mechling, Ohio State University Extension

Ohio State University Extension-Muskingum County facilitated the process of creating a new land use plan for the county. This twenty month process culminated in eight recommendations that were approved by the county commissioners in December, 2012. Muskingum County completed a comprehensive plan in 2008. One of the major

recommendations from the comprehensive plan was the need for a land use plan in Muskingum County. The last land use plan was completed in 1974. The county commissioners initially asked twenty individuals to serve on the land use plan committee. OSU Extension helped in convening a group of citizens who represented a broad spectrum of the community in terms of geography, diversity and development interests. Members included those with expertise and knowledge in commercial development, real estate, economic development, village and township administration, local infrastructure and agriculture. Eleven members remained on the committee until the end of the process. At the first meeting in April of 2011, goals, expectations and parameters of the committee were discussed. No pre-conceived agendas or previously determined objectives were considered. All committee members were encouraged to share their experiences and expertise with the group. The new political realities of reduced local government funding and the need for more jobs were discussed. Research was the next step in the land use plan process. Individuals with expertise in transportation, development, funding and zoning spoke to the group and provided relevant information and answers for the committee. Other counties' land use plans were reviewed for potential recommendations. The next phase began to bring similar themes and commonalities together. As specific recommendations began to evolve, a representative of the county's Geographical Information System Department developed a graphical version of these recommendations. Continued discussion further honed the themes into eight recommendations. They included (in brief rank order): foster cooperation between all political entities, regulate corridors along the interstate, redevelop areas within Zanesville (largest city in the county), create impact fees for future development to guide smart growth, encourage residential infill, protect specific corridor for future transportation purposes, inventory brownfields and create a citizen's economic development advisory committee. These recommendations were presented to the county commissioners who suggested some outreach meetings for public participation. A handout with the eight recommendations on one side and a graphical representation of these recommendations on the other side was utilized as the means to share the committee's suggestions with the public. Five community meetings were conducted by OSU Extension with a total attendance of 140. The public asked questions and provided input. The final recommendations were approved by the Muskingum County Commissioners in December, 2012. OSU Extension facilitated a successful process that resulted in county land use plan recommendations that will direct future development and growth.

EVALUATING EXTENSION EDUCATIONAL OUTREACH: PREPARING GROWERS FOR THIRD PARTY AUDITS

Meredith Melendez, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension
Wesley Kline, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

The upcoming implementation of the Food Safety Modernization Act (FSMA) will affect a substantial number of farms who are not currently mandated to conform to food safety protocols. The implementation of FSMA demands effective Extension educational outreach to growers on understanding and implementing accepted practices into their production routine. Extension educators not currently involved with food safety outreach programs will need to develop teaching tools to assist growers in the task of creating a farm food safety plan and complying with a third party audit. In 2012 Rutgers Cooperative Extension offered four educational programs designed to assist growers in evaluating their current farm practices, to make needed infrastructure and standard operating procedure changes, and to write a farm food safety plan that is in compliance with the USDA third party audit. 81 participants were surveyed post-program on their current practices, anticipated modifications due to the education received and their experience during the program. Growers indicated that they best liked program components that focused on: the USDA Harmonized Audit, Good Agricultural Practices (GAPs) relating to the packing house, worker health and hygiene, audit checklists, recent foodborne illness outbreak information, and on-farm water issues. Growers expected to modify the following practices as a result of their attending the Rutgers food safety program: Implement more documentation into their farm practices, conduct worker health and hygiene training, update or implement new written farm policies and pest controls on the farm. Growers assumed that the following risks were most likely to be found on their farm: Worker health and hygiene issues, water usage in the packing house, wild/domestic animal intrusions, irrigation water usage, and packing house practices. Growers were asked to indicate if the program met their expectations. On a scale of one to five 24 growers rated the course a 5, 46 growers rated the course a 4, 9 growers rated the course a 3, 1 grower rated the class a 2, and 1 grower rated the class a 1. Growers were asked to indicate if they learned an adequate amount during the course. 73 growers indicated "Yes", 5 growers indicated "No."

SCHOOLING NEW BEEKEEPERS FOR SUCCESS

Gregory Meyer, Ohio State University Extension
Cynthia Meyer, Ohio State University Extension
Nanette Neal, Ohio State University Extension

Media attention to colony collapse disorder and the decline of wild bee populations has renewed people's interest in beekeeping. The Southwestern Ohio Beekeeper School has been in existence since 1977, but has never been as popular as it is today. Attendance has spiked, from under 200 people at the turn of the century to full capacity over the past five years. In 2012, over 400 beekeepers from Ohio, Kentucky and Indiana attended the school with registration closing in less than 20 days. The Ohio State University Extension offices in Warren, Butler and Clermont Counties provide leadership for the Southwestern Ohio Beekeeper School. The majority of participants at the school have been beekeepers for less than five years. Many have never kept bees. For that reason, the educational focus of the school is to provide practical training for new and inexperienced beekeepers. Bee school attendees choose from an a la carte menu of classes, but the cornerstone of the program is the "Getting Started" series for new beekeepers. The series consists of four classes and starts with vocabulary terms and equipment needs and progresses through a calendar year of managing bees. The program is designed to provide participants with the tools they need to be successful in their first year of keeping bees. Hive building demonstrations and equipment vendors add to the learning experience. Additional classes on the program provide more advanced training for those that have previously completed the "Getting Started" series. In 2012, more than 100 novice beekeepers completed the "Getting Started" series and 97% planned to use what they learned to start their own beekeeping enterprise. The Southwestern Ohio Beekeeper School is a grass roots program that can easily be replicated by other Extension entities. The planning committee is made up entirely of local Extension educators and volunteer beekeepers. Promotion and registration is managed by a local Extension office. Classes are taught by University specialists, industry personnel and experienced beekeepers. By utilizing a practical approach that utilizes local resources, new beekeeper education is feasible for most Extension programs.

CRP PROGRAMMING IMPACTS

RF Meyer, Colorado State University Extension
John Deering, Colorado State University Extension
Michael Fisher, Colorado State University Extension
Alan Helm, Colorado State University Extension
Casey Matney, Colorado State University Extension

Contracts on over two million Colorado farmland acres taken out of production and put into the Conservation Reserve Program (CRP) will expire by 2013. Farmers have converted crop land to grassland to control erosion, protect water quality, and provide wildlife benefits. However, due to changes in the Farm Bill, producers will have limited opportunity to re-enroll land back to CRP. This represents a significant challenge as some acres have been enrolled in CRP for two decades. Returning CRP lands to cropping or grazing are a few of several agricultural production strategies discussed. As a result of the need, a series of 5 Extension workshops at various locations were conducted in Northeast Colorado. Topics covered included; best agronomic practices, grazing opportunities, economics, weed control, and range management. By attending a CRP workshop, farmers and ranchers with expiring CRP contracts learned valuable technical information that helped them make informed decisions about managing their land for best economic and conservation outcomes. When surveyed the following was found: 99% of participants stated the program was beneficial, 51% said they would be making a change in their operation, participants indicated a \$38,000 benefit per workshop.

AGRICULTURE AND NATURAL RESOURCE PROGRAMMING FOR A NON-TRADITIONAL CLIENTELE IN CONJUNCTION WITH THE EXPANDED FOOD AND NUTRITION

Suzanne Mills-Wasniak, Ohio State University Extension
Brad Bergefurd, Ohio State University Extension
Ann Clutter, Ohio State University Extension
Larry Anthony Nye, Ohio State University Extension

In 2012, the Agriculture and Natural Resources Extension program (ANR) Montgomery County and the Expanded Food and Nutrition education Program (EFNEP) were approached by Molina Healthcare to collaborate and fund an educational project for limited resource youth and families. The project was to be located in an identified urban "food desert" site. With support from the City of Dayton, Planning and Community Development Department, the Wesley Community Center located in west Dayton was selected for the project. Wesley Center had unused community garden plots available in late June. A Master Gardener Intern with previous involvement at the Wesley Center organized the preparation of a fifteen by one hundred foot plot designed under the direction of ANR Extension Educators. Summer camp youth, ages three to seventeen years, assisted with the preparations, planting, caretaking, and harvesting. Education was an integral component as many youth had never been exposed to the process of growing food. EFNEP Program Assistants conducted classes for the youth and their

families using the produce from the plot, thus completing the food chain. Wesley Center's neighborhood food pantry received over six hundred pounds of fresh produce from its adjacent plot. EFNEP Program Assistants provided mini-lessons recipes and taste tests on food pantry days. The project's objective was to establish an educational produce production operation supplemented with relevant nutrition information designed to increase consumption of fresh fruits and vegetables. Based on positive evaluations Wesley Center, the City of Dayton, Molina Healthcare, and Extension have determined that the project will continue and expand in 2013.

SOIL ASSOCIATIONS AND PLANT SELECTIONS FOR ALABAMA'S BLACK BELT COUNTIES

Charles Mitchell, Alabama Cooperative Extension System
Donn Rodekoer, Alabama Cooperative Extension System

The Central Alabama Blackland Prairie region known locally as the Black Belt has a long history of a mostly rural, agricultural economy. However, recent urban growth and development have created problems with new homeowners and residents on some of the very clayey, Vertisols of this region. This situation has been particularly dramatic in the Montgomery, Alabama, area. New subdivisions have rapidly expanded onto what is locally called "prairie" soils, "gumbo" soils, or "post oak" clays where traditional southern landscape plants such as azaleas, camellias, and pine trees do not grow well. Using GIS technology and the SSURGO national soils database, a series of Extension publications were developed for those counties that have significant acreage of Vertisols or soils with vertic characteristics. These color-coded maps and an accompanying list of landscape plants adapted to the soil association, help local homeowners, Master Gardeners, and landscapers do a better job of managing the plants in their local landscapes. Publications for each county are co-authored by a local Extension Agent or Area Horticultural Agent for that county.

UTILIZING COMMUNITY GARDENS AS A MASTER GARDENER DEMONSTRATION SITE

Peter Nitzsche, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension
Sylvia Bayard, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

The recent renewed interest in community gardens has created a unique opportunity for Master Gardeners to demonstrate proper gardening techniques to a very engaged audience. With this interest in mind, Rutgers Master

Gardeners of Morris County setup a demonstration plot in a local community garden to demonstrate proper variety selection, training and pruning techniques of tomatoes in the home garden. The Master Gardeners planted and maintained the tomatoes, helped develop educational signage, and also addressed any questions from community gardeners while on site. Fruit from the plot was harvested and weighed and yield recorded before being donated to a local food pantry. A twilight meeting open to the general public was held at the garden to discuss the plot and a web-based online survey conducted at the end of the season to measure reaction to the plot by community gardeners. As a result of the demonstration, 269 lbs of tomato fruit were donated to the food pantry. Eighty four percent of the community gardeners indicated they visited the demonstration at least once during the season and 65% felt the demonstration taught them about growing practices either well or very well. While only 40% of the respondents indicated they spoke to a Master Gardener at the demonstration 92% of them said the information that was shared was useful. It appears community gardens provide an excellent venue for Master Gardeners to outreach Extension information to the gardening public.

ELECTRONIC SCORING FOR EASTERN REGION 4-H EVENTS

David Perrin, University of Tennessee Extension
Mitch Beaty, University of Tennessee Extension

Electronic Scoring for Eastern Region 4-H Events Needs Assessment The UT Extension 4-H Youth Development program is rich with events and activities at the county, region and state level. We have over 60 events annually at the state or region level that requires grading, tabulating and scoring. These events allow 4-H youth to demonstrate their learned life skills through various judging and decision making events. Traditionally this scoring was done individually by pen, pencil and calculator and conducted by Extension staff and volunteers. Accuracy and speed were sometimes questioned with this system of scoring. We had developed some electronic spreadsheets for selected events, but the need was great to employ an integrated system that would score, summarize and archive data. We communicated with all programming partners and searched the global net to identify vendors that provided customized data solutions. We partnered with a local software solutions firm, Excalibur Data Services to address our technology issues. Excalibur Data Services donated their time the first year to determine if this system was feasible. Objectives of the Program Develop an electronic scoring system that would: Increase speed and accuracy in scoring. Reduce the number of staff and volunteers required to physically staff an event thus saving expenses. Utilize the majority of existing

technology and equipment in inventory. What Has Been Done UT Extension contracted Excalibur Data Services to customize The Best of Showare Computer Software to score 4-H events. The Eastern Region served as the pilot region and worked with the development team to design the system layout and function. The Eastern Region serviced as the field testers using the electronic scoring system to score all region 4-h events. Outcomes/Impact The software system has been successfully created and utilizes existing laptop computers and low cost electronic devices. The Best of Showare Program has proven to be effective, reliable and accurate when used in our applications. We have customized the software to handle all of our judging events, public speaking, project achievement, and portfolios at county, region and state levels. Accuracy has been increased substantially. During all tests, results indicate that accuracy has increased over 90%. Staff resources required to score our events has reduced. We are experiencing a savings of nearly \$25,000 annually in reduced agent travel and time with this system. Selected counties have successfully field tested the system.

HAY QUALITY WORKSHOP: USING BASIC PRINCIPALS TO PROVIDE A HEALTHY AND ECONOMIC FORAGE FOR YOUR LIVESTOCK

Ashley Pierce, Cornell University Cooperative Extension
Jennifer Stevens, Cornell University Cooperative Extension

Understanding hay quality and reading a forage analysis are competency areas that many farmers, both large and small, have room for improvement in. This applies not only to those that are harvesting their own forages on farm, but also those that are purchasing feeds for their livestock. Putting simple principals to work during these key decision making times will enable the farmer to provide feed to his livestock that is both appropriate to their life stage or class and economical. In an effort to educate farmers of all species of livestock on the importance of hay quality and understanding what you are looking at when inspecting a bale, Rensselaer and Saratoga County Cornell Cooperative Extensions were partially sponsored by Dairy One Inc. to provide a program titled simply "Hay Quality Workshop." At our December meeting, we had 45 participating farmers representing all facets of the livestock industry, including equine (the largest segment), beef, sheep, and goats. Our meeting began with a lecture from Janet Fallon CCA, a representative from Dairy One Inc. Our meeting covered topic areas including harvesting tips, quality indicators, the importance of getting your forage analyzed and how it this is interpreted and used. After the lecture period, participants were split into two groups to inspect the hay for quality indicators discussed, then comparing that to the analysis that was available with each sample. Samples were collected by the educators and ranged from a vivid green

second cut alfalfa to a mushroom growing round bale and everything in between. Following this hands on portion, results were discussed and there was a time for questions and answers with the lecturer and Cornell Cooperative Extension Educators. Many participants had very pointed and specific questions that applied directly to their farm situations. Participating farmser were provided with take home information that included fact sheets, worksheets, and articles on the subject. Other topics touched on, especially in the question and answer session was the storage of your forages, species selection, understanding how to find the best hay for your specific animal (as an example a dry cow would need a different quality hay than an animal in lactation), and in depth questions regarding the use of the forage analysis. Farmers that participated reported that they were able to make more educated decisions regarding the purchase and growing of hay in the future, how to practically use the forage analysis on their farms and how it relates to basic livestock nutrition. They indicated a desire to continue having this workshop repeated in the future. Overall, it was a very successful program, not only because of the educational component for the local agriculture industry, but also in part because of the collaboration with multiple counties and an outside sponsoring company.

NEW TIMES AND NEW ECONOMICS, PARTNERS AND VOLUNTEERS BRIDGE THE GAPS. DEVELOPMENT OF AN AQUATIC INVASIVE SPECIES MANAGEMENT

Pat Rector, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension
Peter Nitzsche, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

A Program was developed around the issue of an aggressive aquatic invasive species, water chestnut (*Trapa natans*) with a minimal of financial resources but a wealth of partner and volunteer resources, following the New Jersey Agricultural Extension Station (NJAES) Program Cycle formula. Water chestnut is an invasive aquatic species that has been an issue in states surrounding New Jersey, but is a recent invasive to NJ. The objectives on a statewide level were to develop educational materials and create a tracking system. On a local level the Objectives were to increase the number of volunteers and the amount of water chestnut removed from Lake Musconetcong, a heavily impacted state lake. The evaluations for the statewide system were the tracking system itself and the presentations. Evaluation on the local level included the number of volunteers and the amount of water chestnut pulled. Support was obtained in the form of creation of an advisory group, the Water Chestnut Task Force and input from the Lake Musconetcong Regional Planning

Board (LMRPB). A webpage, presentation, tracking system and a Fact Sheet on the Biology of water chestnut were developed and placed on the RCE of Morris County website. Presentations are delivered, including annual presentation to the NJ Department of Environmental Protection's (NJDEP's) Americorps Ambassadors. The LMRPB conducts a multi-pronged approach to management of water chestnut; mechanical harvesting, herbicide application, and hand pulling events. The LMRPB requested assistance in coordinating the Hand Pulls. A Fact Sheet was written on conducting a successful Water Chestnut Hand Pull and RCE coordinated with the NJDEP Americorps Ambassador program for volunteer coordination. The 2013 Hand Pull will include 4-H participants, who will receive training on limnology, aquatic invasive species plus an 8-hour Boat Safety Certification. Research was conducted for three years on the viability of water chestnut fruit under drawdown conditions as drawdowns may offer a partial means of attack for the LMRPB in their fight against this invasive species. The program objectives have been met on a statewide level. We have educated 187 people by personal presentations; dissemination through various lake organizations to several thousand lake homeowners; and over 300 people in 2012 number have accessed our website. We coordinate our tracking form with New Jersey Invasive Species Strike Team to provide the information on a statewide map. The baseline for the Hand Pulls in 2010 was 10 volunteers and 1.5 tons of weeds pulled; in 2011 almost 60 volunteers pulled 16 tons and in 2012 60+ volunteers pulled 20 tons. Our research has shown in a laboratory study, 30-days of freezing there was a 0% germination rate while the control fruit had a 52% germination rate. These findings, although preliminary have impacts, both environmental and economic, as the LMRPB continues to investigate means to address this issue. Our results have been reported to our funder, to NJAES, the LMRPB, and through the Green Knight newsletter. We have made professional presentations both poster and oral at national meetings. We have received out of state requests.

MAINTAINING EXTENSION'S RELEVANCE IN THE 21ST CENTURY

Jennifer Rees, University of Nebraska - Lincoln Extension

Technological advances have allowed for instantaneous information 24/7. Clientele have the ability to access a variety of information and choose what they wish to access. Extension needs to be utilizing these technologies to remain relevant in a world where many other sources are providing information-albeit not necessarily unbiased and research-based. To reach clientele with Extension's unbiased, research-based information, a blog was developed to take a local newspaper column and disseminate it eight ways: via newspaper, email listserv, county website, blog,

Facebook, Twitter, LinkedIn, and Pinterest. In doing so, one realizes our audience is no longer just our County, State, and Region; our audience is the World! This poster will show a snapshot in time of the multiplier effect, reach, and potential impact of disseminating information in a variety of ways. General reach at the time this abstract was submitted: Local newspaper subscriptions of around 7000; Twitter followers of 1043; WordPress blog views of 9900 from 97 countries; and LinkedIn Connections of 307.

REGIONAL STANDARDBRED TOUR

Audrey Reith, Cornell University Cooperative Extension
Patricia Zellmer, Cornell University Cooperative Extension

With a well-earned historical place in America's history of agriculture, and a combined equine population of over 15,000 head of horses, the role of equine operations in the Orange and Ulster County counties is diversified, but the deep rooted Standardbred industry keeps driving on with outreach to regional youth and adults. The needs of this continually-growth industry with high-demand occupations was recognized by the Orange and Ulster County Extension Equine Advisory Committee, which moved to facilitate the Regional Standardbred Tour to youth and adults whose interests were in entering a career in the horse industry. Extension responded to the industry's need for future farm employees, by designing a day dedicated to give a "Behind the Scenes" look at the Standardbred and Harness Racing industry. The tour focused on awareness of career opportunities within the horse industry, and hands on demonstrations included animal husbandry, barn and business management, veterinary and farrier care, rearing foals, breeding, sales, and marketing. The instruction included interactive talks and demonstrations from industry professionals, as well as experiential group activities. Course objectives included: (1.) to explore career opportunities available in the horse industry. (2.) To give students the opportunity to see if the profession they are striving for is right for them with "hands on" job experiences. (3.) To expose participants to technical knowledge and practical experience that is needed in the horse industry. Key collaborators for the event included Extension Agents from Cornell Cooperative Extension in Orange (Agriculture) and Ulster (4-H), Orange and Ulster County Horse Professionals. The Standardbred industry was represented by Blue Chip Farms of Wallkill, New York, and the Pine Bush Training Facility of Pine Bush, New York. The event was made possible through special funding by the Agriculture and New York State Horse Breeding Development Fund and an anonymous donation within the Standardbred community. The day was a success. A total of 63 youth and 24 adults from seven counties "Lived the life of a NYS Standardbred" during the Regional Standardbred Tour

which included equine education and career opportunities from foal to finish line! As a result, wider arrays of horse career exploration events were planned for youth and adult audiences. Additionally, a Regional Youth Standardbred Tours, as well as an adult Equine Career Training Program were created and implemented in a multi-County effort to expose youth and transition adults into careers related to the horse industry in Southeast New York.

U.S. VETERANS: AN UNDERSERVED CLIENTELE

Amy Rowe, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

Jan Zientek, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

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 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 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. In 2010, almost 10 million unique enrollees made over 70 million outpatient visits to VA medical centers across the country. Veterans are a large audience that could benefit from extension programs while also serving as a workforce on government property during training. There is increasing demand for green infrastructure installations to manage stormwater and a trained workforce is needed to fulfill that demand. Veterans returning from active duty suffer a much higher unemployment rate (23%) than that of the general population (~9%). This program creates skilled stormwater management workers while also providing education and training for veterans hoping to re-enter the workforce. The VA facility and local community have benefitted from the stormwater practices that have been installed as part of the hands-on field experience that the training provides. One outcome of the training class was that the installation of stormwater management controls will reduce stormwater generated onsite at the East Orange VA facility by 37,000 gallons per year. The demand for drinking water at the facility has been reduced by 12,000 gallons per year, with more savings expected as more rain

barrels are installed. During 2012, community gardens at the East Orange Campus produced more than 2,000 pounds of local, sustainably-grown vegetables. Veterans enrolled in the class have increased their awareness of stormwater management, sustainable landscaping, and environmental issues. This class has led to continued environmental stewardship in neighborhoods and communities, as well as the sharing of knowledge with others. The Sustainable Landscaping and Stormwater Management program is ongoing and 3 iterations of the class have been completed. 2 graduates have started their own businesses, 2 have found jobs, and several others have become community leaders teaching others about the importance of sustainable living.

4S GOAT EXPO: TEACHES SUSTAINABLE GOAT PRODUCTION PRACTICES THROUGH EDUCATIONAL SEMINAR AND SALE

Randall Saner, University of Nebraska - Lincoln Extension
Doug Anderson, University of Nebraska - Lincoln Extension

Meat Goat Production in Nebraska has become part of the landscape due to co-grazing and the need for goat meat in the diverse areas around the meat packing industry. A two day event focusing on meat goat production and marketing educated Nebraska producers on sustainable goat production. Focus was on drought in the Midwest and how to survive high feed costs. Topics were: The value of a good buck; Nutritional needs, requirements and physiology of the meat goat; By-Product feeds - Using computer tools to reduce your feed costs; What forage can I plant to have feed this fall and next spring; Co-grazing and drought management for goats; and a producer panel. The objective of the program was to reduce feed cost and management strategies for the drought. Eighty-nine producers representing 35,056 head of livestock and 44,671 acres of land attended. After attending 84% said they were likely to make changes in their operation. Estimated average increase in profitability was \$22 per head, resulting in a total of \$647,834 made by attending and applying the management practices taught by this seminar. Management practices indicated by producers were: 1. I'm going to interseed clover in the fall 2. I'm going to try more co-grazing. "I thought this program was very valuable. I brought a book to read and never even considered taking it out of my purse."

4-H AND F.I.R.S.T. PARTNERSHIP: A NEW ERA FOR SCIENCE EDUCATION

Janet Schmidt, Washington State University Extension

4-H and F.I.R.S.T. PARTNERSHIP: A NEW ERA FOR SCIENCE EDUCATION America faces a future of intense

global competition with a shortage of scientists. Only 18% of U.S. high school seniors are proficient in science (NAEP 2005) and five percent of current U.S. college graduates earn science, engineering or technology degrees compared to 66 percent in Japan and 59 percent in China. To address the national shortage of teens pursuing college science majors and careers, 4-H has formed a partnership with F.I.R.S.T., (For Inspiration and Recognition of Science and Technology); to get youth excited about science and engineering careers through robotics. In this project youth are engaged in designing, building and programming a robot to perform specific tasks for regional and state competitions. Youth are paired with mentors who are engineering and business professionals. High school aged youth participate in FIRST Robotics Competition (FRC) or FIRST Tech Challenge (FTC). Younger youth participate in FIRST Lego 4-H League (FLL) using an NXT Mindstorm Lego robot. Youth meet 2-5 times per week for four months to meet the challenges of the competition. Themes for the competitions vary each year. In 2013, the FLL theme was Senior Solutions where youth were challenged to design and program a robot to perform 13 tasks that a senior person would encounter; the FRC theme was Ultimate Ascent, where a robot will toss Frisbees through slots of varying heights and climb a pyramid. As a result of the 4-H and F.I.R.S.T. partnership, youth are demonstrating teamwork, problem solving and critical thinking skills. Survey responses from the youth indicate that 90% of the youth are interested in pursuing careers in mechanical or electrical engineering or business. Currently, graduated FRC youth are attending college pursuing careers in engineering or technology. 4-H and F.I.R.S.T. have created a winning and inspirational partnership that will secure America's position in the global market place.

BRIDGING STATE BOUNDARIES TO ADDRESS CRITICAL NEEDS: A LESSON IN COLLABORATION

Hans Schmitz, Purdue Extension
Larry Caplan, Purdue Extension
Valerie Clingerman, Purdue Extension
Clint Hardy, Kentucky Cooperative Extension Service
Nick Held, Purdue Extension
J. Scott Monroe, Purdue Extension
Amanda Mosiman, Purdue Extension
Jon Neufelder, Purdue Extension
Rankin Powell, Kentucky Cooperative Extension Service
Maria Restrepo, Purdue Extension
Mike Smith, Kentucky Cooperative Extension Service

In March of 2012, Extension Educators and County Agents serving the Southwestern Indiana and Western Kentucky agricultural communities met to identify common needs

for programming among their clientele. As a result of this collective, precision agriculture was identified as an educational need within the community that was heretofore untouched by the local extension services. The "Ohio Valley Precision Agriculture Conference" was an output of this initial meeting. Campus extension specialists were identified and asked to serve as general session speakers, with industry specialists invited to present specific product information. Vendors were invited to attend, allowing for additional interaction between participants and the leaders in the precision agriculture industry. The event was free to participants, using vendor fees to compensate for meal and equipment expenses. Of the nearly 170 attendees at the conference, 78 completed an IRB-approved survey at the conclusion of the program (Response rate of 46%). Each topic throughout the day was assessed as not at all, slightly, moderately, or extremely informative. Moderately or extremely informative marks were aggregated and are presented parenthetically hereafter. CERES Solutions began the day with "Utilization and Data Management with Precision Tools." (71%) A breakout session allowed participants to choose between "RTK Accuracy" with UK Specialist Tim Stombaugh (82%), "Calibration Basics" of John Deere equipment (87%), or "Variable Rate Seeding of Corn" with Purdue Specialist Bob Nielsen (93%). The general session reconvened with a farmer panel moderated by Prof. Stombaugh (87%). Greg Sauder of Precision Planting served as the post-lunch keynote speaker (90%) via webinar from his farm, providing an opportunity for participants to recognize the increasingly technological landscape in which agricultural producers live and work. Afternoon breakout sessions included a repeat of "RTK Accuracy (84%)," "Calibration Basics" of Case IH/Trimble equipment (52%), and "Economics of Investing or Upgrading" with UK Specialist Greg Halich (46%). Unique results of this multi-state, industry/extension collaboration abound. Additional Extension specialists focused on the rapidly changing sector of precision agriculture are needed in the Corn Belt. The average age of attendees for this program was far younger than traditional Extension "Grain Days" or other annual programming. Attendees included classes of youth from Vincennes University, agribusiness persons from the area, and agricultural lenders, in addition to the traditional farming community. Of respondents, 84% felt their attendance would help them in reducing technology investment costs, increase investment in appropriate technology, or both. When asked to place a dollar amount on the education they received, 54% of respondents claimed over \$1,000 in knowledge gained. One attendee sent an e-mail to his county educator after the program expressing his appreciation for the program despite being unable to attend in full. Another attendee affiliated with the crop insurance industry expressed increased knowledge that would enable him to better insure farmers. The collaboration between

these two states resulted in successful programming that partners within a single state would have been unable to achieve. Recognizing and capitalizing on knowledge gaps that bridge state boundaries allow for programming that furthers the entire agricultural industry.

ONLINE CEU PROGRAM INCREASES EDUCATIONAL ACCESS AND AVAILABILITY

Shawn Steed, University of Florida/IFAS Extension

Traditional delivery of pesticide CEUs is a local and time specific phenomenon. Currently, clientele expect delivery methods that are online, cost efficient, and minimize time constraints. In personal conversations with license holders seeking Continuing Education Units (CEUs) to renew pesticide license certifications, the agent found that in many cases, license holders came up short for the requirements of renewal. A quick availability of a CEU program and a prompt delivery of a CEU credits were necessary. In an era of cost cutting to programs a new thought was needed. A program was launched to make CEUs maximally available online with minimal impact to agent time and minimal constraints to CEU seekers. Objectives were to:

1. maximize availability of CEUs over time and space,
2. to expedite the delivery of a CEU credit,
3. minimize cost to both the agent and license holder,
4. automate this CEU testing and delivery as much as possible.

The agent developed an industry sponsored online CEU webpage. This format integrates a World Wide Web page with online quiz taking software (ProProfs.com). The webpage allows clients to readily search for CEU program availability and register for a credit anytime, anywhere if they can access the web. Educational articles are posted on the web which the client can access and read. The client is redirected to the online software to take a knowledge post-test to insure instructional delivery, subject retention, and mastery (70% pass grade). The software program grades the quiz and informs the agent via email, that a participant has taken the quiz. The program also stores all data of test takers and quiz information. If the client successfully completes the post test, the agent can then register the participant with the state of Florida and issue a signed CEU (PDF file) via e-mail to the participant. The online program has had seven course educational topics. The program awarded 54 CEUs in the first year to 26 counties in Florida. The program grew 296% and awarded 182 CEUs in the second year to 44 counties or 66% of counties in Florida greatly increasing the programmatic outreach of a topic and marketing for our program. Participants have a 90% subject mastery and a 94.6% pass rate. The website enables sponsorship

from industry in the form of contact information placed on the website and donations. The estimated economic impact from the program to date is \$755,200 in terms of professionals obtaining CEUs to continue employment in pesticide application (A. Hodges, et. al, 2011). The online CEU website allows for agents to maximize their time and automate the CEU process. The online program efficiently registers users to the program, grades quizzes and alerts the agent. It also allows clients the flexibility in terms of time and location to obtain CEUs. Industry sponsorship also brings in revenue to the extension office. It takes approximately 3 to 5 minutes to issue, register, and e-mail a CEU form to a client.

VEGETABLE PRODUCTION WEBINARS: A CONVENIENT AND COST-EFFECTIVE WAY TO REACH A DIVERSE GROWER AUDIENCE

Lee Stivers, Penn State Extension
Elsa Sánchez, Penn State Extension

Two series of commercial vegetable production webinars were offered by the Penn State Horticulture Team from 2011-2013 using Adobe Connect. Originating in 2010 as a method of in-service training for educators, the first year's series consisted of four webinars open to the public, expanding to five in the second year. The fee-based series were publicized within the state and region, and in national industry media. Over 200 farmers, market and home gardeners, and Extension staff participated. Participants were primarily from Pennsylvania, with some from surrounding states and Canada. Many were beginning or part time farmers who did not commonly attend traditional Extension meetings. Speakers included University faculty and Extension educators, who focused on the most timely and useful topics for commercial producers, including pest management, soil and water management, and GAPs. 88% of responding participants in the first five webinars reported they had learned something they would use in their operations. Best practices for conducting webinars for grower audiences will be discussed, including timing, topic scope, maximizing platform functionality, reaching the target audience, communications, accessibility, audience engagement, and evaluation.

DALLES MOUNTAIN RANCH REHABILITATION PROJECT

Steve Van Vleet, Washington State University Extension

Historically a cattle ranch, the Dalles Mountain Ranch was acquired by Washington State Parks ("State Parks") in 1994. Within the ranch is a 180-acre parcel of pasture and native range that was tilled and seeded to Secar bluebunch

wheatgrass in 1992. Over time, this parcel degraded and became a monoculture of bluebunch wheatgrass; while it can never be returned to its original state, the overall goal of the rehabilitation project is to manage the degraded parcel to promote and showcase it as a learning ranch and incorporate livestock production on the parcel using state-of-the-science management that enhances vegetative diversity. A holistic management approach was used with the implementation of dormant season cattle grazing beginning in 2009. Pastures of varying sizes were set up and permanent sampling transects and photo points were placed throughout the study area. The permanent sampling transects were used to evaluate vegetative cover, species richness and the reestablishment of grasses and forbs. After the initial dormant season rotational grazing in 2009, species richness measured in pastures 1–3 increased overall. Vegetative cover changed significantly over time. Perennial and annual grass cover decreased while perennial and annual forb cover increased the year following grazing. In 2011, perennial grass cover increased while annual grass, perennial forb and annual forb cover decreased. Results from 2012 were similar to that of 2010 in measuring a decrease in annual and perennial grass and an increase of perennial forbs and annual forbs.

A GUIDE TO COMMON GARDENING QUESTIONS MANUAL

Katie Wagner, Utah State University Cooperative Extension
Shawn Olsen, Utah State University Cooperative Extension

A Guide to Common Gardening Questions: Recommendations for successful vegetable and fruit production walks beginning gardeners through the basics of successful vegetable and fruit production in Northern Utah. Many calls into the Extension office are from residents that are beginning gardeners and do not know how to start gardening or which questions to ask. This manual helps them identify basic considerations for vegetable and fruit production. Text includes reference to online fact sheets where readers can acquire more information on discussed topics. The manual is available in print and e-book versions and can be purchased in local nurseries and farm stores as well as online. The manual was disseminated to local nurseries and community garden managers to be used as an on-site reference. Master Gardener volunteers also reference the manual when they give deliver classes to local groups. Evaluation forms were included in disseminated copies to gather valuable feedback on how to improve the manual for future edits. The manual is also available for purchase through USU County Extension offices across Utah.

NE SARE MORTALITY, COMPOST EDUCATION – TRAIN THE TRAINER

J. Craig Williams, Penn State Extension
Jean Bonhotal, Cornell University Cooperative Extension
Mark Hutchinson, University of Maine Cooperative Extension

Train the Trainer education program on Mortality Composting. The NE SARE project is a collaborative effort with University of Penn State Cooperative Extension, Maine Cooperative Extension, and Cornell Waste Management Inst. I will cover our results on this “Train the Trainer” program to generate a larger pool of qualified educators to cover this subject. This program will used face to face meeting and emerging computer technology to educate Extension and NRCS staff on sustainable livestock carcass management. The 55 reached over 5400 people from over 13 states. This collaborative effort trained 55 participants from over 8 states, on how to work with producers to develop and implement a carcass management system for integrated livestock operations. Three initial face to face trainings, Pennsylvania, New York, and New England, were conducted to train the trainer. Using hands on, field experiential learning, Participants received information in the following areas: methodology and bio security, economics, site development, compost feedstock’s, recipe development, C:N and moisture balance. Three additional video teleconferencing meetings were used to address restricted travel budgets for trainers and participants. This set of video teleconferencing meetings permitted the 55 participants to interact with experts in other states. Results of these programs was collected on Survey Monkey. As a result of this program, agriculture service providers surveyed now strongly recommends composting as a carcass disposal management tool. A survey of livestock operators indicated that 46 of 80 (58%) use compost as a carcass mortality management tool. All livestock producers that compost believe the process is cost efficient and sustainable.

Publications/Outreach:

- NESARE Carcass Mortality Training Notebook: Developed by Mark Hutchinson, U. of Maine Cooperative Extension, Craig Williams, Penn St. University Cooperative Extension and Jean Bonhotal, Cornell Waste Management Institute 2008.
- Natural Rendering: Composting Livestock Mortality, Developed by Cornell Waste Management Institute 2009.
- 4th International Animal By-Product Symposium: Managing Animal Mortalities, Products, By-Products and Associated Health Risk, Connecting Research, Regulations and Response. <http://umaine.edu/byproducts-symposium/> 2012.
- Web Pages:

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- o Penn State : <http://extension.psu.edu/animal-composting>
 - o Cornell: <http://cwmi.css.cornell.edu/>
 - o University Maine: <http://composting.org/>
 - 4th International Animal By-Product Symposium: Managing Animal Mortalities, Products, By-Products and Associated Health Risk, Connecting Research, Regulations and Response. <http://umaine.edu/byproducts-symposium/2012>.

BEST MILKING PRACTICES- HISPANIC EDUCATION

Amber Yutzy, Penn State Extension
Gregory Strait, Penn State Extension

The number of dairy farms in Pennsylvania has been declining in recent years, yet the size of farms has been rapidly increasing. Dairy farms need laborers to expand their herd size and Hispanic labor has become the primary source for growing dairies. Many dairy farms face the challenge of finding enough workers willing to fill entry level jobs in local communities. Many Hispanic employees are living in local communities, yet are not able to speak English. Producers are not able to train Spanish speaking employees properly due to the language barrier, but employees are willing to learn new procedures on the farm. The objectives for the Best Milking Practices- Hispanic Education program is to have the participants implement the use of a strip cup, pre-stripping, milking gloves and California Mastitis Test (CMT), perform milking preparation during the 60- 90 second lag time, and implement a vigorous strip to improve milk let down and oxytocin release. Participants will be educated on the newest research that is available on milking procedures and sanitation of the milking facility. Participants will also be given the tools needed to detect mastitis early for best treatment options. Education will be delivered through one day workshops, consisting of a morning lecture and discussion period, in addition to a hands on portion that will be held on farm. Six educational programs were offered during the 2012 and 2013 program year. 92% of (N=33) participants intend to implement at least one of the milk quality improvement tools discussed at the program. 100% of (N=40) participants demonstrated increased knowledge in the ability to properly stimulate the udder in the appropriate 60-90 second lag time. 92% of (N=40) participants intend to implement a more vigorous strip during udder preparation to improve milk let down. A six month follow up evaluation was conducted by phone with producers indicating that 100% of participants experienced a decrease in SCC as a result of recommendations made. The average reduction in SCC was 78,000. As a result of implementations, time spent in the parlor was decreased by an average of 43 minutes. A total of 4841 cows are milked on the 12 dairies that participated in the phone survey.

THE BEGINNING FARMER RESOURCE NETWORK (BFRN) OF MAINE

Tori Lee Jackson, University of Maine Cooperative Extension

The Beginning Farmer Resource Network (BFRN) is a new collaborative effort in Maine that seeks to connect agricultural service providers to each other for enhanced programming and serve as a single entry point for beginning farmers as they seek out information and resources for their new farm operations. Since July of 2012, members of Maine's BFRN have been working together to connect aspiring, beginning, and transitioning farmers to resources for farm business success. The goal of the BFRN is to create stronger new farm enterprises, and informed farmers. The BFRN has a website where members have contributed useful links for beginning farmers, as well as direct contact information for each agency. It is meant as a "one stop shop" for beginning farmers who can easily become confused and overwhelmed by the various agencies and programs available to them. Equally important is the connection members have to each other. The BFRN has created a new awareness of programs and funding availability at each agency so that duplication of educational efforts can be minimized and collaboration is possible. Given the budget cuts most of our member agencies are dealing with, this has already proven to be very useful. Two days of workshops were offered by the BFRN at Maine's Agricultural Trades Show in January 2013. Participants reported a high level of satisfaction with the presentations, indicating that it was very helpful to hear multiple perspectives on a single topic at the same time. In the relatively short time the BFRN has been working together, it is already clear that this collaboration will lead to better education of Maine's beginning farmers and better use of available funding for education.

AS STATED ON THE PESTICIDE LABEL – THE SPRAYER NEEDS CALIBRATED BEFORE YOU SPRAY!

George Hamilton, University of New Hampshire Cooperative Extension, Hillsborough County

Calibration of air blast sprayer (ABS) equipment is the best way to ensure spray applications are effective, efficient, and economical. Poor spray coverage is the primary cause of reduced spray product performance. Regular care and maintenance will ensure the sprayer is residue-free and in good operating condition. The challenge with ABS calibration is accurately and efficiently collecting and comparing nozzle output. As a result, historically, growers "calibrate" their sprayers by filling their spray tanks, making an application, determining how much material remains in

the tank, subtracting that amount from the initial amount in the tank, and dividing that by the number of acres covered. For example, using 100 gallons of application material over one acre leads the applicator to calculate that since 50 gallons of material remains in the tank, the rate of application is 50 gallons per acre. Although this method provides growers with an approximate gallon per acre application rate, it does not give an accurate picture of where on the target crop the material was applied, and if coverage was uniform. At a 2010 presentation in New Hampshire for the Northeast Pesticide Safety Educators, John Clements, University of Massachusetts, and George W. Hamilton, University of New Hampshire (UNH), demonstrated an ABS calibration unit used by their state's growers. The availability of this equipment bridges the gap between past practices and the ability to accurately and efficiently collect and compare output from individual nozzles. With Hamilton serving as a mentor, the Penn State Pesticide Education Program (PEP) has developed and launched a program that offers growers the opportunity to calibrate their air blast sprayer. To date, over 20 ABS calibrations, primarily with orchard growers, have been done in Pennsylvania, and a similar number in New Hampshire, with astonishing results. The calibration unit attaches hoses to each nozzle and distributes the spray output into individual cylinders so that each nozzle's output can be compared. When the output of one or a few nozzles varies from the others, we can determine why—is the nozzle(s) a different size, clogged, damaged, etc. The importance of ABS calibration after the demonstration is undeniable. High quality videos outline the pre-calibration steps required by the grower, and shows the infield process for successful calibration using this unit, and provide an educator and grower perspective of the importance of air blast sprayer calibration. Steps are outlined to identify the process for conducting successful air blast sprayer calibrations, follow steps to replicate the program, and identify the costs involved to conduct the program. All materials developed through the UNH/PEP efforts, including access to the pre-calibration and other videos, are available. The project has gained great interest from growers as they have seen positive results from the calibrations along with significant cost savings.

Award Winners

2013 NACAA

98th

Annual Meeting

and

Professional Improvement Conference

Pittsburgh, Pennsylvania

Agriculture Awareness and Appreciation Award

National Winner

UNION COUNTY FARMERS MARKET AND CANNING PLANT

Cummings, M.*¹

¹ Blairsville, GA, 30512

The Extension Leadership Council (ELC) for UGA Extension in Union County named agricultural awareness as one of the most important issues facing Union County. The council recognized the issue of decreasing vegetable production in the county. In 1990 there were 35 vegetable producers with an income of \$2 million in Union County and today there are 15 producers with an income of \$750,000. This decrease has been due to urbanization. The ELC directed the candidate to develop programming which would address the following: 1) Obtain a venue which would allow local vegetable growers to market their produce, 2) Encourage the marketing of locally grown produce, 3) Apply for grants to fund a venue, 4) Develop and appreciation of agricultural heritage in Union County. The candidate cooperated with the Union County Commissioner and the ELS Committee to educate people about vegetable production in Union County. As a result of these efforts Union County Voters passed a SPLOST (Special Local Option Sales Tax) resulting in a new under roof Farmers Market and Canning Plant worth more than \$1.4 million. Also, the candidate was instrumental in writing grant proposals which obtained \$190,000 in grants for the Canning Plant.

National Finalists

4-H CENTENNIAL IN PENNSYLVANIA

Schurman, C.*¹

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

The year 2012 marked the 4-H Centennial in Pennsylvania. This provided an opportunity to review county, state, and national history and also to prepare special programs and resources for extension staff and volunteers. A state centennial committee was appointed to develop state wide initiatives and support for local activities. A county educator also developed a traveling exhibit and program that was offered to any group in the state. This centennial program and display were done at 21 different events across the state, reaching 1741 people. The state committee marketed over 9,000 centennial promotion items. They also worked with PSU Creamery to develop a Centennial ice cream and sold over 680 gallons of ice cream. A statewide survey after the

Centennial showed that 43 counties did a special program or activity related to the Centennial - 29 counties developed a legislative proclamation, 36 counties had feature stories in local newspapers (counties reported over 110 articles printed), seventeen counties participated in the Centennial Family program with 47 families honored, and 35 counties had a special Centennial celebration. Comments from the survey included "Great talking point during the year", "People both in 4-H and not loved the pictures and talking about the program", "It brought our county closer together, and we are a stronger 4-H family because of our PA Centennial celebration", and "It reminded us of how long 4-H has been in existence and how long it has been touching so many youth and adults for so many years".

AG AWARENESS IN WARREN COUNTY

Coles, J.*¹

¹ County Extension Agent for Agriculture and Natural Resources, UK Cooperative Extension Service, Bowling Green, KY, 42101

During community needs assessment and agriculture plan of work development, the Warren County Agriculture Advisory Council identified agriculture awareness the number one priority. As the population gets further removed from the farm, it is essential to teach agriculture awareness so that the general population understands the importance of agriculture and is more likely to support agricultural endeavors. The ag advisory council and extension agent outlined goals, which include: 1) to increase media exposure by having at least a monthly presence on one media outlet featuring agriculture events, promotions, and agriculture education, 2) increase attendance at agriculture awareness events, 3) get more farmers involved in the planning and implementation of ag awareness promotions and events.

AGRICULTURAL LITERACY PROGRAM

Pastor, M.K.*¹

¹ Area Associate Agent, University of Arizona College of Ag and Life Sciences, Phoenix, AZ, 85040

The Agricultural Literacy program has a goal to assist K - 12 educators in the effective use of incorporating information about agriculture into the subjects they already teach. The program provides workshops and an Institute for educators using curriculum that is aligned to the standards, training volunteers who can provide programming in classrooms, development of lessons that are academically rigorous, and coordinating grant funded programs that meet the needs of teachers. Past grant funded programs include an agriculture field day for 1000 students in 4 elementary schools, authorship of a children's book about Arizona agriculture, and a Career Choices website for junior and senior high

students to learn about careers in agriculture. Currently a two-year grant is funding a collaboration with the AZ Department of Education, AZ Department of Agriculture and AZ Department of Health Services to coordinate school garden food safety training so produce grown in the gardens can be used in the school cafeteria.

Regional Finalists

PROMOTION OF LOCAL, SUSTAINABLE AGRICULTURE THROUGH MAKING IT GROW!

McNulty, A.*¹

¹ Extension Agent, Clemson Cooperative Extension, Sumter, SC, 29150

Making It Grow! is a live, hour-long, weekly horticulture themed television production of South Carolina Educational Television. The host and producer/director are both Clemson Extension employees, with the host being a senior Extension Agent. In the past three years, the South Carolina Department of Agriculture South Carolina Certified/Specialty Foods Association has become a partner and underwriter of the program.

SKAGIT COUNTY AGRICULTURE AWARENESS

McMoran, D.*¹

¹Agriculture and Natural Resources Extension Educator-Director, Washington State University, Burlington, WA, 98233

Skagit County is one of the last primarily agricultural communities in Western Washington. With a farm gate value of \$262,915,998, it ranks second among Western Washington counties.¹ Much of Western Washington has been consumed by development, and Skagit County is no exception. From 1982 to 1992, more than 20 percent of Skagit Valley farmland, or 18,000 acres, was lost to residential and commercial development. The loss of prime farmland, the aging of the Skagit Valley farmer with fewer young people entering the profession, combined with lower commodity pricing in a global economy and more regulation, presents a tremendous challenge for the sustainability of the industry. There are several agricultural groups in Skagit County that influence public policy decision making. Communication between these groups was lacking, making it difficult to discern the real threats to agriculture. In addition, 73% of Skagit Valley residents are interested in conserving agriculture and open landscapes but only 18% knew of the organizations responsible for performing these tasks. Based on this information I began facilitating monthly meetings where all of the groups

representing Skagit County Agriculture discuss agricultural issues. I improved my facilitation skills by completing the intensive WSU Extension Master Facilitation Course. As a result, I effectively facilitate discussions and host specialists and elected officials to improve the group's effectiveness in formulating and articulating viable solutions to challenges. The Ag Leaders are always grappling with issues that affect their industry. These issues include fish buffers, conversion of agricultural land to development or habitat, new taxing districts, loss of dairy producers, irrigation and drainage issues as well as a general misunderstanding of agriculture by the general population. An outcome from the Ag Leaders Group was the identification of wetland mitigation banks as a threat to agriculture. In 2005, developers began purchasing agricultural-zoned land in Skagit County and converting it to wetlands to mitigate for wetlands destroyed during development in other places. The removal of agricultural land was not favored by the majority of the agriculture community because it destroyed existing wetlands and farms. Due to the Ag Leaders Group, ten agencies united to determine the best way to combat the efforts of developers converting prime agriculture land into wetland mitigation banks. As a result of this work, there is currently only one wetland mitigation bank under construction and another mitigation bank fighting appeals in the county court system. The Washington State Department of Ecology has developed a new rule that suggests prime soils cannot be considered for wetland mitigation banks. At each of the monthly meetings we invite elected officials and community members so that they can become more informed about threats agriculture. We also provide a quarterly update to the board of County Commissioners that is rebroadcast on TV channel 21 that has 16,000 viewers along with the implementation of a new short wave radio titled "INFARMATION" placed along interstate 5 targeting the 100,000 travelers that pass through Skagit County every day. These efforts combined with others have culminated with a report generated by the Skagit County planning department titled "Envision Skagit 2060" <http://www.skagitcounty.net/EnvisionSkagit/Documents/ES60%20CC%20Final%20Hi-Res.pdf>. The Citizens report recommends that future growth be placed in the cities of Skagit County and focuses attention on a net loss of farm land.

Excellence in 4-H Programming

National Winner

Jackson, B.L.*¹, Edwards, K.D.²

¹ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, DALTON, GA, 30722

² County Extension Coordinator & 4-H Agent, UGA Cooperative Extension, Dalton, GA, 30722

Stormwater runoff picks up litter, yard waste, excess fertilizers and pesticides, residue from impervious surfaces, and sediment which enter waterways by way of storm drains, negatively impacting aquatic life. Much of this pollution is the result of failing and/or inadequate stormwater infrastructure, in areas of both collection and treatment. Non-point source pollution is identified by the Environmental Protection Agency as the nation's main cause of water quality problems. According to the 2008 303(d) list by Georgia Environmental Protection Division, 10% of the total rivers and streams in Whitfield County do not meet one or more of the water quality parameters. Whitfield County ANR and 4-H Agents collaborated to educate youth in environmental awareness and water quality using a variety of hands-on activities. With the help of collaborating agencies a rain garden was built and 4-H'ers participated in plant installation. They also educated the community on the importance of stormwater management, rainwater harvesting and water conservation. Youth and adults participated in educational events such as workshops in conjunction with our annual River's Alive stream clean-ups, teaching fellow 4-H'ers and family members how to monitor water quality; demonstrations on how to site and size a rain garden to Kroger shoppers, explaining the importance of reducing stormwater runoff; a poster exhibit at the Adopt-a-Stream Confluence at Stone Mountain Park, sharing data collected from our Tar Creek water quality monitoring project; and an Ecumenical Earth Day display. Whitfield County 4-H'ers have become more involved in and concerned about water conservation in their community.

National Finalists

Chichester, PhD, L.M.*¹, Bosshamer, B. ², Pesek, D.³, Weitzenkamp, D.⁴, Janning, E.⁵, Dam, K.⁶, Meduna, R.⁷, Pracheil, T.⁸

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

² Extension Educator, University of Nebraska - Lincoln, Kearney,NE, 68847

³ Extension Educator, University of Nebraska - Lincoln, Fairbury,NE, 68352

⁴ Extension Educator, University of Nebraska - Lincoln, Nebraska City,NE, 68410

⁵ Extension Educator, University of Nebraska - Lincoln, Hastings,NE, 68902

⁶ Extension Educator, University of Nebraska - Lincoln, Ithaca,NE, 68033

⁷ Extension Educator, University of Nebraska - Lincoln, Ithaca,NE, 68033

⁸ Extension Educator, University of Nebraska - Lincoln, Lincoln,NE, 68583

In 2011, a team of Educators discussed a remodel of the Quality Assurance (QA) program. For many years this mandatory training was fulfilled through face-to-face trainings, trainings lead by leaders and/or volunteers, and home study courses completed on good faith. While the course content was on a three year cycle, youth were getting bored with the content. In addition, research from three Master's theses indicated these methods did not account for the different ages of the learners or their preferred learning style, leaving some eight year olds learning about giving injections, and some 18 year olds unstimulated as they had been exposed to the content repeatedly. Additionally, new extension hires had less and less familiarity with livestock or limited livestock backgrounds, and were very uncomfortable teaching the material.

The goal was to produce a high quality program that provided a consistent message across the state to every exhibitor. In addition, the team decided the material could be taught in an age appropriate manner, providing the highest level of education in the most time efficient manner while providing a program that taught youth about their specific 4-H species. It was also important to the team to have the flexibility to ensure current information was included in the course.

Our team made the youth livestock QA program available online through an eXtension Moodle course. Since the Nebraska QA program follows the National Pork Board (NPB) guidelines, the QA team was granted permission to pilot this new online format for two years (2012, 2013) before it would be presented to the Youth Task Force for potential approval to accept this format as the new state program.

The new course currently contains 37 modules, and is broken down by three age groupings, Junior (8-10), Intermediate (11-14), and Senior (15-18), to better accommodate the various levels of learners. In addition, the learning modules were designed to appeal to the various learning preferences of the youth. Youth can now read the information, watch a powerpoint and read the slides, listen to a voice over of the presentation, watch a video, hone their vocabulary skills, and more! One huge advantage of this program is that it can be accessed 24/7!

Annually, youth are required to complete three different modules, and will never repeat the same module for that age grouping. Youth must obtain a minimum score of 80% on individual module quizzes in order to attain a certificate within that module. In 2012 2,340 participants enrolled in the online course, the resources within the course were accessed 160,039 times, and 7,972 module certificates were issued, which far exceeded the team's anticipated

expectations. Youth also indicated they enjoyed being able to access the online course from a personal or desktop computer, an iPad, or smartphone at a location and time most convenient for them.

On a five-point Likert scale (1=Strongly Agree, 2=Agree, 3=Neither Agree nor Disagree, 4=Disagree, and 5=Strongly Disagree), youth were asked to evaluate the course design and component accessibility. Youth indicated that videos loaded with no problems (1.5); they could find quizzes (1.6); they already had an existing email (1.8); they could find module materials (1.8); and they understood how to complete their livestock QA requirements (2). Again, on a five-point Likert scale, youth were asked which practices they are likely to implement as a result of participation in the course. Youth indicated that it was important to care for their livestock (1.3); they knew they had a responsibility to consumers (1.5); they would strive to prevent injury, illness, or disease in their livestock (1.9); they now knew medication needs of their livestock (1.9); and they would implement daily care and management of their livestock (2).

Additionally, some youth (n=75) completed an evaluation of the course to determine course impact, 92% of youth indicated that as a result of the participating in the course they would produce a safe, high quality livestock product and 80% would keep and maintain records on their animals.

Youth were asked what practice they would change as a result of attending the online livestock QA course. Select responses were I will be reading up on medication/feed requirements, Keep and maintain records of my animal, and Ration my rabbit's food and make a caretaker checklist. Youth were also asked why they think it is important to learn about livestock QA. Select responses included So I know what to do when my animal is sick, So I can provide a good product for consumption, and So we know how to take care of our animals better.

Some of the limitations during the first year (2012) were limited connectivity in rural Nebraska, while we were able to reach 80% of all Nebraska counties; we will have to continue encouraging youth to complete this training at a public location. Another concern was that each youth needed a unique email address in order to register for the course through eXtension's Moodle site. As youth under the age of 13 are not legally able to sign up for an email account, parents were encouraged to utilize the + technique. The first child in the family could use a parent's email plus their name, all emails to that account would be received through the parents account. The second child and any subsequent children could also be done this way.

The team has had each module peer reviewed by at least one Specialist and two additional extension educators. The team has been granted IRB (Institutional Review Board) approval ensuring the ability to report the results from survey data collected from the youth, while following all COPPA (Children's Online Privacy Protection Act) policies.

In 2013, the team expanded the modules available and is adding activities to the modules for supplemental learning at home or at a club meeting. Future plans include updating the test-out test options for Intermediate and Senior 4-H members, and keeping modules current and relevant. In addition, the team has plans to market and sell this program to other states to meet their state QA requirements.

IT'S A BUG'S LIFE

Schurman, C.*¹

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

County 4-H staff conducted agricultural science programming with 76 youth in a regional 4-H camp setting. The camp theme was "It's A Bug's Life". The educational goal was for campers to learn more insects and their importance in our lives. 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 insect characteristics, collecting, bees, mouth parts, water insects, good bug/bad bug, and metamorphosis. 100% of the campers indicated they had learned more about insects. 98% of the campers also could answer the question "One thing I will remember about camp ...". Responses included making new friends, counselors, and camp activities. A counselor evaluation also showed that counselors learned leadership skills. The camp was supported with a \$1,000 donation from a local energy company.

4-H FARM TO TABLE WEEK

Hatcher, A.*¹, Huffman, B.², McIntyre, J.³, Clay, W.⁴

¹ Associate Extension Agent, Livestock, NCCES-Duplin County Center, Kenansville,NC, 28349

² Extension Agent - 4-H & Youth Development, NCCES-Duplin County Center, Kenansville,NC, 28349

³ Extension Agent - Horticulture, NCCES-Duplin County Center, Kenansville,NC, 28349

⁴ County Extension Director, Extension Agent - Family & Consumer Sciences, NCCES-Duplin County Center,

More than 62% of North Carolina's population is overweight or obese and a report from the Duplin County (NC) Health Department indicates obesity is also a local problem among youth ages 5 to 11. North Carolina Cooperative Extension (NCCE) in Duplin County responded with a 4-H Farm to Table Week for ages 9-12 during August 6-9, 2012 to educate youth about healthy eating, exercising, and agriculture and food production. The program was limited to the first 12 participants due to transportation restrictions and all 12 slots were full. Costs of the activities were covered by a \$3,849 grant from the Duplin General Hospital Foundation, which covered transportation, meal, internship, admission, and material expenses. Learning tools include farm tours, grocery store trips to practice meal planning and budgeting, sample menus, nutrition curriculum such as "Eat Smart, Move More," wellness center visit, and meal preparation. Pre and post tests and written evaluations and narratives were used to measure impact. In general, youth improved several aspects of healthy nutrition choices, activity, food safety, and knowledge about agriculture. As a result of the program, 4-H Farm to Table Week is planned for June 10-13, 2013 and new resources will be utilized to further increase knowledge and skills in nutrition, food safety and agricultural awareness.

Regional 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, Reproduction, Livestock Quality Assurance, and a tour of the Kansas State University School of Veterinary Science. 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.

When asked what their favorite part of the series was, one youth responded "all of it because I got to learn what being a vet is like." Youth also listed other important learning experiences such as: "how and where to give shots", "what a withdrawal time is", "why vaccinations are important", and "how to take better care of animals." Of the 14 youth who attended the KSU tour, 100% replied that "some" or "all" of the information received was new and useful. The success of this program suggests that youth are indeed interested in participating in veterinary science educational programs.

4-H FORCE ROBOTICS CLUB

Alexander, S.*¹

¹ Extension Agent, Brookville, PA, 15825

Alexander joined the 4-H Robotics Revolution in 2012 when she was the lead educator in forming a robotics 4-H club to compete in the FIRST (For Inspiration and Recognition of Science and Technology) robotics program. FIRST was established in 1989 to inspire youth to become more interested in science and technology. This fits well with the National 4-H Initiative to have 1 million 4-H scientists by 2013. Alexander worked to recruit adult mentors and youth members for the 4-H Force Robotics Club. The club had 6 weeks in which to build a robot that could play basketball. The club was very successful - winning the "All Star Rookie" and UL Safety Awards.

The club now has a major sponsorship from a local company. A female member is now a mathematics major at Penn State and 2 current high school seniors have been accepted into the Penn State Engineering program for fall 2013.

AGRICULTURE LITERACY PROGRAM

Waller, S.B.*¹

¹ CEA - 4H, Lonoke, AR, 72086

The only agriculture education available in schools today is focused on high school students. However, if we want to preserve the future of agriculture, education needs to begin at a much younger age. A 4-H School Enrichment program utilized multiple Agriculture Literacy program activities to educate over 2,200 youth. The goal of the Agriculture Literacy program was to educate youth on Arkansas agriculture, the importance of agriculture in the world, and agriculture's impact on their daily life. Over the past three years, over 550 youth were educated about Arkansas Agriculture with an Agriculture Literacy Lesson reading Good Things from Arkansas and Grow Smarter!: Conservation in Arkansas; over 800 youth learned about the Dairy industry, showing livestock, animal safety, Arkansas fisheries and wildlife, and where their food comes

from through Arkansas Ag Day; and over 900 youth have been educated through three Farm Safety Day programs where volunteers utilized hands-on activities to educate youth about safety with animals, farm equipment, all-terrain vehicles, water, bicycles, and more. As a result of these programs, over 2,200 youth five to twelve years old have been educated about Arkansas Agriculture and now know their eggs come from a chicken, not Kroger, chocolate milk does not come from a brown cow, their clothes start out as a cotton plant, and it's not always safe to ride with Dad on the tractor.

SHOWING OF REPLACEMENT BEEF HEIFERS AND FEEDER CALVES

Liddington, K.*¹

¹ Animal Science, Warsaw, VA, 22572

Youth today are seldom the children of farmers nor their grandchildren. Many generations of 4-H members have enjoyed the personal development and skills achieved showing livestock, yet this project is not keeping up in popularity due to decreased access to animals and parental support for these projects. Cooperative Extension in several states promotes the use of animal projects as learning modules for the 6 pillars of "Character Counts!" They have found youth learned trustworthiness, respect, responsibility, fairness, caring and citizenship making this a worthwhile and effective project.

I developed a program to foster the showing of replacement beef heifers and feeder calves at 5 fairs in eastern Virginia, including the State Fair of Virginia. Jackpot points would be awarded at each show according to the relative success of the exhibitor in their confirmation class and showmanship. Cash jackpot prizes of \$250 each were sponsored by the Fredericksburg Feeder Calf Assoc. and the Tidewater Cattle Feeders Assoc.

Over three years 22 different youth from 3 counties showed as many as 18 head of beef cattle in a given year at the 5 shows sponsored by local fairs. Agents observed all the youth experiencing opportunities to learn, not only skills for successful cattle showing, but also to develop and use this experience to hone their interpersonal skills as well; trustworthiness, respect, responsibility, fairness, caring and citizenship.

JMG PROGRAM IN CRIPPLE CREEK/VICTOR AREA

Platten, M.*¹

¹ County Director, CSU Extension, Cripple Creek, CO, 80813

The Cripple Creek (CC)/Victor area is above 9000 feet which greatly limits what can be grown for produce. CC has opened their greenhouse to the community and CSU Extension has partnered with them to create a JMG program providing cross-generational activities between the Master Gardeners (MG), the youth, and the other families who will be working and learning beside them. We were able to reach at-risk youth and low-income families, especially in the Cripple Creek and Victor School district, which has a transient population and yearly turnover of over 25% due to the gaming industry.

SEARCH FOR EXCELLENCE CROP PRODUCTION

NATIONAL WINNER

EDUCATING ON WHEAT DISEASES

Falk, J.S.*¹

¹ Multi-County Specialist, Crops and Soils, K-State Research & Extension, Colby, KS, 67701

Wheat is an instrumental crop in both dryland and irrigated cropping systems in Western Kansas. Education on creating sustainable and profitable wheat production systems is an ongoing process. One topic that has been a focus on wheat production systems is wheat disease management. In 2012, wheat diseases accounted for a 12.7% yield loss across the state of Kansas. The main diseases that affect the wheat crop in the Sunflower District in northwest Kansas are wheat stripe rust, wheat leaf rust, and wheat stream mosaic virus. The objectives are to educate producers and agronomy professionals on identifying, controlling, and preventing wheat diseases. Another objective is to evaluate the delivery methods for information on wheat diseases. This education has been provided in a number of ways, including winter meetings, field days with demonstration plot tours, research plots, newspaper and newsletter articles, radio programs, electronic communications with producers via email, webpage, and facebook updates. Impacts of the program are both economic benefits and behavioral changes. Because of 'Save the Flag Leaf' field day and educational webinar, 1.5 million acres were positively affected. This resulted in a \$19,792,500 benefit to Kansas. Further evaluations revealed producers feel more confident in managing for stripe rust. This is evident when producers select varieties and ask for stripe rust ratings. Producers are budgeting for fungicide applications. Prior to 2007, stripe rust caught producers off guard; now they plan for it. This shows definite management shifts! In addition, producers are asking to be added to the email distribution list that I

send out notifications on the movement of stripe rust and the infection levels being found in the Sunflower District. Bottom line is producers are seeing Sunflower District as a wheat information resource and making decisions based on the information!

NATIONAL FINALISTS

FLOOD RECOVERY FOR CROPLAND

Wilson, J.*¹

¹ Extension Educator, University of Nebraska-Lincoln Extension, Burt County, Tekamah, NE, 68061

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, that is common following a sudden event (tornado, earthquake or hurricane). Unique challenges require unique programming and partnerships. First, a strong team of extension educators and specialists from Iowa State University and the University of Nebraska-Lincoln was formed. I provided leadership to this group, but everyone contributed something. 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 needs for agronomic research following a long-duration flood since there was limited data for this situation. 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. I also partnered with a multi-state, multi-agency group and coordinated their educational outreach efforts. Participants in our programs indicated they gained new information on returning flooded cropland to production and will use this knowledge to modify their flood recovery efforts. They learned about new programs and resources available to them and will seek more information from the agency(ies) administering these programs. Participants are using our research data to change or modify their agronomic practices as they bring their flood-damaged cropland back into production. Finally, decision makers became better informed about the situation, the types of assistance needed, and hopefully will influence policy to prevent this from ever happening again.

MAINE COMPOST SCHOOL

Hutchinson, M.*¹, Seekins, B.², Hutchinson, M.³, King, M.⁴

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³ Extension Professor, University of Maine, Orono, ME, 04469

⁴ Resource Specialist, Maine Department of Environmental Protection, Augusta, ME,

Compost use has grown exponentially over the past 10 years. People recognize the environmental and economic benefits of recycling organic material to produce quality compost. Farmers and home gardeners have embraced compost as a beneficial soil amendment. Businesses see compost as a method to reduce tip fees and material entering landfills.

The Maine Compost School provides hands on educational opportunities, not only in compost production, but also the agronomic utilization of compost. A collaborative effort between Maine Department of Agriculture, Conservation and Forestry, Maine Department of Environmental Protection and University of Maine Cooperative Extension draws an international audience. Participants come from 42 countries include; farmers, government officials, compost operators, municipal employees, and college students. The school is held twice a year, since 2008, at the University of Maine Compost Research and Educational Facility. In addition, an annual specialty compost school is held that delves deeper into a very specific compost issue. Specialty schools have included, advanced recipe development, Carcass Composting, Developing Compost Programs at Public Institutions and Food Waste Composting. Common statements from participants are, "now I understand why my compost process was not working", "whoa, I did not realize how little compost is needed to impact soil health", "I now feel confident in my ability to develop compost recipes".

Since 2009, twelve participants have opened new compost operations and nine Maine municipalities have developed compost programs for their towns. Additionally, seven Maine compost operations have expended their operations. International participants developed compost operations in Jamaica, (first year gross income of \$500,000), Newfoundland and India. The new and expanded compost operations have generated jobs and reduced organic material entering landfills.

Government officials in Nova Scotia and Puerto Rico assisted in developing policies for organic material collection for compost by using information learned at the Maine Compost School.

AIR BLAST SPRAYER CALIBRATION PROGRAM FROM NEW HAMPSHIRE TO PENNSYLVANIA

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² Owner, Chazzbo Media, Johnstown, PA, 15904

³ Extension Entomology Specialist, University of New Hampshire, Durham, NH, 03824

⁴ Extension Educator, Horticulture, The Pennsylvania State University - Westmoreland County, Greensburg, PA, 15601

⁵ Multimedia Specialist, The Pennsylvania State University, University Park, PA, 16802

⁶ Extension Educator, Fruit Tree Specialist, University of Massachusetts Extension, Belchertown, MA, 01007

⁷ Pesticide Education Program, Director, The Pennsylvania State University, University Park, PA, 16802

⁸ Extension Educator, Horticulture, Indiana County, The Pennsylvania State University, Indiana, PA, 15701

⁹ Extension Educator, Horticulture, Indiana County, The Pennsylvania State University, Indiana, PA, 15701

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Ideally sprayers should be calibrated at the beginning of the season, whenever nozzles are changed, or when changing the nozzle set-up based on the crop and desired coverage. The challenge with air blast sprayer calibration is the ability to accurately and efficiently collect and compare the output from individual nozzles. What began as a small project in one county in NH to meet growers need for air blast sprayer calibration grew when growers in four other NH counties requested duplication of educational programs. Value of the program was seen by other extension professionals, which led to a presentation of the program to pesticide safety educators from across the Northeastern United States in 2010. The Penn State Pesticide Education Program sponsored field demonstrations in South-Central and Western Pennsylvania in the summer of 2011 to introduce the calibration tool, evaluate grower interest, and pilot test the calibration unit. Grower input necessitated additional presentations at the Western Pennsylvania Vegetable Growers Conference in 2011, the Mid-Atlantic Fruit and Vegetable conference in 2012 and 2013, and additional grower meetings to determine statewide interest. Significant impacts of the project were noted by both

Extension educators and growers who participated in on-farm calibrations. In 2013 this program will be expanded in both states to meet the needs of growers. The goal in Pennsylvania is to calibrate 100 sprayers. Program evaluation is on-going, however, based on the initial impacts noted by growers it has been extremely successful. An informal evaluative measure is that growers that participated last year have requested to have their sprayers calibrated again this season. Evaluations also include comparison of sprayers calibrated during the 2012 season to their calibration during the 2013 season. Tools are under development to measure grower acceptance, savings because of calibration, need for additional education materials, and grower support.

Search for Excellence in Farm and Ranch Financial Management National Winner

SUSTAINING THE LEGACY 2008-2012 IMPACT REPORT

Gessner, H.*¹

¹ Livestock Business Management Field Specialist, SDSU Extension, Sioux Falls, SD, 57103

Farmers and ranchers are getting older, averaging over 55 years of age in South Dakota. The next generation, producers in the 35-45 year old age group, decreased over 40% from 2002 to 2007. Sustaining the Legacy was designed to provide tools necessary to help families start estate and transition plans. Participants interview attorneys, insurance agents and financial planners with farm estate expertise to investigate the best tools for their operations. To increase family communication, participants define personalities, develop goals, and begin family meetings.

During 2010-2012 conferences were held in 16 locations across SD with 222 operations represented. The program began in 2005 and has developed from a one day event to a 3 or 4 day conference allowing more time with a variety of estate planning tools presented. Goals include: Increasing family communication, providing tools, removing the mystery of the tools and keep them motivated.

Pre-conference evaluations showed 52% of participants did not have an estate plan. They needed help with: how to get started, what tools are available, and how to utilize tools to accomplish goals.

Follow-up survey results from 2008-2012 participants (n=74 returned from 279 family operations) showed 82% have

started their estate plan and 79% have started a transition plan. For estate plans, 44% of participants consider their plan 75% or more completed, with 15% declaring it 100% complete. For transition plans, 38% consider their plan 75% or more completed, with 17% indicating 100% completion.

The type and number of changes made to participants' plans indicate the program has been educational and motivating. Changes included: 52% updated their will(s) (x=43), 51% communicated with heirs (x=38), 46% created a trust (x=38), 15% modified life insurance policies and gifted assets (x=12), 11% completed funeral planning (x=9), 10% added retirement accounts (x=8), and 6% sold assets to heirs (x=5).

National Finalists

EMPLOYMENT SKILLS FOR TODAY: PLANNING FOR SUCCESS

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² Extension Educator, University of Minnesota Extension, Mankato, MN, 56001

³ Extension Educator, University of Minnesota Extension, Worthington, MN, 56187

⁴ Extension Educator, University of Minnesota Extension, Mankato, MN, 56001

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⁶ Extension Educator, University of Minnesota Extension, Rochester, MN, 55904

“Employment Skills for Today: Planning for Success” is a University of Minnesota Extension educational program for farm business owners and managers who hire and manage family and nonfamily labor. The program is focused on assisting those owners and managers acquire knowledge and skills related to their supervision and management of their employees. Rationale for the program effort is based upon: 1) requests from farm owners, operators, and managers for this type of information and 2) requests from a host of agricultural professionals who work with farm owners and managers who supervise hired labor. The program was beta tested at three regional sites and the evaluative information was utilized to develop curriculum. Workshops were four hours in length. Participants received a workbook as part of the teaching materials package. Presentation is interactive and face-to-face in nature. Key educational points of the program include: 1) assessing your business to determine if hired labor is required, 2) how to develop an effective hiring

process, 3) cultural issues related to employee and employer, 4) cross-cultural communication techniques, 5) conflict management techniques, 6) employee compensation plans, 7) legal issues of being an employer and 8) federal and state tax requirements of an employer. A total of 127 participants attended one of the 10 workshops presented between February and June 2012. Participants represented 71 farm businesses from 63 different communities. There were 7 local business sponsors and three local Extension educators involved in marketing and implementing the program. Participants self-reported increases in knowledge around all eight of the program educational points exhibiting program outcomes. Participants were also asked to rate the overall workshop quality and usefulness of the subject matter to their work. A total of 98.7% rated the overall workshop as good or excellent.

REACHING OHIO'S AG LENDERS MAKES IMPORTANT IMPACT ON REACHING OHIO FARMERS

Clevenger, W.B.^{*1}, Arnold, G. J.², Bruynis, C.³, Lewandowski, R.⁴, Ward, B. W.⁵

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⁵ Assistant Professor, Ohio State University, Columbus, OH, 43210

Ohio State University Extension professionals have organized professional development seminars for agricultural lenders for over 25 years teaching risk management topics. In the past three years, two seminars were held in each 2010 and 2011. A new third location was added for 2013. Annual attendance in the last three years has been 66, 92, 97 for 2010, 2011 and 2013, respectively. The core topics of the seminars focus on macro and micro economic issues. However, not all topics are directly economic in nature. Seminars have been customized to discuss emerging technologies, social and legal issues. In October 2012, 97 Ag lenders improved their knowledge in risk management topics 30% (Examining Potential Profitability for 2013) to as high as 52% (Farm Transition Planning: Rational to Reality). Lenders reported knowledge gained would be used directly (speak with customers related to their farming operation), indirectly (use to review customer portfolios), and as background (professional development and industry awareness) with their farm customers. Three topics were identified as having

high percentage of lenders directly using knowledge gained with customers: Farm Transition Planning: Rational to Reality (76%), Examining Potential Profitability for 2013 (66%) and Returns to Farm Drainage (60%). Two topics were identified as having high percentage of lenders using knowledge gained as background use with customers: Many People and Less Poverty in 2050-Feeding the World (66%) and Ohio Energy Development-Wind, Solar, Gas (55%). Over the recent three years, knowledge gained by lenders supports agricultural portfolios of over \$2.6 billion annually. The indirect customer contact by OSU Extension through agricultural lenders averages over 12,000 served annually. By evaluating the seminar participants, OSU Extension educators better understand the important multiplier effect of teaching groups of professional agricultural lenders and reaching over tenfold the number of Ohio farmers with financial and risk management information.

ANNIE'S PROJECT 2012

Carleo, J.*¹, Lippet-Faczak, A.², O'Neill, B., Ph.D.³, Ozkan, B. Ph.D.⁴, Heckman, J.⁵, Matthews, J.⁶, Melendez, M.⁷, Polanin, N.⁸, Mickel, R.⁹, Brumfield, R., Ph.D.¹⁰, Koma, S.¹¹

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⁹ County Agent II, Rutgers NJAES Cooperative Extension, Flemington, NJ, 08822

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¹¹ County Agent III, Rutgers NJAES Cooperative Extension, Newton, NJ, 07860

It is a little known fact that the majority of women in agriculture do not have business plans. When surveyed, only 2 out of 137 farm women in New Jersey had current business plans for their farms or agricultural enterprises. As partners or sole proprietors, it is evident that women in general need to be more aware of the importance of

the business and financial management components that impact the very success of their farms. Our Women in Agriculture program created a comprehensive educational program and support network for farm women that educated them on understanding and managing their farm businesses with a focus on farm and family financial management. The primary goal was to provide a collaborative outreach and assistance program for traditionally underserved farmers (women) throughout NJ and across the mid-Atlantic region. A unique combination of in-person meetings and distance-learning technology was utilized to deliver the program via webinars, webcams, and wireless microphones to "connect" 75 women and 24 presenters attending concurrent sessions in three separate locations across New Jersey. All 137 participants in the Annie's Project NJ programs 2011-2012 were surveyed within a year after the coursework to determine adoption of practices that would help to improve their farm business operations. Results (n=42) indicated that 97% developed a mission statement; 92% developed their business description; 64% wrote a farm description to be used for marketing (or another purpose); 70% developed a management plan; and 68% developed a production plan. In addition several participants have used their business plans as part of their applications for funding from the USDA's Farm Service Agency (FSA). In total, 70 of the 137 women completed business plans as a result of the course.

Search for Excellence in Farm Health and Safety National Winner

WORKER PROTECTION STANDARD: TRAIN THE TRAINER WORKSHOPS

Wilder, B.*¹, Gazula, A.²

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

² Commercial Horticulture Agent, UF/IFAS Alachua County Extension, Gainesville, FL, 32609

The Worker Protection Standard (WPS) developed by the Environmental Protection Agency (EPA) and reinforced by the Florida Agricultural Worker Safety Act, requires that agricultural producers maintain the safety of their agricultural workers. Federal and state law requires that agricultural producers must train all of their agricultural workers in pesticide safety by their fifth day on the job. Pesticide handlers must be trained before they start working. To respond to this need, the agents developed training workshops for the Worker Protection Standard.

The program's objectives were to educational materials, and annually offer WPS Train the Trainer Workshops for owners of farms, nurseries, and forestry operations so that are in compliance with state and federal laws. Additionally, at least 10 farmers, nurserymen, and foresters will attend the Worker Protection Standard: Train the Trainer workshops annually, and increase their knowledge by 85%. From 2009-2012 a total of 60 farmers and nurserymen have attended 7 WPS Train the Trainer Workshops. In 2012, there was a 28% increase in knowledge as measured by pre-post test. From 2009-2010, measured by an end-of-program survey, 53% of the 20 participants indicated that they will change their farm's agricultural worker pesticide safety program and 93% of participants were satisfied with the quality of the workshop.

National Finalists

EDUCATING EMERGENCY RESPONDERS TO POTENTIAL ON-FARM RESPONSE SCENARIOS

Wantoch, K.L.*¹, Clark, J.²

¹ Agriculture Agent Specializing in Economic Development, UW-Extension - Dunn County, Menomonie, WI, 54729

² Crops and Soils Educator, UW-Extension - Chippewa County, Chippewa Falls, WI, 54729

Agriculture continues to be one of the most dangerous industries in the United States. Countless tractor and machinery safety classes have been taught for years. An audience that is often overlooked for farm safety training is the emergency response personnel who respond to farm accidents. Surveying local emergency responders in Western Wisconsin indicated a need for farm safety training for emergency responders. Western Wisconsin UW-Extension agents Jerry Clark, Chippewa County, and Katie Wantoch, Dunn County, coordinated and delivered two workshops in April 2011 and June 2012. Sessions in the workshops included machinery entanglement, animal movement and handling, TMR and skidsteer handling, patient stabilization & packaging, grain bin storage and rescue, confined spaces and manure gases, and tractor rollover stabilization. Western Wisconsin Technical College personnel provided expertise for machinery extrication exercises and local Fire Department staff provided training in the tractor rollover session. Participants from 12 local fire departments across 5 counties in Western Wisconsin participated in the two hands-on training workshops. 100% of participants indicated they found the workshop useful and was a good update on modern agricultural equipment.

YOUTH EDUCATED ABOUT DANGERS OF FARM/RANCH LIFE THROUGH FARM SAFETY PROGRAMS

Waller, S.B.*¹

¹ CEA - 4H, , Lonoke, AR, 72086

The Center for Disease Control and Prevention reports that on average, 113 youth die annually from farm-related injuries, and in 2009 alone, an estimated 16,100 children and adolescents were injured on farms; 3,400 of these injuries were due to farm work. The objective of the Farm Safety program is to provide education to make farm, ranch and rural life safer and healthier for youth. Over the past three years, over 900 youth have been educated through three Farm Safety Day programs where volunteers utilized hands-on activities to educate youth about safety with animals, farm equipment, all-terrain vehicles, water, bicycles, weather, and more. Over 800 youth were educated through three Farm Animal Safety lessons at Arkansas Ag Day programs and almost 250 youth were educated on the basics of Farm Safety through two Agriculture Literacy Programs. As a result of these programs, over 2,000 youth five to twelve years old have been educated on the dangers of farm and ranch life, and as a result have the knowledge to reduce risky behaviors, prevent injuries, and save lives.

TRAIN THE TRAINER AND HANDS-ON WORKSHOP IN SKAGIT COUNTY

McMoran, D.*¹

¹ Agriculture and Natural Resources Extension Educator-Director, Washington State University, Burlington, WA, 98233

Skagit County is home to over 15,000 Hispanic residents. This population represents the majority of agricultural workers in the Skagit Valley. Very few of the agricultural workers in Skagit County have an understanding of the Worker Protection Standard (WPS) created by the United State Environmental Protection Agency (EPA) designed to protect employees on farms, forests nurseries and greenhouses from occupational exposures to agricultural pesticides and therefore have the potential to cause harm to themselves and their community. Beginning in 2007 I partnered with the Washington State Department of Agriculture (WSDA) to offer an annual Train the Trainer and Hands On Workshop. These workshops use an innovative WSDA curriculum to educate agricultural workers and supervisors in both English and Spanish in regards to notification of pesticide applications, use of personal protective equipment, restricted entry intervals following pesticide applications,

decontamination supplies and emergency medical assistance. Pre- and post-evaluations indicate a 30% increase in knowledge of the Worker Protection Standard among Hispanic participants due to this training. Since implementing this educational curriculum in 2007, Skagit County has had only one violation to the WPS standard and that violation was issued to a lawn service and not to an agricultural operation. Through this training employees become educated enough to know the standards that employers and employees must follow regarding pesticide use. This information has helped Skagit County become a model for agricultural safety and environmental compliance.

Search for Excellence in Landscape Horticulture National Winner

FLORIDA FRIENDLY LANDSCAPING

Wilber, W.*¹

¹ Extension Agent III Environmental Horticulture, Gainesville, FL, 32609

Florida Friendly Landscaping (FFL) was created by the University of Florida IFAS as a way to educate homeowners in Florida about water conservation and reducing non-point source pollution in the home landscape. This voluntary program educates and encourages residents to adopt best management practices in their home landscapes to save water resources and to protect water quality throughout the state. Annual tours of landscapes and accompanying Florida Friendly Landscaping programming have been presented to homeowners in Alachua County Florida since 2007.

Over the past 5 years the agent has been able to provide education and inspiration to 580 landscape seminar and tour participants. In those responding to the follow up survey from the last tour reported that as a result of the tour 16% added a rain barrel to their landscape and 40% intended to. For those homeowners who installed a rain barrel in 2012 they potentially saved 600 gallons of water. In the area of water conservation 55% reported that they eliminated one day per week of their watering schedule in the warm and cool seasons. According to the St. Johns River Water Management District, for average sized landscape (4000 sq/ft) this could mean water saving of over 100,000 gallons per year and a dollar savings of \$2,318.00.

Ten homes of tour participants in the last year became Florida Friendly Landscape recognized as a result of attending the seminar and tour. For the 64 respondents to the survey this

mean a savings of 3,685,000 gallons of water and \$83, 418 saved in 2012.

National Finalists

SUSTAINABLE FOOD & ALTERNATIVE AG WORKSHOP 2012

Weinmann, T.*¹

¹ Cass County Ext. Horticulturist, Fargo, ND 58108

With the increased interest in home horticulture and utilizing locally grown food that is nutritious and safe, more families are looking at growing some of their own food. The Kindred High School Vocational Agriculture Class and the Casselton Elementary Schools 4th grade classes, requested container gardening lessons for their students. There were Jr. Master Gardener Grants were available for this type of training. I provided container gardens through a Jr. Master Gardener Grant and also provided training in plant growth and development, soils and water, environmental horticulture, insects, diseases, and vegetables.

The container gardens were distributed to 52 youth from 2 schools. They consisted of food grade totes, PVC pipes, pasteurized garden soil, and a tomato plant.

Post-training Survey Indicated:

25% increased their knowledge about fertilizer and how it works
28% increased their knowledge about how plants use slow release fertilizer
24% indicated that they have confidence in growing plants
81% had success in keeping their tomato alive
74% had plants that produced tomatoes

Feedback

“I learned I don’t need a large garden to grow vegetables”
Casselton Student

“I really enjoy gardening” Casselton Student

“It was easy” Kindred Student

“I want to grow a real garden next year” Kindred Student

I would like to do this type of a training again next year.
Casselton Teacher

This would be great to do again next year with strawberries.
Parent

“I’ll never miss an opportunity for authentic, real-life learning.” Casselton Teacher

“This was well-worth the student’s time. Kindred Teacher
“I hope that by the students learning to grow and care for their own food, they learn to eat foods that they may not be used to eating. Casselton Teacher

37% had problems that they went to someone for information

GREEN INDUSTRY WINTER UPDATE SERIES FOR PENNSYLVANIA GREEN INDUSTRY PROFESSIONALS

Abbey, T.M.¹, Benner,* R.A.², Butzler, T.M.³, Bogash**,
S.M.⁴, Bosold**, N.F.⁵, Feather, S.L.⁶, Ford**, T.G.⁷,
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** Indicates not and active NACAA member.

The Green Industry Winter Update Series, developed by members of the Penn State Extension Green Industry Team in collaboration with the Penn State Pesticide Education Program, provides current, research-based information specific to the needs of Green Industry Professionals in remote locations throughout Pennsylvania. This program was seen as an important educational experience for the participants as it allowed them to stay current with industry practices, prepare for the upcoming growing season and earn their recertification required to maintain their pesticide application licenses. Specifically, the innovative, hands-on interactive presentations allowed more employees to participate than might otherwise be the case because of the technical design and delivery methodology, which allowed for multiple remote locations to partake in the overall program. Feedback from participants suggested an efficacious and rewarding educational experience that we will continue to offer and improve upon in future reiterations.

2012 HORTICULTURE AWARENESS - OUTPUT

McLellan, S.*¹

¹ CEA-AG/NR, Waco, TX, 76701

Many small landscaped businesses are opening their doors to the general public and are constantly asking for assistance in general horticulture information. McLennan County being an urban county for the most part has home owners visit the office frequently asking questions about insect control, trees, flowers, shrubs and lawns. The problems consist of insect control, disease control, varieties, fertilization and general management of landscapes. One avenue to address the needs of these homeowners is the utilization of a trained volunteer base. The master gardeners of McLennan County offer educational programs as well as train volunteers to assist in horticulture awareness. This effort from trained volunteers allows Extension to reach a far broader audience.

Search for Excellence in Livestock Production National Winner

TURNING A PROFIT WITH BEEF CATTLE

Covington, C.*¹

¹ Area Livestock Agent, Mississippi State University, Port Gibson, MS, 39150

The purpose of this educational program was to increase the individual profitability of the cow/calf producers in Mississippi. I accomplished this task by working with beef producers in identifying their effective production practices, diagnosing their inefficiencies in production, and prescribing corrective measures to ensure their maximum profitability through the optimum utilization of their farm resources. In order to achieve the overall goal of profitability, several smaller goals needed to be met. I utilized multiple program activities and teaching methods, recognizing that different producers learn in different ways. These educational activities included 129 newsletter/circular letters, 131 newspaper articles, and 135 group activities that reached 1,725 producers over the past three years. The producers participating in the program indicated the value of the information they gained from these educational activities in the form of savings or increased profits to their operations at over \$7.5 million. However, the increase in knowledge by these producers is a much more valuable indicator of its true success and effectiveness.

National Finalists

BEEF PRODUCTION & MARKETING WEBINARS: A NEW VENUE FOR EDUCATING PRODUCERS

Reau, B.J.*¹, Schwehofer, J.P.², Lindquist, G.L.³, Gould, K.S.⁴, Thurlow, K.M.⁵, Rowntree, J.E.⁶

¹.Assistant Director, Michigan State University Product Center Food-Ag-Bio, Lenawee County, Adrian, Michigan 49238

².Extension Educator, Michigan State University Extension, Huron County, Bad Axe, Michigan 48413

³.Extension Educator, Michigan State University Extension, Osceola County, Reed City, Michigan 49677

⁴.Extension Educator, Michigan State University Extension, Ionia County, Ionia, Michigan 48846

⁵.Extension Educator, Michigan State University Extension, Gladwin County, Gladwin, Michigan 48624

⁶Assistant Professor, Michigan State University, E. Lansing, Michigan 48824 (non member)

The Michigan State University Beef Team took an innovative approach to educating beef producers utilizing a series of webinars held in 2011 and 2012. With fewer livestock educators and rising travel costs to deliver educational programs, the Team found webinars to be a successful method for delivering educational programs. In 2011, a four-part series, Considerations for Marketing Beef Locally was offered. Seventy-three percent of the 37 participants had never participated in a webinar. Evaluation data collected at the end of the series demonstrated the content and technical quality of the webinars were highly rated. A nine month follow-up evaluation was also conducted that showed producers had made changes in their operations as a result of participating in the webinars. This experience prompted the team to again offer a four-part series in 2012, Opportunities in Beef Production & Marketing. There were 35 participants in the series. Online evaluations were conducted at the end of the series and as a follow-up at nine months. One hundred percent of the respondents reported making changes in their operations including things such as expanding the beef herd, changing methods of production, expanding direct marketing, and marketing differentiated beef products. Effective educational programming for beef producers can be accomplished using webinars.

TRAIN THE TRAINER EDUCATION PROGRAM ON MORTALITY COMPOSTING

Williams, J.C.*¹, Bonhotal, J.², Hutchinson, M.³, Bonhotal, J.⁴

¹ County Educator, Penn State Extension, Wellsboro, PA, 16901

² Cornell U WMI., Ithica, NY,

³ UNiversity Educator, Cornell WMI, Ithica, NY,

⁴ Professor Agronomy, University of Maine, ME

Train the Trainer education program on Mortality Composting. The NE SARE project is a collaborative effort with University of Penn State Cooperative Extension, Maine Cooperative Extension, and Cornell Waste Management Inst.

I will cover our results on this “Train the Trainer” program to generate a larger pool of qualified educators to cover this subject. This program will used face to face meeting and emerging computer technology to educate Extension and NRCS staff on sustainable livestock carcass management. The 55 reached over 5400 people from over 13 states.

This collaborative effort trained 55 participants from over 8 states, on how to work with producers to develop and implement a carcass management system for integrated livestock operations. Three initial face to face trainings, Pennsylvania, New York, and New England, were conducted to train the trainer. Using hands on, field experiential learning, Participants received information in the following areas: methodology and bio security, economics, site development, compost feedstock’s, recipe development, C:N and moisture balance.

Three additional video teleconferencing meetings were used to address restricted travel budgets for trainers and participants. This set of video teleconferencing meetings permitted the 55 participants to interact with experts in other states.

Results of these programs was collected on Survey Monkey. As a result of this program, agriculture service providers surveyed now strongly recommends composting as a carcass disposal management tool. A survey of livestock operators indicated that 46 of 80 (58%) use compost as a carcass mortality management tool. All livestock producers that compost believe the process is cost efficient and sustainable.

2012–13 GEORGIA HERD PROGRAMS

Jackson, B.L.*¹, Bowman, G.W.², Edwards, N.R.³, Ensley, G.R.⁴, Lancaster, C.J.⁵, Mickler, K.D.⁶, Pugliese, P.J.⁷, Ray, L.E.⁸, Smith, S.W.⁹, Talton, C.S.¹⁰

¹ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Whitfield County, DALTON,GA, 30722

² County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Gordon County, Calhoun,GA, 30701

³ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Walker County, LaFayette,GA, 30728

⁴ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Polk County, Cedartown,GA, 30125

⁵ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Catoosa County, Ringgold,GA, 30736

⁶ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Floyd County, Rome,GA, 30161

⁷ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Bartow County, Cartersville,GA, 30120

⁸ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Jasper County, Monticello,GA, 31064

⁹ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Upson County, Thomaston,GA, 30286

¹⁰ County Extension Coordinator & ANR Agent, UGA Cooperative Extension, Elbert County, Elberton,GA, 30635

The University of Georgia Heifer Evaluation and Reproductive Development program (HERD) works to educate and strengthen the beef industry in Georgia. The Herd program implements feed and health programs that allow replacement heifers to reach target weights required for successful breeding and provide performance data, reproductive traits and disposition scores on each heifer. Two groups of heifers are evaluated each year; first they are sorted by date of birth for placement into either the Tifton program or Calhoun program. Producer orientation meetings are held annually to encourage new consignors to participate in HERD. During the orientation meeting, beef reproduction workshops share detailed educational information related to beef cattle reproductive management practices. At the end of the HERD program, pregnant heifers that meet all qualifications are sale eligible. Producers have the option of retaining their heifer(s) and not selling them. The number of producers in the Tifton program has increased from 17 to 24 and in the Calhoun program from 26 to 34. Three year

sale averages at the Tifton program have increased from \$1348 to \$1846 and in the Calhoun program from \$1221 to \$1753. Survey results from those who purchased heifers (Tifton and Calhoun locations) suggest that the foremost attraction to obtaining heifers through the HERD program was that the program guarantees all heifers purchased are pregnant. Other valuable data obtained from the survey was that information in the sale catalog on disposition scores and breeding information was a great assessment tool for purchasers.

Search for Excellence in Remote Sensing and Precision Agriculture National Winner

AGRI-ENVIRONMENTAL ASSESSMENT OF THE COLTS NECK WATERSHED

Sciarappa, W.*¹

¹ County Agent II, Freehold, NJ, 07728

Over-arching goals of this extension program in the Colts Neck Watershed were to create a precision agri-environmental assessment process with new technology and to outreach results to client groups – farmers, agents, administrators, regulators, residents and students. Converting reams of remote sensing data into client friendly graphics helps everyone understand farm, field, and forest issues. By repeatedly collecting at precise sample points; geographical and environmental imagery was created that more effectively communicated information to a diverse set of stakeholders. Specific issues were drinking-irrigation water, septic systems, environmental pollution, equine operations, residential lot-size, marine use, aquaculture and recreational habitat. This holistic watershed concept encompassed disparate enterprises and entities and engaged them on mutual issues. Global positioning satellites and geographical information systems (GPS-GIS) technology was combined with field-portable GPS device and portable water/soil monitoring equipment.

National Finalists

OHIO VALLEY PRECISION AGRICULTURE CONFERENCE

Schmitz, H.F.^{*1}, Mosiman, A.², Hardy, C.³, Monroe, J.S.⁴, Neufelder, J.⁵, Caplan, L.⁶, Restrepo, M.⁷, Smith, M.⁸, Held, N.⁹, Powell, R.¹⁰, Clingerman, V.¹¹

¹ Extension Educator, Purdue Extension, Princeton,IN, 47670

² Extension Educator, Purdue Extension, Boonville,IN, 47601

³ Extension Agent, University of Kentucky Extension, Owensboro,KY, 42303

⁴ Extension Educator, Purdue Extension, Washington,IN, 47501

⁵ Extension Educator, Purdue Extension, Mount Vernon,IN, 47620

⁶ Extension Educator, Purdue Extension, Evansville,IN, 47725

⁷ Extension Educator, Purdue Extension, Petersburg,IN, 47567

⁸ Extension Agent, University of Kentucky Extension, Henderson,KY, 42420

⁹ Extension Educator, Purdue Extension, Rockport,IN, 47635

¹⁰ Extension Agent, University of Kentucky Extension, Morganfield,KY, 42437

¹¹ Extension Educator, Purdue Extension, Vincennes,IN, 47591

Extension Educators and County Agents serving the Southwestern Indiana and Western Kentucky agricultural communities met to identify common needs for programming among their clientele. Precision agriculture was identified as an educational need within the community that was heretofore untouched by the local Extension services. The “Ohio Valley Precision Agriculture Conference” was an output of this meeting.

Campus extension specialists served as general session speakers, while industry specialists presented specific product information. The event was free to participants, using vendor fees to compensate for expenses.

Of the nearly 170 attendees at the conference, 78 completed a survey at the conclusion of the program (Response rate of 46%). Each topic throughout the day was assessed as not at all, slightly, moderately, or extremely informative. Moderately or extremely informative marks were aggregated and are presented parenthetically hereafter. CERES Solutions began the day with “Utilization and Data Management with Precision Tools.” (71%) A breakout session allowed

participants to choose between “RTK Accuracy” with UK Specialist Tim Stombaugh (82%), “Calibration Basics” of John Deere equipment (87%), or “Variable Rate Seeding of Corn” with Purdue Specialist Bob Nielsen (93%). The general session reconvened with a farmer panel moderated by Prof. Stombaugh (87%). Greg Sauder of Precision Planting served as the post-lunch keynote speaker (90%) via webinar from his farm, providing an opportunity for participants to recognize the increasingly technological landscape in which we live and work. Afternoon breakout sessions included a repeat of “RTK Accuracy (84%),” “Calibration Basics” of Case IH/Trimble equipment (52%), and “Economics of Investing or Upgrading” with UK Specialist Greg Halich (46%).

Of respondents, 84% felt their attendance would assist in reducing technology investment costs, increasing investment in appropriate technology, or both. When asked to place a dollar amount on the education received, 54% of respondents claimed over \$1,000 in knowledge gained.

PRECISION AGRICULTURE CLINICS

Hicks,* C.D.¹,Fulton, J.P.²

¹Regional Extension Agent, Alabama Cooperative Extension System, Opelika, AL

²Extension Specialist, Alabama Cooperative Extension System, Auburn, AL

Two Precision Ag Clinics were held at E.V. Smith Research Center in Shorter, AL. The purpose of these clinics was to provide current information about agricultural sprayers and planters such as new spray technology and fine tuning a planter for success. The sprayer clinic covered topics such as nozzle selection, calibration, sprayer cleanout, effects of adjuvants and application strategies for the future. Leading spray manufactures and suppliers featured exhibits of equipment and technology. Attendees included 165 people from 12 states. 95% of the people surveyed would attend a follow up clinic. The planter clinic focused on fine tuning planters to maximize yield and profits. Four topics were discussed that will lead to planter success: 1) Perfecting seed spacing 2) depth uniformity 3) down force management 4) calibrating seed meter. Technology now allows for producers to adjust seeding rate on the go. For example, a field with different soil types or a producer changing varieties will benefit from adjusting seed rate. 85 people attended the planter clinic. 96% of the people surveyed would attend a follow up clinic. Precision Ag allows a producer to be as efficient as possible with the use of pesticides, fertilizers and seed placement which allows each plant a more optimum growing condition. Such practices will lead to a more sustainable and profitable system.

MAPPING VOLUNTEERS

Blevins, M.*¹, Marshall, S.²

¹ County Extension Director, NC Cooperative Extension, Bolivia, NC, 28422

² Horticulture Agent, NC Cooperative Extension, Bolivia, NC, 28422

Beekeepers and Extension Master Gardeners are important volunteers in Cooperative Extension. Knowing where our volunteers are located within the county has helped assign projects, discover underrepresented areas, better market programs and match & manage the volume of volunteers and clients throughout our large county in southeastern NC. Interactive maps have been developed over the last few years to locate and analyze client services as well as match assignments to volunteers based on proximity to a work site or event location.

Search for Excellence in Sustainable Agriculture USDA SARE/NACAA Recognition Program National Winners (1 from each Region)

Ellis, C.E.*¹, Hoorman, R.²

¹ Natural Resource Engineer, University of Missouri, Troy, MO, 63379

² Agronomy specialist, University of Missouri Extension, Montgomery City, MO, 63361

Charlie Ellis and Rich Hoorman have combined to lead a very effective effort on cover crops for sustainable farming in Missouri. They have organized on farm research and demonstration trials used as part of educational workshops, done webinars and presentations on the results of this work, and gone well beyond the typical approach to an extension program. For example, instead of just training farmers, they have also done webinars and workshops for other extension staff and large numbers of NRCS staff in Missouri. They have worked to partner with cover crop educators and researchers in other states through the Midwest Cover Crops Council, and are currently working to adapt the MCCC cover crop decision tool for Missouri conditions. The partnership of these two extension staff working together has been particularly effective, with Charlie providing the engineering expertise to modify equipment for various cover crop seeding approaches in on-farm trials, and Rich

supplying the agronomic expertise, including working with the farmers and Charlie on plot design, seeding dates, rates, and methods. One of their most recent outreach efforts was to provide two one-hour webinars for NRCS and SWCD technical personnel on cover crop strategies. They provided detailed information based on their own on-farm research and work done by other researchers in the region. They have also been holding a series of field tours for a diverse audience that has included NRCS, other extension staff, and industry input suppliers. Of course they have been popular speakers at a number of farmer meetings, with some of these meetings drawing upwards of 300 participants.

Kersbergen, R.*¹, Darby, H.², Masoud Hashemi, M.³

¹ Extension Educator, University of Maine Cooperative Extension, Waldo, ME, 04915

² Agronomic and Nutrient Management Specialist, University of Vermont Extension, St. Albans, VT, 05478

³ Extension Assistant Professor, Stockbridge School of Agriculture, Amherst, MA, 01003

With nearly 162,000 acres in production, growing corn silage is a major expense for dairy farmers in New England. Planting corn consumes time and fuel, and it occurs at a time when other crops need to be harvested for maximum quality. Because of the short growing season, corn is usually grown without cover cropping, which leads to increased use of pesticides, higher rates of erosion, and depleted soils. No-till planting and the use of cover cropping offers farmers an efficient alternative that reduces fuel and fertilizer costs and improves soil fertility.

A four-year NESARE-funded project (2009-2012) to improve corn silage production and forage quality was conducted jointly with Extension researchers in Maine, Massachusetts, and Vermont. Working with dairy producers on their farms in the tri-state region, researchers studied timing and efficiency of corn planting with no-till practices, yields of shorter season corn varieties, the value of cover crops, and alternative manure management techniques. Over a four-year period, over 35 workshops were held to disseminate our results including 4 in-service trainings for agricultural professionals.

Out of 109 producers who responded to a post-project survey, 33 adopted no-till and cover crop strategies, increasing no-till acreage from 953 in 2009 to 3947 in 2012. Adopting no-till strategies saved producers an average of 5.7 gallons of fuel/acre and 2.75 hr/acre in labor with a net direct benefit of \$194,196 for these 33 producers. Growers also noted improved soil, moisture retention, and feed quality, and reduced fertility needs. Survey results and NRCS acquired

data indicated that cover crop adoption in the three states increased from 9,701 acres in 2008 to 15,882 acres in 2012. Project data indicated fall cover crops supply at least 30 pounds of nitrogen per acre to the succeeding crop saving producers additional money in fertilizer costs.

Tyson, R.*¹

¹ County Extension Director / Extension Agent IV, UF/IFAS Extension Orange County, Orlando, FL, 32812

Orange County, Florida, is a rapidly urbanizing county with a long tradition of diverse agricultural production. Its population is 1.2 million and it currently has the 9th largest agricultural economy among Florida's 67 counties. The educational objectives of the Urban Farming Extension Education Program are to identify, demonstrate and encourage the adoption of successful alternative and sustainable agricultural production methods that can be used in and around urban centers in order to take advantage of local markets. Activities and teaching methods over the last 3 years include research/demonstrations, exhibits, seminars and workshops (including PowerPoint presentations), tours, TV and web videos, as well as journal, fact sheet and newsletter articles. Alternative production systems were built and demonstrated at the Orange County Extension Exploration Gardens including 4 floating raft hydroponic systems for leafy salad crops and herbs, a solar powered nutrient film technique (NFT) hydroponic system and an aquaponic (vegetable and fish co-production) system. Several publications used in the program were viewed widely by state, national, and international audiences. Results and evaluations indicate considerable interest in the program with class sizes averaging over 100 and with over 90% increase in knowledge gained about sustainable practices. The Homegrown Food Coop in Orlando is reporting local food producer participation increasing from 5 to 60 producers and membership in the Coop increasing from 10 to 800 members over the last five years. The City of Orlando sustainability initiative is moving to enhance local food production and marketing. Impacts for local food hubs and producers based on the results are significant and are expected to be reflected in the 2012 USDA Census of Agriculture data as an increase in local producers and economic food production activity for Orange County.

MANAGED GRAZING OF IDLE GRASSLANDS

Van Vleet, S.M.*¹

¹Regional Extension Specialist, Washington State University, Colfax, WA, 99111

Our educational project, funded in part by WSARE, is the rehabilitation of a large acreage of rangeland that had been planted to "Secar" bluebunch wheatgrass and then left idle, ultimately becoming a monoculture of Secar with patches of invasive weeds. This grassland is located within Dalles Mountain Ranch, a historic cattle ranch acquired by Washington State Parks in 1994. After we conducted several on-site evaluation sessions with livestock producers, governmental agency personnel and environmentalists, these trainees became our collaborators in researching the use of managed grazing as an effective method to rehabilitate idle grassland.

The educational objectives of this project include: showcasing the public ranch as a learning site, demonstrating ways to hold family ranches together, training state employees on proper management techniques, validating managed grazing as a land management tool and diffusing negative perceptions. Program activities include the annual event "Wagons and Wildflowers," land ecosystem monitoring workshop, field tours, and the mere presence of the project site on public land popular for nature hikes. Teaching methods include on-site evaluations, seminars, on-farm management evaluations, Native Plant Society field tours, and a kiosk featuring an educational poster at the ranch entrance.

Managed dormant season grazing from 2009-2012 increased species richness and vegetative cover. Overall perennial and annual grass cover decreased while perennial and annual forb cover increased following grazing. In the grazed pastures, perennial grass crude protein and digestible protein improved by over 1 percent, and grass health was better. State land managers and environmentalists were pleased by the improvement of forb species diversity and the health of established grasses and forbs in the grazed pastures. Changing personal mindsets about the value of managed grazing as a tool to restore degraded grasslands has been and continues to be a significant outcome of the Dalles Mountain Ranch rehabilitation project.

Search for Excellence in Young, Beginning, or Small Farmers/Ranchers

National Winner

HELPING BEGINNING FARMERS AND RANCHERS IN ALASKA NATIVE VILLAGES

Rader, H.*¹, Gannon, G.²

¹ Tribes Extension Educator, University of Alaska Fairbanks Cooperative Extension Service, FAIRBANKS, AK, 99701

² Alaskan Growers School Instructor, University of Alaska Fairbanks Cooperative Extension Service, Fairbanks, AK, 99701

Alaska Natives living in remote villages face major challenges such as food insecurity, poverty, unemployment, lack of sustainability, loss of culture, and migration from villages to urban areas. Research based information from Extension could benefit these communities. The Beginning Farmer and Rancher Development Program funded this project to develop and deliver a course called the Alaskan Growers School. We wanted to develop a course that could be taught by distance delivery to reach Alaska Natives living in remote villages. These communities are underserved by regular Extension Programs due to their remoteness. Small travel budgets limit face-to-face delivery of workshops to remote communities. That's why we developed the Alaskan Growers School to be delivered by distance delivery to reach these remote communities. The course targets Beginning Alaska Native Farmers and Ranchers. We also researched best practices for distance delivery methods and plan to share our research in the Journal of Extension in a series called "Going the Distance."

Acknowledgments: This project was supported by the Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant # 2010-49400-21719. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author (s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

National Finalists

REACHING AMISH COMMUNITIES THROUGH FRESH MARKET VEGETABLE PRODUCTION PROGRAMS

Ghimire, N.R.*¹

¹ Agricultural Agent, UW-Extension - Green Lake County, Green Lake, WI, 54941

The Amish growers are getting their educational information needed for vegetable production mainly from Green Lake County UW-Extension. Since 2010, Agriculture Agent Nav Ghimire has been working in close coordination with the growers to identify their needs and plan and implement educational programs.

In coordination with state and regional level Extension educators, Ghimire conducted good agricultural practices (GAP) and food safety training, vegetable growers meeting, and Twilight Field Day for Amish growers. In addition, Ghimire provided one-on-one and on-farm technical support.

In an evaluation survey, of the total respondents, about 85% (n = 28) of the growers reported 5 - 20 % (average 10%) increase in vegetable production per acre due to adoption of the educational information they learned from the program. Most of the individual growers reported having 3 - 12 acres of land under vegetable production. The survey respondents reported having a total of 343 acres of land.

Based on the Centre for Integrated Agricultural Systems, University of Wisconsin-Madison report (2006), fresh market vegetable producers (with 3 - 12 acres of land) can earn an average gross income of \$ 11,121 and average net income of \$ 4,679 per acre. Therefore, with 10% average increase in their vegetable production, Amish growers who responded the survey increased their total average gross income in 343 acres of land by \$ 381,450 and their net income by \$160,524.

To assess the impact of Agriculture Extension Programming, Nav Ghimire conducted a post-program retrospective survey with 67 growers. The survey was administered to growers in person during their annual meeting in Dalton on December, 2012. The response rate was 50% (n = 34). Survey measured the knowledge and skills of the respondents in a five-point Likert-type scale, where 1 = little, 2= some, 3= High and 4= very high.

TRANSITION TO FARMING

Straight, A.*¹, Brabham, B.²

¹ Ag & Natural Resources Extension Agent, WVU Extension Service, Harrisville, WV, 26362

² Ag & Natural Resources Extension Agent, WVU Extension Service, Spencer, WV,

Small farms have increased over the last few years, as more people are moving from the city to the countryside. In 2007 the Census of Agriculture stated the number of farms in the US were increasing, but acres in farmland decreased. More farms are becoming small farms rather than the traditional commercial farm. Farm land is increasingly feeling the pressure of development. In West Virginia, we have 23,618 reported farms; the average size of farm is 157 acres, and this is considered a small farm. Data also reported that nationwide 346,231 farms were enrolled in conservation programs. Conservation programs are a great way to learn sustainable practices while getting an incentive on your farm. Often new farmers do not know where to learn about these opportunities.

West Virginia is known for its rolling hills, rural communities and inexpensive land. Those attributes attract many people retirement age and younger to relocate to the countryside of West Virginia. Many times this population wants to start farming on a small scale and become self-sufficient and sustainable in their homes. Farming is a difficult business to get started in and become profitable. Many clients state to me that they just want to be self-sufficient as much as possible in this unsure economy. The 2007, the Census reported that farm numbers are increasing but they are not as profitable and are often run by people who also work another job. People need help getting started. They need knowledge on where to look for assistance, loans, and education on productive farming.

Development of the Transition to Farming/Homesteading workshop and presentation we were able to focus on small beginning farmers. We collected information from all local, statewide, and national organizations that support farmers and delivered it to the public in handouts and presentations.

PIEDMONT FARM SCHOOL

Albertson, A.*¹, Blackwelder, D.², Cutting, D.³, Greer, S.⁴, Roberts, M. T.⁵, Taylor, A.⁶, Tucker, M.⁷, Warner, J.⁸

¹ Extension Agent, Agriculture-Horticulture, North Carolina Cooperative Extension, LEXINGTON,NC, 27292

² County Extension Director, North Carolina Cooperative Extension, Salisbury,NC, 28146

³ Extension Agent, Agriculture-Horticulture, North Carolina Cooperative Extension, Troy,NC, 27371

⁴ County Extension Director, North Carolina Cooperative Extension, Carthage,NC, 28327

⁵ Extension Associate, Agriculture Resource Economics, North Carolina Cooperative Extension, Kannapolis,NC, 28081

⁶ Extension Agent, Agriculture-Horticulture, North Carolina Cooperative Extension, Lenoir,NC, 28645

⁷ County Extension Director, North Carolina Cooperative Extension, Winston-Salem,NC, 27105

⁸ Extension Agent, Agriculture-Livestock, North Carolina Cooperative Extension, Troy,NC, 27371

The demand for locally grown food in Piedmont of North Carolina is growing as the number of farms decreases. The Piedmont Farm School is a seven month program that teaches new, aspiring and transitioning farmers how to write a business plan and develop as farm entrepreneurs. Each month there is a business class and a farm field day. A different farm enterprise is visited each month and the farm hosts share their business successes and pitfalls. Cooperative Extension in six Piedmont Counties, worked together to develop curriculum, plan and implement the program. North Carolina Farm Bureau in each of the counties provided financial assistance as well as NC Farm Credit offered to waive loan application fees to participants who completed the program. In 2012 thirty two participants completed the program. Eighty percent have written an outline of a business plan and accessed new marketing arenas. Three farm families started new enterprises and have seen an \$3,000 increase in income each as a result. In 2013 fifty participants have started the program.

Regional Winners

COMMERCIAL GRAPE AND WINE WORKSHOP

Gao, G.Y.*¹

¹ Extension Specialist and Associate Professor, Ohio State University South Centers, Piketon,OH, 45661

Several educational programs were conducted to help small and beginning farmers to grow wine grapes in Ohio. There is a major shortage of Ohio-grown wine grapes due to a dramatic increase in the number of wineries in Ohio. Most vineyards in Ohio are less than 10 acres. The Key educational programs offered were “Blackberry, Blueberry and Grape Pruning Workshop,” “Southern Ohio Summer Wine Grape Workshop,” “Commercial Grape and Wine Workshop – A Practical Approach,” “Ohio Grape and Wine Conference,” “Commercial Berry Production School.” We focused on many basic aspects of starting and managing a vineyard, such as site selection, cultivar selection, soil and tissue tests, canopy management, essential analytical methods of vineyard and winery, identification of grape pests and diseases, and sensory analysis of wine aroma. The combined attendance for these five educational programs was 356. Ohio Fruit News was also used to help fruit growers get up-to-date wine grape production practices. I have also contributed articles to the Ohio Grape-Wine Electronic

News. Last, but not least, a wine grape cultivar evaluation trial was established in 2008 and maintained at OSU South Centers. This vineyard was used as a demonstration site for such topics as leaf pulling, disease identification, pruning, leaf and tissue sampling, and pesticide spraying. My educational programs have reached growers with a collective acreage of 260, and potentially 130 acres in new plantings. My wine grape research and extension programs were funded by Ohio Grape Industries Program in the amount of \$50,000 in 2013.

SMALL ACREAGE PROGRAM

Stienbarger, D.M.*¹, Lambert, E.², Harwood, E.³

¹ County Director, Washington State University Extension, Vancouver, WA, 98665

² Small Acreage Program Coordinator (2011-2012), Washington State University Extension, Vancouver, WA, 98665

³ Small Acreage Program Coordinator (2005-2010), Washington State University Extension, Vancouver, WA, 98665

People move to small acreages or start farming with little experience in managing their operation. Locally, few technical resources exist for farmers. Farm size now averages 37 acres; farms under 50 acres constitute 83% of farms which rely on direct marketing and value-added production.

The Small Acreage Program in Clark County, Washington (pop. 430,000), evolved into an integrated program to address the lack of resources for small farmers and small acreage owners about farming-specific topics and best management practices (BMPs).

Two multi-week trainings form the core program. A 10 week Business Planning for Small Farms provides farmers help developing business plans. The program graduated 125 people (94 households) owning 775 acres and 35 farms.

From 2008 to 2010 (2011-2012 not complete), 44 out of 68 graduates with 632 acres told the program they shared information with 338 other people and:

75% made management changes which improved their business,
70% refined their business plan,
58% developed a marketing strategy,
41% changed marketing strategies,
56% increased marketing outlets.

The second core element is the 12 week long Living on the Land course developed by a team I was part of from Western US Extension Services, funded by SARE. This course

teaches sustainable land and animal management practices.

The course graduated 345 people (2004-2012) owning at least 3,109 acres. Through 2011, graduates (77% response rate) implemented 559 BMPs on at least 1,957 acres affecting at least 791 livestock (excluding poultry). Over half of participants owned livestock and 20% operated farms. Graduates shared their knowledge with over 2,633 other people.

During 2010-2012, 176 people attended 8 farm tours, 347 people attended 23 workshops, 300 attended the annual Small Acreage Expo, and 2,142 people visited 32 farms at the annual Harvest Celebration. Evaluations consistently show a majority of participants increased their knowledge.

Sustainable Agriculture Research Education (SARE) Seminar USDA SARE/NACAA Fellows Program National Winners

Jennifer Blazek, Agriculture Agent, University of Wisconsin-Extension, Polk County

1. Why I wish to attend

I was attracted to the SARE Fellows Program because it is an opportunity that fits both my professional and personal interests. From what I understand of the program, it offers many benefits to agents interested in continuing and expanding their Extension work in the area of sustainable agriculture.

The primary benefit I see from this program is the diversity of agricultural systems that participants will visit and learn about. Traveling and visiting farms outside of our area that may be - at first glimpse - different, offer additional perspectives and new ideas that we can then take back to our own county. I am most looking forward to seeing the wide range of farming systems and agricultural businesses that other regions of the country offer. I strongly believe that most often than not, the experience of first-hand learning during site visits is more beneficial than any lecture or classroom-style workshop learning environment.

Another significant benefit of this program is the networking opportunity it presents. Even attending the NACAA conference doesn't allow much time for networking with agents interested in specific topics, because there are so many activities competing for everyone's attention. And while it's relatively easy to connect with other agents within

one's own state, collaborating across state lines is important but more difficult, especially as a newer Extension colleague. Not only does this program provide ample time to get to know fellow participants and learn about their programming, but by traveling around the nation, participants are able visit with local experts – farmers and business owners – who would otherwise not be accessible.

2. Past experiences and activities

While still a relative newcomer to Extension, I already have a strong background in sustainable agriculture. My graduate studies focused entirely on sustainability, as one of my master's degrees from the University of Wisconsin-Madison was in Agroecology. The Agroecology Program at Madison taught a more holistic approach to agriculture, very similar to the systems approach that is common in sustainable agriculture theory. In Agroecology, farming systems have constantly redefined boundaries and by changing one context (say, expanding the dairy operation), others are impacted and could require some change as well (more cows means changing current manure management practices).

My background and experiences make me a non-traditional Agriculture Agent compared to others in my position. For this reason, I have mainly focused my Extension work in the area of sustainable agriculture. Based on the needs of my county, I have continued to work to develop and build our value-added and local foods industries. The majority of my work during the year is to offer educational programming to my clientele on everything from small ruminants to vegetable production and starting a value-added food business. I also started and continue to work with a Farmers Market Manager Network to offer resource-sharing for markets in the county. I continue to collaborate with a local farmer-owned food cooperative which provides wholesale market opportunities (schools and hospitals) to area farmers.

3. Using the Fellows Program and evaluation

I plan on using the Fellows Program to expand my current programming around sustainable agricultural production and local foods market development. At recent winter workshops for value-added and local foods producers, the evaluations show that the marketing session was the most popular and that clients are looking for more information on that subject. For this reason, I foresee that as a result of this program, I will develop and share educational materials and resources on marketing for value-added and local food enterprises. These resources would cover such topics as branding, conducting market research, accessing markets (such as CSAs, Farmers Markets, wholesale, etc.), and utilizing marketing tools (such as social media). Depending on the topic, the resources could take the form

of a presentation or a publication.

Not only will I use my experiences and knowledge gained from my participation in this program to consult with individual clients on a case-by-case basis, but I plan on holding educational workshops as well. This would include a combination of winter programs, to cover such topics that are better taught in a classroom environment, such as conducting market research, and summer programs that allow for site visits. I envision, for example, a summer workshop where I take the participants to Minneapolis-St. Paul to tour a farmers market and see how farmer vendors "brand" themselves and market their products to consumers. This way producers can learn from each other, which can be more beneficial than through a formal presentation.

The evaluation methods I will implement will differ very little from the tools I currently use in my work. I utilize a combination of written evaluations for workshops and focus groups to determine the impact of my programming. The workshop evaluations encourage participants to react and comment to the workshop sessions and to offer their ideas for other topics that would be beneficial to themselves and their businesses. Focus groups are more effective than needs assessment surveys and are able to collect more specific informational needs of producers. In this way, I will be able to determine what type of information and the best format to present it in, for clientele.

4. Impacts and results

Due to the response that I have already received from the marketing sessions I have held at workshops, I foresee a large impact to my county clientele. Through the creation of these resources and materials I will be able to reach a wider audience, even beyond workshop participation and individual consultations. There will be an economic impact for producers and agricultural business owners as they are able to access other – and more – markets through the knowledge gained from the materials and workshops.

5. Benefits to others

As one of my goals of attending this Fellows program is to expand my programming and research, I hope to be able to contribute to the body of knowledge on sustainable agriculture through scholarship in the form of presentations and publications. This would include presentations I give to other educators and industry professionals at conferences – like the annual NACAA and our own state Agricultural Program conference – on the knowledge gained from participating in this program.

I feel it is vitally important to share the knowledge I gain

through this Fellows Program with my peers. Wisconsin has few specialists working in the area of marketing and therefore there are limited resources being developed in this subject. Agents oftentimes have to create the materials on a case-by-case basis, for use only in their counties. I would like to develop materials that agents can use in their own programming - whether marketing is one of many topics or the focus of a workshop - and across county and state lines. These materials would be made available electronically through a website, and advertised through Extension channels. I foresee that in order to encourage the use of these materials, I would offer training for agents who are unfamiliar with this subject. Using social media for agricultural marketing would be a good topic to offer training for agents, especially those who are “newcomers” to social media themselves.

Tianna Dupont

Educator- Sustainable AG, Northampton

After three years serving as a Sustainable Agriculture Educator for Southeastern Pennsylvania it is time to widen my horizons in order to bring new ideas back to our community of growers. I find that visiting farms and sharing with fellow educators are both key to collecting great ideas and learning how to convey them. The SARE fellowship would be a unique opportunity to act as an ambassador between regions.

My work focuses on sustainable agriculture practices including organic vegetable and field crop production, cover crops, soil health and new farmers.

For example, I work with a group of organic vegetable producers. The group identified the need to provide advanced training for more experienced growers. Over the past three years I have provided an Organic Vegetable Intensive which served thirty growers in the first year and has grown to sixty. This past year fifty three experienced organic farmers (5-27 years of experience) farming 760 acres in Pennsylvania, New Jersey and Maryland attended the Intensive focused on Farm Profitability. 100% of farmers said they learned something today that will improve the profitability of their farms (n=38). Farmers said they plan to use their new knowledge. For example they plan to “capitalize boldly,” knowing “how to invest and where to capitalize on the farm.” Use “better management of interns and labor,” including “a 20% raise to retain employees.”

My work with vegetable growers is not limited to organic growers. I work to help all growers increase their sustainability. Working with five colleagues I spearheaded an exciting project last year focused on conserving resources and increasing farm profitability with biodegradable

mulches. During on-farm demonstrations at seven farms, farm field days and winter meetings; farmers learned about biodegradable film mulches. These mulches suppress weeds and warm the soil like black plastic. But instead of ripping them up in the fall, you till them into the soil and the microbes degrade the material, leaving you a clean field in the spring. One hundred and forty eight farmers participated in winter workshops about biodegradable mulch. 78% learned a good or a great deal (N=111). Fifty farmers plan to use biodegradable mulch, replacing plastic on up to 107 acres and saving 43,000 lbs of plastic from the landfill (N=111).

With seventy percent of our diets coming from grains, sustainable field crop production is essential to preserving our soil, waterways and farms. I work with a group of Penn State researchers and extension educators to provide training and appropriate research information to organic field crop producers. This last year sixty six organic field crop producers farming 3750 acres in Southeastern Pennsylvania participated in three winter study circles and one summer field day concentrating on testing for high quality forage, soil testing, soil health and compost. 54% of producers rated their increase in knowledge considerable as a result of these interactive and highly focused experiences (n=22). 100% of producers learned a moderate or considerable amount (n=22). 45% of participants planned to make specific changes in their operations such as “testing soil frequently,” adopting “changes in weed management, cover cropping, planting dates and soil amendments,” including specific techniques “blind tillage” and precise use of techniques such as “[timing] when to cut hay” (n=22). 27% had already made changes in their operations as a result of what they learned in study circles such as “cover crop seedings,” and changing “my rotation and combating weeds.”

I have also worked on six cover crop projects, an on farm soil health assessment project and lead the Start Farming Beginning Farmer initiative.

I plan to bring the information and ideas I learn through the Fellows program back to my farming community by providing one in-depth training per year, and writing four articles which will be published in the Vegetable and Small fruit gazette, the Field Crop News and the Start Farming newsletter. I also plan to invite one of the growers I meet to speak at our annual Organic Vegetable Intensive to share directly with our growers. I also do many individual consultations with growers (ie 280 last year). The knowledge I gain will enhance my ability to help growers with their individual challenges.

I expect to directly impact one hundred and sixty growers through workshops over two years (30 in-depth; 50 Organic Intensive) as a result of the SARE Fellowship. Of

participating growers I expect eighty-five percent (136) will increase their knowledge as a result of the training. Forty-five percent (72) will plan to apply new techniques. An additional two thousand growers will have access to newsletter information through online and paper newsletter distribution. All newsletter articles are archived on the extension.psu.edu website.

I am lucky to work with three Penn State Extension teams with whom I can share new knowledge. I am a member of the Vegetable and Small Fruit Team. As a coordinator for on-farm demonstrations I hope to initiate a new project based on experience gained in this fellowship. By working directly with eight other regional educators they will not only hear my stories of what I saw, but also be able to witness first-hand the results of new practices. They will then be able to convey this information to their networks as we did in the biodegradable mulch demonstration. I also work with a team on an Organic Research Education Initiative project focused on cover crops and a team of educators working with new farmers. I also work with the regional Beginning Farmer Service Provider Network which includes non-profit, farmer and Extension educators. Between these networks I plan to carry out one train-the-trainer program impacting fifteen educators.

Dr. Laura Anne Sanagorski

Environmental Horticulture Extension Faculty
University of Florida
Palm Beach County

Why You Wish to Attend

I am passionate about using research, writing, and education to improve our environment and food security through sound agricultural and landscaping practices. I have been committed to advancing sustainable agriculture through my work for many years. I believe that the SARE Fellows Program will offer a unique opportunity to collaborate with others who share this passion, and that it will provide me with tools that help me to make a difference in this field.

The county I serve, Palm Beach County, is one of the largest agricultural counties in the United States in value of products sold, exceeding one billion dollars annually. We are the largest user of fresh water in the state of Florida, and our potential to impact the environment, including ground and surface waters has been recognized.

In our county, 18.5% of all children live below poverty level and 40.2% are eligible for the free lunch program. In our densely-populated, agriculturally-heavy county where so many go hungry, access to local food systems that minimize impact on the environment is critical. I see my role in

furthering sustainable agriculture as a pairing of social sciences and horticulture: by teaching others to grow food more sustainably and in conducting and publishing research in the field of sustainable agriculture.

Experience and Past Activities

I serve as environmental horticulture extension faculty for the University of Florida / IFAS Palm Beach County Extension service. I hold B.S. and M.S. degrees in Environmental Horticulture and a Doctorate in Agricultural Leadership, Education, and Communications. I completed the USDA SARE Sustainable Agriculture: Basic Principles and Concept Overview course in 2011. My Extension program serves green industry professionals, property managers, master gardeners and residents. I conduct programming about sustainable fruit and vegetable production and also provide troubleshooting to individuals and organizations who are producing fruits and vegetables in the community.

I have conducted research about the social aspects of sustainable agriculture for several years. The frame of my research lies in individual values towards sustainable agriculture as a function of a larger community. One outcome of my research was the generation of a valid, reliable instrument that can quantitatively measure individuals' preferences towards either a sustainable or conventional model of agriculture. The results of this work are currently under review for publication in the Journal of Extension. I have studied the agricultural preferences of youth, Extension agents, and international educators to date and I have presented my work at state, regional, and international peer-reviewed research conferences, with two additional international peer-reviewed research presentations forthcoming in 2013.

In addition to my research, I have written articles on sustainable-agriculture-related topics for various popular publications. One example is my recent article "Managing for Higher Yields", an exploration of the benefits of insects for small-scale farmers, which was featured in the Spring 2012 edition of Farming Matters. The article was featured in other international editions of the magazine, including the Latin America and China editions, which collectively have reached more than 300,000 subscribers in 172 countries.

Plan on How You Intend to Use the Fellows Program and Evaluation Methods You Will Implement

I believe that the SARE Fellows Program will offer a unique opportunity to make a difference in this field. If I am the recipient of this fellowship, I plan to collaborate with others who are passionate and knowledgeable about this topic, to further our understanding in this field and contribute to the

existing body of knowledge. I will take the tools gleaned from the program and my enhanced knowledge of sustainable agriculture systems to create programs for fellow Extension agents, professionals, Master Gardeners and residents.

First, my experiences during the SARE Fellows Program would be documented as a case study. I would seek to publish my findings and experiences in a peer reviewed journal, such as Agroecology and Sustainable Food Systems, or the Journal of Extension.

Secondly, I would create an educational program that would explore the social, environmental, and economic aspects of sustainable agriculture through the use of case studies, virtual tours of sustainable operations I visited, and participant discussion. Students would refine personal definitions of sustainability and apply it to their individual areas of interest. Emphasis would be placed on utilizing and demanding agricultural practices that protect the environment, nurture local communities, and provide growers with financial stability. This program would first serve Palm Beach County residents, professionals, schools, and property managers through a local workshop. Feedback from this pilot program would be used to refine the materials.

The educational program would then be delivered to professionals and Extension agents via an online webinar open to individuals nationwide. Evaluation of both the in-person program and the online webinar will be conducted using a retrospective pre-post test design. This type of design is a useful evaluation method that asks respondents to report their actual changes in behavior as a result of a program. This method has been shown to successfully illustrate changes in knowledge, attitudes, and behavior. To allow for ongoing sustainability of this educational initiative, professionals and Extension participants who complete the program will be given access to a toolkit containing materials used in the webinar. They will then have the resources necessary to conduct their own local sustainable agriculture program. Further, the materials will be published online in an open-access format. The potential reach of this program is extensive due to its repackaging and reusable nature. The results of the program would be shared with the USDA SARE / NACAA Fellows program and submitted to the Journal of Extension or similar publication so that my experiences could contribute to the body of literature on this topic.

Potential Impacts and Results

My participation as a SARE fellow could potentially impact 30-75 individuals at the local level. This program would educate community decision-makers and educators, including master gardeners, consumers and backyard

farmers. It is anticipated that a local program on sustainable agriculture could have the potential to change purchasing behaviors so that more food dollars are spent locally and sustainable growing practices are adopted, so that fewer pesticides are used carelessly and gardens managed in a way that preserves soil and reduces runoff and non-point source pollution.

By conducting this workshop online for professionals and other Extension colleagues, the potential reach of the program will be expanded exponentially. I anticipate that other Extension agents and change agents throughout the country will make use of the materials by replicating the online program locally. Local environmental, social, and economic impacts can be realized through the adoption of sustainable agriculture practices and consumption preferences.

Potential Benefits to other Professionals and Clientele

Other professionals will benefit from this program in that they will have to opportunity to pursue education on this topic regardless of their location. Further, they will receive materials that will support their own sustainable agriculture programming. Consumers and backyard growers will benefit from having the knowledge to make better-informed decisions, whether for food purchasing decisions or for growing techniques. The local benefits will be reproduced in numerous communities as master gardeners and Extension professionals spread the education they have received.

Mr Matt Palmer, Agriculture/4-H Youth Agent
Utah State University, Sanpete County

1. Why I wish to attend.

I have observed over 12 years as an Agriculture Extension Agent in Utah and a lifetime of working in agriculture that our current food production systems of high input, high capital infrastructure for marginal returns have put small farmers at a disadvantage. This in turn has taken many of our productive lands out of agriculture and into small hobby farms. The hobby farms are now deteriorated with noxious weeds and harbor many destructive pests that require large amounts of pesticides and labor to maintain.

Sustainable Agriculture is a breath of fresh air. I have been a student of SARE and the integrated and innovative approach to food production. I would like to have the opportunity to learn more about sustainable agriculture throughout the U.S. to help the farm families in Utah heal the land while providing great products for a growing health conscious population.

2. Details of my experience and past activities.

As a Utah State University Extension Agent for 12 years, I have conducted three Western SARE funded project totaling \$151,688. These projects included back yard chicken production and rangeland forage production. I have worked on other projects including: management intensive grazing, oilseeds crops for biodiesel, weed control with sheep and goats, cricket control with IPM, biological control of Tamarisk, in-house chicken manure composting, and a TV garden show (local10.tv). I also manage a family farm that has transitioned from commodity markets to direct marketing of hay and beef.

3. Plan on how I intend to use the Fellows program and evaluation program.

I am currently developing a sustainable agriculture education farm that will have areas for research and demonstration for students and the greater agriculture community. I am also developing a small farm educational 8 week course to teach sustainable agriculture principals. I plan to use the knowledge gained through the SARE Fellows program to design and implement these two programs to improve educational resources for a large number of youth and adults in Utah and surrounding states.

To evaluate these programs I will use follow up interviews with those that attend the programs to document the sustainable agriculture practices that have been implemented. These interviews will be conducted in person at their farms with pictures and video to be place on our website so other farmers can learn about local sustainable practices.

4. Potential impacts and expected results.

A. Creation of a research and demonstration farm that will be designed to demonstrate and promote sustainable agriculture practices to farmers, students and agriculture service agencies.

B. Creation of a small farm course that teaches sustainable agriculture practices to small farm owners that will contribute to sustainable agriculture practice implementation on small farms in Utah.

5. Potential benefits to other professionals and clientele.

Many professionals and clientele will be able to gain knowledge and skills through attending workshops tours and hands-on research and demonstration project at the Sustainable Agriculture Educational Farm. Others will benefit from presentations I will give at professional meetings and in-service training session throughout Utah.

2013 Service to American/World Agriculture

H. Louis Moore

Professor of Agricultural Economics at Penn State University

H. Louis Moore, started as an Extension Agent in Northwestern PA and has gone on to do international extension work in 12 of the 15 Republics of the former Soviet Union. Dr. H. Louis Moore is a county extension agent, a university economics professor and an international agricultural extension ambassador. In 1990, Dr. Moore made over 55 visits to 12 Eastern and Central European countries and has hosted over 125 visiting foreign agricultural leaders to Penn State.

Lou graduated from Potomac State College of WV with an Associate Degree in General Agriculture in 1950. Lou continued on to Penn State University with a BS in Agricultural Economics in 1952 and a MS in 1956.

“November 1955”, Lou Moore started out his Extension Career as a Marketing Agent for Cooperative Extension, in a 10 County area in Northwestern Pennsylvania.

“September 1958”, Lou Moore became the Pennsylvania Statewide Extension Marketing specialist for the next 25 years until 1973. He has developed and delivered outstanding award winning extension programming in agricultural economics, marketing, and farm policy.

“1973”, Lou became a Professor of Agricultural Economics with a 100 % Extension appointment. Now 58 years later, he is still promoting extension and agricultural learning here and abroad. Today Lou is a Professor Emeritus of Agricultural Economics at the Penn State University, Department of Agricultural Economics and Rural Sociology, His educational programs have been primary off campus and have focused on marketing and economics in livestock, meat and grain and farm policy. Professor Moore supports county agents and agribusinesses with programs at county and regional events. On an average year, Professor Moore is requested to speak at over 30 meetings, and writes over 20 articles.

Lou plays a major role in planning and conducting the annual Pennsylvania Agricultural Bankers conference. This two day intensive training meeting is attended by over 100 Pa Bankers and Agribusiness to understand the dynamics and changes taking place in modern day agriculture. This conference has occurred for the past 46 years.

International Agricultural visits:

Then after 35 years of extension work, Dr. Lou Moore turned to international agriculture education. Dr. Moore began working on international agricultural extension and faculty exchanges in 1990. Lou has worked with and visited 12 of the 15 Republics of the Former Soviet Union. Lou was very involved in a collaborative funded effort by the USDA's-CSREES and 30 other land grant universities, which provided extension education to the Polish Agricultural Ministry. He has hosted young economists from many countries as part of a 10 year faculty exchange program.

Lou has provided Extension training to Ministries of Agriculture, farmers, universities and agribusinesses from the following countries. Lou has made 55 trips to 12 countries since 1990.

That is almost 5 trips every 2 years.

Albania - October (VOCA) 1992 Latvia - May 1997 and April 1998
Armenia - April- May 1995 Lithuania - May 1997 and April 1998
Azerbaijan - April-May 1995 Poland - 17 visits during 1990 - 2009
Estonia - May 1997 and April 1998 Russia - Nine Visits during 1994-2006
Georgia - April- May 1995 Serbia - Five visits during 2002-2005
Kazakhstan - Three visits 1999-2005 Ukraine - 11 visits during 1998-2009

Lou helped host the USDA Cochran Fellowship exchange program for young agricultural economists and agricultural leaders. The USDA Cochran program was designed to provide a short term, non-academic training in the US to agricultural policy makers from Eastern Europe. These European leaders got to experience a two week intensive educational program, including on campus training, agricultural conferences and field extension studies. More than 125 Cochran Fellows have visited Pennsylvania from Central and Eastern Europe. The program was later opened up to other countries from Africa, South America and the Middle East.

Then in 1991, Dr. Moore joined USDA - CSREES and 30 other land grant universities on a 5 year project to restructure and reorient the Polish agricultural extension system. This project was to work on national, provincial and local levels and to educate personnel on current agricultural knowledge. Professor Moore was recognized by the Polish Senate for his role in helping make this project a success. Professor Moore used this experience to develop similar university based extension trainings in Lithuania, and four other universities, two in Russia and two in Ukraine. Professor Moore developed a series of International Extension conferences in Poland to share the extension experience and knowledge of building, funding and conducting extension programming.

Faculty exchanges have become a very effective way to provide a hands-on extension training program. Professor Moore provided leadership for Penn State University to participate in the USDA Faculty Exchange Program (FEP). The FEP program brings qualified educators from agricultural universities in Central and Eastern Europe to the United States for 5 months. These educators learn knowledge and teaching instructions on subjects of agricultural economics, marketing, agribusiness, and agrarian law. The educators stay and live on campus, they observe classes, work with university faculty to develop new courses, learn and collect teaching materials and techniques and visit area farms and agribusinesses. Professor Moore served as a teacher, a counselor, a coach and a friend. Once the educators return to their home country, the PSU professors would visit them in their home university to provide additional assistance. In 2003, Professor Moore received the Inaugural USDA Foreign Agricultural Service Award for his meritorious work on the Faculty Exchange Program.

Impacts:

The impacts of these collaborative international and domestic educational efforts go far beyond the numbers of farmers, countries or exchanges. Much of this work has been directed at teachers, extension professionals, governmental officials, and industry leaders. In turn, each person will pass on their gained knowledge and experience to many other students, colleagues and clients. At the same time, Lou Moore's personal charisma has engaged dozens of other Penn State Faculty & Extension educators to interact with these international visitors. Literally hundreds of Pennsylvania farmers, businessmen, and other citizens have enjoyed and gained an international experience and contributed to a greater understanding and appreciation for other cultures.

2013 Achievement Award Winners

North Central Region

Illinois - Stephanie K Porter
Indiana - Ed Farris
Indiana - Ms. Maria Restrepo
Iowa - Ron Lenth
Kansas - Jeanne S Falk
Kansas - Chris G Petty
Michigan - Jeannine Patricia Schwehofer
Minnesota - Mike Boersma
Missouri - Randa E Doty
Nebraska - Lindsay M. Chichester
North Dakota - Raquel Dugan-Dibble
Ohio - Cynthia Meyer
South Dakota - Warren Rusche
Wisconsin - Aerica Bjurstrom

Northeast Region

Maine - Anne Lichtenwalner
Maryland - David Gordon
New Jersey - Meredith Vaughn Melendez
New York - A. Fay Benson
Pennsylvania - Jeffrey Graybill
West Virginia - Gary Rapking

Southern Region

Alabama - Deacue Fields, III
Alabama - Mallory J. Kelley
Arkansas- Ed Brown
Arkansas - Ms. Jerri Lephiew
Florida - Libbie Johnson
Florida - Dr. Ronald W Rice
Florida - Mark Warren
Georgia - Guy Collins
Georgia - Garvie Nichols, JR.
Georgia - Cliff Riner
Kentucky - Linda K. Mcclanahan
Kentucky - Nick Roy
Louisiana - Keith Hawkins
Mississippi - Wayne Boshart, Jr.
Mississippi - Kimberly L. Tolbert
North Carolina - Della King
North Carolina - Matthew Stevens
Oklahoma - J. Aubie Keesee
Oklahoma - Casey N Russell
South Carolina - S. Cory Tanner
Tennessee - Tonya K. Ashworth
Texas - Brock Fry

2013 Distinguished Service Award Winners

North Central Region

Illinois - Dr. Elizabeth Wahle
Indiana - Kelly Pearson
Indiana - Phil Sutton
Iowa - Darwin J. Miller
Kansas - Dewayne Craghead
Kansas - Sandra L. Wick
Michigan - Dr George H Silva
Minnesota - Diane K. Dewitte
Missouri - Kent Shannon
Nebraska - Tracy J Behnken
North Dakota - Gregory J. Endres
Ohio - Rory Lewandowski
South Dakota - Darrell Deneke
Wisconsin - Zen Miller

Northeast Region

Maine - Mark Hutchinson
Maryland - James William Lewis, Jr.
New Jersey - Nicholas Polanin
New York - Laura McDermott
Pennsylvania - Dwane L. Miller
Vermont - Dr. Julia M. Smith
West Virginia - John Mccutcheon

Southern Region

Alabama - Max W. Runge
Alabama - Rudy P. Yates
Arkansas - Mr. Robert Goodson
Arkansas - Keith Perkins
Florida - Alejandro Bolques
Florida - Mike Goodchild
Florida - Anita Neal
Georgia - Julia Gaskin
Georgia - Ray Hicks
Georgia - Wade Parker
Kentucky - Keenan Bishop
Kentucky - Ronald H. Bowman
Louisiana - Rene G Schmit
Mississippi - Andy Braswell
Mississippi - Danny Owen
North Carolina - Mr. Dan Campeau
North Carolina - James Hartsfield
North Carolina - Alton E. Wood, Jr.
Oklahoma - JJ Jones
Oklahoma - Rick Nelson
South Carolina - Morris Warner
Tennessee - Ranson Goodman
Texas - Fred D. Burrell Jr.
Texas - Rick Hirsch
Texas - Robert K Pritz
Texas - J. D. Ragland
Texas - Brian D. Yanta
Virginia - Scott Baker
Virginia - Dr. Andrew E. Overbay

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

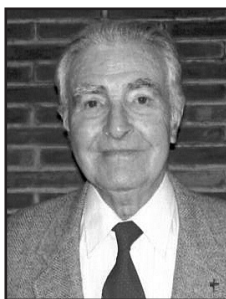


JOHN DEERE

2013

Northeast Region Hall of Fame Award

Robert Miller
Maryland
61 Years - Retired



Ever since I was 10 years old I wanted to be a county agent when I grew up. I recalled the times when John Carter, Garrett County Agriculture Agent, would visit my father's farm to help with various problems. When I was in 4-H, Mr. Carter encouraged me to grow certified seed potatoes and exhibit them at the County Fair where they won 4 blue ribbons. Mr. Carter was so impressed with my potatoes that he took them to the Maryland State Fair where I won 4 more blue ribbons, big money for the times.

I began my career with the University of Maryland Cooperative Extension Service in 1951 as an Assistant County Agent in charge of the 4-H program in Cecil County Maryland. After 2 years I was transferred to Wicomico County to restart a faltering 4-H program and assist with agriculture programs, and in 1955 I was promoted to County Agriculture Agent.

I developed programs in field crops, vegetable crops, and swine production and marketing. I was the lead organizer in starting the Delmarva Soybean Conference with an annual attendance ranging from 1000 – 1400 at each event. I served on numerous committees and held many offices including Farm Bureau, Chamber of Commerce, Recreation Commission, Agriculture Resolution Committee, Soil Conservation, MACAA and NACAA. I also organized seven Public Drainage Associations which improved drainage and farm income.

In 1965, the Wicomico County Council Commissioners decided

to build a new building for the Extension office staff and I was asked to help find an appropriate location. After the building was erected, a bronze plaque was placed on the entrance with the inscription; "This building is dedicated in honor of Robert G. Miller for meritorious service to the agricultural industry and the people of Wicomico County".

I helped organize the Rockawalkin Ruritan Club and served as President and Director. I helped the Club hold barbecues to collect funds for two scholarships every year. The Club sponsors a local Boy Scout Troop, giving them a meeting place and raising money for Boy Scout Camps. We organized the Community Trash Cleanup to pick up trash from local country roads. I served as president of the Board of Elders of my church, Bethany Lutheran, and was a Sunday School teacher. I helped organize the Wicomico County Thanksgiving Breakfast where we honor farmers for their contributions to the county.

Upon retirement, the citizens of Wicomico County gave me a party with over 500 citizens attending. In appreciation for my service, I was given a new Volkswagen Diesel car and \$2,700 with the stipulation that I take my wife on a long vacation.

After retirement, I worked with Maryland National Bank as Vice President in charge of the Agricultural Department where I continued to help the local farmers by facilitating affordable loans and interest rates. After I left the bank, I was on the County Agricultural Mediation Committee that helped resolve farm issue conflicts with their urban neighbors.

2013

**Southern Region
Hall of Fame Award
Mickey Fourakers**
Georgia
30 Years - Retired



Mickey Fourakers has been a member of GACAA and NACAA for more than 30 years. He began his Extension career in Colquitt County as a 4-H, Livestock and Commercial Vegetables Agent. In 1985 he moved to Early County and served as County Extension Coordinator for 14 years. In 1999 he moved to Lowndes County and served in the same capacity, until his retirement in 2008. During the last 4 years of service to Georgia Extension - he also served as interim County Extension Coordinator in Echols County.

While working in Early County, Fourakers was instrumental in initiating a study to evaluate nematode control in Peanuts. The study resulted in a \$510,000 annual increase in profits for producers.

During his tenure in Lowndes County, Fourakers helped to develop a study which evaluated 17 fumigants over 100 acres of plasticulture. As a result of this study and research efforts, Fourakers presented his findings to the Methyl Bromide Technical Options Committee tour, commissioned by the United Nations.

In 2001, Fourakers led an effort to secure an 1890's agent, resulting in Lowndes as the only county in Georgia where the 1890's Agent receives county funding and is supervised by the Extension Coordinator. Mickey's efforts led to a 65% increase in minority participation in the 4-H program.

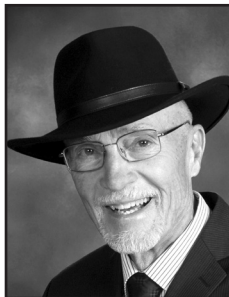
Fourakers has served as President and Secretary of GACAA and Annual meeting chair of NACAA in 2002. During the 4 years of developing the Annual Meeting plans, Fourakers was successful in building unity vs. distrust among Georgia County Agents. As a result of his leadership, proceeds from the 2002 Annual Meeting have been used to create a substantial scholarship fund for the purpose of providing scholarships to children of GACAA members.

Fourakers has served as an active Deacon at First Baptist Church since 1990 and has also served as a Sunday School teacher and chaperone for the youth choir. He's served as a local Farm Bureau Director since 1985 as well as a member of the Tri-County Youth livestock show committee since 1999.

Fourakers was presented the NACAA Achievement Award in 1983, the Distinguished Service Award in 1994 as well as the Campaign Chair for 2 NACAA Presidents, 2 NACAA Secretaries and 1 NACAA Treasurer (all from Georgia).

This past year, Fourakers was nominated and received the "Friend of the County Agent" for GACAA. The award recognizes those individuals that have gone above and beyond in providing service to GACAA. The vote among the GACAA Board of Directors was unanimous.

**2013
Western Region
Hall of Fame Award
W. Doug Warnock
Washington
35 Years - Retired**



Doug was raised on the family farm near Pendleton, Oregon and began his 35-year, multi-faceted career with Washington State University Extension in 1961. He started youth livestock programs known as the "Steer, Lamb and Hog of Merit" programs. These programs helped adults and youth recognize desirable carcasses that meet industry standards for quality.

He was instrumental in the development of the Pacific Northwest Junior Lamb Carcass Show, focusing on the production of lambs that meet top market standards. Hundreds of sheep producers, 4-H and FFA members learned about selection and feeding of lambs to better meet these criteria.

Doug also developed strong educational programs in pasture management and farm business management. His pasture management programs involved pasture focused on grazing management and pasture improvement. His farm business programs helped producers improve records and gain information to monitor and adjust their practices to increase profitability.

During his career he worked successfully with specialists in animal science and agricultural economics to develop new programs and improve ways to reach producers. In 1989, Doug was on a four-person WSU team that conducted a two-week study in Japan to improve the abilities of producers in the Northwest to export beef into that country. In 1995, he was member of a two-person team from WSU that conducted a 15-day study of meat markets in Japan, Korea and Hong-Kong.

Doug has served as President, Vice-President and Secretary of the Washington Extension Agents and Specialists Association. He was awarded the Outstanding Alumnus Award from the Washington State University Department of Animal Sciences in 1999.

Recipient of the NACAA Distinguished Service Award in 1975, he has been an engaged leader, including serving as Western Region Vice Director 1987-1988; Western Region Director 1988-1990; Vice President 1991-1992; President-Elect-1992-1993; and National President in 1993-1994. He recently served as Western Region Vice Chairman of the NACAA Life Member Committee.

Always active in the communities in which he lives, Doug was a 40-year Lions Club member, an active leader of the Agricultural Committee of the Ellensburg Chamber of Commerce, a Boy Scout Leader and Little League Coach. He's active in his church, serving on the governing board.

Doug is a certified educator of Holistic Management, certified in rangeland monitoring and a recognized facilitator for seeking consensus between groups in conflict. He facilitates workshops in grazing management and managing for profit. He is recognized as a Professional Animal Scientist by the American Registry of Professional Animal Scientists and is a member of the Society for Range Management.

In retirement, Doug is co-founder/officer of Managing Change Northwest, a non-profit educational organization that helps people achieve their goals, become profitable, enhance the environment and move communities toward a sustainable future.

Well known for writing about agricultural issues, he currently writes a regular column, Greener Pastures, in the Capital Press, a weekly agricultural newspaper serving the Pacific Northwest. He has also authored or co-authored five articles published in professional journals and 20 Washington State University publications. He co-authored the Small Ranch Manual: A Guide for Green Pastures and Clean Water, 2001 and the Kittitas County Rural Living Handbook, 2003.

Doug has learned that sometimes you just don't know and that you have to put up with a certain amount of bull. Now he's back on the farm.

**2013
North Central Region
Hall of Fame Award
Randy Knapp
Wisconsin
36 Years**



Randy Knapp, Chippewa County Agriculture Agent, has been with UW-Extension for 36 years. He has received numerous awards within UW-Extension, including the National and State Associations for County Agriculture Agents (NACAA and WACAA) and is a highly respected colleague and community member.

Randy's work as an agriculture agent, focuses on farm Management, dairy modernization, price risk management and the Heart of the Farm-Women in Agriculture program. In addition to awards of excellence in programming and team efforts, he received the outstanding educator award from the Wisconsin Forage Council and the Aggie Award given by North County Enterprises to outstanding Agriculture Agents.

The impacts of Randy's programs are felt throughout the state and are always based on the needs of his clientele. He is an excellent team member, is always willing to provide assistance whenever needed, and has developed many lasting relationships with both his clientele and colleagues within the UW-Extension. Randy is a

trusted and valued agent and has served as a mentor to many new agents coming into the system. In addition to his program efforts Randy also serves as the Department Head for his county, and served for several years as the academic Department Chair for all Agriculture Agents in Wisconsin. In this capacity, there were times when Randy would spend 50%+ in administration, yet he still managed to do a tremendous amount of educational programming. Mr. Knapp is to be commended for maintaining an excellent agricultural programming presence while also having served in these substantial administrative roles.

His dedication to the association is demonstrated through the numerous committees he has served on and awards he has received at both the national and state levels. He has received recognition for his outstanding service and awards of excellence in the Farm & Ranch Financial Management and Livestock and Production programs. He has served as a Regional Vice Chair, has attended over a dozen national meetings, and served as a state delegate at many of those meetings. Mr. Knapp has also served as the State President, Treasurer, on the board of directors, and numerous committees in the Wisconsin Association of County Agriculture Agents. In addition to the AA and DSA state awards he has received various achievement awards, certificate of merit, PRIDE and outstanding service awards.

On a personal and humanitarian level, Randy is a very devoted contributor to his community and church. For the latter he has served in the capacity of Worship Assistant, Usher, Lay Reader, and Ministry Council as well as been on their stewardship, bylaw and strategic planning committees. As a upstanding member of the community he has received the Life Time Achievement Award (Northern Wisconsin State Fair) and was the Marshall at the 2012 Pure Water Days Parade, of which he was a committee member for 5 years. He also was a member of Little League (six years), Halle Hockey Association (seven years) and Guardian Club (four years, president two years).

2013 ABSTRACTS OF THE NATIONAL WINNERS AND FINALIST COMMUNICATIONS AWARDS CONTEST

Audio Recording National Winner

“HOW TO LAY SOD”

Glover, T.A.*¹

¹ County Extension Coordinator, Alabama Cooperative Extension System, Cullman, AL, 35055

This program on “How to Lay Sod” aired on May 11, 2012 at 2:00 pm on WTSU in Montgomery, AL. The program is taped in two locations using the software program Audacity. The author tapes his portion in his office in Cullman, AL and the interviewer (Maggie Lawrence) tapes her portion at Auburn University. The author emails his portion to the interviewer who splices it together.

<https://sites.aces.edu/group/backyardwisdom/Current%20Backyard%20Wisdom%20Podcasts/BYW%20May%2011%20Glover%20Laying%20Sod%20Archives.mp3>

NATIONAL FINALISTS

WHEAT DRILLING AND COLEOPTILE LENGTHS

Falk, J.S.*¹

¹ Multi-County Specialist, Crops and Soils, K-State Research & Extension, Colby, KS, 67701

During the fall of 2012, drought conditions were severe in northwest Kansas. With very dry conditions at the soil surface, many producers were trying to decide how deep to plant their wheat to get uniform seedling emergence. The challenge with ‘planting to moisture’ is the length of the coleoptile may not be long enough to emerge from the soil surface. The coleoptile is the structure that protects the first wheat leaves during the emergence process and if it is not long enough, the wheat may leaf out underground and die. Therefore, on September 5, 2012, at the beginning of wheat drilling season, Jeanne recorded a radio program, to bring this to producers’ attention. She included information with planting depths and the challenges with drilling at both shallow and deep depths. This program was part of her regular radio program schedule,

on the first Wednesday of each month. It is carried on the local radio station, KLOE 730 AM in Goodland Kansas, which broadcasts to northwest Kansas and eastern Colorado. This nearly 4-minute program was recorded in her office using the program ‘Audacity’, saved as an .mp3 and emailed to the local radio station.

FARM SAFETY

Schwartau, C.*¹

¹ Regional Extension Educator, University of Minnesota, Rochester, MN, 55904 Chuck Schwartau

I record a weekly program with the farm program director of KDHL radio, Faribault, MN. This program airs at 5:40 a.m. each Wednesday morning. I choose the topic for each program, but at as well developed farm director, Jerry Groskreutz easily becomes involved in the topic and the discussion of the morning, sometimes taking the program in unexpected directions, but always able to actively participate in the interview and keep it interesting for the audience.

This program was aired March 6, and was taped in studio. Most programs are taped over the phone. The topic of farm safety was chosen because of a series of OSHA sanctioned Dairy Farm Safety Short Courses I was conducting around the state during the winter. I was able to incorporate a statistical model that illustrates the high incidence of accidents and risky behaviors around the farm that lead to injuries and possible fatalities. I was also able to promote the next short course being offered in the region in cooperation with local Extension Educators and direct the audience know how to register for the course.

KDHL is a dominant radio station in the region with an estimated 50,000 listeners in 15 counties at the time of this weekly broadcast.

SYRPHID FLIES

McNulty, A.*¹

¹ Extension Agent, Clemson Cooperative Extension, Sumter, SC, 29150

With the interest in home vegetable gardening increasing among South Carolinians, I use some of my daily radio spots to encourage the appreciation of beneficial insects in controlling pests and to learn to recognize these individuals when they are present in the garden. This program aired when the syrphid flies were active in my home garden.

I wrote and recorded this program which was recorded in the regional SCETV studio in Sumter. It aired on August 11 and September 11, 2012, on all eight SCETV radio stations, three times each day. The audience is 150,000 listeners.

Bound Book

National Winner

WILDFLOWERS OF THE MOUNTAIN WEST

Anderson, R.*¹, Goodspeed, J.L.², Gunnell, J.³

¹ Utah State University, Kaysville, UT, 84037

² Horticulture Associate Professor, Utah State University Extension, Kaysville, UT, 84037

³ Horticulture Associate Professor, Utah State University Extension, Salt Lake City, UT, 84114

Some texts are technical, specific to a field of study or discipline and comprehensive in nature, while others are more general making them easier to use. Wildflowers of the Mountain West is a field guide that, over a three year period, was investigated at a very technical, taxonomical level by Utah State University Extension horticulturists, and then compiled and presented to the public as an easy to follow, non-technical publication for those who may not have technical horticultural training. The authors' approach to the field guide, along with their methodology can be applied to publications across a variety of different disciplines.

NATIONAL FINALISTS

EVALUATING YOUR ESTATE PLAN

Leibold, K.L.*¹, Johanns, A.², O'Rourke, M.³, Eggers, T.⁴

¹ Farm and Ag Business Management Specialist, Iowa State University Extension and Outreach, Iowa Falls, IA, 50126

² Extension Program Specialist, Iowa State University Extension and Outreach, Osage, IA, 50461

³ Farm and Ag Business Management Specialist, Iowa State University Extension and Outreach, Orange City, IA, 51041

⁴ Farm and Ag Business Management Specialist, Iowa State University Extension and Outreach, Clarinda, IA, 51632

The two hundred page book is in response to a need for education on estate planning identified by Leibold. After receiving a \$33,000 grant Leibold led the development of a 6 hour program on estate planning. The workbook for the program, Evaluating Your Estate Plan, which is taught by Leibold and O'Rourke statewide, is available on the web site <http://www.extension.iastate.edu/agdm/info/eyep.html> along with publicity materials and locations of programs. We reached 395 people in 13 programs and have reprinted over 250 additional copies. Leibold authored four of the fact sheets, the case studies and reviewed all of the other materials.

Contents in the book includes: estate planning terms, forms of property ownership, business entities, estate settlement process, powers of attorney and other forms of substitute decision making, farm transfer strategies, retirement planning

for farm families, Iowa inheritance tax, estate planning goals, gift tax, federal estate tax, trusts as an estate planning tool, and estate planning attorneys: finding one who can work for you. In addition there are worksheets on vocabulary matching, case study terms, farm transfer plan, transition & estate planning goals and an estate planning questionnaire. The book also includes five case studies that cover a wide range of situations found in agriculture including financial statements.

The book has been revised once due to recent legislation. Tim Eggers and Ann Johanns were involved in the grant, material development and web site.

A POCKET BOOK GUIDE TO COMMON KANSAS BACKYARD BIRDS

Otte, C.*¹

¹ County Extension Agent, ANR, K-State Research & Extension, Junction City, KS, 66441

Bird watching is one of the fastest growing non-consumptive wildlife/outdoor activities. Many residents start by feeding birds in their backyard and then start to become more interested in identifying the birds that are coming to their feeders. New bird watchers are often overwhelmed when trying to find the bird at their feeder in a standard bird field guide that may contain over 800 species. This pocket guide was designed to be the first step to learning the common backyard birds found across much of Kansas. Otte was responsible for writing all the text and providing input and assistance with the layout. Through his position as director of a large nature center, Gress had access to grant funds which allowed the guide to be printed commercially. The first run was 20,000 copies and these are available free of charge at nature centers across the state, stores where bird feeding supplies are sold and handed out by the authors when they present educational programs about birds of Kansas. Early feedback from recipients of the book has been very positive. Several emails have been received telling about how they were quickly able to identify birds at their feeders, far easier than wading through the hundreds of birds in their traditional bird books.

THE COMMON WEEVILS OF FLORIDA

Schall, Jr., W.L.*¹, Buss, L.², Glenn, H.³, Mannion, C.⁴, Mayer, H.⁵, Neal, A.⁶

¹ Ext Agt IV MS Commercial Hort., , West Palm Beach, FL, 33415

² Ent. Taxonomist, Ent. & Nematology Dept. University of Florida, Gainesville, FL, 33426

³ Research Assistant, TREC, University of Florida, Homestead, FL, 33031

⁴ Associate Professor Orn. Ent., TREC, University of Florida, Homestead, FL, 33031

⁵ Ext. Agt. Commercial Landscape, Miami-Dade County Extension, University of Florida, Homestead, FL, 33031

⁶ CED & Ext. Agt. Env. Hort., St. Lucie County Extension, University of Florida, Ft. Pierce, FL, 34945

Weevils contained in the beetle superfamily Curculionidea are among the most pestiferous, common or interesting insect herbivores in Florida. For example, *Mylocherus undecimpustulatus* (Sri Lanka weevil) and *Diaprepes abbreviatus* (*Diaprepes* root weevil) are severe economic and landscape pests. Several weevils are individually addressed by other University of Florida publications, but none compiles them into one easily accessible reference source. Key information addressed for each weevil includes description, biology, damage, hosts, management, significance in Florida and other important information. High resolution photographs aid in the identification of these pests and the damage they cause. The publication was printed by commercial printer and was funded by a USDA CSREES TSTAR grant. The Common Weevils of Florida has been distributed to many extension agents in Florida as a reference guide with additional distribution to take place throughout 2013.

Computer Generated Graphics Presentation

National Winner

ROW CROP DISEASE CONCERNS

Strunk, C.L.*¹

¹ Plant Pathology Field Specialist, SDSU Extension, Sioux Falls, SD, 57103

This computer generated graphics presentation was developed for the South Dakota AgXchange in field event held at the Oahe Speedway in Sully County, SD June 28 & 29, 2012.

This program was geared towards crop producers and the objective was to provide information concerning Row Crop Disease Concerns. 20 crop producers attended this presentation.

Topics covered in this presentation included: How to differentiate between fungal, bacterial, and viral infections, How to identify Soybean Cyst Nematode, Sudden Death Syndrome, and Goss's Bacterial Blight & Wilt (a disease observed in a lot of SD corn fields in 2011).

Scouting for soybean pests is important not only for proper pest detection but also for prevention. Soybean cyst nematode (SCN) is a major pest of soybeans in the world and in South Dakota. Soil sampling for SCN is extremely important in managing this pest. SCN can silently rob soybean yield without

showing symptoms. Sudden death syndrome (SDS) is gaining interest as producers in Minnesota are battling this soybean disease. Minnesota counties which have detected SDS are touching counties in South Dakota. While, Goss's Wilt has started to reduce yield in South Dakota corn fields.

Advertisement for the program occurred on SD AgXchange's website (www.sdagxchange.com), SDSU Extension's iGrow platform (www.igrow.org), direct mail brochures to producers, and a news release prior to the event. The computer generated graphics presentation (PowerPoint) was produced in Microsoft PowerPoint 2010 on state equipment. Various font sizes and photos were utilized to draw interest to the presentation.

NATIONAL FINALISTS

INTRODUCTION TO PERMEABLE PAVEMENT

Rowe, A.A.*¹

¹ Environmental and Resource Management Agent, Rutgers Cooperative Extension, Roseland, NJ, 07068

Permeable pavement is a stormwater drainage system that allows rainwater and runoff to move through the pavement's surface to a storage layer below, with the water eventually seeping into the underlying soil. This is a relatively new stormwater management technique that can handle large stormwater volumes while also improving the water quality of the runoff as it moves through the system's layers. In New Jersey, adoption of permeable pavement has been slow despite some successful installations throughout the state. In response to colleague requests, this scripted slide set was created as an introduction to permeable pavement and to present the many benefits of its use. The intended audiences for this publication are other county agents, environmental commissions, green team members, and educators. This slide set could also be useful to the general public. The scripted slide set has been shared with other county agents and in response to permeable pavement inquiries via email or telephone (circulation of 50). This scripted slide set is part of a curriculum that includes a fact sheet, an economic analysis of permeable pavement, and a database of installations in New Jersey (in progress). Amy Rowe, Environmental and Resource Management Agent for Essex and Passaic Counties in New Jersey, contributed 100% to the finished product.

NATURAL GAS PIPELINE PREZI SCRIPT

Messersmith, D.*¹

¹ Extension Educator, Penn State Extension, Honesdale, PA, 18431

Shale natural gas development from the Marcellus and Utica shale formations in Pennsylvania has rapidly expanded during the last five years. Very little of this natural gas is consumed or used in the rural areas where development is occurring, so it

must be shipped – via pipeline- to major markets throughout the Northeast and Mid Atlantic. As a result, we are experiencing an intense level of natural gas pipeline development in Pennsylvania and surrounding states.

This presentation is meant to provide participants with basic background information about natural gas pipelines, how pipelines are constructed, show examples of pipeline-related surface structures, review environmental and community impacts and discuss ways landowners and others can reduce those impacts. More information about natural gas pipelines and shale gas development can be found online at: extension.psu.edu/naturalgas.

Penn State Cooperative Extension’s Marcellus Education Team is a core group of county-based educators and faculty who are teaching about and researching the wide range of issues arising from shale natural gas and shale energy development. Marcellus Shale and shale energy is a relatively new issue confronting Pennsylvania, but it affects much of what our traditional expertise addresses- land use, water quality and quantity, economic development, forest management, wildlife, family finances, public policy, and local government. So even though shale energy is new, Penn State Extension has the knowledge and expertise to help clientele understand what it means for Pennsylvania, and how it may affect our environment, economy, communities, and citizens.

CAPTURE THE RAIN

Beliech, D.H.*¹

¹ Area Horticulture Agent, Mississippi State University Extension Service, Brandon,MS, 39042 Rain Barrel tri-fold Time to Capture the Rain

The automated PowerPoint presentation on ‘Capture the Rain’ was originally made as the final project for an Advanced Communication class I took during the 2012 spring semester. This subject was chosen because over the past several years I am repeatedly asked to present a program on constructing rain barrels by garden, civic, church and school groups. Physically converting a 55-gallon, plastic drum into a rain barrel with each presentation was not possible due to location constraints (library - quiet rule vs. electric saw), limited funding and transport issues. Finding a format that eliminated these constraints and could be implemented by other Extension agents or a Master Gardener volunteer was the ultimate goal. ‘Working smarter, not harder’ is my new, personal motto.

The 30 slide presentation is set up to be played full screen on any compatible PC that has speakers and a volume control. The program will begin instantly when the slideshow feature is selected and is 11 minutes long. The .jpeg pictures and video pasted into the slides were taken with a Nikon camera. The audio narration was a script I made and recorded with a

microphone in the Audacity program, and then attached to each slide.

A tri-fold handout was created to supplement the presentation and for note taking. A list of the hardware and tools needed, as well as other pertinent information is already on the handout.

The presentation is available to all interested Extension agents who need a program on ‘How to Make a Rain Barrel’.

Fact Sheet **National Winner**

ATTRACTING BIRDS OF PREY FOR RODENT CONTROL

Kerr, S.*¹, Ginsberg, A.², Tuck, B.³, Hammond, E.⁴, Hino, J.⁵, Lamson, K.⁶, Omeg, M.⁷, Olson, S.⁸

¹ WSU-Klickitat Co. Extension Director, Washington State University, Goldendale,WA, 98620

² Communication Specialist, Oregon State University Extension & Experiment Station Communications, Corvallis,OR, 97331

³ Extension Regional Administrator for Wasco & Hood River Counties, Oregon, Oregon State University Extension Service, The Dalles,OR, 97058

⁴ Water Quality Specialist, Oregon Department of Agriculture, Bend,OR, 97701

⁵ Communication Specialist, Oregon State University Extension & Experiment Station Communications, Corvallis,OR, 97331

⁶ Conservationist, Wasco County Soil and Water Conservation District, The Dalles,OR, 97058

⁷ Orchardist, Omeg Orchards, The Dalles,OR, 97058

⁸ Conservationist, Wasco County Soil and Water Conservation District, The Dalles,OR, 97058 Fact Sheet: Attracting Birds of Prey for Rodent Control

Attracting Birds of Prey for Rodent Control” (EC 1641; Dec. 2012) was created as part of the Oregon State University Extension Service’s online “Living on the Land” educational series for new and small acreage owners. The series addresses issues of concern to new rural landowners such as livestock care, pasture management, environmental issues and so on. To increase accessibility to the target audience, each document in the series has been developed into a two- or three-installment audio file. In both the document and audio file formats, the information is concise and addresses the basics of each topic. For example, Attracting Birds of Prey for Rodent Control informs small acreage livestock owners about types of raptors to attract, how to attract them, benefits of bird activity and recommendations of sources for detailed information. The short format and online/audio file delivery were designed to fit essential land and livestock management information into

the busy lives of new small acreage owners. Authors of the publications in this series include two Extension educators, two soil and water district conservationists, a state department of agriculture water quality specialist and an orchardist. They were assisted by two Extension communication specialists. Both the pdf and audiofiles of Attracting Birds of Prey for Rodent Control are available at http://extension.oregonstate.edu/catalog/pdf/ec/ec1641_toc.pdf. The audiofiles were downloaded a total of 152 times in two months and the pdf was downloaded 215 times; users included visitors from five international locations.

NATIONAL FINALISTS

ESTATE SETTLEMENT PROCESS

Leibold, K.L.*¹

¹ Farm and Ag Business Management Specialist, Iowa State University Extension and Outreach, Iowa Falls, IA, 50126

The estate settlement process is based on state law and is often misunderstood. Twenty percent of the land in Iowa is owned by people who live out of state. Most people are only involved in the estate settlement process once or twice in their life so it can be confusing. To help people better understand the estate process in Iowa and to provide a better understanding for people that enrolled in the Evaluating Your Estate Plan course Leibold wrote a fact sheet on the estate settlement process.

The fact sheet is included in the textbook that has been used by over 600 people in the estate course and has had over 150 additional downloads from the web site at <http://www.extension.iastate.edu/agdm/wholefarm/pdf/c4-25.pdf>.

Topics in the fact sheet include: locating documents, working with attorneys, dying without a will, dying with a will, the probate process, payment of claims and additional resources that you would find useful.

BUILD YOUR OWN RAIN BARREL

Porter, W.*¹

¹ Area Horticulture Agent, Mississippi State University, Meridian, MS, 39301

Water conservation is always an important topic in gardening but is especially true during the summer when water usage increases. Garden clubs and Master Gardener groups often ask for presentations on the construction of rain barrels. In the presentation information was given on how much water could be collected from the roof of a house, suitable use of the water, and mosquito control. It was pointed out that a single rain barrel would make minimal impact on water savings, but if every household in a community had one then significant savings in community water and sewer fees would occur. This fact sheet was developed to show how to construct a simple

rain barrel with a closed top with alternate plans for an open-top barrel arrangement. All photos were taken by the author except cover photo which was taken by another extension agent. Over 50 copies have been distributed this year. This fact sheet will be made available to county extension service offices state-wide.

GOAT PROJECT HELP LIST FOR NEW FEEDERS

Scott, R.J.*¹

¹ CEA-AG/NR, Texas AgriLife Extension, Lubbock, TX, 79408

Target audiences are primarily composed of new goat feeders, or people who are considering exhibiting a market goat. For the 2012-13 show season over 9000 goats were state validated. An estimated 4000 to 5000 goats are only county validated each year making the meat goat project one of the most popular livestock projects in Texas. It has been my experience that the goat project also attracts new 4Hers and new FFA members who want to exhibit an animal project creating a need for a help list for new feeders. I conduct several goat clinics around the state every year and I also serve as an instructor at the Howard College Goat Camp held each year in Big Springs. At these events I meet a lot of new feeders who need basic information to help make their show experience successful. The educational piece was developed to be handed out at these events as well as emailed to anyone requesting the information. The educational piece was also used during the 4H Summit in 2012. Approximately 500 Fact Sheets have been handed out and emailed.

Feature Story **National Winner**

LAWN INVADERS

Porter, W.*¹

¹ Area Horticulture Agent, Mississippi State University, Meridian, MS, 39301

Mississippi has a great climate for growing plants. Unfortunately, some of the plants that grow are not desirable, especially when they invade our home lawns. This article lists, in a countdown format, the top five problem weeds in Mississippi lawns. The selected weed species were based on calls that I receive in my office. I took all the photographs of the turf weeds with a Sony Cybershot digital camera. Included with each photo were characteristics of the weeds, such as if it were an annual or a perennial and how it reproduced. Following the identification of the weeds, a list of suggested postemergence and preemergent herbicides was given. The article was published in the July/August 2012 edition of Mississippi

Gardener magazine. This magazine has a circulation of over 5,500 copies.

NATIONAL FINALISTS

TAXPAYER RELIEF ACT OF 2012 -WHAT DOES IT MEAN TO OHIO FARMERS ?

Bruynis, PhD, C.L.*¹, Marrison, D.²

¹Assistant Professor, Extension Educator & County Extension Director, Ohio State University Extension, Chillicothe,OH, 45601

²Associate Professor & Extension Educator, Ohio State University Extension, Jefferson,OH, 44047

The American Taxpayer Relief Act of 2012 was signed into law by President Obama January 2, 2013. The feature story provided a summary of some of the provisions passed with this legislation, as well as a few provisions that were not addressed, which will impact agriculture. The story was first published on the Ohio Ag Manager Newsletter website and was quickly republished in a number of papers throughout the Midwest. The feature story appeared in the following major publications:

Agweb.com - http://www.agweb.com/article/farm_bill_extended_no_cows_over_the_cliff_yet/

Ohio Country Journal - <http://ocj.com/2013/01/taxpayer-relief-act-of-2012-%e2%80%94-what-does-it-mean-to-farmers/>

Farm and Dairy - <http://www.farmanddairy.com/news/taxpayer-relief-act-of-2012-what-does-it-mean-to-ohio-farmers/46131.html>

Ohio Farmer - <http://farmprogress.com/story-ag-economists-review-taxpayer-relief-act-9-93306>

AgriView.com - http://www.agriView.com/news/crop/fiscal-cliff-deal-what-s-in-it-for-farmers/article_d29db258-5b40-11e2-a3a9-001a4bcf887a.html?mode=jqm

In addition to the printing of the article, David Marrison and Chris Bruynis were contacted by an estimated 30 times by local and national media outlets for comments and quotes on the American Taxpayer Relief Act of 2012 and its impact on the agriculture industry. Because of the interest in this topic, a two hour webinar was held reaching 130 people in Ohio and six other states.

MANAGING FOR HIGHER YIELDS

Sanagorski, L.A.*¹

¹Environmental Horticulture Extension Agent, University of Florida, West Palm Beach,FL, 33415

Insects are critical natural predators and crop pollinators in the field, yet they are regarded negatively by many. The use of pesticides, a loss of habitats, the cultivation of exogenous species, all provide potential threats for insects. The effect is seen in, for example, the decline of bee populations. This important situation affects family farmers locally in Florida and around the world. This global/local matter inspired the agent to write “Managing for Higher Yields”, an exploration of the benefits of insects for small-scale farmers.

The article was featured in the Spring 2012 edition of Farming Matters, Issue 28.1, entitled ‘Friends or foes? Our love/hate relationship with insects’. This edition explored ways in which small-scale farmers benefit from insects, and on the steps they take in order to increase these benefits. The agent took four of the five photos featured in the article; the fifth was submitted by an Extension colleague. The article was translated and featured in other international editions of the magazine, including the Latin America and China editions.

The AgriCultures network has been sharing knowledge and information about small-scale agriculture through one global magazine, Farming Matters, and various regional magazines for over 28 years. This family of magazines appears quarterly and reaches more than three hundred thousand subscribers in 172 countries every quarter. These articles and the full magazine editions are available at <http://www.agriculturesnetwork.org/magazines>.

THE FACTS ON ROSE ROSETTE VIRUS

Davenport, M.*¹

¹Extension Agent, Clemson University Cooperative Extension Service, Clemson, SC, 29669

Rose Rosette Virus has been on the rise in South Carolina. This article addresses the most frequently asked questions by home gardeners. Readers are informed on where the virus most likely came from, how the virus is spread, how to recognize the virus, why the virus is showing up on disease resistant roses like the ‘Knockout’ rose, how to prevent the virus from spreading, and how to deal with infected plant material. Photos are provided to give readers a better description of the virus. This article is featured on pages 36 & 38 of the March 2013 issue of Carolina Gardener magazine. This magazine reaches residents in North and South Carolina and this article helps provide them with a proactive way to deal with their roses and reduce the spread of rose rosette virus in the landscape. Over the years the Carolina Gardener magazine readership has expanded across the Southeast.

Learning Module

National Winner

BEGINNING FARMER

Stewart, C.*¹, McDermott, L.²

¹ Regional Agriculture Specialist, Cornell University, Johnstown, NY, 12095

² Regional Agriculture Specialist, Cornell Cooperative Extension, Hudson Falls, NY, 12839

The Beginning Farmer course takes students from transplanting to harvest, including information on in-season fertility; integrated pest management including pest ID and control; weed control options; harvesting strategies; and tips for marketing your products.

This course is for serious aspiring farmers or those with at least one growing season of vegetable farming experience.

The bulk of the course is designed as study at your own rate, with discussions, readings, and assignments in MOODLE, a virtual classroom. To add to the experience, webinars are woven into the online interface of the course. This allows students to meet on a weekly basis to learn from outside presenters, ask questions, and collaborate with other participants and the instructor to address farm issues in real time. Webinars are recorded and posted for later viewing.

Students that are applying for a low-interest beginning farmer loan through the USDA Farm Service Agency, can gain borrower training credits as all of the Beginning Farmers are approved to provide credit if students complete all course requirements.

Crystal Stewart and Laura McDermott are Cornell Cooperative Extension Educators serving as regional fruit and vegetable specialists for the Capital District Fruit and Vegetable Team in NY.

Week 1: Using soil tests and vegetable guidelines to tailor your fertility program

Week 2: Weed control options (organic and conventional) for the small farm

Week 3: Integrated pest management: Insect identification and control

Week 4: Integrated pest management: Disease identification and control

Week 5: Harvesting and marketing strategies

NATIONAL FINALISTS

Porter, S.K.*¹

¹ Plant Diagnostic Outreach Coordinator/Plant Clinic Diagnostician, University of Illinois Extension, Taylorville, IL, 62568

In order to address Consumer/Urban IPM, the University of Illinois Plant Clinic Diagnostician, Stephanie Porter, has developed several online training modules that will cover invasive diseases such as Sudden Oak Death (SOD). These modules will include information on how to identify the pathogen as well as current management options that offer the best long term control with minimal environmental impact. These modules have been designed to utilize the “train the trainer” approach, whereby Master Gardeners will receive training in order to implement education programs of their own in communities throughout Illinois.

The Learning Module can be found at the following link: <http://mg.cropsci.illinois.edu/index.php>

DIRECTIONS TO ACCESS BEEKEEPING 101

Butzler, T.*¹, Espy, D.², Luck, J.³, Miller, L.⁴, Stitzer, M.⁵, Frazier, M.⁶, Vashaw, S.⁷, Wilson, T.⁸

¹ Horticulture Educator, Penn State Cooperative Extension, Mill Hall, PA, 17751

² Project Manager, Penn State Public Media, State College, PA, 16802

³ Systems Design Specialist, Penn State Public Media, State College, PA, 16802

⁴ Marketing Strategy Specialist, Penn State Outreach Marketing, State College, PA, 16802

⁵ Videographer, Penn State Public Media, State College, PA, 16802

⁶ Senior Extension Associate, Penn State University, State College, PA, 16802

⁷ Instructional Design, Penn State Public Media, State College, PA, 16802

⁸ IT Manager, Penn State Public Media, State College, PA, 16802

I have conducted beginner beekeeping classes in the past through face-to-face courses but experimented with on-line webinars (Adobe Connect) the past two years to see how it worked and was perceived by clientele. Upon the success of the on-line classes, Penn State Public Broadcasting approached me to create the next reiteration of my beginner beekeeping class; Beekeeping 101. This is a totally asynchronous course that includes info-graphics, videos, animations, additional text, a virtual field experience, online office hours, discussion boards, self-assessments, and email communication. It is web-

based using HMTL/Javascript. One of the main objectives of this course was to show other educators the feasibility in taking existing content and presenting it into a format that meets consumer's convenience needs and up-and-coming learning styles with engaging and visual content. At abstract submission time, 238 people have enrolled for the Beekeeping 101 (course is continual enrollment). The course accepted enrollment on July 1, 2012 with an initial evaluation November 2012. Time demand seemed to play a role in involvement with the course as 61% stated that the reason for the taking the on-line course was that it worked best for their schedule. Seventy-seven percent stated that the self-assessments at the end of each module were very useful with the same percentage saying that they would recommend this class to others. I, along with Maryann Frazier, was the content provider. We also developed the scripts, coordinated video shoots, provided photos, and developed the self-assessments. I also maintain the discussion forums and email correspondence.

GREENING YOUR LIFE ONLINE COURSE

Teague, K.*¹, Maginot, J.², Pennington, J.³

¹ CEA-AGRI, Fayetteville, AR, 72704

² Program Associate -WQ, University of Arkansas Extension, Fayetteville, AR, 72704

³ CEA-AGRI, University of Arkansas, Fayetteville, AR, 72704

With increasing urban development, home and garden Best Management Practice (BMP) education and adoption is essential to protecting and improving the quality of water resources. The "Greening Your Life" e-learning course was designed for Master Gardeners to increase their awareness and understanding of water resources in Arkansas and how they can minimize pollution at home. This online course shifts education from print-based and classroom learning to text-plus-multimedia. Participants no longer have to physically attend trainings, rather learners log into www.courses.com and complete educational modules at their own pace when it is most convenient for them. Course modules include: Water Quality in Arkansas, Nutrient Management, Yard Waste Management, Lawn and Garden IPM, Water Conservation/Runoff Management, Household Hazardous Waste Management, Pet Waste Management, Riparian Buffers and Getting Involved in Community Efforts. To ensure interactive and engaging instruction, module components include videos, narrated presentations, matching activities and quizzes with instructors responding to postings on discussion forums. Links to Extension fact sheets, additional video podcasts and agency websites provide further informational resources. The course was developed and launched in 2012 with 103 participants enrolled within the first three months. New knowledge and skills and adopted BMPs reported on course evaluations include: understanding soil test results, reading a fertilizer label for content, calibrating fertilizer spreaders, building rain barrels and understanding the importance of riparian areas. While the

course helps Master Gardeners meet their required educational training hours, additional participants are also being garnered through property owner associations, civic groups, watershed organizations, and garden clubs.

Newsletter, Individual

National Winner

DIG IN! EXTENSION HORTICULTURE NEWSLETTER

Agenbroad, A.L.¹

¹ Extension Educator, Horticulture, University of Idaho Canyon

I have been creating Dig In! for five years. It is published in print and online two times per year. It is mailed to over 850 households, and downloaded by several hundred more each year from our county Extension website. Our mailing list grows every time we attend a public event or teach a class to the public.

The newsletter is two parts educational resource, one part marketing tool. I choose timely subjects likely to interest our readers, publicize our upcoming programs, classes and events, and highlight the contributions of our Master Gardener volunteers.

While I generate most of the content and photographs myself, I will also repost timely articles or announcements released by Extension specialists or agency partners, and I have begun soliciting articles from our Advanced Master Gardener volunteers as well.

NATIONAL FINALISTS

GROWING IN KNOWLEDGE

Phil Sutton, P.¹

¹ Extension Educator, Purdue Extension, St. Joseph County

Growing In Knowledge is a seasonal newsletter for homeowners in St. Joseph County. Its purpose is to instruct readers in the horticultural management of their St. Joseph County properties. This is a garden newsletter available as a pdf. download through our county website. The newsletter is full color and cost prohibitive to reproduce in house; thus the electronic posting. Target audience is homeowners and gardeners. The newsletter is seasonal.

The newsletter is totally produced and edited by the educator, but may contain articles from other sources. All formatting and 50% of the photos and articles are produced by the educator.

The newsletter is often posted as a link within the newsletter/blog of the Quail Ridge Homeowners Association serving approximately 500 households.

County Website: <http://www3.ag.purdue.edu/counties/stjoseph/Newsletters/Forms/AllItems.aspx?RootFolder=%2fcounties%2fstjoseph%2fNewsletters%2fGrowing%20in%20Knowledge&FolderCTID=&View=%7bA56229F3-A201-44B8-989C-9C033F8D66C0%7d>

Quail Ridge: <http://quailridgehomes.org/index.php?start=10>

AG NOTES NEWSLETTER

BhaduriHauck, S.¹

¹ Faculty Extension Assistant for Agriculture and Natural Resources, University of Maryland Extension, Harford

The “Ag Notes” newsletter is distributed each month to farmers and those with an interest in farming living in and around Harford County, Maryland. The purpose is to keep local producers and other citizens informed about upcoming educational programs, scholarship and grant opportunities, changing regulations related to farming, and other timely items of interest. “Ag Notes” is created in Microsoft Publisher and distributed via hard mailed copy as well as via e-mail as a PDF attachment. Total distribution is to 512 addresses (385 by hard copy mailing and 127 by e-mail).

AVID HORTICULTURE NEWSLETTER

Goodin, K.G.¹

¹ Extension Agent for Horticulture, University of Kentucky Cooperative Extension Service, Barren County

The Avid Horticulture Newsletter is a bi-monthly publication that is distributed six times annually to inform county residents of timely home horticulture topics and events. Each segment of the newsletter is arranged and organized to maximize the reader’s interest. On the opening page, Kristin’s Comments previews each subject presented in the newsletter. The Around Your Garden section lists horticultural tasks to perform throughout the garden for that particular time frame. Garden Variety gives information at a glance about dates for upcoming horticulture extension programs and other noteworthy events. The Healthy Food Guide features a seasonal fruit or vegetable by explaining its nutritional information as well as providing selection and storage tips. A seasonal produce recipe is spotlighted in the Recipe Corner at the end of newsletter. The horticulture agent assembles the segments of the newsletter on an original classic design template utilizing the Microsoft Office Publisher 2007 software program. County extension support staff mail the publication to subscribers mailing addresses and post it online at the Barren County Cooperative Extension website (<http://ces.ca.uky.edu/barren/>). Currently,

207 residents in the county receive the newsletter by mail, while 50 subscribers read the e-newsletter form.

Newsletter, Team

National Winner

EXTENSION GARDENER

Glen, C.*¹

¹ Agriculture Agent - Horticulture, NC Cooperative Extension, Burgaw, NC, 28425

The Extension Gardener team newsletter is a statewide home gardener newsletter written by agents from across North Carolina. Four issues are published each year, with three regional editions of each issue produced (coastal plain/sandhills; piedmont; mountain/foothills). The purpose of the newsletter is to inform gardeners about current gardening tasks, pest issues, and recommended plants, and encourage adoption of best management practices.

During 2012, 48 agents contributed articles to the newsletter, which was managed by a team of six agents serving as editors. Newsletter design and layout is handled by NCSU’s Communication Services department. The newsletter is distributed online at <http://www.cals.ncsu.edu/extgardener>. An online evaluation conducted in November 2012 showed that over 80% of participants found the newsletter to be useful, reliable, timely, and easy to understand. Ninety nine percent of evaluation participants reported implementing at least one recommendation from the newsletter during 2012.

NATIONAL FINALISTS

WEEKLY UPDATE

Bornst, C.D.*¹, Stewart, C.², McDermott, L.³

¹ Extension Associate, Cornell Cooperative Extension, Troy, NY, 12180

² Extension Educator, Cornell Cooperative Extension, Johnsonville, NY, 12094

³ Extension Educator, Cornell Cooperative Extension, Hudson Falls, NY, 12839

A weekly newsletter that addresses issues facing commercial vegetable and small fruit growers in the Capital District region of New York. Since 2009 the newsletter has been delivered via email and print to approximately 200 diversified direct market fruit and vegetable farmers for 23 weeks each season.

SEQUATCHIE VALLEY MASTER GARDENERS

Barker, S. D.¹, Rains J. C.²

¹Extension Agent, University of Tennessee Extension, Sequatchie County, Dunlap Tennessee 37327

² Extension Agent, University of Tennessee Extension, Bledsoe County, Pikeville Tennessee 37367

The Sequatchie Valley Master Gardener News is a monthly newsletter, the purpose of which is to inform Master Gardeners in the Sequatchie Valley (Bledsoe and Sequatchie Counties) Tennessee, of events and activities, and to provide timely garden and horticulture information. The newsletter, also, serves as a means to promote Extension activities in the two counties other than the Master Gardening program. The audience is those that have completed the Master Gardening course. Copies are distributed electronically to sixty-one individuals. Extension field staff on field equipment prepares the newsletter. Team members, and occasionally Master Gardeners, submit articles and materials for publication. Articles come from Extension news releases or are written by field staff or Master Gardeners. Since Master Gardeners are volunteers and are often a first contact with a client regarding horticulture questions the newsletter has served as a means of providing timely information on current topics and issues.

OREGON SMALL FARM NEWS

Kerr, S.*¹, Garrett, A.², Lucas, C.³, Murphy, E.⁴, Stephenson, G.⁵, Powell, M.⁶, Fery, M.⁷, Matthewson, M.⁸, Andrews, N.⁹

¹ WSU-Klickitat Co. Extension Director, Washington State University, Goldendale, WA, 98620

² Extension Educator, Oregon State University Extension Service, Corvallis, OR, 97330

³ Small Farms Program Assistant, Oregon State University Extension, Corvallis, OR, 97330

⁴ Extension Educator, Oregon State University Extension Service, Central Point, OR, 97502

⁵ Small Farms Program Coordinator, Oregon State University Extension Service, Corvallis, OR, 97330

⁶ Extension Educator, Oregon State University Extension Service, Central Point, OR, 97502

⁷ Extension Educator, Oregon State University Extension Service, Corvallis, OR, 97330

⁸ Statewide Special Programs, Oregon State University Extension Service, Applegate, OR, 97530

⁹ Extension Educator, Oregon State University Extension Service, Aurora, OR, 97002

As is true in many parts of the country, the small farm audience has increased significantly in Oregon in the past decade. To address the educational needs of this growing audience, a team of Oregon State University Extension Faculty developed Oregon Small Farm News (OSFN), a free electronic

quarterly newsletter. The purpose of the OSFN is to provide research-based information about livestock and horticultural production, marketing, noxious weed control, irrigation, small farm management, regulations, educational resources and other issues pertinent to small farmers and rural landowners. A profile of a successful small farm in Oregon or southern Washington is included in most issues. Livestock, horticulture, forestry and agronomy educators contribute to this effort; additional articles are written by resource personnel such as weed control coordinators, NRCS and conservation district employees and other Extension educators. The newsletter is available at <http://smallfarms.oregonstate.edu/newsletter/>. There have been 24 quarterly issues of the OSFN since it was first published in 2007. The success of the newsletter is demonstrated by its circulation (page views), which has steadily grown from 4,000 for the first issue in 2007 to an average of 20,000 for 2012 issues.

Personal Column

National Winner

DAIRY SPOTLIGHT

Fultz, S.W.¹

¹Extension Agent, Dairy Science, University of Maryland Extension, Frederick

In 2012, Frederick County Maryland had 103 dairy farms and 14,500 milk cows, making it the top dairy producing county in the state. Annual milk sales exceed \$50 million. Frederick County is also a rapidly growing county with over 236,745 people calling this rural county home. Our new residents enjoy the open space, the site of cows grazing in the pastures, and the smell of fresh cut alfalfa. However, when odors of manure, pesticide drift, or road traveling machinery interfere with their lives, they can become bitter toward agriculture. Dairy Spotlight is a triweekly column for both dairy farmers and the general population with the goal of educating the general public about farming issues, while providing timely information for farmers. Topics are selected for timeliness, interest to the general public, and the ability to help farmers on an issue. The articles are written on this agent's laptop and sent electronically to the paper's farm editor. The average distribution of the Frederick New Post in 2012 was 33,856. No formal evaluation of the impact has been done, but the author regularly receives comments from both farmer and general audiences.

NATIONAL FINALISTS

OHIO GARDENER MAGAZINE

Bennett, P.¹

¹State Master Gardener Volunteer Coordinator, ANR Educator, Ohio State University Extension, Clark/North Central

The author provides a bi-monthly question and answer column for the Ohio Gardener magazine on current horticulture topics. The author answers questions that are submitted to the magazine editor. If there are no questions submitted for a month, the author creates the questions and provided answers. All are based on a timely gardening question. She focuses on current horticulture topics and best management practices that reflect Ohio State University Extension recommendations. In addition, the author incorporates her own experiences and challenges in the landscape in order to relate to the reader; she makes the information easy to understand with her writing style. The author takes photos during the growing season in order to go along with questions. The information provided by the questions are timely and based on what is appearing in the landscape at the time the reader receives the magazine. The author submits the original electronic word document as well as all accompanying photos to the magazine editor 2 months in advance. The author has written this personal column for the magazine since it's inception in 2010. There are currently 2,380 subscribers to the Ohio Gardener magazine.

ROOF GARDEN NOTES

Barkley, M.¹

¹Extension Educator, Penn State University

This personal column appears once month in the weekend edition of the Bedford Gazette and in the home and family section of the Daily American. The column is shared with other educators in the Bedford and Somerset County offices. The newspapers that the column appears in are distributed countywide with a circulation of 19,000 for the Bedford Gazette and 12,500 for the Daily American. These agricultural related articles are written for livestock and dairy producers to address current issues related to farming and for the general public to learn more about agriculture in general. The column is prepared using Microsoft Word and is sent to the newspaper editor electronically via email and fax.

FULTON COUNTY COOPERATIVE EXTENSION NEWS

Brad Runsick, B.¹

¹CEA-AGRI, UACES, FULTON

The primary objective of the weekly Fulton County Cooperative Extension News article is to notify county clientele of upcoming events and pertinent educational pieces for the particular time of year. The Fulton County Extension office submits these articles on a near weekly basis. These articles run in both The News, which covers southern Fulton County, and The South Missourian, which covers the city of Mammoth Spring and northern Fulton County. In such a rural county, these weekly papers are oftentimes, the only means of communicating upcoming meetings, workshops, and other events to county clientele. These two papers print over 4000 copies each week, total. There are approximately 1000 subscribers per paper, as well as nearly 900 online subscribers. On a regular basis, producers and homeowners mention that they either heard about an upcoming event from the article, or they call the office wanting to follow up on some recommendation made in the article.

Program Promotional Piece

National Winner

IDAHO VICTORY GARDEN SERIES 2013 PROMOTIONAL POSTER

Agenbroad, A.L.*¹

¹ Extension Educator, Horticulture, University of Idaho, Caldwell, ID, 83605

In 2009, we created the University of Idaho Extension Idaho Victory Garden Series in Canyon County. The course consists of six classes that prepare families to grow fresh, safe, healthy food and save money doing it. Participants learn about soil, composting, building raised beds, planning a productive vegetable garden, managing insects weeds and diseases, organic basics, gardening with kids, smart watering, container gardening, choosing and caring for fruits and berries, safe home food preservation, storage, backyard chickens and more. Victory Garden classes are very interactive, and taught by University of Idaho Extension faculty, Master Gardener volunteers, Food Safety Advisors & local experts who share their knowledge and skills in home food production. Our course fee is very reasonable and includes a carefully curated resource notebook and copies of relevant University of Idaho Extension publications.

This is the poster I developed for our 2013 program. All photos are from our past classes. This year I experimented by including a QR code that links directly to our Canyon County Extension website. This poster was distributed to local merchants, church bulletin board coordinators, Extension offices in the region and emailed out to our Master Gardener volunteers and former Victory Garden class alumni.

NATIONAL FINALISTS

DRINKING WATER TESTING CLINIC FLYER

Rizzo, D.*¹

¹ Extension Educator, Full, Penn State Cooperative Extension, Greensburg, PA 15601

Promotional flyer for a drinking water testing clinic designed to educate residents with private water systems about proper location, construction, testing, maintenance, protection and treatment of their water supply.

ALACHUA HOME GROWN FARM TOURS FLYER

Gazula, A.*¹, Wilder, B.², Williams, B.³, Sanders, C.⁴, Benge, M.⁵, Wendy, W.⁶

¹ Extension Agent II, PhD, Alachua County Extension Service, Gainesville, FL, 32609

² Extension Agent I, Alachua County Extension Service, Gainesville, FL, 32609

³ Extension Agent III, Alachua County Extension Service, Gainesville, FL, 32609

⁴ Extension Agent III, Alachua County Extension Service, Gainesville, FL, 32609

⁵ Extension Agent I, Alachua County Extension Service, Gainesville, FL, 32609

⁶ Extension Agent III, Alachua County Extension Service, Gainesville, FL, 32609

Alachua County may be known as the home of University of Florida and the Florida Gators, but agriculture is one of its economic pillars. Although 54% of county property is under agricultural use, the 2010 Census Data reports that 79% of the county population is urban. The majority of Alachua County residents live primarily in Gainesville, the central part of the county, and they do not get to see or experience agricultural life. Moreover, with 79% of the county residents being urban, there is a lack of awareness and understanding about local agriculture. Also recently, there has been a growing interest within the community for information on urban farming and growing your own food. Agriculture works hard for Alachua County every day. Agriculture generates \$1.7 billion in revenue to Alachua

County. Therefore, in an effort to increase the awareness of agriculture, and to meet the need for information on growing your own food by the citizens of Alachua County, UF/IFAS Alachua County Extension Service Office held its annual Alachua Home Grown Farm Tours on April 28th, 2012. The farm tour stops featured a commercial diversified farming operation that featured different types of vegetables, peas and beans, strawberries, sweet corn, and agri-tourism, an ornamental plant nursery, a cattle ranch, a commercial blueberry farm, and a blueberry winery. The distribution of this flyer resulted in a full bus with 45 people attending the farm tours.

MATCHMAKING 101: HOW TO SELECT THE RIGHT BULL FOR YOUR COWHERD

Norman, R.¹

¹Extension Agent II, University of Tennessee Extension, Rutherford County, Murfreesboro, Tennessee 37129

Frequently we receive requests for assistance in selecting the best bull for a particular cowherd. Unfortunately, those requests usually come the night before a bull sale with very little time to effectively make a decision, much less properly prepare for that decision. In addition, learning to better handle the cowherd and bulls is always an issue. With that in mind, a program was developed to train producers a step-by-step process leading to reasoned, excellent bull selection for their cowherd. The additional focus of the training was cattle handling, and the six-hour workshop was conducted at a University of Tennessee Research and Education Center located in an adjacent county. There we had access to bulls that were currently on test. Entitled "Matchmaking 101: How to select the Right Bull for Your Cowherd and How to Treat Them (Cattle) Right," the promotional flyer definitely gained the attention of producers and created quite a bit of conversation in the county. The audience for this piece was beef producers, and the flyer was sent to our mailing list of over 400 producers. The workshop was full with fifty-one people attending.

Publication

National Winner

SPRUCE PROBLEMS (PEST AND CULTURAL) REPORT

Porter, S.K.*¹

¹Plant Diagnostic Outreach Coordinator/Plant Clinic Diagnostician, University of Illinois Extension, Taylorville, IL, 62568

In the past several years, spruce in Illinois have continued to develop disease and pest problems. The U of I Plant Clinic diagnoses hundreds of spruce samples with multiple pest and cultural issues.

Spruces are generally native to cooler regions and are adapted to cold conditions. They prefer full-sun locations with acidic and well-drained soils. Improper planting techniques as well as plantings in inadequate sites can be detrimental to spruce health. When exposed to unfavorable cultural or environmental conditions, spruce can become stressed and more susceptible to diseases and pests.

Porter, in collaboration with other U of I specialists, has recently released a spruce problem report titled *Spruce Problems (Pest and Cultural Issues)*. It includes pictures and brief descriptions of spruce cultural issues as well as the most common disease, insect, and spider mite problems that affect spruce each year in Illinois.

NATIONAL FINALISTS

WHEAT DISEASES IN SOUTH DAKOTA

Strunk, C.L.*¹, Buyung, Hadi²

¹ Plant Pathology Field Specialist, SDSU Extension, Sioux Falls, SD, 57103

² Pesticide Education and Urban Entomology Coordinator, SDSU Extension, Brookings, SD, 57007

The objective of this iGrow Wheat Best Management Practices for Wheat Production Wheat Diseases in South Dakota chapter was to provide unbiased, science-based research information to wheat producers in South Dakota.

Disease identification and management are integral parts of South Dakota's wheat production. Diseases can affect agronomic traits (such as growth and stand) and reduce yield. They also contribute to inferior seed, lower grain quality, and market rejection due to mycotoxin concentrations. The purpose of this chapter was to discuss how to recognize wheat diseases and possible management options for South Dakota wheat producers.

Fungal, bacterial, and viral pathogens cause critical diseases that reduce South Dakota wheat yields. The first step in diagnosing a problem is recognition. Thus, crop scouting is critical to assess the actual risk of a particular disease in the field. Scouting is the basis for integrated disease management and provides the information needed for when and where to apply chemical, cultural, or biological control measures. A wheat disease scouting calendar which includes a summary of management considerations is also included in this chapter.

Foliar fungal diseases of primary concern in South Dakota include: tan spot, powdery mildew, stem rust, stripe rust, *Stagonospora* (*Septoria*) leaf blotch, *Fusarium* head blight or scab, and root rot diseases. The main bacterial disease that attacks South Dakota wheat is black chaff, or bacterial leaf streak. In South Dakota, the two main viral diseases that attack wheat are Wheat streak mosaic virus and Barley yellow dwarf virus.

HIGH TUNNEL IRRIGATION AND FERTIGATION

Glover, T.A.*¹, Boozer, R.²

¹ County Extension Coordinator, Alabama Cooperative Extension System, Cullman, AL, 35055

² Extension Horticulturist, Alabama Cooperative Extension System, Thorsby, AL, 35171

High tunnel vegetable production has increased dramatically due to the NRCS cost share program. There was an unmet need for a publication to address irrigation and fertigation issues on the very small scale within a high tunnel. The author working with another Extension Agent (now retired) developed a short publication with examples to assist small scale producers with fertigation equipment selection and simple calculations.

The publication was distributed as a web only (print on demand) product and has been publicized state wide.

FORCING COLD-HARDY BULBS INDOORS

Kelly, L.S.*¹

¹ Consumer Horticulture Specialist, Mississippi State University, Verona, MS, 38879

The objective was to provide clientele with a guide for forcing cold-hardy bulbs into bloom out of season. Complete schedules, descriptions, care and maintenance of the most popular cold-hardy bulbs were included. The author timed the Extension publication to be published in the early fall, when bulbs were for sale. Previous needs assessments had indicated that this publication would be well received and utilized due to the interest and popularity of forcing bulbs in the popular gardening magazines and press. The initial printing of 500 in September was quickly depleted, followed by 2 reprints of 1000 each for a total of 2500 printed to meet the demand. It is also available online through the Extension publications area. This publication was written by the author, peer reviewed, edited and published through the MSU Extension Service Department of Ag Communications. Link to the publication is <http://msucares.com/pubs/publications/p2730.pdf>.

Published Photo & Caption

National Winner

OVERHEAD IRRIGATION APPLIED TO BLUEBERRIES FOR FREEZE PROTECTION IS COMMONLY USED BY SOME GROWERS

Gary K England, G.K.¹

¹Extension Agent III, Lake County, FL

To harvest their crop in late March to early May, the optimum marketing window between the end of production in the southern hemisphere and the onset harvest in states such as Georgia and California, Florida producers plant southern highbush blueberry cultivars that flower and fruit in late January and February. Since sub-freezing temperatures are common during this time of year in all major Florida blueberry production regions, a majority of the commercial growers utilize overhead irrigation systems to form a layer of ice on their crop thus helping to maintain susceptible flowers and fruit at a temperature of 32° F which is above the critical value where damage occurs. By acquiring reliable forecasts of potential freezing conditions and gaining knowledge in how to utilize this information in their freeze protection program, growers are able to minimize damage to their crop, reduce operation costs and save water. The article entitled "Freeze Factors" was developed to assist growers in making freeze protection decisions and published in the "Florida Blueberries/Gearing for New Growth" supplement of Florida Grower Magazine (Vol. 105, No. 10) to a circulation of 10,000 and American Fruit Grower (Vol. 132, No. 10) to a circulation of 29,000 readers.

NATIONAL FINALISTS

A DAY ON THE FARM

Behnken, T.J.¹

¹ Extension Educator, University of Nebraska-Lincoln Extension, Dodge County

A DAY ON THE FARM: This photo was submitted to The Douglas County Post-Gazette to promote the University of Nebraska-Lincoln Extension to the public and to inform citizens of western Douglas County about the role UNL Extension plays on educating youth about agriculture. The Extension Educator took several photos during the 2012 A Day on the Farm event and selected photos that represented the event and would enhance the news story. The Extension Educator submitted the photo in JPG format to the Douglas County Post-Gazette. The photo tagline was the JPG file title and was also submitted within an email message field. The Nebraska Farm Bureau News editor saw the news

story and supporting photos in The Douglas County Post-Gazette and contacted the Extension Educator. The editor requested the specific photo be forwarded (in JPG) so that they could include in their publication. The photo appeared in The Douglas County Post-Gazette on Tuesday, May 15, 2012 with a circulation of more than 14,000. The photo later appeared in the Nebraska Farm Bureau News on June 20, 2012 with a circulation of more than 56,000.

GATEWAY LEARNING GARDEN PHOTOS

Bennett, P.¹

¹State Master Gardener Volunteer Coordinator, ANR Educator, Ohio State Univeristy Extension, Clark/North Central

The author took these photos in the Gateway Learning Gardens in Clark County in Springfield, Ohio. The objective of the photos were to complement the questions submitted by readers to the Ohio Gardener magazine. The photos were published along with the column in the July-August 2012 issue. The circulation of the magazine is 2,380 readers. Feedback from the editor includes comments such as, "these photos perfectly match the content of the questions and are very much appreciated," and thanks for making my job a little easier." Readers of the magazine note that the photos are very useful in describing the content and help them learn. Readers also noted that they appreciated the color photos that go along with the article. Feedback is overwhelmingly positive. The author supplies the photos and the captions to the editor for publishing.

SUMMER 4-H CAMP PROMOTION PHOTO

Henry, M.¹

¹Extension Agent, Cookeville, TN 38501

This photo was part of a news article promoting summer 4-H Camps. The submitted photo is of two campers canoeing at camp. The objectives of this entry were to promote Extension programs and to inform readers about 4-H activities. The target audience was the readers of The Herald-Citizen a newspaper published for the counties in the upper Cumberland area. The camera utilized for the photograph was a Kodak EasyShare Z712 IS. Agent then typed news article using Microsoft Word and submitted with photograph to newspaper editor via email. Photo appeared in the April 29, 2012 newspaper, which has a circulation of about 16,000 readers. As a result of this published photo, the public was informed about our 4-H summer camp programs and the programs offered by UT Extension. 88 campers attended camps during June 2012.

Video Presentation

National Winner

SHARE THE ROAD PUBLIC SERVICE ANNOUNCEMENT

Greene, E.A.*¹

¹ Extension Equine Specialist, UVM Extension, University of Vermont, Burlington, VT, 05405

As rural landscapes throughout the United States become less open due to population growth, horseback riders and automobiles are more likely to cross paths on the road, with a high risk of a bad outcome. Many drivers are not aware of how unpredictable and skittish a horse may become when frightened or excited. The objectives of the Share the Road Public Service Announcement (PSA) were to: 1. inform motorists about safe procedures when encountering horseback riders on the road, 2. remind horseback riders to ride safely and communicate with motorists, 3. provide free access for any television station (nationally), and 4. distribute the video widely through many Social Media avenues. UVM Extension, Vermont Horse Council, and Vermont Farm Bureau partnered to create the 30-second PSA television spot; it was filmed/edited by UVM Extension's Across the Fence show. Local and national versions were recorded to allow use beyond Vermont. This spot is currently airing on three VT/NY television stations, and has recently been uploaded on eXHorses YouTube site (http://youtu.be/WNii-UbA_Bg) and received 669 views in less than 3 weeks. The Social Media campaign is underway as riding season approaches. Five states have already inquired about use for their local stations. The author worked with partners to develop the script, arranged for the camera operator/editor, provided on-site video direction and production, made editorial changes on the final video, and edited the script to make the national version.

Video Location: (http://youtu.be/WNii-UbA_Bg)

NATIONAL FINALISTS

INTRODUCTION TO SELECTING A USED FARM TRACTOR

Carlson, B.M.*¹

¹ Associate Extension Professor, University of Minnesota Extension, Mankato, MN, 56001

This video is part one of a four part series that discusses evaluating a used farm tractor for its suitability for purchase. It is aimed at beginning farmers and those pursuing a rural lifestyle who are unfamiliar with tractors. It is intended to get the viewer to start thinking about why they want a

tractor and what they intend to do with it after purchase. The length was purposely kept short, as the average person's attention span for a video such as this is short. It was hoped that it would entice viewers to watch the other three parts, which are longer and more substantive. The script and scenes were written and designed by the author. Video was shot and edited by Chery Hays-Day, retired Extension Information Technology Specialist. Extension Program Leader Tim Arlt assisted in production, arranged funding, and oversaw the posting of the video. The video is available from the University of Minnesota Extension Small Farms page at: <http://www1.extension.umn.edu/food/small-farms/safety/pt-1-tractors-intro/index.html>, it is also cross-linked to the University of Minnesota Extension YouTube page. This video was put on-line in February of 2013, so total views, feedback and outcomes are not yet available.

TEST YOUR WATER :30 PSA

Rizzo, D.*¹

¹ Extension Educator, Full, Penn State Cooperative Extension, Greensburg, PA, 15601

This video public service announcement (PSA) was created to encourage residents of Pennsylvania to get their private water sources tested on a regular basis in order to prevent or catch and treat any contamination issues. The PSA has been airing since the summer of 2012 on the three major television stations in southwestern Pennsylvania, is available on YouTube and is also available on the Penn State's Water Resources web site. The PSA was created using funds from Pennsylvania Department of Environmental Protection's Environmental Education grant. This PSA can be found on YouTube at http://www.youtube.com/watch?v=m9_e6ZXXfdQ and also on the Penn State Water Resources web site at <http://extension.psu.edu/water/drinking-water/water-testing/testing>.

HOUSE PLANT SERIES | FROM THE GROUND UP

Cuin, D. M.*¹, Edwards, J. M.², Hilgert, C. L.³, Hill, H.R.⁴, Keto, D.W.⁵

¹ Program Associate II for Horticulture, University of Wyoming Extension, Casper, WY, 82604

² Extension Educator, University of Wyoming Extension, Lingle, WY, 82223

³ Wyoming State Master Gardener Coordinator, University of Wyoming Extension, Laramie, WY, 82071

⁴ Extension Educator, University of Wyoming Extension, Afton, WY, 83110

⁵ Videographer/Producer/Director, University of Wyoming Extension, Laramie, WY, 82071

These 70 to 90 second, news segments are a continuation

of a nearly 25 year community tradition presenting current, timely, and proper horticultural information to local and statewide viewer audiences of 6,000 weekly, throughout the year. The segments are intended to promote the approachability of Extension horticulture educators and the relatively simple solutions to horticulture issues. This series of segments focuses on indoor plants and their care. The segments include either the Program Associate or Area Extension Educators as the personalities in front of the camera. The Educators and the videographer all work on locating taping sites and B-roll, developing topics for seasonal issues, scripts, and watch or listen to taping sessions for continuity and clarity of text. These segments are video recorded on locations around the state of Wyoming or within the geographical region, where the topics are best illustrated. The University of Wyoming Extension supports the project with a videographer and editor. Videography is done on a Panasonic HVX 200 camera and editing on Final Cut Pro and Adobe After Effects provided by University of Wyoming Extension. After editing, segments are delivered to the local NBC Television affiliate KCWY Channel 13 of Casper, Wyoming. The segments air weekly during the 10:00 pm news on Friday evenings. After airing on TV the segments are posted on a UW Extension YouTube Channel for another venue to reach a greater audience. The Houseplants and their Care Series of segments are also now available online at: http://www.youtube.com/watch?v=_lmmm94j1Uw.

Website

National Winner

BEHAVE WEBSITE

Burritt, B.*¹

¹ Extension Assistant Professor, Utah State University Cooperative Extension, Logan, UT, 84322

The BEHAVE website is an overview 30+ years of research on diet selection. It highlights how learning and experience shape the diet and habitat selection of livestock. Understanding how animals learn and develop their dietary preferences enables us to train livestock to fit our landscapes rather than having to modify our landscapes to fit our animals. Using grazing as a tool will reduce the use of expensive machinery, fossil fuels and herbicides. By understanding how animals learn we can use their natural behaviors to manage weeds, enhance biodiversity, improve feeding systems, minimize use of riparian areas, improve herd health and much more. The website overviews the principles of diet selection, the application of behavioral principles and our current research projects. It contains fact sheets, a newsletter archive, annotated slide shows and

narrated videos that can be downloaded. The site links to more videos located on Youtube, pertinent publications, a BEHAVE blog and another website designed especially for landowners located at forestandrange.org. The url for the website is: <http://extension.usu.edu/behave/>

NATIONAL FINALISTS

WWW.CHESTNUTS.MSU.EDU

Lizotte, E.*¹, Fulbright, D.², Landis, J.³, Fournier, M.⁴

¹ Integrated Pest Management Educator, MSU EXTENSION, Cadillac, MI, 49601

² Professor, MSU, East Lansing, MI, 48825

³ Assistant IPM Coordinator, MSU, East Lansing, MI, 48825

⁴ Communications Specialist for Integrated Pest Management Program, MSU, East Lansing, MI, 48825

Edible sweet chestnut orchards have sprung up across Michigan over the last 20 years. In fact, as of 2007 Michigan had the largest number of chestnut growers and the most acreage of any state in the United States. As a result of this enthusiasm for the edible chestnut, a number of resources to support producers have been developed by MSU. The chestnuts.msu.edu website was launched in December 2012 and will act as a clearinghouse for all chestnut-related content produced by MSU.

The page receives live news feed from the MSUE news page, includes links to events related to chestnuts and connects users to information on the fully endowed Roger's Reserve research station.

CROPWATCH

Vandewalle, B.*¹

¹ Extension Educator, University of Nebraska, Geneva, NE, 68361

Youth are often excited in working with 4-H and FFA livestock projects and traditionally there has been an influx of projects and information available in the animal sciences. Crop production is often overlooked by youth and youth educators due to lack of resources or interest. In 2011 a new page was launched on UNL Extension's CropWatch website designed for youth, extension faculty and staff, 4-H leaders, and agricultural teachers. This page has activities for youth, teaching activities and resources, crop and plant science facts as well as information on 4-H & FFA crop projects. Since launched, there have been 12,000 downloads of materials and lessons. In 2012, a whole section was added to the webpage focusing on soils education. It features soil quality tests and other soil related information for both youth and youth educators. Each year,

additional crop science related content and resources is expanded as resources become developed and are available for those interested in crop science youth education. The Nebraska Innovative Youth Corn Challenge for Nebraska 4-H and FFA members is also housed on the CropWatch-Youth website. Agricultural education instructors reported that this site has complimented their curricula and they appreciate a resource that brings agronomic information to one place.

Webpage address can be found at <http://cropwatch.unl.edu/youth>.

BEEF HOME STUDY COURSE

Barkley, M.*¹

¹ Extension Educator, Penn State University, Bedford, PA, 15522

The Beef Home Study Course is a seven lesson course developed to teach beef producers how to improve their management skills in the areas of basic production, selection principles, reproduction, nutrition, health, marketing, and financial management. This home page welcomes beef producers to the course and provides them with links to more information about the course as well as a link to a registration site. The course materials can be found on the right hand side of the page. Seventy six producers are currently enrolled in the course (56 via internet/email and 20 via the postal service). Materials from the website are also available in printed form through a postal service option of the Beef Home Study Course. The home page was prepared using Plone software. Pictures came from scanned and digital photos. Entrant collaborated with co-workers to develop the course, wrote five publications available through the course, took photos, formatted all the publications for the web, and loaded all the publications to the Penn State Extension website.

<http://extension.psu.edu/courses/beef>

**NACAA Member
Presentations**

2013 NACAA

98th

Annual Meeting

and

Professional Improvement Conference

Pittsburgh, Pennsylvania

Administrative Skills

USING ON-LINE COLLABORATIVE TOOLS FOR PROGRAM DEVELOPMENT AND DELIVERY

Eric Barrett, Ohio State University Extension

With the ever changing demands on time for Extension personnel, time for program and curriculum development tends to be reduced. With less staff in many areas, sharing and collaboration are lessened further by distance and other factors. Dealing with these issues can be challenging, but solutions exist to assist personnel with continued collaboration. Online collaboration tools can break down these barriers, foster creativity among colleagues and keep Extension at the forefront of emerging issues. The usage of these online collaboration tools to share, edit and add new medium to Extension programs is a necessity in today's tech savvy world. The expansion of these tools allows Extension personnel in different parts of the state to complete new initiatives quickly and efficiently. Extension teams have used on-line course development to supplement one-time programming and to generate revenue for team support. File sharing has improved to allow more storage space and task assignments for team members. This presentation review successful collaborations, along with detailed examples of curriculum and programs developed. Participants will take home a guide for using collaboration tools to meet the needs of a variety of programs and personnel within Extension.

BUILDING INTERNAL AND EXTERNAL RELATIONSHIPS

Gary Hall, Iowa State University Extension

Do you or any of your Extension employees want to learn better customer care techniques? Learn how you can impact people to more fully utilize your Extension programs and feel good about working with you. Research indicates that 68 percent of your customers don't return because of an attitude of indifference or rudeness toward the customer. This program will help reduce that attitude and keep more of your customers. Caring for Your Customers teaches quality customer care techniques. Hall will be teaching various program topics, including the Circle of Service, Who Are the People We Serve, What Are We Trying to Accomplish and the Moment of Truth. The workshop will allow for interactions on various topics of customer care and hospitality. You are one of the most important people in customer care, because you are right there -- winning the friendship of visitors and residents and influencing where and how they spend their hard earned dollars and time. Dr. Michael LeBoeuf, in his book, "How to Win Customers and Keep Them for Life" reported from a survey on why customers quit: 3% move away 5% develop other friendships 9% leave for competitive reasons 14% are dissatisfied with the product 68% quit because of an attitude of indifference or rudeness toward the customer

by the owner, manager or some employee. The goal of this campaign is to: Enhance the quality of care delivered and reduce that 68% statistic. The objectives of this presentation are to: Develop a better understanding of what goes into providing quality care; To understand how we can better handle moments of truth; To review and evaluate our basic hospitality skills. We will identify the people we serve and their expectations. An important aspect is to determine is what are we trying to accomplish with our customers? When a customer walks into your office for the first time there is always a moment of truth. They can be positive, negative or neutral. Examples of these moments will be discussed and experienced. Hospitality Habits are important for quality customer care. These habits must be utilized and come naturally to see customers returning and telling others about the great work you are doing. The Hospitality Habits to be covered will include: 1. Make a good first impression. 2. Know your job. 3. Know your community. 4. Communicate clearly. 5. Handle problems effectively. 6. Make a good last impression. The presentation will wrap up with some important take home messages. You will develop a personal goal for improving care. Your goal will include answers to the questions of what, why, how and when so that when you leave the room you will be armed with tools to improve your customer care.

Agricultural Economics & Community Development

NEW FACES ON OLD PLACES: KNOWING OUR SMALL FARM CLIENTELE

Jeff Fisher, Ohio State University Extension

The New and Small Farm College focuses on new and small farm landowners in Ohio seeking comprehensive farm ownership and management programming. As Extension educators, it is important to understand the demographics of clientele who participate in our programs. The New and Small Farm College has three educational objectives: 1. To improve the economic development of small farm family-owned farms in Ohio. 2. To help small farm landowners and families diversify their opportunities into successful new enterprises and new markets. 3. To improve agricultural literacy among small farm landowners not actively involved in agricultural production. The college consists of 20 hours of classroom time and a single-day tour of successful agricultural enterprises. Results from pre-program and post-program surveys of 250 participants (mean age = 45.2 years) from 2009-2012 have indicated a high level of post secondary education (72%) and computer literacy (85%). An underserved population has been recognized in that 38% of participants are female and 71.2% of the participants indicated they were new clientele to Extension programming. The average farm size was 80.2 acres with average ownership of 12.7 years. While 53% indicated they did not initially have a plan for their farm, post-program surveys indicated 72.1% of the participants developed or

changed their farm-use plan after attending these colleges. Pre-survey demographics are utilized to adjust curriculum for the motivations of the current audience with post-survey results used to design new curriculum and report impacts of the stated objectives. presentation focuses on demographics of new/small landowners seeking comprehensive management programming. Participants will discover motivations of underserved and new Extension audiences and how pre/post program surveys were utilized to adjust and develop repeatable curriculum and report impacts of knowledge gained and implemented.

WHOLE SYSTEM APPROACH TO LOCAL FOODS EDUCATION AND ECONOMIC DEVELOPMENT

Elizabeth Claypoole, Cornell Cooperative Extension

The last Ohio Farm Business Summary was published in 2006 and included 46 farms. While this provided useful data and insights for Ohio, it did so only on a basic level as 40 of the 46 analyses were Whole Farm Analyses. The six farms that completed full enterprise analyses were dairy farms and also the only source of crop enterprise data. With the shift of OSU Extension's last farm management faculty member to leadership of OSU Extension's Agriculture program, no further analyses were compiled. In the years since the last published analysis, the number of farms completing analysis dropped to about 17 in 2009 with no published data. In 2010, Ohio was invited to participate in a national farm benchmarking project headed by the University of Minnesota's Center for Farm Financial Management which provided competitive funding to support states' efforts to begin or improve their financial analysis and benchmarking programs to increase data contributions to the FINBIN national benchmarking database. A critical component of increasing the capacity for analysis was recruiting and training qualified people to complete these analyses. We partnered with the Ohio Farm Business Planning and Analysis Program (FBPA). Five FBPA consultants and twenty-one Extension Educators, specialists, and staff have received specialized FINAN training. Training sessions focused on gathering data and completing FINANs, troubleshooting results, improving the Ohio analysis program, and how to work with clients and their analyses and summaries. Promotion efforts were also developed to recruit farm participation. As a result of these efforts, 46 analyses were completed for 2010. Of the 46, 43 included enterprise analysis, more than a 600% increase from 2006. 2011 saw another increase with 50 completed analyses including 44 enterprise analyses, a 16% increase in total analyses. More information about Ohio's Farm Business Summary program can be found at <http://farmprofitability.osu.edu>. Ag and nutrition work together? Wayne County extension staff have been using a whole system's approach to "local foods" for more than 5 years. Four integrated projects are the basis of this approach, and more are being identified. How the community is engaged in planning, implementation and evaluation of specific activities will be presented.

LANDLORD/TENANT CASH LEASE WORKSHOPS

Allan Vyhnaek , University of Nebraska-Lincoln, Extension

Most Land owners and Tenants want to come up with appropriate Ag land leases. The volatility of the land markets in the past four years has made lease negotiations difficult. UNL Extension developed and delivered programming in 2011 and 2012 to help with Landlord/Tenant relationships and help foster the development of flexible cash provisions for farm leases. This programming was held at 43 sites and was attended by 1872 people. The Landlord/Tenant Cash Lease Workshop was a three hour effort to: go over current land values and cash rents, cover appropriate communications between the tenant and the landlord, and cover flexible cash lease basics. One main focus was to increase communications between the landlord and tenant about the farmland being leased. After meeting and six month follow-up surveys were completed. Some highlights include: Almost 49% of the meeting participants filled out post meeting surveys. Meeting participants identified themselves at Farmers/Ranchers 14%; Landowners 33% and both landowners and farmers/ranchers 53%. An average of 743 acres of crop ground per person was reported by those that filled out surveys. 59% of the participants reported that they would experience increased cost efficiencies from attending the meeting. Those that report improved viability or sustainability of the operation was 69% of those that responded to that question. 51% responded that they will expand or start doing more family communications about their leases. 67% indicated that they will expand or do more with management of their land contracts. Overall, the workshop increased knowledge of the situation and gave practical approaches to increase communications. Most impressively, 89% of those that filled out surveys understand and have more knowledge of flexible cash lease options for land rents. Almost 71% understood more about the current economics and prices for land values and cash rents. In addition, 59% of the survey respondents felt that they had more knowledge about how to manage their land. As a result, we've been invited to give land management updates at the Nebraska Crop Production Clinics, the Nebraska Soybean Management Field Days, and for the State Crop Insurance In-Service Training. Grants for almost \$38,000 were obtained to provide this programming. The Nebraska Soybean Board and the Northcentral Risk Management Education Agency provided the funding. Persons attending this program development report will find out more about what specifics were covered at the workshops and the six-month evaluation data will also be shared. It is also important to mention that Educators involved in this effort have received over 85 additional contacts from the state with follow-up questions from the workshops. It becomes obvious from the level of questions asked, that the skill level of the attendees is improved. They have thought through their situation using the information provided and have a much better understanding of the lease arrangement. There is a sense that the training is helping with being fair about

establishing leases and treating each other with respect.

SUSTAINING THE LEGACY - ESTATE PLANNING AND FARM TRANSITIONS

Heather Gessner, South Dakota State University Extension

Farmers and ranchers are getting older, averaging over 55 years of age in South Dakota. The next generation, producers in the 35-45 year old age group, decreased over 40% from 2002 to 2007. Sustaining the Legacy was designed to provide tools necessary to help families start estate and transition plans. Participants interview attorneys, insurance agents and financial planners with farm estate expertise to investigate the best tools for their operations. To increase family communication, participants define personalities, develop goals, and begin family meetings. Pre-conference evaluations showed 52% of participants did not have an estate plan. They needed help with: how to get started, what tools are available, and how to utilize tools to accomplish goals. Follow-up survey results from 2008-2012 participants (n=74 returned from 279 family operations) showed 82% have started their estate plan and 79% have started a transition plan. For estate plans, 44% of participants consider their plan 75% or more completed, with 15% declaring it 100% complete. For transition plans, 38% consider their plan 75% or more completed, with 17% indicating 100% completion. The type and number of changes made to participants' plans indicate the program has been educational and motivating. Changes made included: 52% updated their will(s) (x=43), 51% communicated with heirs (x=38), 46% created a trust (x=38), 15% modified life insurance policies and gifted assets (x=12), 11% completed funeral planning (x=9), 10% added retirement accounts (x=8), and 6% sold assets to heirs (x=5). We will share pitfalls for family communication, finding speakers, and Extension's role.

DISTRIBUTION SYSTEMS FOR SMALL PRODUCERS...BUILDING A BETTER FARMERS MARKET

Linda Seals, University of Florida IFAS Extension

Although there are six large agricultural operations in the County, the majority are small farms of approximately fewer than 50 acres in size. Of these farms, an increasing number are utilizing hydroponics, conventional, and organic methods of farming in order to reach niche markets. The demand for the goods these small operations produce is growing, and will outstrip production capabilities if expansion is not increased. It is clear that in order to increase the social, health, environmental, and economic benefits provided by small farms we must also work to ensure their expansion. The most reliable road to that expansion is through increasing sales, allowing for more capital investment in production facilities, technology, and increased employment of agricultural labor. The Brevard County Farmers Market was formed in 2009 as a response to the need for more direct sales opportunities for small producers. Our program began as

collaboration between local stakeholders (small producers, chefs, etc.); Brevard County Parks and Recreation (BCPR); and UF/IFAS Brevard County Extension. Creating rules, a marketing campaign, and roles for the Market hinged upon all parties leveraging skill sets and assets to create a viable business. It was decided that all market vendors produce at least 50% of the products they sold at market. This would help to both discourage wholesalers and give the market an advantage over competitors. BCPR agreed to provide the location and staff to manage the weekly market; Extension agreed to solicit vendors. Numerous management challenges arose over the course of the first three years of the market. To overcome these challenges, funding was secured to employ an Extension Agent to act as a manager. Since then market awareness has increased...aiding vendor retention. Market revenues have increased slightly, and small producers have reported increased revenues and demand for increased production. Extension Master Gardeners and Agents conduct onsite programs at the market including plant clinics, cooking demonstrations, and Extension awareness events. The Fall Harvest Festival is an annual event that launches the produce season. Overall, the market has proven to be a success. In 2011, the market was named the best producer-only market in Central Florida. Small producers report increased profits as a result of selling at the market, and some have diversified crops to meet consumer demand. The lessons learned from this program will be beneficial to Extension Agents who are interested in developing and managing farmers markets.

THE FUTURE OF WOMEN'S PROGRAMMING: PLANNING A WOMEN IN AGRICULTURE CONFERENCE

Cheryl Griffith, University of Nebraska-Lincoln Extension

Increasingly, more women are becoming primary landowners. Many have made the choice to purchase their own agriculture operations -- others find themselves landowners because of inheritance. How does Extension continue to provide educational risk management programming to meet the needs of this growing area of clientele? Women's programming is a valuable educational tool providing direct hands on education for women producers with high impacts and outcomes. There are many components of women's programming but this session will focus on Women in Agriculture Conferences. These conferences don't just happen -- a lot of thought and planning goes into each and every aspect. Discussion will center on how the Nebraska Women in Agriculture Conference has continued to grow and thrive for 28 years. We will look at what goes into determining the needs and demands of women clientele and then how to plan, organize, coordinate and carry out a successful conference program. According to past conference evaluations networking is one of the most important components participants are looking for -- how do we promote this? In addition to keynote and capstone speakers, the Nebraska Women in Agriculture Conference agenda includes a minimum of 30 breakout workshops. Most topics are related to commodity marketing, advocacy, ag

policy, transition/estate planning, communication, health issues, livestock and crop production, and insurance. Many participants report that when they get home they review the information they received, with their partners and make changes to their operation accordingly. For many women this may be the only time they are able to get away from the farm/ranch so 'down' time during the conference is very important. As a result, FUNshops and networking time are provided in the evenings. A side benefit of women in agriculture conferences is the confidence many participants gain as a result of their attendance. Most women are the glue that holds a family operation together but they seem to lack the confidence to see themselves as that very important person. Attending a WIA conference gives them the confidence to take an equal part in that decision-making process once they return home.

BEEF PRODUCTION AUDIT SERIES

Jack Davis, South Dakota State University Extension

Beef Production Audit Series is a combination of economics and animal science (cow/calf and backgrounding production). The series is presented thru DDN Video Conference to seven regional extension offices. Beef Production Audit Series consists of six two hour sessions starting in November and running thru January. The series made use of video conference with presenters and audiences across the State of South Dakota allowing for efficient use of extension staff's time. The competency to take home from this is video conference will work for rural audiences. The presentation will talk about advertising, coordination of sites, speaker panels, items that went well and those that did not. The target audience is for first time video conference organizers or presenters. The series is a partnership between SDSU Extension and South Dakota Center for Farm Ranch Management located at Mitchell Technical Institute, Mitchell, SD. Presenters consist of Field Specialist, State Specialist, and Farm Business Management Instructors. The topic areas are recordkeeping (production and financial), budget plans & templates, market outlook, winter cow and backgrounding rations, beef cow reproduction, feeding facilities, yearend business analysis, beef industry outlook, grain industry outlook, economic outlook, and weather outlook. The beef production audit series was successfully presented to 6 regional extension centers in South Dakota. The content of this presentation will be to share the planning, coordination, and deliver of a video conference series, its pitfalls and items that did or did not work.

PRICING FOR PROFIT: PROVIDING GUIDANCE TO DIRECT FARM MARKETERS AND VALUE-ADDED AGRICULTURAL ENTREPRENEURS

Megan Bruch, University of Tennessee Extension

As farmers seek methods to access markets or increase farm revenue, many are turning to direct marketing products to consumers through farmers markets, roadside stands or on-

farm retail markets. Other farmers are adding value through further processing and packaging and directly marketing to consumers. As these farmers move from marketing through price-taking commodity systems to retailing (or wholesaling to restaurants or grocery stores) in price-setting markets, the task of establishing prices for their products becomes a challenge. Producers often base prices on a single factor or resort to the equivalent of picking a price out of a hat. Yet pricing is an important decision that directly impacts the potential of the business to meet goals and ultimately make a profit. Pricing decisions take time and consideration of multiple factors to be effective. Pricing is also not something that is done once and forgotten. Extension agents and specialists may be able to help producers with pricing challenges by offering educational programs on the topic, providing one-on-one technical assistance or by pointing producers to available pricing resources. This presentation will provide participants with tools, materials and information on general pricing fundamentals to help direct farm marketers and value-added agriculture entrepreneurs develop pricing strategies for their products. The session will introduce pricing as an important component of an overall marketing plan, discuss the factors to consider when setting prices (costs of production and marketing, competition, customers and business goals) and provide methods to help producers establish the price. The presentation includes an example of how a hypothetical strawberry producer uses the methods described to establish a price for her strawberry preserves. An example breakeven calculation is shown, hypothetical customer and competition information is discussed, and a mark-up strategy calculation is demonstrated. All the information is summarized and an example price is determined. Additional pricing tools will be discussed including a University of Tennessee Extension publication called "A General Guide to Pricing for Direct Farm Marketers and Value-Added Agricultural Entrepreneurs," which is available on-line at <https://utextension.tennessee.edu/publications/Documents/PB1803.pdf>.

IMMIGRATION REFORM AND ITS POTENTIAL IMPACT ON FARM MANAGEMENT

Thomas Maloney, Cornell University Extension

Immigration policy in the U.S. is an issue that crosses generations and has been particularly controversial over the last 15 years. The PEW Hispanic Center estimates that more than 50% of Hispanic immigrants working in U.S. agriculture are unauthorized and many farm managers are very concerned that they will not be able to secure a legal, productive workforce in the future. The Extension program focused on two objectives. First, farm managers were educated on immigration issues relating to labor intensive agriculture and how to engage in the policy process at the Federal level. The primary educational effort was a series of one-day conferences conducted annually from 2007 to 2011 and again in 2013. Each conference was designed to address the challenges relating to immigration enforcement and immigration reform. Topics included reviews of pending legislation, discussions

of immigration enforcement activities, legal rights of business owners, coalition building, and political action. A proceedings packet for each conference was distributed to all participants and included an evaluation form. Each conference was evaluated and suggestions for improvement were incorporated into the next conference. The second objective was to conduct survey research on agricultural labor in New York State. Two surveys were conducted to determine the significance of the Hispanic workforce in New York agriculture as well as to assess farm manager attitudes regarding immigration reform. The results of the survey have added significantly to the available data on Hispanic immigrants working in New York agriculture and continue to be used to provide farm managers and agricultural leaders with the data necessary to inform the immigration policy process. It would be very feasible to customize and replicate this program in other states since Extension has a long history of conducting conferences and applied research for farm audiences. Expansion of this program to other states would be appropriate given the significance of the Hispanic vote in the 2012 presidential election as well as the sense of urgency expressed by farm employers across the US. Extension participants attending this presentation will receive copies of the agendas from the one day immigration conferences as well as abstracts from the two farm labor surveys. The presentation will also include an update of current legislative developments related to immigration reform in agriculture.

AGRITOURISM: A NEW FARM ENTERPRISE WHOSE TIME HAS COME

Stanley Wise, Mississippi State University Extension

Don Frantz and Adrian Fisher created the first U.S. Corn Maze at Lebanon Valley College in 1993. According to Corn Mazes America, (<http://www.cornmazesamerica.com/media.htm>) by 1998 there were between 50 & 100 mazes and by 2008 there was an estimate of more than 800 corn mazes in the United States. However, the exact number is not known. Today signs advertising corn mazes and pumpkin patches dot the rural landscape during the fall. Yet these attractions represent only a portion of farm families inviting the general public to their farm. Agritourism was coined in the late 1990's to describe a segment of the fast growing Ecotourism movement. Today, Jane Eckert, National Agritourism Expert defines Agritourism as "when farms and ranches invite the public onto their property to experience the out of doors, the leisure pace, and the healthy and nutritious produce that is only possible when it is fresh picked at the peak of perfection." Farms adding Agritourism attractions, on farm markets, u-pick gardens and Community Supported Agriculture programs are increasing each year. This presentation examines the benefits to rural America, Agritourism's profit potential, and its role in the sustainability of the family farm. The presentation explores Agritourism's role in educating a general population more than 4 generations removed from the farm. The presentation will cover the history and future of the expanding Agritourism movement and explore why people

are increasingly choosing to visit a farm for the experience and to purchase food directly from the farmer. The report will discuss the relevance and importance of Extension in the expanding development of Agritourism in the United States. The report will discuss the individual roles that 4-H, FCS, and Ag and Natural Resource Educators can play in helping farm families add an Agritourism enterprise.

BATTLE OF THE SEXES: UNIQUE PROGRAMMING NEEDS AND CHALLENGES OF WOMEN FARMERS

Katie Wantoch, University of Wisconsin Extension

Women producing specialty and value-added products are a rapidly growing segment of the agriculture industry across the country and particularly in Wisconsin. The background of women principal operators is significantly different from the general population with a higher percentage of beginning farmers and small acreage farms. One third of these women have been farming for fewer than 10 years. Wisconsin farms with women as principal operators average 94 acres, as compared to an overall average Wisconsin farm size of 194 acres (US Ag Census). These smaller farms are more likely to rely on alternative markets including specialty crops and varieties, value-added products, and market diversification techniques including fresh market and direct sales. To target this growing population, Annie's Project for Beginning and Value-Added Women Farmers was developed and held in Northwestern Wisconsin over six weeks during the beginning of 2013. This program was only the second of its kind to be held in Wisconsin, the pilot program was held in Dane County in 2010. Local UW-Extension County Agriculture Agents partnered with fellow Family Living, 4-H Youth Development, and Community & Natural Resources Agents, along with local community members to present information to over 20 women. Participants came from over four counties in Wisconsin and one from Minnesota. Five areas of risk management for value-added enterprises were covered over the six sessions: production, market, financial, personal, and legal. Topics included: personality traits, business plan development, market research, financing opportunities, financial statements, food regulations and safe food handling, business entities and tax information. This presentation will focus on the obstacles, barriers and opportunities for women farmers that are involved or may be interested in specialty and value-added agriculture. Discussion during the presentation will cover Extension's role in outreach to this population and understanding their diverse and unique needs, compared to their male counterparts. We will also review the results of UW-Extension's 2010 and 2013 Annie's Project for Beginning and Value-Added Women Farmers programs that were held in Dane County and Northwest Wisconsin, respectfully. Participants from both programs were asked to complete a series of three evaluations during the workshops to track any changes implemented in their operations as a result of the workshops. Also, the knowledge gained by participants and the usefulness of the topics to their individual enterprises was recorded and will be presented.

USING SMALL SCALE MEETINGS TO DISTRIBUTE INFORMATION AND RESOURCES

Sandra Buxton, Cornell Cooperative Extension

Working with both experienced and new farmer clients, there has been an attendance challenge with holding large single day meetings. The Basic Farm Business Management and Planning class was designed to operate as a small scale meeting more in keeping with the original style of extension's work. Held in various regional locations and presenting resources to clients, Basic FBM has allowed participants to grasp concepts and apply the knowledge quickly. The result is a very interactive class teaching 4-5 practical financial management concepts using examples and real life issues from the attendees. After two years of meetings in 6 different locations, 80% of participants rate the class as valuable citing information they plan to incorporate into their operations. With the small class size, individual questions and issues can be addressed more thoroughly and involve other students in the process. Often a business plan is the next logical step for the participants to work on. With almost 100 participants during the past 2 years, the class has provided a unique exposure for extension to new students.

Ag Issues & Public Relations

MESSAGE MAPS BEFORE, DURING AND AFTER DISASTER

Julie Smith, University of Vermont Extension

Extension personnel are trusted sources of information for disaster preparedness and recovery. This session will share a framework by which Extension personnel who are not communications specialists can learn about and apply best practices when communicating about potential, imminent, or active emergency situations. Understanding the principles of risk and crisis communication will enable Extension personnel in all programming areas to better convey information in situations involving high uncertainty or crisis. At the end of this session, participants will: (1) understand the difference between risk and crisis communication, (2) understand the importance of a two-way exchange of information in support of risk communication, (3) understand the importance of tailoring messages to particular audiences, and (4) understand the basic structure of and rationale for message maps. It is anticipated that participants will want to coordinate (or attend) a workshop or workshop series following this session to practice and enhance their risk and crisis communications skills and those of their colleagues by (1) applying their knowledge to a topic or situation relevant to their programming area and (2) evaluating their own messages against established best practices. By creating and refining messages, Extension personnel will demonstrate their mastery of message mapping in support of risk and crisis communication. Building competency in this aspect of communication will facilitate disaster preparedness and recovery.

THE ROLE OF PUBLIC INTELLECTUALS IN COOPERATIVE EXTENSION

Jim Langcuster, Alabama Cooperative Extension System

Shouldn't Extension experts, members of an organization that has always prided itself on providing impartial research-based information, share a place at the table with the nation's leading public intellectuals? As Harvard University Business Professor Youngme Moon has stressed time and again, disruptive messaging —strategies aimed at separating one's message from the cacophony of competing messages — will be a critical concern within the next decade. We contend that establishing a core group of public intellectuals at both the state and national levels of discourse should be a core strategy in helping us separate our message from others in this enormously competitive information environment. As a Moral Obligation Extension educators at all levels have a moral obligation not only as scholars but as public servants to help put highly complicated, even controversial issues, into sharper perspective on behalf of their clients with the goal of improving their lives. "...no scholar, historian or anyone else is — merely by being a scholar — ethically excused from their own circumstances. We are also participants in our own time and place and cannot retreat from it..." Extension educators are now struggling to navigate their way across an increasingly steep, jagged divide between techno-skeptics, who harbor a deep mistrust of technology and its long-term implications, and techies, who, despite some misgivings, generally believe that each technological advance ultimately works to secure a better life for all of us. But why should we be surprised by this? Science, after all, is as much a process of refinement as it is of discovery. With this refinement has come a clearer understanding of the environmental costs associated with scientific and technological progress. Scientific farming methods have proven to be no exception. Back to Kevin Kelly's premise: A new farming model inevitably will be constructed that incorporates elements of scientific and sustainable farming practices. Building this model, though, will require people who possess the requisite training and insights to bridge the gap between the mutually hostile camps of techno-skeptics and techies. This inevitably will call for more technological conciliators. Who is better equipped to serve this role than Extension educators and particularly public intellectuals? This new role of technological conciliator will not only be confined to the farm sector. There will be an increasing need for public intellectuals from many different disciplines within Extension to explain how this new farming model will be expressed and how it ultimately will affect them. Herein lies an enormous opportunity for Extension — an opportunity for profound organizational transformation. In this session, the presenters will define a public intellectual, provide the reasoning for cultivating public intellectuals within Cooperative Extension, and steps to develop public intellectuals within our system.

FOCUS ON AGRICULTURAL RISK MANAGEMENT (F.A.R.M.)-DESIGNING AND CONDUCTING AGRICULTURAL EXTENSION EDUCATION PROGRAMS WITH RISK MANAGEMENT IN MIND

Heather Neikirk, Ohio State University Extension

Extension as an educational entity strives to provide cutting edge educational programs, delivered through the context of specialists in the field and trained adult volunteers. The impact of such programs can be huge, and truly life altering. Along with the potential for great success, the risks involved with all programs can also be huge and life altering for the Extension professional, for the landowner, for the farmer, for the local business, for the customer. When considering the myriad of things that can go wrong, the professionals and volunteers who continue without consideration of the potential risks to provide programming, can be described as reckless and/or oblivious. Regardless, conscientious professionals can continue to deliver effective programs and reduce the likelihood that serious damages will occur. By developing the practice of planning for potential risk, trying to identify and assess the severity of risks that may occur, professionals can incorporate safety practices, develop policies and secure appropriate permissions, to proceed with greater confidence that the educational programs will achieve the intended positive outcomes. This session will present management practices that should be implemented in the planning phase of program development. Resources will be shared that can be adapted by participants for their own program delivery, to better manage the risks or damages if things were to go awry. Group discussion will focus on actual Extension education situations so learners can apply the theoretical to reality. As a result, Extension participants will better understand and appreciate the constant vigilance that is necessary as informal educational programs are conducted. Participants will engage in group discussions, gain awareness on how to determine what challenges can be managed wisely and learn that there can be risks too great to manage. Resources will be shared; reports of successes and failures will be included, along with suggestions for handling crisis communications. Extension programs so often are developed because a group of citizens have a need: farmers, food producers, youth, families, businesses, urban and rural clientele. All Extension professionals want to provide quality educational programs to meet those needs, but they must keep in mind the risks to all involved.

OPEN SCIENCE; ROLE OF LAND-GRANTS AND COOPERATIVE EXTENSION

Anne Adrian, Alabama Cooperative Extension System

The open science movement may be every bit as far reaching to the future of humanity as the scientific method, first articulated by Francis Bacon in the 13th century. Open science is a broad term that describes making scientific research more open, more public, and more inclusive — allowing passionate citizens to contribute. Some believe that

the traditional approach to research is possibly hindering the progress of inquiry, discovery, and innovation. Opening up modern research — crowdsourcing it — not only is revolutionizing scientific inquiry but is also rendering research to be more efficient and to hasten innovation, many argue. Although unknown to most who are pushing for and advocating open science, participative research and open science is much like the early days of Cooperative Extension of Seaman Knapp and George Washington Carver. In today's world, we have the opportunity to “return to our roots” because of — not in spite of — this information economy, driven by rapid technology changes, and online social ecosystems that have inherent global implications. Additionally, a segment of the public is insisting on transparency, access, and ability to contribute. Land-grant universities and Cooperative Extension must not only understand these new expectations, but also find ways to exploit the possibilities of open science — in offering participation and sharing as we learn and discover in our research and extension quests. To our advantage, sharing the process meets our Extension mission. In this session we will demonstrate the evidence of an open science movement. Because of many closed systems, it is difficult to show examples of open science & open research in Extension. We do know, however, Cooperative Extension's mission of providing research based information and education fits within the open science mode and to not prepare ourselves would be missing great opportunities. Beyond the obvious technological and ubiquitous access, the pressure to perform better and show Extension impact have never been greater. Budgetary restraints, unawareness — possibly misunderstanding — of Cooperative Extension programs, and disconnection from the university core provide pressure to public's view of Extension value. In this session,, a panel will discuss and will involve participants in discussing these questions: *How Extension should function within a ubiquitous and free-wheeling information order? *How do we balance older, conventional forms of scientific inquiry and reporting with the emerging values of open science? * To what extent should we embrace this new order? *If we opt for a full embrace, how will this be reflected over time in our defining principles and organizational structure?

Agronomy & Pest Management

COVER YOUR ACRES: A CONFERENCE TO EDUCATE PRODUCERS ON NO-TILL

Jeanne Falk, Kansas State University Extension

The Cover Your Acres Winter Conference is a joint effort of K-State Research and Extension and the Northwest Kansas Crop Residue Alliance. The Crop Residue Alliance is a group of producers who believe in the continued education on topics related to the mechanics of no-till, the value of residue and emerging technologies and crop production systems. The goal of the conference is to provide an educational event to address challenges on these topics producers are facing, provide unbiased information to

producers on these challenges and adoption of no-till and solutions to challenges of no-till. This producer-driven conference has been held since 2002. At its inception, no-till was still a relatively new practice in northwest Kansas and was providing producers with many challenges to overcome. Since 1837 when John Deere invented the first steel plow, producers have used tillage as a means of seed bed preparation, weed control, and erosion control. The idea of no-till was introduced in the 1940s, but not widely used until herbicides were discovered. It is a tactic to limit the evaporation losses of soil water. With areas of annual rainfall of less than 16 inches in northwest Kansas, no-till offered a chance for producers to minimize the losses of soil moisture from their production systems while providing a more stable yield environment. This conference is governed by a committee of producers and K-State agronomists. A producer panel brainstorms topics to fit with the conference goals. It then sends out ideas to a larger group of producers, to prioritize the educational topics for the conference. After the prioritization process is complete, ten to fifteen topics are taken to the conference coordinator, the K-State agronomist in northwest Kansas. The coordinator pairs the topic with a speaker from a regional land-grant university to present at the conference. Nearly 500 producers and agronomic professionals annually attend this two-day conference. A total of 24 speaking sessions are offered each day of the conference, running in concurrent sessions. Continuing education credits are also offered for certified crop advisors and commercial applicators. In 2013, over forty-five sponsors provided financial support to this conference. A display area is available to all sponsors. There are break times during the conference for producers to visit the exhibition area. The sponsorships help keep the conference affordable to producers, with a cost of \$35 for early registration in 2013. Finally, evaluations of the conference are done each year to grasp the impact of the conference. There are evaluations for both producers and sponsors (agronomy professionals), so we can better understand the needs of both groups. In 2011, an evaluation was conducted to grasp the changes in no-till adoption since the inception of the conference. It showed that more producers had adopted no-till into at least part of their production system. It also showed that they were experiencing new challenges as a result of no-till adoption. These included differences in weed control, planting equipment, and fertilizer applications. These topic areas have since been a priority in the subsequent conferences.

ENVIRONMENTAL STEWARDSHIP THROUGH A BOOM SPRAYER CALIBRATION EDUCATION PROGRAM FOR UTAH

Ron Patterson, Utah State University Extension

An improperly calibrated boom sprayer can result in reduced crop yields or waste of resources, as well as environmental contamination. An informal survey at a crop production meeting indicated that boom sprayer calibration is not

a common practice. Some have indicated that the math involved is daunting. Others are not familiar with the process. One producer related that he calculates how much spray he needs to cover his field, sprays half of the field, measures how much he has left, then adjusts his speed to try to get the sprayer empty at the end of the field. Other methods involve fairly simple math, but of necessity, repeated calculations. In order to address these concerns and encourage more regular boom sprayer calibration, a grant was obtained to purchase a small boom sprayer. This equipment was taken to six pesticide applicator workshops throughout the southern regions of Utah to demonstrate the calibration process. An Excel spreadsheet has been developed that will do the math calculations (<http://www.joe.org/joe/2011february/tt7.php>), so all the operator needs to do is collect the data and enter it into the spreadsheet. The calibration information will be recalculated when new data is entered. Six hundred sixty pesticide applicators participated in the demonstration and training. The majority of survey respondents indicated that as a result of the training, they are more likely to calibrate their sprayer at least once a year and are very likely to use the calibration spreadsheet to help with the calibration. Participants will learn a simple technique to help their clientele learn how to properly calibrate their boom sprayers, and will gain the tools needed to assist with on-farm sprayer calibration. The calibration spreadsheet is available online <http://extension.usu.edu/carbon/html/ag/calibration>.

BRIDGING SCIENCE EDUCATION WITH YOUTH CROP PROJECTS

Brandy VanDeWalle, University of Nebraska - Lincoln

Today's agricultural world faces several challenges, one of them being the decline of our most valuable resource, the future workforce. Rural communities, including agricultural producers, can benefit by involving youth in leadership opportunities and mentoring them. With this in mind, the Innovative Youth Corn Challenge (IYCC) was born which involves 4-H or FFA members, challenging them to produce the most economical, highest yielding corn. The team with the highest percent yield increase over their local county average is eligible for cash awards to further their 4-H or FFA plant science or leadership based programs. Both irrigated and dryland fields are eligible and will be scored accordingly. In addition awards are given to the team who has completed excellent production and economic records and an innovation award. The Innovative Corn Challenge is designed to encourage youth to pursue an agricultural career and return to rural Nebraska. This program is implemented through UNL Extension with financial assistance from the Nebraska Corn Board. Extension faculty, agriculture education instructors and crop consultants may serve as harvest supervisors and assist with data collection. 4-H and FFA Youth in the IYCC conduct and design research trials and work to improve current crop yields with guidance of an extension educator, ag teacher, or other qualified adult. Participants evaluate benefits of new products and practices on a crop production operation through participation in the IYCC. Youth complete a report verifying their data,

including economics, yields and an explanation why their project was innovative. A webpage and FaceBook page were created with resources to help participants complete this project which can be located at <http://cropwatch.unl.edu/web/cropwatch-youth/cornchallenge>. The first IYCC was conducted in 2012 in which 11 youth completed demonstration-based research plots supported financially by the Nebraska Corn Board. Surveys (n=5) showed that youth practiced 9 scientific processes ranging from predicting results for their project to collecting data, troubleshooting, and analyzing/interpreting their plot results. All completed surveys indicated a moderate to significant increase in knowledge in the following agronomic principles: accurately identifying pest species, economic thresholds, crop scouting procedures, financial recordkeeping, setting up on-farm research plots, determine profitability of cropping practices and how to evaluate new products or practices on a field. One youth said, "We learned that what we expected to happen did not; our hypothesis changed." Another youth learned more about the development of corn. Upon conclusion of the growing season, participant reports were evaluated and over \$2,000 in cash prizes was awarded including, 1-3rd place teams based on the highest percent yield increase over their local county average, an innovation award given to the team with the most innovative challenge plot and data completion award for the team who demonstrated excellent record-keeping. This project introduced youth to agronomic professionals, who mentored them through this process. Youth learned aspects of crop production, as well as a variety of agricultural careers related to corn production. As youth and producers interacted about on-farm research, both benefited from the exchange of ideas, knowledge and relationships created.

REDUCING SOIL AND PHOSPHORUS LOSS USING A NO-TILL GRAIN DRILL

Jeffrey Carter, University of Vermont Extension

Reducing Soil and Phosphorus Loss Using a No-Till Grain Drill. The purpose of this project is to increase the number of farmers who use no-till grain drills to plant crops on heavy clay and highly erodible soils in the Lake Champlain watershed in Vermont. Soil erosion and nutrient runoff will be reduced as farmers adopt no-till methods to plant winter cover crops following corn silage or to renovate pastures and hay stands on highly erodible soils or flood plains. Farmers will benefit by decreasing soil erosion and Phosphorus runoff to surface water, improving soil health and saving fuel by reducing tillage. Two Haybuster No-Till grain drills were purchased with a grant from the VT Department of Environmental Conservation Ecosystem Restoration Program and outfitted with FM-750 integrated GPS monitor and satellite receiver to demonstrate no-till planting and precision agriculture steering guidance. Agronomy Outreach staff were trained in proper grain drill use and maintenance, seed selection, seeding rate calibration and GPS steering guidance procedures so they could then instruct farmers interested to try this new technology. Local farmers were invited to participate with

on-farm field demonstrations through farmer meetings, no-till factsheets, no-till poster exhibit at Field Days, electronic newsletter, YouTube posting and personal conversations with farmers and agribusiness people in the area. Seed was purchased for field demonstration of no-till plantings of hay land improvement, pasture renovation and winter cover crops. Clover seed, grass seed, BMR Sudan Grass, grazing mix seed, winter rye and grain triticale was purchased for farmers who agreed to plant test strips comparing seeding rates, timing and row spacing in fields with various soil types and crop conditions. A list of farmers was compiled and a schedule developed for use of the two drills. Farmers agreed to use reasonable care with the drills and assume all responsibility for crop results. The drills were transported to individual farms by Agronomy Outreach staff and all farmers were trained in proper grain drill use and maintenance, seed selection, seeding rate calibration and GPS steering guidance procedures prior to using the grain drill at their farm. Champlain Valley Crop, Soil and Pasture Team outreach agronomists assisted 49 farmers who used the no-till drills during 2012 to plant 1,672 acres. Farmers no-till planted 560 acres of pasture on 19 farms, 802 acres of hayland on 20 farms and 310 acres of winter grain cover crops on 13 farms. Farmers are already calling to get on the schedule for next spring to plant legumes and grasses for pasture and hayland improvement, spring cereal grains, and BMR Soghum/Sudan to increase forage crop production without plowing their soil. A replicated field research trial was established in the south end of the Lake Champlain to demonstrate to farmers an innovative systems approach for no-till crop production in fine-textured clay/silt soils.

The purpose of this project is to increase education outreach to local farmers. Working with individual farmers at their farm has been the strength of Extension for many decades for education and technical assistance. Expanding the number of personal farm site visits and follow-up assistance will help farmers adopt new farm practices that enhance their economic resiliency while protecting water quality. UVM Extension Agronomy Specialist and Principal Investigator Jeff Carter, paired grant funds from the Great Lakes Fisheries Council and Lake Champlain Basin Program with a USDA NRCS grant for EQIP technical assistance to hire three Agronomy and Grazing Outreach Professionals to work with local farmers in watershed. The purpose of both three-year grants is to reduce soil and Phosphorus loss into Lake Champlain to protect water quality. Champlain Valley Crop, Soil and Pasture Team projects were supported by additional grant funds from the VT Agency of Natural Resources Ecosystem Restoration Program, USDA Risk Management Agency, Lake Champlain Basin Program and USDA NRCS Conservation Innovation Grant. Total sponsored grant funds of \$943,548 were matched with UVM Extension and farmer third-party contributions to provide for \$1.3M in new Extension agronomy outreach programming from 2011 to 2015. The Agronomy outreach team provides farmers assistance with nutrient management planning and implementation, improved pasture planning and management, livestock exclusion for stream protection, aeration tillage and manure incorporation, using no-till

grain drills, GPS steering guidance, reduced tillage and cover crops. In 2012 over 130 farmers implemented new practices on 23,000 acres as a direct result of this project. The Champlain Valley Farmer Coalition has been formed as a peer education and advocacy farmer group that includes farmers in a three-county region to address agricultural water quality issues. The Champlain Valley Crop, Soil and Pasture Team assisted 49 farmers who used the no-till drills during 2012 to plant 1,672 acres. Farmers no-till planted 560 acres of pasture on 19 farms, 802 acres of hay land on 20 farms and 310 acres of winter grain cover crops on 13 farms. Six farmers installed 6.8 miles of fence to keep 650 dairy and beef animals out of streams, 43 farms planted 2,860 acres of winter cover crop, and 31 farms increased forage quality and yield on 3,400 acres of improved pasture for 2,000 dairy and beef cows. Outreach staff helped farmers with participation in state and federal conservation programs that provided over \$386,000 in farm payments for installed practices. Extension outreach education includes a team approach for program outreach with a monthly electronic newsletter sent to 350 farmers, Facebook postings that reach 175 weekly, a website and blog site for educational content, farm demonstrations and display exhibits for large agricultural fairs and events.

CHAMPLAIN VALLEY CROP, SOIL AND PASTURE TEAM

Jeffrey Carter, University of Vermont Extension

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IRRIGATING CROPS TO BRIDGE FOOD GAPS

Eugene Matzat, Purdue University Extension

The Grand Kankakee Marsh, once one of this nation's largest and most productive wetlands, was drained a century ago to encourage settlement and farming. The same area is a now producing abundant feed, oil and food crops thanks to farmers' use of sustainable irrigation. Irrigation of agronomic crops in northern Indiana continues to increase as farmers seek ways to enhance income from value-added specialty crops and increased yields from commodity crops. Extension has trained farmers to make wise choices in water, energy and equipment use to irrigate crops through several workshops targeting growers who irrigate in northern Indiana. The workshops featured Purdue University agronomy specialists in crop production and fertility as well as a Michigan State/Purdue irrigation educator. The workshops were offered in multiple locations to encourage greater participation. Program brochures were made available through local office newsletters and on the web. At least 800 copies were included in a county newsletter. News releases prompted more folks to download a brochure from a website. The workshops attracted a total of 125 participants, mostly farmers, who gained knowledge in selecting corn hybrids for use under irrigation, fertilizing the crop to maximize economic returns while protecting the environment, and utilizing irrigation equipment to gain water use efficiencies. The workshop also invited local Extension educators to give an overview of irrigation in the area and partner conservation agencies to provide information about cost-share or other incentive programs for farmers. Besides valuable information from the presenters, participants also were able to receive Certified Crop Adviser Continuing Education Units and Commercial Pesticide Applicator Continuing Certification Hours. The

dry weather in 2012 prompted some concerns from folks questioning the impact crop irrigation would have on groundwater supplies for domestic and other uses. Active monitoring by state agencies assured all that the water resource was sustainable given the amount of recharge by normal precipitation. Efforts to communicate this unique resource were made by news releases, newsletter articles, radio interviews and discussions at land use meetings. Incorporating a history lesson of the area, going back centuries, helped those listening better appreciate the legacy that this area affords those who will care for her resources.

THE EFFECT OF INOCULATING SOYBEAN SEED FOLLOWING A FLOOD ON YIELD

Jim Crawford, University of Missouri Extension

Nitrogen fixation is critical for high soybean yields. For this to occur, the nitrogen-fixing bacteria *Bradyrhizobia japonicum* must be present in the soil. Soybeans can obtain up to 75% of their nitrogen requirements from the air when nitrogen-fixing bacteria have established nodules on the roots. This soybean-bacteria form a symbiotic relationship with the plant getting nitrogen from the bacteria, while providing the bacteria with carbohydrates and a place to live. Most Missouri soils have a good population of bacterium if soybeans have been grown in recent years. While once common to inoculate all soybean seed before planting, most crop production today includes a rotation with soybeans so the need rarely exists. However, fields that have not produced soybeans for more than three years should have the seed inoculated. Inoculation may also be required in soils flooded for more than a week. Flooded soil causes an anaerobic condition killing the bacteria. The Missouri River flood of 2011 provided an opportunity to test the effectiveness of inoculating soybean seeds in the local soils in the year following a flood. It has been many years since this research has been conducted in this region and there have been many genetic changes to the soybeans we currently plant. The plots for this test were flooded from June 20, 2011 to the end of September with up to 3 feet of water. The test area selected was planted in soybeans prior to the flood and had been continuously no-tilled for the previous 12 years with a corn and soybean rotation. Soybeans were planted at a rate of 178,000 seeds/acre in early May. Part of the seed was inoculated with *Bradyrhizobia japonicum* bacterium. Five replications of each treatment were planted in six rows wide and 250 feet long plots with the middle two rows harvested for data. Standard fertility and herbicide programs were followed. As a comparison, the trial was replicated in soils that were not flooded in 2011. Root digs conducted mid-August showed a larger number and size of nodules on the inoculated seed vs. the non-inoculated in the previously flooded plots. There were no visible differences in the non-flooded plots. Yields in the non-flooded plots showed no significant difference between treatments with a 4.3 bu/ac difference with an LSD (P=0.05) 4.6. The yields for the flooded plots had a 19.1 bu/ac yield difference which is significant with an LSD

(P=0.05) 12.6. This information supports previous research regarding the need for soybean inoculants following a flood with duration in excess of one week. Even though the yield increase was not significant on the non-flooded site, one must also consider the potential financial benefit. The seed inoculation expense was approximately \$8.00 per acre. With market prices of \$14.00 per bushel, and a yield increase of 4.3 bu/ac on the non-flooded plots results in a gross revenue increase of \$60.20 per acre with a net of \$52.20 per acre less the cost of the inoculant. That yield increase may make this attractive to help enhance net profitability.

EVALUATION OF SPECTICLE AND RONSTAR G FOR PREEMERGENT HERBICIDE CONTROL OF ELEUSINE INDICA (GOOSEGRASS, WIREGRASS) AND BERMUDAGRASS PHYTOTOXICITY

Norman Nagata, University of Hawaii Extension

Specticle 20WSP is new preemergent herbicide with one of the longest control for grassy/broadleaf weeds and sedges in turfgrass and landscapes. However, a few golf courses in Hawaii and elsewhere have reported phytotoxicity on bermudagrass. A test was conducted to evaluate single and split applications of Specticle along with Ronstar G on a Tifton 328 golf course fairway with 16% goosegrass infestation. Plots (6' x 10') were arranged in RCB with 4 replicates with a 3' buffer between plots. Existing goosegrass was killed by spraying Dismiss (8-fl oz/acre) with Revolver (24-fl oz/a) at 44 gpa with a 6' boom, 5-nozzel, CO2 backpack sprayer at 40-psi. Another application was made 3 wks later with Dismiss (8-fl oz) with Revolver (17-fl oz). Three weeks later, an 8" dia of turfgrass was removed from each plot to observe for regrowth. Specticle was applied at 32 gpa as a single application at 3.5 oz/a or in two separate split applications at 1.7 oz followed 4 wks later at 1.7 oz/a and at 2.3 oz followed by 1.2 oz/a. Ronstar was applied at 150 lb/a with a shaker bottle. Plots were immediately irrigated with 0.25" of water to move the herbicides into the soil. Another 1" of water was applied into a bottomless 19" dia x 10" tall tub that was sunken 1" into the ground in each plot to move the herbicides further into the root zone. The site was irrigated on alternate days with 0.25" of water. Data was taken every 2-4 wks for 6 months. The split applications of Specticle at 1.7 & 1.7 oz/a and 2.3 & 1.2 oz/a prevented weed growth for 6 months after initial treatment (MAT). The single application of Specticle was effective for 5 MAT. Ronstar and the untreated control were weed free 1 MAT. At 5 MAT, both the control and Ronstar plots had 100% turfgrass regrowth and were well rooted in the 8" dia soil area. Specticle treatments at: 3.5 oz/a had 51.8% regrowth, 1.7 & 1.7 oz/a had 26.8%, and 2.3 & 1.2 oz/a had 17% coverage. All Specticle treatments had poor to no rooting. At 5 MAT, 22-29% of the bermudagrass became necrotic in the Specticle plots. The Ronstar and control plots were 5-8% necrotic which was probably due to foot traffic. A field day was held for 20 stakeholders to allow them to see these results. All 16 people who responded to

an evaluation said that their knowledge had increased by an average of 71.3% and wanted us to continue developing this type of information for their industry. Twelve people will use this information within a month, 1 person will use it in 6 months, 2 people plan to use it in the future, and 1 person was unsure. On a scale from 1 (not relevant) to 10 (extremely relevant), this project received an 8.4 rating on its relevancy to their work. Sixteen people obtained pesticide credits and 5 people received Golf Course Superintendents credits.

ON-FARM RESEARCH – AN EDUCATIONAL TOOL FOR IMPLEMENTING AND VALIDATING PRECISION AGRICULTURE TECHNOLOGIES

Kent Shannon, University of Missouri Extension

As complicated as precision agriculture is, it offers producers the best opportunity for increasing profitability while protecting the environment. The ability to conduct on-farm research is a tool which provides an opportunity for one to succeed in the adoption of precision agriculture technologies. On-farm research is certainly no replacement for the small plot, university trials. But on-farm research can complement small plot research and validate small plot research in a large field environment. It has been known precision agriculture tools such as a yield monitor can be utilized for conducting field-scale research and spatially documenting yield differences across fields or treatments. The technologies associated with precision agriculture (GIS, GPS, yield monitors, variable rate technologies, etc.) provide the tools to effectively implement on-farm research through proper replication, randomization and experimental design to test complex hypothesis. This presentation will provide an overview of the tools available for on-farm research and discuss their benefits and limitations and present practical examples of their use in Missouri. As an example of an on-farm research project, one producer used soil electrical conductivity along with historical yield maps to delineate productivity zones. Corn seeding and nitrogen fertilizer rates were varied for these zones and compared to constant-rate strips. A partial budget analysis showed a \$31.60 per acre increase in return with variable rate application. In this case, yield was improved even though seed and fertilizer costs were increased when compared to the farmer's standard whole field practice. On-farm research projects in Missouri have provided the information for developing and delivering methods and tools allowing producers to manage within-field variability for production efficiency, environmental stewardship, and profitability through the implementation of precision agriculture technologies.

MANAGEMENT AND NEW METHOD OF SAMPLING MITE IN ARIZONA CORN

Ayman Mostafa, University of Arizona Extension

New methods of sampling using "mite inspector" were used in Arizona corn in 2012. Two fields were treated with

Oberon and Zeal. Application of Zeal had a lasting effect on mite population until the end of season. A resurgence of mite population was observed about three weeks after the application of Oberon, which required another insecticide application.

MANAGEMENT AND NEW METHOD OF SAMPLING MITE IN ARIZONA CORN

Ayman Mostafa, University of Arizona Extension

Introduction: Widespread cultivation of transgenic corn is eliminating damage of major Lepidopteran and Coleopteran pests. However, mites (Family Tetranychidae) are unaffected by these transgenic cultivars. Mites, especially spider mites, can be serious corn pests in Arizona. Mite populations favor hot, dry conditions, which are found in many of the corn production areas in the State. The feeding of mites on the undersides of leaves can cause a burned appearance and eventually kill the leaves leading to silage and grain yield losses. The aim of this trial is to compare the efficacy of aerial application of the miticide Zeal® (Etoxazole, 72 % WP) against conventional mite management in the area, which is based on applying Oberon® (Spiromesifen, 23.1 % SC). Material & Methods: Two different regimes were used to control mites in corn at Ak-Chin Farms, Pinal County, AZ in 2012. Two identical fields (Approx. 45 A each) were used. The first field received an aerial application of Zeal on May 1, 2012. The second field was treated with Oberon on May 1, then with Zeal on June 7, 2012. The application rate for Oberon was 9 oz / A and for Zeal was 2 oz / A v/v by air at 7 GPA. From April 30 to July 5, 2012 the two fields were sampled using "leaf inspector" (Nansen et al. 2010). Five leaves were sampled randomly from each field weekly. Mites at the lower 2/3 of each leaf were counted at the lab. Results: The mite population pressure in both fields was low during the season. The application of Zeal on May 1st had a lasting effect on the mite population until the end of season. A resurgence of mite population was observed about three weeks after the application of Oberon on May 1st. An application of Zeal (2 oz / A) was needed in this field to suppress the mite population and avoid potential outbreak. The results of sampling of both fields showed that the sole application of Zeal kept the total number of mites at about one third the number in the field treated first with Oberon after 5 and 9 weeks of treatments on May 1st. Reference: Nansen, C., A.J. Sidumo, A.H. Gharalari and K. Vaughn. 2010. A New Method for Sampling Spider Mites on Field Crops. *Southwestern Entomologist*, 35:1-10

Animal Science

**A STEAK IN YOUR BOTTOM LINE...
PRODUCERS LEARN ABOUT END-
PRODUCT QUALITY AT IDAHO BEEF
SUMMIT.**

Sarah Baker, University of Idaho Extension

Previous Beef Quality Audits identified many quality challenges in the beef industry including excess external fat, inadequate tenderness, insufficient marbling. These can lead to inconsistent eating experiences for beef consumers. Traditionally, many beef producers have focused on the quantity, rather than the quality, of beef they are producing. A major industry goal has been to educate beef producers to select management practices that increase value and quality of beef. Historically, the Idaho Beef Council (IBC) conducted Beef 2020, an event aimed at educating beef producers about end-product quality. However, this event has not been held since 2004. In response, University of Idaho Extension submitted a proposal to IBC to fund the Idaho Beef Summit (Summit) to offer “end-product quality” programming to Idaho beef producers. The Summit, conducted by University of Idaho Extension, was held January 5-7, 2012 in Twin Falls. The Summit featured speakers, tours, and workshops on topics ranging from improving carcass traits, meat science 101 for ranchers, retail and foodservice tips, beef quality assurance, cull cow marketing, and much more. 98% of respondents stated they would consider end-product quality when making management decisions on the ranch and 97% of respondents said they have a good understanding of what improves carcass quality in beef cattle after attending the Summit. 93% of respondents said they learned something new at the Summit, 94% of respondents said they would return to a future session of the Summit, and 98% said they would recommend the Summit to fellow beef producers. It is intended that the partnership between the University of Idaho Extension and the IBC will continue and future sessions of the Summit will continue educating Idaho beef producers about end-product quality.

THE EPED - DEVELOPING A “USER-FRIENDLY” METHOD OF QUANTITATIVELY EVALUATING HORSE PASTURES

Donna Foulk, Penn State University Extension

Research has shown that it is important to maintain at least 75% canopy cover in pastures. Below that, erosion and significant sediment and nutrient loss can occur. Nutrients and sediments can have a negative effect on both ground and surface water quality. Ideally, canopy cover should be maintained above 80% and should be composed of plants that provide nutrition for the horses. Evaluating pastures using standard line intercept methodology is tedious and time consuming. Since horses do not uniformly graze pastures, a single line transect does not provide accurate data. To meet the need for a user-friendly and accurate method of evaluating canopy cover, the Penn State Equine Team developed the Equine Pasture Evaluation Disc (EPED). Walking a “W” pattern, the EPED is randomly tossed throughout the entire pasture using a minimum of 20 tosses. An arrow on the edge of the disc indicates the location that the data is to be collected. If the disc arrow lands on bare ground, that information is recorded as well. From the data collected, the % of the pasture that is covered

by plants is determined and the % of plants that provide nutrition can be evaluated. To test the accuracy of the EPED, pastures on three farms were surveyed using both line intercept and EPED methods to determine if there was any statistically significant difference. Pastures ranged between 1 and 10 acres in size. Two 100 foot single transects were randomly placed in each pasture. Data was recorded at 2 foot intervals. The EPED was tossed 100 times by walking a “w” pattern, covering the entire pasture. The % grasses, legumes, weeds and bare ground was determined using both methods. The EPED method and Line Intersect method for determining quantitative canopy cover statistically were very close. The regression of the two methods gave a slope of 1.01 and an R² of 0.86. Statistically, 20 tosses is almost as accurate as 50 tosses as long as evaluated pastures are less than 10 acres in size. Both methods provide quantitative data at the time the data was collected. The data does not account for reduced number of annual grasses and weeds in late fall, winter and early spring. These plants may contribute significantly to the uptake of nutrients and prevention of sediment loss during the growing season. There may also be some variation in nutrient uptake and prevention of soil loss based on the type and growth pattern of the weeds and forage present. Calculating plant canopy cover using only desirable plants in the equation provides a better indicator of pasture quality. Pasture evaluation has been included in the curriculum of Penn State Extension Environmental Stewardship short course. It also has been used to teach concepts of pasture and nutrient management to 4-H youth. Ninety-five percent of surveyed course participants reported that they used the EPED to document pasture conditions on their farm. Ninety-two percent reported that the EPED provided data that was useful in evaluating their management decisions.

BEST MILKING PRACTICES

Amber Yutzey, Penn State University Extension

Producing the highest quality milk on a farm is one of the most important jobs. Many factors play into a dairies Somatic Cell Count (SCC), reducing this count can be done by implementing standard operating procedures and having a consistent milking routine. The objectives for this program is to have dairy producers decrease Somatic Cell Count (SCC), increase profitability and develop Standard Operating Procedures on their farm. Participants will be educated on the newest research that is available on milking procedures and sanitation of the milking facility. Participants will also be given the tools needed to detect mastitis early for best treatment options. Education will be delivered through one day workshops, consisting of a morning lecture and discussion period, in addition to a hands on portion that will be held on farm. This program had a total of 307 participants with 71% (N=256) indicating the intent to implement a new practice learned as a result of the program. A six month follow up evaluation was implemented by phone indicating that 89% (N=198) of participants implemented at least one or more practices discussed at the program. 83% (N=198) of participants experienced a decrease in SCC, as a result

of recommendations made at the workshop. The average reduction in SCC was 162,000. It was also determined that 69% (N=198) of participants implemented a change in their milking procedure.

LIVESTOCK EVALUATION TO SUPPORT THE MISSION OF YOUTH DEVELOPMENT

Joel Packham, University of Idaho Extension

Livestock judges are hired to evaluate youth livestock projects at fairs. These judges are critical “point people” for agriculture and influence countless leaders and youth. Judges must be knowledgeable about current animal evaluation methods that support the mission of youth development. The circle of knowledgeable individuals qualified to evaluate in this manner is limited in the intermountain west. Extension personnel experience the challenges of a small pool of qualified judges, limited budgets to hire judges, and in some cases hiring unqualified judges. These situations limit the educational opportunities for youth at livestock shows. Due to these challenges, extension faculty from Utah, Idaho, Colorado, Montana and Wyoming teamed together to develop the Intermountain Livestock Judges Training, an educational program to train livestock judges. A total of eight trainings have been held in four western states from 2004 – 2012. Training presenters have been from 10 different states allowing participants to learn current livestock evaluation techniques from industry and university experts. Training goals were developed to help drive the training program. Following are the goals of the training: 1) To provide an opportunity for participants to learn the mission, role and responsibility of being a judge at youth livestock shows. 2) To help participants increase their selection and judging skills as well as gain tools to train other livestock enthusiasts. 3) To help participants increase their knowledge regarding the terminology related to youth livestock shows. 4) To help participants learn how to interact with youth and parents to make the show ring experience an educational and logical event. An institutional review board approved survey was conducted in 2012 to determine the impact of the trainings on all the past participants. Seventy six respondents indicated on a scale from 1 (not influential) to 5 (extremely influential) that the training was highly influential (3.92) to help participants understand a judges’ role in youth development. The training was highly influential (4.24) to help participants increase their selection and judging skills as well as gain tools to train other livestock enthusiasts. The training was highly influential (4.0) to help participants increase their knowledge regarding the terminology related to youth livestock shows; and the training was highly influential (4.1) to help participants learn how to interact with youth and parents to make the show ring experience an educational and logical event. Before attending the first training in 2004, 36 respondents had judged 232 county fairs, 24 state shows and 13 regional shows. After attending the trainings, 46 respondents judged 318 county fairs, 29 state shows, and 15 regional shows. The trained judges had the opportunity to use skills gained to reach more youth. Participants in

this workshop will learn the logistics of putting on a judges’ training, judge livestock from a past training via DVD and compare opinions with the “experts.” Carcass information is provided for the animals judged on the DVD. Participants will take home a CD with livestock selection techniques, classes to judge and a curriculum for hosting a judges’ training.

INCORPORATION OF SUPPLEMENTAL TECHNOLOGIES TO ENGAGE TARGET AUDIENCE IN TRADITIONAL DISCUSSIONS: A DAIRY CASH FLOW EXAMPLE

Robert Goodling, Penn State University Extension

Engaging producers in the analysis and interpretation of critical business decisions has been a daunting task since the inception of cooperative extension. In today’s mobile society, the engagement of the producer to evaluate financial implications of business decisions has become more complex than ever before. For the dairy industry and its producers, one of the largest and volatile business decisions is feed cost. USDA Economic Research Service estimated in 2011 the average feed cost (including purchased, grazed and homegrown feeds) per hundred pounds of milk (cwt) was \$14.05 in Pennsylvania (USDA ERS, Oct. 2012). This cost was 8.2% higher than the national average across all U.S. states for which data was available. This estimate contributed 77% of the \$18.34/cwt total operating costs reported in the same USDA ERS summary. For dairy operations to be sustainable and profitable, greater effort and emphasis is going to be placed on controlling feed costs in relation to overall production. To assist dairy operations, the Penn State Extension Dairy Team has evolved an initial income over feed cost program to a dynamic, multifaceted platform by amalgamating traditional workshops with smartphone applications to meet the needs of various industry audiences. Initial feed cost projects in Pennsylvania funded by USDA Risk Management Agency targeted dairy producers interested in calculating their income over feed cost. The realization was identified and addressed that producers needed the ability to calculate homegrown feed prices as well as tracking purchased prices through a comprehensive business cash flow plan. These first projects identified the need for greater access to feed cost calculations and showed how the producer-driven approach is critical to maximize engagement and utilization. Subsequently, the PSU DairyCents smartphone application was initiated. The program enhanced a producer’s understanding of their specific feed costs, current market environment, and helped facilitate possible risk management strategies with user controlled reporting and analysis. Within the first 6 months of release, a total of 873 users from 47 states and 22 countries became registered users of the PSU DairyCents application. Research from USDA shows that computer use on U.S. dairy operations has stabilized around 60-65% since 2007 (Natzke, Dec. 2011), the initial response to DairyCents demonstrated the ability to supplement traditional efforts

to grow audience participation. Participants of this workshop will engage in the process of program review, development, and modification as experienced by the Penn State Extension Dairy Team and their ongoing dairy cost of production initiatives. Participants will learn how to objectively determine the needs of their target audience and how to incorporate the applicable technology to foster greater programmatic utilization. It is the intersection of greater emphasis on individual engagement in determining and interpreting key educational concepts to the target audience during a time when internet and smartphone usage is rapidly evolving, that the goals of this project has had great success, and can serve as a model for other programs.

NORTH MISSOURI GRAZING GROUP SUPPORTS FORAGE AND BEEF PRODUCERS THRU 2012 DROUGHT AND BEYOND

Jim Humphrey, University of Missouri Extension

Beef and forage producers in North Missouri struggled with historic drought conditions and record high temperatures in 2012 resulting in 40% reductions in hay and pasture productivity. Many beef producers in northwest Missouri were feeding harvested forages by mid-July and continued feeding for several weeks into the fall regardless of grazing management skills. Producers were challenged with gathering forage and feed inventories needed to maintain herds through winter of 2013. Producers harvested corn silage, corn baleage, corn stalks, CRP hay, soybean baleage and grassed waterways as alternatives to traditional hay and pasture supplies. Four forage focused meetings were set up as educational opportunities as many producers had little experience with harvesting and purchasing alternative forages. Over 90 producers networked with other producers, state and regional agricultural business, agronomy and livestock specialists in addition to the Natural Resources Conservation Service (NRCS). Forage related topics included forage quality determination, nitrate testing and interpretation, alternative forage baling, storing and feeding. Forage samples were collected at host operations prior to meetings so quality and nitrate results could be discussed with participants while observing core producer storage and feeding systems. Drought management topics included early weaning, dust control, portable shade design, and solar watering systems. Meeting participants observed drought management decisions implemented by host operations with alternative methods and the resulting implications discussed with attendees. By pooling knowledge and encouraging network development we expanded forage and grazing management skills. Producer education to implement and establishing management priorities were imperative for operation survival. The program format was effective, as attendees indicated they learned new forage and grazing management techniques for use on their operations. Future topics suggestions included basic beef nutrition and farm generational transfer. Using core producers as educators and host farms as demonstration locations the North Missouri Grazing Group helps producers learn timely, practical and profitable cattle, forage and land

management systems from other producers with support from the Natural Conservation Service, Sustainable Agriculture Research and Education Program and University of Missouri Extension.

UI EXTENSION STUDY IMPROVES ANIMAL VACCINE HANDLING AMONG IDAHO PRODUCERS AND RETAILERS

K. Scott Jensen, University of Idaho Extension

A comprehensive vaccination program is a key component of maximizing production efficiency and minimizing production losses in beef cattle herds. A well planned and implemented vaccination program leads to reduced morbidity and mortality rates, reduced treatment costs, and improved gains. However, studies conducted in Arkansas and Nevada identified problems with vaccine storage and handling, which could ultimately lead to vaccine failure. In 2009-2010 University of Idaho Extension Educators and Specialists conducted a study of the vaccine handling and management practices of Idaho beef cattle producers and animal health product retailers. Sixty-seven percent of producers' and 66% of retailers' refrigerators failed to maintain temperatures within the recommended range (35 to 45°F) for vaccine storage. The study also indicated that syringe cleaning and record keeping practices needed improvement among producers. Refrigerator temperature monitoring and employee training needed improvement among retailers. To help educate study participants, individual refrigerator temperature results and product storage and handling recommendations were given to each producer and retailer. The present study was an effort to identify behavioral changes in vaccine handling and management as a result of the educational materials provided from the original study. Original study participants were surveyed to identify their current (updated) vaccine storage and handling practices. Producer and retailer response rates were 57% and 36%, respectively. Of survey respondents who reported improper refrigerator temperatures in the original study (producers and retailers), 100% reported taking some type of corrective action including temperature adjustment, refrigerator servicing, or refrigerator replacement. Fifty percent (50%) more of the responding producers monitor refrigerator temperatures currently than prior to the original study. Additionally, there was an increase reported in the number of producers following other recommended vaccine handling and beef quality assurance practices which included using a cooler at chute-side, protecting vaccines from freezing, protecting vaccines from sunlight, using hot water only to clean syringes, and improved record keeping practices. Retailers reported increased monitoring frequency of vaccine refrigerators. In addition, an increased number of retailers now offer employee training on vaccine storage and handling practices. Prior to these studies, many Idaho beef producers and animal health product retailers were unaware of the problems that existed with their vaccine storage and handling practices. As the results of this study suggest, once they were made aware of the issues, producers and retailers were willing to take corrective action. The increased

awareness of vaccine handling issues, the acceptance of educational materials, and the willingness to make changes will lead to more vaccines being stored and handled properly and greater vaccine integrity. Overall, this should translate to more effective animal disease prevention efforts and fewer animals requiring antibiotic treatment to combat diseases.

USE OF MOBILE AND WEB BASED APPLICATIONS TO DETERMINE THE MOST ECONOMICAL FEEDSTUFFS FOR USE IN LIVESTOCK DIETS

Warren Rusche, South Dakota State University Extension

Livestock producers are faced with increasingly complex decisions regarding which feedstuffs are the most economical for their operation. Those challenges are especially acute during feed shortages caused by drought or other environmental issues causing feed production problems. In many cases, producers are forced to consider untraditional or alternative feedstuffs in order to meet the nutrient requirements of their livestock. The moisture content of feedstuffs needs to be taken into account so that comparisons are made on a dry matter and not an as-fed basis. The cost of shipping is also an important factor when determining whether or not to purchase less expensive feeds located some distance away vs. locally produced feed. Spreadsheet applications and other computer-aided tools have often been used to help producers make these kinds of decisions that involve multiple factors. Management decisions such as these lend themselves well to using mobile application technology. Producers often need to make buy/sell decisions in the field away from office computer equipment. In order to assist producers dealing with drought conditions, a Feed Cost Calculator was developed by SDSU Extension personnel in conjunction with the SDSU Office of Information Technology. The initial equations were written in a spreadsheet and then adapted to be used as a mobile application. The tool is also posted online as an Excel Web App (<http://igrow.org/livestock/beef/feedstuff-cost-comparison>.) Users enter basic data such as the price of feed and the size of the unit purchased in pounds to calculate a purchase price per ton. Users can also enter shipping information to determine the transportation cost per ton. The percentage of dry matter in the feed needs to be entered so that feeds that vary in moisture content can be compared. In order to determine the most economical source of nutrients, crude protein and energy (TDN, and Net Energy values for maintenance, growth, and lactation) also are entered. Two feeds can be selected and compared. The cost for each nutrient is calculated and displayed. A color coded system is also used to visually indicate the more economical feedstuff. The cheaper feed for a given nutrient is highlighted in green and the more expensive option displays a red background color. A breakeven value is also calculated, so that the user can determine the price where the two feeds are equal in cost for either crude protein or one of the energy measures. Since being released in August 2012, the Android and Apple versions have been

downloaded 681 and 733 times, respectively as of January 15, 2013. There have also been 1182 unique page views for the web based tool located on SDSU Extension's iGrow.org website. Feedback from users has been very positive. They have especially found it useful in evaluating feeds such as drought-stressed corn silage and by-product feeds.

USING A FARM PREDICAMENT TO ENHANCE HEALTH CARE IN SMALL RUMINANTS: CASEOUS LYMPHADENITIS (CL)

Anne Lichtenwalner, University of Maine Extension

The role of Extension in animal health issues can be to bring together a number of resources, and to facilitate good animal health care by including professional livestock caregivers, such as veterinarians, in stakeholder conversations. Raising awareness of emerging risks is difficult, unless disease prevalence can be assessed, and unless stakeholders see an advantage to avoiding these risks. Caseous lymphadenitis (CL) is a bacterial disease of sheep that can exist in a flock undetected until it causes recurrent abscesses, both internally and externally, in small ruminants. When present in an area, CL can cause serious losses for sheep farmers due to reduction in hide quality, downgrading of carcasses, and occasionally causing fatalities. A Maine wool farmer contacted their vet about sheep with recurring CL abscesses. Repeated testing and culling combined with farm biosecurity evaluations, helped control CL on this farm. This farm served as a model for other sheep farms, partnering in a SARE-funded survey of CL on a small group of Maine sheep farms. This project identified thirteen farms with approximately 400 sheep that were tested for CL using the serum hemagglutinin inhibition (SHI; Washington State University Animal Diagnostic Lab) test. Most of these sheep were tested twice to verify serostatus over a 2 month period. All testing was done by collaborating veterinarians. At each visit, the farmer cooperated with handling and identifying sheep for blood collection by the vet, and also discussed biosecurity measures to avoid or contain CL on their farm. On several farms, CL abscess treatment was demonstrated and discussed. These visits also allowed discussion of other sheep health management issues, and helped to forge professional relationships between the vets and the producers. Of 13 farms tested, only 2 were, and remained, CL-negative. Repeat testing caught CL starting to spread in several cases. Intervention on these farms to increase biosecurity by isolation of CL-positive animals and by improving quarantine for show animals was utilized to stop the spread of CL. On farms with many positive animals, options for culling, separate housing, and possibly vaccinating these animals were discussed. At the end of the project, follow-up surveys were conducted to assess farmer activities and intentions for the control of CL in their animals. In most cases, repeated testing and culling was able to reduce or eliminate CL on positive farms. Emphasizing the willingness of a few sheep farmers to discuss their CL problem with the industry was helpful, but

more success in raising awareness of CL was accomplished by getting farmers with CL-free flocks to emphasize this fact when marketing their breeding stock. Their perception of the value of CL-free sheep was raised by understanding that CL was present in other flocks. This also made them more willing to follow good biosecurity practices. Raising awareness of emerging disease, such as CL, by working with farmer-farmer interactions may help stop disease spread by raising the value of disease-free animals.

Early Career Development

INFORMAL MENTORING: A COMMON SENSE TOOL FOR A NEW EXTENSION

Laura Griffeth, University of Georgia Extension

Mentoring has long been a part of Extension training for new employees. These formal processes vary from state to state in form, content, and effectiveness. Numerous studies have evaluated this relationship as a formal activity with specific goals, deadlines, and paperwork required. However effective this formal mentoring process is, a process of informal mentoring can prove equally as or more beneficial to the new employee. Mentoring is a process of helping inexperienced individuals develop and progress in their profession. Often this mentoring emphasizes subject matter knowledge. In Georgia Cooperative Extension new agents were placed in the same county with more experienced agents and trained under their tutelage for at least one to two years. However, with the budget cuts of the past 20 years, the number of counties with multiple agents in the same program area is almost nonexistent, and the number of experienced agents has drastically declined due to retirements. Thus the Mentor Support program was strengthened and formalized with required visits, suggested discussion topics, and suggested activities. Some relationships work better than others, and the mentoring program met with varying degrees of success. One idea that worked well in University of Georgia Cooperative Extension is informal mentoring. This effort is above and beyond the formal mentoring process required. This process is initiated by developing relationships with fellow agents, often of the same subject area but definitely not limited. This relationship can be cultivated and developed by simply sitting next to a newer agent at a training and letting the individual know that you, as a more experienced agent, are available for questions or to just be a sounding board. Further communication through phone, text messaging, and email are encouraged from both the mentor and the mentee on a regular basis often weekly. Another method of initiation is for the mentee to identify experienced agents to learn from and simply ask that experienced agent if they would be willing to spend time answering questions. This is also a way to increase technical subject matter knowledge. Informal mentoring is an important tool used with other formal mentoring programs to increase the development of employees while reducing the turnover. County agents in Georgia Cooperative Extension who formed strong informal

mentoring bonds seemed to persevere and advance their careers through promotion and retention.

Grant Writing and Evaluating - Begin with end in mind!

Laurie Wolinski, University of Delaware Extension

The Extension Risk Management Education (Extension RME) program is funded through USAD-NIFA. It provides grant funding to educators through a competitive grants program. Successful grant applicants describe the need for the educational program, describe the steps in delivery and also clearly identify outcomes - what producers will learn, achieve or apply as a result of participating in a project. Applicants who begin the grant writing process with "end results" in mind, are often successful in writing a concise application, evaluating their program and ultimately verifying and describing the results of the educational program. This session will illustrate ways to effectively document impacts of educational programs - a task that Extension educators often find to be a challenge. Examples of outcome-based programs will be shared. Projects supported by Extension RME provide tools and training to agricultural producers so that they can effectively manage the complex risk associated with their agribusiness. Extension Risk Management Education has funded producer-focused, results-based projects throughout the U.S. since 2001. There are four regional Extension RME Centers who conduct the annual competitive process: The Northeast Center at the University of Delaware, The Southern Center at the University of Arkansas, the North Central Center at the University of Nebraska, and the Western Center at Washington State University.

Horticulture & Turfgrass

USU EXTENSION PROTECTORS OF URBAN POLLINATORS (PUPS) PROGRAM

Katie Wagner, Utah State University Extension

A recent needs assessment conducted in Salt Lake County at the 2012 Home and Garden Show found 82% of 522 surveyed attendees were interested in learning how to attract pollinators like bees and butterflies to their garden. Gardeners have good reason to care about pollinators because 'some wild bees are superb pollinators of Utah's tree fruits, raspberries, squashes, melons, and cucumbers' (Gardening for Native Utah Bees and Beyond, 2011), however, many of these same pollinators are currently experiencing population declines. The USU PUPs program is a train the trainer curriculum designed to teach participants how to enhance urban pollinator populations through the 3 P's: 'Provide' food, 'Protect' shelter and 'Promote' the importance of pollinators to others. Although the PUPs curriculum is designed for youth, additional Promoters of Pollinators (POPs) curriculum materials are adapted for adult education and expand upon topics and activities covered in the PUPs packets. POPs graduates are encouraged to utilize

curriculum materials and re-teach the PUPs curriculum to new audiences, like scout groups or school groups. PUPs graduates are encouraged to join an online pollinator garden network by submitting pictures of their pollinator garden and adding garden locations to the PUPs pollinator garden map. Professionally designed curriculum materials are available for free use by Extension professionals and other groups such as Master Gardeners, community garden educators and teachers, if the program developer is notified of intent to use and the curriculum materials are not modified without the developer's permission. Presentation topics will feature PUPs curriculum materials and evaluation results of the program from Salt Lake County participants. The PUPs curriculum was piloted with 4-H Afterschool youth and urban gardeners within the Wasatch Community Garden network. The presenter will supply the audience with post conference contact information for follow-up questions and information on how to access curriculum materials.

STARTING AN ENDOWMENT FOR YOUR COUNTY'S MASTER GARDENER PROGRAM

Emelie Swackhamer, Penn State University Extension

Extension professionals in all program areas have increased responsibility for securing alternative funding sources. An endowment is a permanent fund which can generate interest income for specific future program needs. Penn State Extension has provided guidance for county-based educators who are interested in establishing endowments for their program. Master Gardener programs can benefit from a secure income stream to assist with future program expenses, including wages for volunteer coordinators. The Lehigh and Northampton County Master Gardener program started working toward a permanent endowment with an initial private donation of \$500 in 2006. The intent was to generate revenue for the endowment from end-users of the program as much as possible. Within six years we successfully reached the official goal of \$25,000 to establish this endowment. Funding sources included direct gifts, a percentage of income from select events designated by the local Master Gardener steering committee, income donated to the program in appreciation of Master Gardener's work, memorial contributions and proceeds from one fund-raising activity. Our future goal is to continue to build this county-level endowment while also supporting development of an endowment for the state-wide program.

ORGANIC LAND CARE PROGRAM FOR PROFESSIONAL LANDSCAPERS IN NEW JERSEY

Amy Rowe, Rutgers University Extension

Organic landscaping is an approach to land care that implements environmentally-friendly techniques that not only maintain beautiful lawns and turf, but also improves watershed health by reducing both stormwater runoff and nonpoint source pollution. Currently, the Northeast Organic Farming Association (NOFA) conducts an

Organic Land Care Program in Connecticut, Rhode Island, Massachusetts, and New York. The basis of the program is a 4-day accreditation course which certifies industry workers to be NOFA-accredited organic land care professionals. New Jersey-based landscapers previously were required to travel to other states in order to become accredited. Rutgers Cooperative Extension has adapted and implemented the program for the New Jersey landscaping industry. The first 4-day New Jersey organic land care program yielded 29 attendees from a number of New Jersey counties, representing both large and small landscaping businesses. More than 20 subject matter experts participated in teaching the class on a variety of topics relating to organic land care and a panel consisting of locally-practicing organic landscapers provided insight on the business of running an organic landscaping company. Pre-program knowledge surveys were distributed to all participants in order to gauge base knowledge and organic land care background. Post-program knowledge was evaluated in the form of the organic land care certification exam, which included the pre-program questions mixed in among others. Program impacts were evaluated based on average number and size of properties managed by each attendee, as well as knowledge increases. Attendees also gave feedback on how the program could be improved, research needs, and what topics were missing from the program.

OPTIMIZING SPRAY TECHNOLOGY

Timothy J. Malinich, Ohio State University Extension

For many years pesticide application has been about dose and water volume per acre. Over the last six years USDA and Extension researchers in seven states have partnered on a program that has drastically reduced drift, ground runoff, labor and machine time, while still maintaining or even improving pest control. This was accomplished through the development of an intelligent sprayer, retooling conventional sprayers, and by using new software and scanning equipment to monitor for proper coverage and volume. Growers reported more than a 50% reduction in pesticide application with the same insect and disease control when compared to full rate applications. Twelve nurseries have already adopted practices developed in this program. This report will cover new intelligent spray technologies that provide outputs based on plant shape, size, and canopy density. Active scanners connected to the sprayer vary nozzle output as needed—applying no product where there are gaps in the row, and varying product volume to match surface area and density of the plant canopy. Additional sensors on the vehicle compensate for travel rate down the row. With minimum human involvement before, during, and after spray applications, this ultimately reduces pesticide use, potential environmental contamination, and hazards to workers. Side-by-side comparison of standard and new sprayer technologies in various crops indicate that significant reductions can be realized through the incorporation of the new technologies. Also, retooling existing equipment and optimizing sprayer output to meet crop demands will itself greatly reduce pesticide application volume. Efficiency

of spray coverage is quantified through the use of water sensitive paper, which is scanned; range of droplet sizes produced and total leaf surface coverage are automatically calculated. Videos comparing the intelligent sprayers with conventional equipment further demonstrate the efficiency of the newer technology. This presentation will highlight the newest equipment, software, digital scanners and web-based decision-making tools available. The result is a future of environmentally sound methods to apply pesticides. Initial work in the intelligent spray system can be found in: Development of Improved Air Assist Sprayer for Dense Nursery Crops, Zhu, Heping, et. al., 2007; Intelligent Spray Systems for Floral and Ornamental Nursery Crops, <http://www.oardc.osu.edu/scri/>

REACHING AMISH AND MENNONITE PRODUCE GROWERS WITH SPECIALIZED PROGRAMMING

James Quinn, University of Missouri Extension

Amish and Mennonite farmers are shifting into horticulture due to its high value and lower land needs. In Missouri the majority of producers market through wholesale distribution facilities such as produce auctions; Missouri had nine in 2012, more than any surrounding states. The religious beliefs of Amish and most Mennonites dictate separation from modern society which prevents using various modern technologies in communication and transportation. This limits participation in many current extension programming methods (internet, regional conferences). Outreach efforts need to be taken 'into their communities' reminiscent of extension in the earlier part of the previous century (farm visits and tours, small group gatherings). Fortunately each facility can serve as a hub to organize activities for its grower network. This programming is more costly and time-consuming, during a time of tightening resources. The additional resources for specialized programming were filled using a 21st century approach, competitive grants. From 2008 through 2012 more than \$125,000 was received from the EPA by MU Extension to deliver educational programming into the Amish and Mennonite communities emphasizing integrated pest management (IPM). Over four years more than 14 regional and state agricultural specialists were involved with programming targeting 10 different communities spread across five of Missouri's eight regions. Outreach included farm tours, 'off-season' workshops, 'in-season' pest review sessions, grower visits, plant diagnoses, and quarterly IPM newsletters. This programming was evaluated in early 2012 by a 23 question survey mailed to the 313 growers receiving the quarterly newsletter. Response rate was 37%. A critical component was crafting a 20 point IPM scoring system, matching that to self-assessment and creating an association variable based on exposure to extension outreach efforts. The IPM score range was 0 – 14; higher indicating greater IPM usage. The mean was 10.0. A significant positive correlation was found between the IPM scores and the respondents' self-reporting of their use of IPM techniques and practices, which indicated both measures were valid ($r=.44$, $p < .01$). A variable was

created to evaluate the relationship between exposure to extension IPM resources and their IPM score (respondents selected from 1 to 11 IPM information sources, of which 3 were Extension). The IPM scores increased relative to the number of Extension resources used to learn about IPM, including face-to-face conversations with agents, MU Extension publication, and MU Extension presentations ($r=.38$, $p < .01$). The positive correlation between exposure to Extension resources and use of IPM practices suggests that the objective of promoting IPM practices through Extension has been successful. Growers were asked to rate 7 extension resources for their usefulness, and the newsletter developed as part of the programming received the highest mean score, followed by the Midwest Vegetable Production Guide for Commercial Growers. The funding afforded educating and engaging with these producers beyond IPM, to broadly address vegetable, fruit and ornamental crop production. This programming effort received the 2012 MU Extension 'Teamwork Award'. Recognition was partly because an important producer niche was reached using extension tactics of the past century while obtaining resources required of our new era.

NEW JERSEY FARMS SURVEYED FOR FOODBORNE PATHOGENS IN TOMATOES, LEAFY GREENS (SPINACH), IRRIGATION WATER AND SOIL SAMPLES

Meredith Melendez, Rutgers University Extension

The produce industry has placed emphasis on commodity specific guidelines for food safety. Informational gaps exist between certain risk factors in guidelines and research results. The University of Maryland and Rutgers University surveyed pre-harvest tomato and leafy green crops to increase knowledge of actual risk factors for Salmonella and shiga toxin producing E. coli (generic E. coli). During 2012, 248 samples were collected from 12 New Jersey farms. Random and targeted samples were collected in the field from tomatoes, leafy greens, soil and compost. Water samples were taken from the source (well, pond or river) and at the end of a drip line or sprinkler. Sediment samples were dredged from below the water level. There are no microbial standards for fruit from the field, pond sediment, or compost samples. Food safety guidelines use the generic E. coli open water standard for irrigation and spray sources. Acceptable levels for water are less than 126 cfu (mpn)/100 ml (five sample geometric mean) with individual samples less than 235 cfu/100 ml for foliar application and less than 576 cfu/100ml for non-foliar application. Of sixty tomato fruit samples, seven tested positive for E. coli ranging from 100-300 cfu/100mg. All positive samples came from four farms. Twenty-three water samples were collected from the source and end of line. Four tested positive for E. coli (150-900 cfu/100ml) at the source and five were positive at the end on the drip line (100-690 cfu/100ml). Five farms had positive samples. Twenty-two soil, four compost and three pond sediment samples were collected with one soil sample (500 cfu/100mg), one pond sample (800 cfu/100mg)

and no compost samples testing positive for *E. coli*. No samples tested positive for salmonella. Sixty-four spinach samples were analyzed with two random samples (150-200 cfu/100mg) and three targeted samples (200-500 cfu/100mg) testing positive for *E. coli*. All positive samples came from two farms. No water samples tested positive for generic *E. coli*. Sixteen soil and three compost samples were analyzed with three soil (100-200 cfu/100mg – one farm) and one compost (100 cfu/100mg) testing positive for genetic *E. coli*. Seven samples initially tested positive for salmonella must confirmed.

GERMINATION OF DESERT OLIVE, STANSBURY CLIFFROSE AND CURL-LEAF MOUNTAIN MAHOGANY IN THREE SUBSTRATES VARYING IN WATER HOLDING CAPACITY

Taun Beddes, Utah State University Extension

Decreasing amounts of available irrigation water has forced many municipalities to restrict water use. Consequently, an increasing need exists for drought-adapted landscape plants. A potential source for these includes multiple native, ornamental, drought-adapted species. Many challenges exist in making these plants more available including a lack of researched propagation protocols. We chose three species for our research in demand by regional native plants growers: Stansbury cliffrose, *Purshia stansburiana* (PS); Curl-leaf mountain mahogany, *Cercocarpus ledifolius* (CL); and New Mexico privet, *Forestiera pubescens* (FP). We suspect that traditional growing media hampers germination of many drought adapted plants. Thus we planted previously stratified seeds of the species into flats containing three separate media varying in organic matter (OM) content including: a germination mix (83% OM); a self-mixed combination of a popular potting soil mixed volumetrically 1:1 with vermiculite (37% OM) (aggregate mix) and a calcined clay (0% OM) using a randomized, split-block design (n=6). Germination was monitored daily for 60 days. All species germinated statistically best in the calcined clay (PS: 63%, CL: 51% and FP: 83%), the media with the lowest organic matter content. These rates were at least 25% greater than the next best medium, the aggregate mix. This research is useful to native plant growers and suggests that common planting media used commercially may not be suited to germinating many species native to arid areas.

INTERNAL FRUIT ROT AND PREMATURE SEED GERMINATION OF FIELD GROWN COLORED PEPPERS

Wesley Kline, Rutgers University Extension

Colored peppers have a premium in the market place, but are difficult to grow under New Jersey conditions. In a two-year study, seventeen cultivars were evaluated for yield and fruit quality. Each year 5-10 random fruit samples from the large and extra-large fruit were selected to evaluate for external

and internal characteristics. When fruit was dissected for internal evaluations, two abnormalities were observed, fungal growth and premature seed germination. There were no apparent symptoms on the fruit exterior. Internal fruit rot (*Fusarium* spp.) and premature seed germination were evaluated Oct. 4, 2011 and Oct. 6, 2012. Cultivars Aristotle, Paladin, Festos, Hunter, King Arthur, Revolution and Red Bull have no internal rot in 2011. However, all cultivars had some rot in 2012 with Hunter (5%) having the least. All other cultivars ranged from 15-55% with Alliance and Crusader having the most. Internal seed germination is a concern among pepper breeders. Cultivars that exhibit this abnormality are discarded prior to release. Crusader and Festos were the only cultivars not to have internal sprouting in 2011. All cultivars sprouted in 2012 with Festos sprouting least with 10%. Cultivars Crusader, Hunter, Classic, King Arthur and XPP 6001 had over 90% internal sprouting. Why these abnormalities occur is not well understood. Temperatures were similar for both years. Precipitation was higher in 2011 (33.53 inches) versus 11.41 inches in 2012 during July, August and September. Research from Belgium indicated that the internal fruit rot is related to flower infection. Additional research is needed to determine the causes and management of both abnormalities.

Natural Resources & Aquaculture

RAIN GARDEN EDUCATION IMPACTS IN THE ENVIRONMENTAL ERA

William Sciarappa, Rutgers University Extension

Our Cooperative Extension program in resource management and community engagement is especially focused in Monmouth County, NJ on clean, abundant water supplies and the removal of storm-water pollutants. The environmental effect of excessive nitrogen, phosphorus, sediment, salt and bacteria is quite troublesome to humans, wildlife, livestock and plants. Clean-up costs continue to soar, health concerns rise and tourism is affected. Rain Garden construction in Monmouth County has accelerated considerably since the early planning days in 2003 with our local Watershed Partnership. In targeting both agricultural zones and the adjacent coastline, our preliminary studies clearly showed that the greatest threat to our drinking water supplies and shore tourism industry came from people pollution in the concentrated coastal suburbs with high impervious surface versus the rural regions. Our Rain Garden Fact Sheet (Sciarappa, Obropta & Quinn) in 2006 and an impressive Rain Garden demonstration project at our county office effectively accelerated program development. Over 75 talks and seminars to various volunteer and municipal groups increased interest throughout the county. Instructional, hands-on workshops to “Train the Trainer” were set up with the help of Rutgers Water Resources Department to create a standardized content, curriculum and construction projects which provided the educational outreach for 100 motivated and certified volunteer teams – the Rain Garden

Specialists. This expanded team allowed our extension office to coordinate and complete the construction of 50 public demonstration rain gardens to date. Such places includes the Monmouth County Vocational Schools (i.e. High Tech High School and Bio-Technology High School), 15 public schools Brookdale Community College, Monmouth University, municipal buildings, marinas, coastal lakes, Little League fields, libraries, bike paths, Scout Camps and train stations. Our Rain garden sizes range from 150 to 1500 square feet and costs vary from about \$ 150. to \$ 1,500. or even higher depending on the size, soil structure, complexity and number of plant species. These 50 public gardens have captured approximately 8 million gallons annually of storm-water run-off (people pollution). Such soil percolation makes a small reduction in the large flooding problem, helps prevent salt-water intrusion and removes non-point pollutants. Many of the sites have educational signage or kiosks. Our ambitious goal has been to reach 1,000 rain gardens in the county by the year 2015. Currently, there are approximately 250 private/ residential rain gardens in over 30 municipalities in Monmouth and ten more independent public gardens in progress, capturing 25,000,000 gallons of storm-water annually. A combined impact measures at 1/3 of the way to our unit goal and currently infiltrating about 33,000,000 gallons each year. When we reach our goal of 1000 units, that will be 100,000,000 gallons annually or 1 BILLION gallons of fresh water within a decade just from numerous decentralized rain garden systems. Our future plans are to develop walking tours of the various rain gardens, expand signage, encourage more private construction, increase bacterial source tracking, continue our focus on coastal lakes, key rivers and agricultural watersheds and grow our recent initiative for porous pavement in County properties and roads.

CREATING AQUATIC INVASIVE SPECIES PREVENTION TRAINING FOR WATER GARDENING IN PENNSYLVANIA

Diane Oleson, Penn State University Extension

This presentation describes the education package developed for use with and by Penn State Master Gardeners, Extension Educators and agency personnel designed to prevent the spread of aquatic invasive species (AIS) through water gardening, funded by a grant from the federal Mid Atlantic Panel on Aquatic Invasive Species. Invasive species cost the nation billions of dollars annually in damages and control expenses. Education aimed at minimizing the selection of invasive organisms used in the water garden trade and safeguarding against release of ancillary, potentially invasive propagules are vital to safeguarding our waterways. Pennsylvania contains more than 84,000 miles of streams and shares six major watersheds with other states and Canada. These watersheds are vulnerable to invasive aquatic plant and animal species introduction through improper selection or handling and disposal of plant and animal materials. The goals of this project are to: 1) Educate stakeholders about the potential for spread of AIS through water gardening; 2) Provide Master Gardeners and other

educators with materials to use in public outreach efforts; 3) Empower educated audiences to make wiser choices of plant and animal materials to be used and appropriate control and disposal techniques to avoid unintended introductions. Materials developed can also be used with pond owners concerned about the spread of invasive species. Educational materials developed, distribution methods and data on trial presentations to end users are presented.

WOODY BIOMASS AS AN ENERGY SOURCE - PROMOTING TO FOREST LANDOWNERS

Laurel Gailor, Cornell University Extension

Project was developed to assess the awareness and knowledge of woody biomass energy, and to promote forest stewardship for woody biomass energy to non-industrial private forestland (NIPF) owners. This presentation fits into the conference theme "Bridging the Centuries- A New Era for Extension" as an energy and climate change initiative with the focus on renewable energy resources; potentially bridging forest landowners into further opportunities of their woodlands. This project was fulfilled through a grant that would develop strategies, mechanisms, and materials to disseminate the innovation of forest stewardship to promote woody biomass energy to NIPF owners. The other part of the grant was awarded to SUNY ESF to develop a survey to change agents of the region to assess awareness, knowledge and perceptions of a new innovation - woody biomass as an energy source. Presentations on the topic were provided at three opportunities including: presentation at a statewide conference for County Agriculture Agents/Educators held in Ithaca, New York; presentation at a statewide in-service training specifically for natural resource educators, and presentation at a woodswalk and bioenergy tour for New York Forest Owners (NYFOA)-more than half were Master Forest Owner volunteers. The second outcome of this project was fact sheet for forest owners: "Woody biomass to biofuel for woodlot management"; and the third outcome was the development of a moodle course as an introduction to Woody Biofuels in the Northeast. This presentation would be appropriate to conference participants that work with individuals that own forest land. Participants will be given the opportunity to receive copies of a PowerPoint; as well as copies of the fact sheet that was developed, and the link to the moodle website.

Sustainable Agriculture

TRAINING PROFESSIONALS ON SUSTAINABLE AGRICULTURE TO ENHANCED ECOSYSTEMS SERVICES

James Hoorman, Ohio State University Extension

Healthy and productive soil is the foundation of sustainable agriculture and enhanced ecosystem services. Current production agriculture, while producing greater amounts of food, feed, and fiber; has a negative impact on air, soil, and

water ecosystems because of reliance on tillage, chemical fertilizer, and imprecise chemical control of pests. A USDA-SARE grant for \$65,900 was obtained to conduct sustainable agriculture and ecosystem services training initially for two years (January 2011-December 2012) for 200 participants. The objective was to conduct four 1.5-day multi-state train-the-trainer workshops on sustainable agriculture and ecosystems services. Participants would include professionals from Extension, government agencies, agricultural enterprises, crop consultant associations, farm organizations, and environmental groups. The states targeted were Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri and Ohio. Each workshop had three sessions: (1) Socio-political issues of current agricultural practices; (2) Climate change and adaptation of sustainable agriculture; and (3) Management practices that influence ecosystem services. Participants were provided with teaching materials (notebooks, CD, fact sheets, cover crop field guide, websites) and hand-on tools to conduct training sessions for local farmers. Best management practices appropriate for each region were to be emphasized. Short-term outcomes include educators gaining practical knowledge and understanding of sustainable agriculture and ecosystems services. Intermediate outcomes include engagement of professionals and the agriculture community in sustainable agriculture knowledge transfer. Specific areas targeted included continuous no-till, crop rotation with cover crops, pest management, nutrient management and water quality, and soil health. Other intermediate goals were to increase North-Central Region Extension field days, and workshops and training on sustainable practices. Another intermediate goal targeted removing producer road blocks to adopting sustainable practices specifically to new technology, finding cover crop seed sources, management of cover crops, and controlling agricultural pests. Long-term outcomes included the increase adoption of sustainable practices by 20 to 30% within 10-15 years Another long-term goal is to increase legume cover crop adoption by 20% and decrease commercial nitrogen fertilizer usage by 10%. A few farmers are reporting 25 to 33% reductions in nitrogen usage on corn using legume covers (winter peas, Cowpeas, crimson clover, sunhemp). Surveys were used throughout the 2-year project. Due to high participation, the project was extended for 6 more months and additional locations were added. Sessions were conducted in Minnesota (Waseca and Morris, 110 participants), Conservation Tillage Conference (Ada, Ohio, 120), USDA-SARE Carbon, Energy, Climate Conference (Kellogg Station, Michigan, 35), and National Soil & Water Conference (Fort Worth, Texas, 50). Participants came from 21 states plus Canada. Participants reported a gain of 20% knowledge in nitrogen management, crop rotation/diversity, soil ecology, nutrient recycling, conservation tillage, soil compaction, and 21st century agriculture. Participants reported that practical knowledge was the biggest barrier to increasing sustainable practices and that total soil organic matter and biological functions were the most important factors in improving soil health and ecosystem services. In 2013, six more sessions are planned for Missouri/Kansas, Illinois (3), Iowa, and Indiana. Additional support has come from Pennsylvania, Wisconsin, and Ontario (Canada)

through the Midwest Cover Crops Council.

CROSS-PROGRAMMING WITH FARM TO SCHOOL

Judy Ashley, University of Georgia Extension

The Farm to School initiative is an ideal scenario for cross-programming in a county. Coordinating a kick off event to bring together critical players involves certain steps in order to begin have a successful Far to School effort. Judy Ashley will share resources, tips and a power point which can be used in initiating a Farm to School Kick off event in your county. Bringing together those individuals in your community who are working on the fringes of Farm to School programming will maximize the impact of these efforts.

Situation:1) Childhood obesity, 2)an increase in children being at least two generations removed from the farm and 3) the economic viability of local farms are all reasons for Farm to School programming.

F2S Defined: A broad definition of Farm to School is “a program that connects K-12 schools and local farms with the objectives of serving healthy meals in schools, improving student nutrition, and providing agriculture, health and nutrition opportunities, and supporting local and regional farmers.”¹

Extension’s Response: Nutrition education, agriculture and youth are at the heart of Extension programming. UGA Cooperative Extension agents in Agriculture and Natural Resources, Family and Consumer Sciences and 4-H have conducted numerous programs on this initiative. County and State Extension personnel have played a vital role in connecting schools with local farmers, providing curriculum and education to students on nutrition education and assisting with the implementation of School Gardens to teach young people about nutritious food. To increase the capacity of Cooperative Extension in this area, a team of agents and specialists attended a Regional Farm to School Extension conference coordinated by SARE sustainable Agriculture Research a& Education) in August 2011. As a result of this conference, the team conducted a Winter Conference training entitled “Extension Resources for Farm to School”. In August 2012, a sub-committee of the F2S team received scholarships from the Appalachian Sustainable Agriculture Project to attend the national Farm to Cafeteria conference in Burlington, VT enabling them to share Georgia Extension’s work in F2S and gain additional resources to bring back to the state. In addition, Julia Gaskin, Melanie Biersmith, Sheldon Hammond and Judy Ashley are members of the GA F2S Alliance.

Impact: Since January 1, 2011, Georgia Cooperative Extension’s accountability program, GA Counts reported 35,163 Farm to School contacts made statewide by Extension professionals. F2S knowledge base and capacity to offer F2S programming in Georgia has increased as a result of

Extension personnel's attendance at these conferences and Alliance meetings.

FARMER TO FARMER WORKSHOPS AND HAVTAP TRAINING IN HAITI

Wade Parker, University of Georgia Extension

Haiti has a critical need for educational and technical assistance to improve food production, especially for peanuts, vegetables, and other rotation crops. Haitian agricultural advisors do not have access to technical expertise as we have in the United States. Through a USAID grant administered by Atlanta charity League of Hope, a four-day workshop was held at the Centre de Formation en Aménagement Intégré des Mornes (CFAIM), a Ministry of Agricultural rural training center in Limbe, Haiti. The Extension Coordinator from Jenkins County, Georgia was the lead instructor. The focus of the workshop was twofold: increase knowledge of basic soil science/soil amendments and to provide technical training for the Haiti Agricultural Virtual Technical Assistance Program (HAVTAP). The curriculum presented focused on soil fertility and soil amendments that contain nitrogen, potassium, phosphorus, magnesium, and sulfur. The participants also gained practical experience applying these nutrients on test plots. The HAVTAP system provides virtual agricultural assistance to farmers and farm-related technical advisors. This system is the bridge between Haitian agronomists and University of Georgia expertise. The remainder of the workshop was spent training participants on proper techniques of sending digital photography and microscope images via the HAVTAP system to diagnose plant diseases. The results of a pre- and post-test demonstrated a 63% improvement in knowledge, with 85% of the participants being able to send images to UGA with no problem. The long-term goal of the project is to increase agricultural knowledge through continued workshops and create a new era for Haitian agriculture by bridging Haiti with UGA expertise and education.

COMPOST IN AGRICULTURE: RESEARCH, DEMONSTRATION AND OUTREACH PROJECT

Andrew Corbin, Washington State University Extension

The goal of this project is to 'close the loop' on the local nutrient cycle by educating farmers and compost producers through research and demonstration while facilitating the adoption of compost as an agricultural input in Snohomish County, WA. Commercial compost producers utilizing municipal food and yard waste in this region are targeting farmers as end users. In order to break into this market, they are cooperating with Washington State University Extension of Snohomish County, Snohomish County Office of Energy and Sustainability, Snohomish Conservation District and Cedar Grove Composting Inc. to conduct on-farm trials with local producers under real-life conditions and demonstrate the value of compost incorporation. Since 2011, three on-farm research experiments and twenty-six

demonstration plots were implemented on a diverse range of farms across the county. Experimental on-farm research designs were completely randomized and replicated, while demonstration trails were side-by-side comparisons. Demonstration projects were designed to educate growers about the benefits of compost, develop an agricultural market for locally generated compost, and evaluate the current and future viability of agricultural compost use. Demonstration farm sites spanned conventional, transitional, and organic farms to include as much crop diversity as possible such as fruit, vegetable, nursery stock, trees and pasture. While there were varying levels of success between crops, all participants expressed a belief that the compost was a benefit to their farm enterprise. Farmers' perceptions of the effect of compost on their soil quality and crop production were overall positive. Ninety-three percent of all farmer participants perceived that the compost improved their soil quality. Only 56% of the farmer participants had utilized compost on their farms prior to participating in demonstration projects. Initial on-farm research results show a 20% increase in yield for two years in pumpkins amended with compost (COM) compared to business-as-usual management (BAU). Triticale yield nearly doubled and mean plant available nitrate increased six times in the COM treatment compared to BAU. There were no significant differences in field corn yield in COM vs. BAU for all seven varieties tested. Water infiltration rates did not differ significantly for either treatment in any of the crops, however the trend was faster in the COM treatment under triticale management. Feedback from the farmers participating in the project ranged from positive through neutral with three farmers noting adverse results. Of the three farms which noted negative results, all expressed continued interest in utilizing compost as a part of their farm management plan. During the scope of this project 725 tons of compost was utilized for on-farm research or demonstration sites. Our outreach efforts have included free and open educational events for the public, presentations at local and national conferences, direct contact with Snohomish County farmers, and acting as a resource hub for farmer questions regarding compost. An outreach video was produced about the project and is available to the public on YouTube, along with research results, newsletters and brochures (in Spanish and English) and other compost outreach materials on the WSU Snohomish County Compost in Agriculture website at: <http://snohomish.wsu.edu/compost/>

EXTENSION FREEZE PREDICTION PROGRAM ASSISTS CENTRAL FLORIDA GROWERS TO SAVE WATER

Gary England, University of Florida Extension

Due to the threat of freezing temperatures encountered in central Florida, citrus growers have utilized under tree microsprinkler systems to protect their valuable crop from cold damage to fruit and tender growth for over 20 years. Producers of commercial ornamental plants, strawberries and blueberries have also begun to utilize water to protect their high value crops from freeze with higher volume

overhead irrigation systems. It is important for producers to implement practices to efficiently utilize water for all cultural practices, including freeze protection, to enhance the sustainability of the supplies of this limited resource, while improving the profitability of their operations. UF/IFAS Lake County Extension continues to provide a program known as Central Florida Weather Watch to assist producers in optimizing the efficiency of their freeze protection programs. The main focus of the program is a fee based area specific forecast generated by a retired National Weather Service Meteorologist for the 63 participating farms in the 2012-13 program. E-mail and recorded phone updates are provided before and during freeze events. Growers can respond with questions or comments during freeze events by either leaving a message on the toll free phone connection or e-mail. Every fall, a Winter Weather School (WWS) is conducted to cover topics such as the importance of determining wet bulb temperature, the Florida Automated Weather Network (FAWN) Cold Protection Tool Kit and adapting forecasts to your location to enhance knowledge of efficient freeze protection systems. At the 2012 WWS, producers indicated knowledge gain and planned practice implementation of utilizing wet bulb temperature and the FAWN Cold Protection Tool Kit in their freeze protection programs. A survey conducted in the summer of 2012 indicated that 89% of the responding participants of the 2011-12 Central Florida Weather Watch Program increased efficiency in their freeze protection programs, 50% indicated increased profitability and 94% reported water savings of 5% to 50% of normal amounts utilized for freeze protection. Saving water for freeze protection of high value crops enhances profitability of growers, while conserving an vital natural resource.

Teaching & Educational Technologies

USING GOOGLE+ FOR PROFESSIONAL DEVELOPMENT, COMMUNICATIONS AND MORE!

John Dorner, North Carolina State University Extension

Google+ is a tool (more like a whole toolbox full of tools) for working, learning and teaching with others. It has most of the advantages of Facebook, Skype, Twitter, Flickr, Pinterest, and web conferencing all rolled into one package. You can use it on your smartphone to show a specialist what you are seeing in the field; broadcast a class to thousands; make a video call to just one person or or several people; share pictures; schedule events and manage RSVPs; hold committee meetings and work on a shared document, spreadsheet or presentation; show someone else what you are seeing on your computer screen; share your successes (and frustrations) of the day; and that's just a partial list. This session will demonstrate how these are being used by Extension professionals. You can use your personal Google account or your eXtension account to do all this.

You can collaborate with anyone that has a Google account and some of the tools, like broadcasting a class, are available to anyone. This session will show how to login with your eXtension ID and password. There is so much that Google+ can do - that is useful to Extension professionals. We'll use this session to give a broad overview of what's available and how the tools can be used to make the daily work of Extension professionals better or easier. The 'hands-on' training sessions for how to use these tools will come later via eXtension's Learn offerings. Handouts will be provided online. About the presenter: John has used Google+ since it debuted in 2011 and uses it for learning, teaching and collaborating on a daily basis. John has been teaching Extension professionals about this and other IT tools for the last 15 years and has presented through eXtension Learn events, at the National Extension Technology Conference (NETC) every year since 1997, at the ESP, NACAA and NCEAFCS, and Association for Communication Excellence in Agriculture, Natural Resources, and Life and Human Sciences (ACE) national meetings, and at North Carolina's 4-H, Ag, FCS Agents, Secretaries and Paraprofessionals' Associations' state meetings as well as other Extension and eXtension conferences. Come see what's all the fuss about Google+ and how it can help you.

CONDUCTION AND IMPACT MEASURING OF A MULTI-SITE HYBRID COURSE

Jenny Carleo, Rutgers University Extension

With the ever increasing demand for Extension professionals to reach a wider audience in less time we have to find new ways to educate our clientele. Oftentimes we face stakeholder dissatisfaction due to our lack of the personal touch our predecessors were known for. Our team has found a way to "bridge the centuries" through the use of a modified, team-run, hybrid course with demonstrated practice changes. This was no ordinary course, as we coupled face-to-face networking with social media; and a personal touch with an internet platform for education. This presentation will educate you on the complex dynamics of conducting a team-run hybrid course. Topics to be addressed include: 1) Getting acquainted with the technology; 2) Driving practice changes in a remote audience; 3) Facilitating participant networking to overcome the distance and 4) Measuring program impact across the miles. Our success in this program can be measured through the 93.5% share rate of knowledge gained, as well as the continued, sustained effort of participants to continue to meet project objectives after the course was complete. Extension Educators of all fields are encouraged to learn from our pit-falls and successes in this new and old-technology endeavor. You will receive a "road-map" and instructions to teaching a modified, team-run hybrid course for use in your own programs. Teaching a modified hybrid course is one of the best methods to combine the personal face-to-face interaction with your clientele while broadening your program's outreach to reach the widest audience possible.

A BEGINNER'S GUIDE TO CREATING VIDEOS TO TEACH AND PROMOTE YOUR EXTENSION PROGRAM

Mike Haberland, Rutgers University Extension

Video, once complex and expensive to create with high distribution costs, has become more affordable and highly accessible in addition to being a powerful teaching tool. Extension educators can integrate video into their instructional programs and are able to shoot "in the field", and then bring the field back to their audience. Self-produced videos are one way Extension educators can connect with a growing number of on-line learners. However, a person who has never produced a video needs to have a plan. Starting with an outline of the content to be covered will determine the type of shots that are needed. You can also use your outline to develop a script. On the technical side of the video production process, one needs to understand the equipment needed; how to shoot the video, lighting, audio choices, editing and software. Here we provide tips on how educators can prepare themselves to plan and produce their own inexpensive video program.

NEBRASKA EXTENSION TAKES YOUTH LIVESTOCK QUALITY ASSURANCE (QA) PROGRAM TO THE NEXT LEVEL BY MAKING IT AVAILABLE ON EXTENSION THROUGH MOODLE

Lindsay Chichester, University of Nebraska Extension

In 2012 Nebraska Extension made the state required youth livestock Quality Assurance (QA) program available online through an eXtension Moodle course. In the past the requirement was fulfilled through face-to-face trainings, trainings lead by leaders and/or volunteers, as well as "material rentals" and home study courses completed on good faith. These methods did not account for the ages of the learners or their preferred learning style. The new course is broken down by three age groupings, Junior (9-10), Intermediate (11-14), and Senior (15-18), to better accommodate the various levels of learners. In addition, the learning modules were designed to appeal to the various learning preferences of the youth. Youth can now read the information, watch a powerpoint and read the slides, listen to a voice over of the presentation, watch a video, hone their vocabulary with flashcards for livestock terms, and/or even fill in a questionnaire after they interview their veterinarian. Annually, each youth is required to complete three different modules, and in theory will never repeat the same module for that age grouping. The number of youth who have completed at least one module in 2012 exceeded this team's expectations (n=2,340). Overall, the program has received very positive feedback. Youth indicated they enjoyed being able to get online to complete this state requirement at home more than any other location. They also enjoy the convenience of using an iPad or smartphone.

In addition, interesting observations were made as to the online learning preferences of the youth. In 2013, the team expanded the modules available and added activities to the modules for supplemental learning at home or at a club meeting. Future plans include updating the test-out tests for Intermediate and Senior 4-H members, and keeping modules current and relevant.

USING WEB-BASED SERVICES TO EVALUATE A NATURAL RESOURCES BLOG IN NEW JERSEY

Salvatore Mangiafico, Rutgers University Extension

In a new era for extension, social media will be important to efficiently reach a diverse clientele. A natural resources blog was created in Tumblr, in order to post upcoming events, present short educational pieces, and repost articles from other online sources. A variety of web-based services were used to enhance and evaluate this blog. These included Twitter, an RSS feed, Google Analytics, and FeedBurner. Tumblr is free, easy to use, and allows the forwarding of posts easily to Twitter and Facebook. The blog was reasonably successful in terms of the number of visitors and page views. Google Analytics and FeedBurner were essential to assessing blog use and understanding the ways that visitors came to find the blog. An RSS feed was used to allow clientele to subscribe to posts on a computer, tablet or smart phone. Likewise, embedding the blog feed into a university website increased accessibility for readers. Twitter was also reasonably successful as a social media platform to gather followers and extend the reach of the blog. AddThis and Google AdWords resulted only in modest increases in visitors to the blog, and had some drawbacks in terms of cost or difficulty to implement. The set-up of certain web-based services requires editing the blog's HTML code or other difficulties, while others are easier to use. Employing these services or similar services could be valuable for extension professionals wishing to evaluate the impacts of websites and blogs, or extend outreach by using social media tools.

BRIDGING THE DIVIDE BETWEEN KNOWLEDGE AND LEARNING: UNLEASHING THE POWER OF POWERPOINT IN TRAINING YOUTH AND ADULTS USING INTERACTIVE, SELF-DIRECTED STUDY

Ed Brown, University of Arkansas Extension

The purpose of this presentation is to equip the agent with the knowledge and resources necessary to develop exciting, PowerPoint based, interactive learning programs. Participants will learn the steps involved in creating programs like the award-winning "Arkansas 4-H Forestry Contest" training resource. This interactive, self-directed PowerPoint program was distributed statewide and afforded both novice and experienced leaders and agents the tools necessary to train 4-H forestry teams even if they had no prior forestry experience. Clients expressed that the program

was both visually rich with engaging content. Extension has a wealth of information available for clients both young and old. Much of this information is available in concise, researched-based publications or through consultation with an expert in the Cooperative Extension Service. This allows the acquisition of knowledge, but higher order thinking requires much more study and training. There are many modes of delivery for instructional material. Some of the technological options include: online learning modules, podcasts, apps, computer games, webinars and many others. Each of these requires a certain amount of expertise and with some, additional equipment. One tool available to almost all agents on their computers is the Microsoft PowerPoint program. With its many features, interactive, self-directed, engaging programs can be developed that allow both young and old to learn new subject matter in a deeper, more meaningful way. Unlike other modes of program delivery, PowerPoint does not require specialized equipment or internet access. Clients do not even need PowerPoint installed on their computer. This program can be adapted across all disciplines and for all ages. Participants will learn such skills as embedding video, setting limitations to direct learners on a certain path, making all parts of the program interactive, creating games and assessment tools and packaging the program with the PowerPoint Reader. Limitations of the program will also be discussed. Participants will have additional support and resources following the conference through posted tips, one-on-one consultation, interactive group forums, and pod casts as requested.

ELECTRONIC SCORING FOR EASTERN REGION 4-H EVENTS

David Perrin, University of Tennessee Extension

Electronic Scoring for Eastern Region 4-H Events Needs Assessment The UT Extension 4-H Youth Development program is rich with events and activities at the county, region and state level. We have over 60 events annually at the state or region level that requires grading, tabulating and scoring. These events allow 4-H youth to demonstrate their learned life skills through various judging and decision making events. Traditionally this scoring was done individually by pen, pencil and calculator and conducted by Extension staff and volunteers. Accuracy and speed were sometimes questioned with this system of scoring. We had developed some electronic spreadsheets for selected events, but the need was great to employ an integrated system that would score, summarize and archive data. We communicated with all programming partners and searched the global net to identify vendors that provided customized data solutions. We partnered with a local software solutions firm, Excalibur Data Services to address our technology issues. Excalibur Data Services donated their time the first year to determine if this system was feasible. Objectives of the Program Develop an electronic scoring system that would: Increase speed and accuracy in scoring. Reduce the number of staff and volunteers required to physically staff an event thus saving expenses. Utilize the majority of existing technology

and equipment in inventory. What Has Been Done UT Extension contracted Excalibur Data Services to customize The Best of Showare Computer Software to score 4-H events. The Eastern Region served as the pilot region and worked with the development team to design the system layout and function. The Eastern Region serviced as the field testers using the electronic scoring system to score all region 4-h events. Outcomes/Impact The software system has been successfully created and utilizes existing laptop computers and low cost electronic devices. The Best of Showare Program has proven to be effective, reliable and accurate when used in our applications. We have customized the software to handle all of our judging events, public speaking, project achievement, and portfolios at county, region and state levels. Accuracy has been increased substantially. During all tests, results indicate that accuracy has increased over 90%. Staff resources required to score our events has reduced. We are experiencing a savings of nearly \$25,000 annually in reduced agent travel and time with this system. Selected counties have successfully field tested the system.

ANNUAL MEETING AND PROFESSIONAL IMPROVEMENT FUTURE CONFERENCE DATES

2014

Mobile, Alabama.....July 20-24

2015

Sioux Falls, South Dakota....July 12-16

2016

Little Rock Arkansas....July 24-28

