GALAXY IV POSTER SESSION #3

The Galaxy IV Poster Session #3 will take place Thursday, September 19 in the Exhibit Hall of the David Lawrence Convention Center. As you enter the exhibit hall you will find the posters labeled “L” to your left while those labeled “R” are on your right. The numbering begins at the front and center of the poster exhibits and proceed back, returning at the end of the posters. Signage will be provided to assist you in finding the posters you want to see. Every attempt has been made to group posters by categories. The only exception occurs when primary authors are providing more than one poster during this session. Hopefully the numbering will assist you in locating those that are a bit out of sequence.

Exhibit Time – Thursday – 8:00 AM – 12:00 AM
Author Interaction Times – 8:00 – 9:00 AM and 10:30 – 11:30 AM

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Mary Simon Leuci, University of Missouri Extension
Lee Ann Woolery, University of Missouri Extension

University of Missouri has worked to broaden engagement of campus faculty to work collaboratively with rural communities using the arts. To be shared are the results and the implications, learning, and promising practices for community and university engagement. The effort was launched with the Community Arts Café in November 2010, bringing together art faculty, leaders from campus, Extension and communities. The work developed during the café provided a framework and best practices for a community arts program to be housed within Extension. With a commitment of funds from the Vice Provost for Extension, a Community Arts Specialist was hired in January 2012 and a resultant 3-year pilot project began. A sixteen member advisory council was formed represented by art faculty, students, Extension leaders and faculty, leaders from the community and art organizations with several members recruited from the café in 2010 indicating the cafe’s design created commitment to future engagement. In this collaborative engagement—between communities, Extension and the University—meaningful dialogue is created, regional linkages fostered and perceptions changed. Focusing on creativity and best practices in community development, six Missouri communities actively engaged in fee-based creativity workshops held on campus and led by Extension and art faculty. Community engagement workshops followed, led by Extension Community Development faculty with communities exploring and planning a community arts project; projects that build vibrant communities, spark innovation, and create new economic opportunity. With five strong proposals fulfilling criteria to choose from—evidence of community leadership, ability to galvanize the community including the youth, evidence of capacity for long-term project sustainability—one community was awarded the pilot project site and new relationships emerged. The community arts pilot project is creating collaborative learning opportunities—a youth art camp held on campus and led by art faculty and graduate students, a professional development workshop for individual artists providing learning in entrepreneurial skills and another for leaders in communities, teaching practical skills for effectively involving and empowering local citizens and leaders in community-based arts efforts—all benefiting cultural vibrancy and creating economic opportunity. Learn how to date, the collaborative partnership and engagement with faculty, students, communities and art organizations is creating results that yield a model for the replication of a community arts program, broadening engagement of campus faculty to work collaboratively with rural communities using the arts.
In 2006, Wahkiakum County youth participated in the biannual Washington State Healthy Youth Survey. This survey showed that one out of every two students in sixth grade was using alcohol. Reviewing the data further discovered that there were other concerns – not only was there a significant number of students experimenting with alcohol as early as 10 years old, but there were also more students reporting that they felt alcohol was easy or very easy to get. Simultaneously, 4-H enrollments were stagnant and county funding was decreasing. To address these concerns, Wahkiakum Community Network and 4-H partnered on new approaches. At the time of this emerging partnership, 4-H in Wahkiakum County was primarily utilized by young elementary students and served approximately 50 students throughout the year. 4-H had the opportunity to begin with young students before the traditional age of initiation of use at age 11 and start expanding the 4-H program so they would remain members through their middle and high school years. Challenges were appealing to older students and strengthening program evaluation methods, so outcomes could be effectively evaluated to determine whether the program was a viable approach to reducing substance abuse. The 4-H educator experimented with delivery of focus group evaluation tools to garner adult and youth input. This helped to identify the needs of the club leaders as well as brainstorm additional service learning activities that might be offered to serve more youth. From there, Wahkiakum Community Network funding was used to leverage new funds to expand the program to include more service learning, youth leadership, and an after school media club. The after school media club successfully attracted several older teens. By expanding the 4-H program to reach a broader audience and include an after school media club, 4-H is creating supportive environments for youth, by providing formal and non-formal experiential learning; developing skills that benefit youth throughout life; fostering leadership and volunteerism in youth and adults; employing research based knowledge; and increasing community awareness of prevention messages and community service by promoting youth-made public service announcements on the web and community movie nights. Because of the investment and technical support provided by the Wahkiakum Community Network, this program has grown to be a success story of Wahkiakum County. Before investing in Wahkiakum County 4-H, the program served approximately 10% of the students in the county. As of June 2012, the participation rate nearly doubled with 20% of K-8 students and 17% of Wahkiakum High School students participating in 4-H. Wahkiakum County has also seen a 23% decrease among students in all grades in lifetime use of alcohol, tobacco and marijuana; and a 44% reduction in use of alcohol among 6th graders. Wahkiakum 4-H has new youth representation in its county and state ambassador programs. Finally, the success and growth of Wahkiakum 4-H resulted in increased county budgetary support for Extension for the first time in seven years.
Collaboration is the buzz word in today's society with diminishing resources and high demand for programs and services. Winer and Ray (2003) define collaboration as a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve results they are more likely to achieve together than alone. As its Latin roots com and labor are suggest, collaboration reduced to its simplest definition means "to work together." The outcomes can be remarkable when real collaboration occurs. However, we often struggle to create this exciting interagency team approach to providing programs and services. Capacity building through collaboration helps us to focus on the obstacles that inhibit us from realizing how to collectively achieve measurable and sustainable results. For the past nineteen years Energy Express has relied on a collaboration program model to implement a statewide literacy program. Energy Express is a summer program that promotes the school success of children living in rural and low-income communities. The model requires effective collaboration at the local level for successful program implementation. Collaboration occurs when diverse community membership that spans silos and organizations come together to work to attain a common goal. According to Landon (2012) leadership is structured horizontally, with leadership broadly distributed. To have a highly functional collaboration, key members must understand the concept of collaboration, stages of collaboration, effective communication, group goal setting, and the role of a facilitator. Collaborative structure including collaboration versus other models of working together, such as cooperation and networking will be examined. Characteristics of effective and failed collaborations will also be addressed. Participants will learn about overcoming turf issues and barriers to collaboration. Strategies to establish a highly functional collaboration, key concepts of collaboration, stages of collaboration, effective communication, group goal setting, and the role of a facilitator will be shared. This session is for all Extension professionals. This effective model can be applied to a wide range of Extension programming. Learning objectives will provide an opportunity for participants to gain an increased understanding of:

1. the significant role they can play in providing collaborative services and programs to clientele;
2. the stages of collaboration, communication, goal setting, and role of the facilitator; and
3. the steps to avoid turf issues and how to overcome barriers to collaboration.

Instructional techniques will include a presentation, a quick group activity and written material. Participants will receive take-home materials and collaboration guides, as well as a resource list with on links to sources. The workshop and support materials will enable replication with other Extension programs.
Livestock projects are some of the most popular projects in the 4-H program and an estimated 1% of animals that enter the U.S. food chain are from youth livestock programs. Because these animals become a part of the food chain, they are subject to regulations outside of 4-H policy. Education of youth related to animals’ health and well-being, food safety and subsequent public health and perception are vitally important learning outcomes of 4-H livestock programs. In order to effectively address these outcomes, Indiana 4-H Youth Development has developed strong partnerships with state agencies, including the Indiana State Fair (ISF) and the Indiana State Board of Animal Health (BOAH). The partnership with ISF provides 4-H members a place to exhibit their livestock projects, to interact with the public about why they are involved in livestock projects and how they care for their animals, and to potentially market their project animals. Also, BOAH provides the health requirements for exhibition for all livestock species. Depending on the species, 4-H members also learn how their project is connected to the food supply through participation in quality assurance programs, the ISF drug testing program, and completion of animal affidavits regarding the use of medications in animals. Partnerships have included addressing animal traceability through encouraging 4-H members to obtain a premises ID and the use of 840-RFID tags for animal enrollment identification. The partnerships among the organizations came to the forefront during the 2012 4-H show season when sickness was noted in swine during several county fairs in the weeks leading up to the state fair. A meeting was held to determine how this disease outbreak could affect the swine show at the ISF and to develop an action plan that would ensure the health of swine, 4-H exhibitor families, and the general public. Notice of this plan was disseminated to all county Extension offices to forward on to 4-H swine exhibitors in their respective county and to email addresses that were provided during the ISF entry process. This plan was developed approximately 24 hours prior to the arrival of nearly 2,000 4-H swine to the state fairgrounds. The partnership between Indiana 4-H, ISF, and BOAH was critical to the execution of this plan, as each task was performed by representatives from all three entities. Recommendations have since been developed by BOAH for the 2013 fair season, which has led to a reevaluation of swine shows at county fairs and the state fair. Throughout this process, these partnerships have proved invaluable as fair organizers work to incorporate the recommendations. Additionally, they have led to pilot projects with Indiana 4-H and BOAH making 840-RFID tags available to counties to ensure that 4-H swine exhibitors have access to the tags for county fairs and the state fair. This is likely to lead to 840-RFID coverage across the state to allow for traceability in case another disease event occurs.
L-5- BUILDING COMMUNITY THROUGH URBAN COLLABORATIVE PARTNERSHIPS

Casey Versailles, Louisiana Cooperative Extension Service
Veronica DelBianco, Louisiana Cooperative Extension Service

Community partnership is a word that is often times loosely thrown around. We will discuss four levels of relationships between 4-H and government agencies, businesses, and community organizations. In addition, we will give a SWOT analysis (Strengths, Weaknesses, Opportunities and Treats) of each relationship including an example from our own community. Participants will learn how to bring strength to their urban Extension programs by utilizing community resources to reach diverse populations and establish true working partnerships. During the session, participants will have time to work in groups to learn from other urban regions represented, then time to individually develop a strategic plan to take home and implement in their respective cities that will foster innovative ways to expand their reach. This session will also touch on the use of technology as a means of exposure and networking for urban 4-H including but not limited to Facebook, Twitter, and Pinterest.

L-6- LEGISLATIVE DAY

Robert McNary, University of Missouri Extension

Legislative Day is a forum to Bridge the Centuries and embark on a New Era for Extension. The University of Missouri Extension Association (UMEA) in cooperation with Epsilon Sigma Phi (ESP), Missouri Agricultural Extension Professionals (MAEP), Missouri Extension Association of Family and Consumer Sciences (MEAFCS), Missouri Association of Extension 4-H Youth Workers (MAE4-HYW) and the Missouri Association of Community and Economic Development Extension Professionals (MACEDEP) and County Extension Councils use the University of Missouri Alumni Alliance Legislative Day to thank legislators for their support of the University of Missouri and MU Extension and to share examples of how MU Extension has improved their lives, added jobs, and fulfilled public needs in their communities and state. UMEA along with Extension Administration encourages the faculty and staff of MU Extension to bring their county volunteers by having an In Service Education opportunity at Legislative Day. UMEA organizes the volunteers into teams that include everyone that volunteers in Extension from Council Member, Master Gardener, 4-H Adult Leaders and yes, even older 4-H members. Through these volunteers, all of the state legislators are visited. During the volunteer’s visit with their legislator, the legislator is given a demographics map of their district, showing data such as: the rate of adult obesity, unemployment rates, educational attainment, and the number of disasters declared. We also include, for those making visits, a handout, on “Do’s and Don’ts When Visiting Your Legislator” and “Things To Do Before You Call Your Legislator” which proves to be very beneficial for our volunteers. This program has proven to be quite successful over the last several years. It has strengthened our relationships with both our county councils and our legislators. It has helped to build a trusting, informed relationship between Extension professionals and volunteers, and state legislators. This is a tremendous way to share the educational message of Extension and to build leadership skills in all of our volunteers and our older 4-H members. Legislative Day serves as a bridge and carries the message of Extension.
Funding is often seen as a barrier to creating new Extension programming. Public-private partnerships are a great way to secure not only funding but reach new audiences and raise the level or awareness for your program. The University of Nebraska-Lincoln 4-H Extension program has had great success matching the goals and outcomes which it values to those of industry. Partnerships with industry like Union Pacific and Trusted Choice will guide discussion during the workshop. Participants will learn best practices for identifying new partners, how to make approach and build relationships, and ways to keep the partnership productive in the long run.
GLOBALIZATION OF EXTENSION & MULTICULTURAL PROGRAMMING

L-8- ENCOUNTERS WITH EXTENSION IN NICARAGUA – DISCOVERING CORE EXTENSION VALUES AND PRACTICES IN UNCONVENTIONAL PLACES

Paul Treadwell, Cornell University Cooperative Extension
Helene Dillard, Cornell University Cooperative Extension
Rod Howe, Cornell University Cooperative Extension
Paul LaChapelle, Montana State University Extension

In September of 2012 a diverse group of extension workers from the U.S. visited several communities in Nicaragua during an exploratory trip. Enfolded in a larger cross-cultural learning initiative originating at Cornell Cooperative Extension, this initial “learning exchange” to Nicaragua was intended to build a foundation for future growth and collaboration. During the course of this trip we encountered a variety of educational activities, occurring in diverse settings, which would be considered ‘cooperative extension work’ here in the United States. However, Nicaragua lacks the infrastructure and economic base that would support a robust state sponsored extension system. One consequence of this is the development of a range of organizations that have stepped up to meet the needs of farmers, women and youth. During this presentation we will discuss our encounters with cooperative based educational efforts, university research and advisory services, and community development organizations at work in Nicaragua. These educational activities will help illustrate the universality of some core extension values and common practices that are rooted in history, but alive and animating extension work in many guises. Through these examples we will also discuss the dual, and at times competing, tendencies of extension work as technology transfer and/or education for critical intervention. Given the complex pressures cooperative extension now faces in the United States, lessons drawn from Nicaragua point to both possibilities and dangers of ad hoc extension services. Encountering extension work in diverse contexts provides a lens through which we can view our own practices with renewed vigor. Participants in this session will gain an understanding of the value of international exchange as a tool for knowledge sharing, network building and professional growth and development for extension workers. “Extension work is not exhortation. Nor is it exploitation of the people, or advertising of an institution, or publicity work for securing students. It is a plain, earnest, and continuous effort to meet the needs of the people on their own farms and in the localities.” L.H. Bailey

References:

Kenya and the wider East African Community (EAC) economies are grounded in agriculture with millions of smallholder farmers depending on cash crops for their livelihoods. Yet, reality is that low farm production yields, post-production losses, coupled with limited access to agriculture training, technologies, and finance represents limited opportunity for eliminating hunger, reducing poverty, or achieving a thriving livelihood - unless something changes. Seventy-six percent of Kenya’s population and 32% of its GDP depends on agriculture. There are 27 million smallholder farmers in Kenya, and 80% of Kenya’s women are responsible for its food production. Twenty-one million land smallholders earn their primary income from farming, but only 20% of their land’s asset capacity is realized and nearly 60% of crop yields are lost during post-harvest. Improving Agricultural productivity among smallholder farmers in Kenya is an imperative. Smallholder farmers have the potential to increase their incomes by supplying local, regional and export markets with better quality and quantities of locally grown produce. In 2009 51% of Kenya’s population lacked access to adequate food. Increasingly food availability is linked to poverty. Forty-six percent of Kenyans live below the poverty line. Persistent drought, poverty, and lack of resources leave Kenyans continually vulnerable. Knowledge and training in modern, sustainable, farming techniques is the missing link to increase production yields, enhance food quality, and grow incomes, ultimately leading to Kenya’s’ economic development and an enhanced quality of life for its citizens. Backpack Farm Agriculture Program (BPF) and Clemson University are developing a cooperative public-private partnership to broaden Clemson’s outreach, deepen South Carolinians’ understanding of Africa’s smallholder farmers, and leverage “in kind” volunteer work contributions of students, professors, research associates, extension agents and the SC agriculture community to develop new technology tools, methods, and training content to compliment the BPF Agriculture Program’s existing mobile platform – KUZA Doctor. (KUZA means growing in Swahili.) There is a need for both Africans and Americans (South Carolinians) to better understand the constraints that operate within a global system that confront smallholders’ ability to access needed resources – both in Africa and in America. The households headed by women are more likely to face harder times and food insecurity in both countries. Food insecurity is not only an African problem, it also exists in every country in America. The American military have enlightened us to the fact that the Cooperative Extension Service is a national security asset. No other democratic intermediary institution has an outreach to every county in America. The fast growth of technology use and the policy impacts of technology being demonstrated nightly on the news and internet demonstrate an opportunity to reach millions with science based information, extension support, and research lessons learned. Cell phone use in Kenya has grown 19% over the last quarter in 2012. Resilient living achievements to curb hunger and poverty in Africa are the ultimate goal, but the people, profit and planet lessons we learn may sustain us all!
COMMUNICATING EXTENSION’S VALUE WITH OFFICIALS & STAKEHOLDERS

L-10- VOICES OF EXTENSION HISTORY

Tom Tate, USDA Extension
David Benedetti, National 4-H History Preservation Team
Kendra Wells, University of Maryland Extension
Jim Kahler, National 4-H Council

Life is lived forward but understood backwards. Since 1914, Cooperative Extension has helped local youth, families and communities build a bridge to the future through the Cooperative Extension System. In this workshop cooperative Extension partners learn what others are doing to prepare for the Smith-Lever Centennial in 2014. The “Voices of Extension History” poster session is based on the “Voices of 4-H History” project that was pilot tested by the National 4-H History Preservation Team in late 2012/early 2013 in six states for nationwide implementation in 2013. Participants will learn about the process employed by 4-H members and volunteers who interviewed 4-H alumni, volunteers, leaders and supporters, to capture stories of 4-H history in written, audio and video media. Specific examples of these completed works will be shared and can serve as models for use by state and local staff for creating Voices of Extension History stories and media for local and state use during the 2014 Centennial year. The online toolkit for project implementation will be shared with participants (http://4-hhistorypreservation.com/voices). The poster session is designed to inspire participants to:

1. Create local and state “voices” projects or replicate existing projects to celebrate the Extension Centennial;
2. Partner with 4-H members, volunteers, and other extension supporters to help tell the story of the Cooperative Extension System;
3. Recruit extension stakeholders to participate in interviews and share their stories;
4. Identify media outlets and other public venues (including film festivals, public events, university programs, publications) for sharing the “Voices of Extension History” as a way to celebrate the past and bridge to the future!

The Voices of 4-H History Project, on which this poster session is based, is a part of a larger effort to preserve and share the rich history of the 4-H youth development program of Cooperative Extension. The work of the 4-H History Preservation team is based on the belief that “the more you know about the history of 4-H, the better you can understand your current position and do a better job in the future”. The ongoing work of the 4-H History Preservation Team, documented on the website (http://4-hhistorypreservation.com) is a model for the restoration and preservation of Cooperative Extension’s rich history that local and state extension programs can replicate. As we bridge from the past to the future, it is clear that the underlying principles of extension work have remained the same, and will continue to for a very good reason, they work! Capturing the history of extension in the Centennial year is a way to effectively communicate the ongoing value of extension to officials, stakeholders, and the general public.
"Repeat customers" in Extension are those who come back to subsequent educational programming after being satisfied with their first program. In one rural Missouri county, two Extension specialists delivered four research-based programs in 2012. First was the Matter of Balance (MOB) program from Boston University, which is an eight-week program that emphasized basic physical activities and fall prevention. Funding for this program was offset by a Human Environmental Sciences Extension Development (HEED) grant. Two weeks following that program, a Stay Strong, Stay Healthy (SSSH) program was offered. This was a 12-week program that taught proper strength training technique and enhanced strength, balance, and flexibility and is based on the Tuft’s StrongWomen program. Six weeks after the conclusion of that program, a Chronic Disease Self-Management Program (CDSMP) program was taught, which is a 6-week program developed by Stanford University. A second SSSH class was also offered at the same time as the CDSMP. The target audience for all three programs was older adults. Two Extension Specialists, who are trained in all three programs, taught the programs. Both instructors taught MOB and CDSMP together and each of them taught one of the 11 week sessions of SSSH. Four participants attended all three programs. Four participants attended SSSH and CDSMP. Three participants attended MOB and SSSH. Eleven participants total could be deemed as “repeat customers.” The total number of participants for all four programs was 44. Eight of the 11 “repeat customers” in SSSH all attended at least 60% of the session (three dropped out due to health reasons). Six of the seven “repeat customers” in MOB attended at least 60% of the sessions. Six of the eight “repeat customers” in CDSMP attended at least 60% of the sessions. Based on the total of all four classes, 25% were “repeat customers.” In the surrounding counties, participation had previously been low in MOB and CDSMP. Multiple programs have been cancelled due to low enrollment. For a rural area, the participation and attendance in these three programs would be considered successful. The successful participation and attendance in this Missouri county could be attributed to the following reasons:

1. participants were familiar with the instructors and felt comfortable with them;
2. the varied teaching techniques in the three programs were well-received by the adult learners;
3. the social nature and friendships that develop helped encourage attendance; and
4. participants became more inspired to improve their health through these programs.

One key to keeping participants involved is to schedule future programs to begin shortly after the current program ends to keep engagement and excitement levels high.
PROGRAM DEVELOPMENT, EVALUATION & ACCOUNTABILITY

L-12 - BRIDGING THE GAP BETWEEN IMPLEMENTATION AND ACCOUNTABILITY: PERSPECTIVES FROM AN AGENT, SPECIALIST, AND ADMINISTRATOR

Laura Stephenson, Kentucky Cooperative Extension Service
Janet Mullins, Kentucky Cooperative Extension Service
Dayna Parrett, Kentucky Cooperative Extension Service

Extension professionals receive input from stakeholders and excel at program planning and implementation, but a gap exists between delivering a program and the steps to accountability through evaluation and reporting. This workshop will review the system used by Kentucky Family and Consumer Sciences for the 2013-14 program year. Participants will receive a set of tools used with online resources for use after the workshop. Kentucky Family and Consumer Sciences specialists used data collected from stakeholders by agents to devise a seven initiative program of work. This program planning, evaluation, and reporting framework includes a comprehensive strategic plan, program evaluation matrix, a logic model for each initiative, a plan of work template, evaluation indicators, and suggested programs. Participants will receive blank copies of these tools and will begin developing their own plan throughout the workshop. Selected national program evaluation indicators for food and nutrition are included in this framework. Participants will learn how to incorporate national Extension evaluation indicators into their own program development and evaluation. An agent who began work as these program planning, evaluation and reporting tools were introduced will describe how the framework guided her new four year plan of work development. Participants will learn strategies to incorporate these tools into their programming. In an era of transparency and accountability, Extension professionals require a skill set that allows program evaluation and reporting to be accomplished using existing resources. This workshop will provide participants with a step-by-step process leading to better accountability practices.

L-13 - LAND-GRA GT UNIVER SITIES PARTNER TO BUILD BRIDGES WITHIN KENTUCKY COMMUNITIES

Kenneth R. Jones, Kentucky Cooperative Extension Service
Gae Broadwater, Kentucky Cooperative Extension Service

Description of Poster: The Cooperative Extension Service aligns research to practice by connecting county and state staff with local citizens at the grass-roots level. Extension’s successes are due, in part, to collaborative efforts in the program development process; that is, the planning, implementation, and evaluation of educational programs. In Kentucky, our most effective tool used to solicit the participation of volunteers is through the statewide Plan of Work process. The Plan of Work, often referred to as every county’s “contract with its community,” not only gives communities a chance to voice their concerns, but it puts a plan into action that addresses local issues. At the same time, it proposes to address specific issues in order to help improve the lives of all affected—linking communities with shared concerns to solve mutual problems.
**Targeted Outcomes:** This presentation will review how two land grant institutions (1862 and 1890) in one state solicited the expertise of those direct (and potential) beneficiaries of Extension programs. The Kentucky Cooperative Extension System (KCES) put forth efforts to seek additional modes of assessing the needs of its residents. Prior to USDA’s National Institute for Food and Agriculture calling for joint Plans of Work, KCES submitted its Report of Accomplishments and Annual Plan of Work as jointly prepared documents. This renewed emphasis by program and staff development Extension leaders from both institutions has fostered a spirit of bridge building among the two institutions and their constituencies. Best Practice: Using a case study approach, the presenters will briefly describe how they worked to overcome historic barriers that inhibited shared planning and reporting. They will highlight how local volunteer-led advisory groups and county Extension councils collaborated with other organizations to address community needs, communicate the contribution of programs and market them accordingly within communities, and advocate on behalf of Extension to decision makers. Lastly, the presentation will emphasize the working partnership of the two universities. The presenters will discuss how collaboration was key in prioritizing statewide goals and how both institutions plan to work together in the future to serve Extension’s traditional and new audiences.

**Evidence of success:** USDA NIFA accepts the jointly submitted Kentucky Plan of Work without reservations or recommendations. Comments from reviewers are complimentary of our approach and how results are reflected in the Federal Report of Accomplishments. Instructional technique: The presenters will provide information and will encourage attendees to ask questions and discuss options for working effectively in their respective states and across institutions (whether 1862, 1890, or 1994).

**Contribution to new knowledge:** States with two or more land grant institutions are being asked by NIFA to submit joint Plans of Work. This is one model states can follow to support this shift in expectations by USDA.

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**L-14- MISSOURI'S EFFORTS TO EXPAND LOCAL STAKEHOLDER INPUT INTO THE STATEWIDE PROGRAM PLANNING PROCESS**

Mark Stewart, University of Missouri Extension  
Mary Simon Leuci, University of Missouri Extension  
Michael Martin, University of Missouri Extension

In 2011, University of Missouri Extension moved from a 5 year cycle of collecting local input for the required NIFA plan of work and implemented an annual program review process statewide. The annual review process is designed to engage all county extension councils and other local stakeholders in MU Extension’s statewide program planning process. The University of Missouri Extension leaders wanted a data collection process that could serve the needs of county-level program planners and state-wide Extension leaders. State leaders worked with program, regional, and local leaders to redesign the data collection procedures to ensure viable data for both the counties and state leaders. In three years this has evolved into a fluid data/input collection effort with two key characteristics. First, it is fluid and flexible, giving local councils the opportunity to engage in an evolving and fresh process each year. Second, it engages local stakeholders, local faculty and staff as well as the regional, program and continuing education directors in a
A collaborative program planning effort. The data collection procedure in year one was a facilitated discussion of around five open-ended questions. These questions were asked at 108 county-level focus groups with over 750 stakeholders and produced 1193 unique responses state-wide. While these responses had substantial value at the county-level, the sheer volume of responses was problematic for state-wide program leaders. Input from the program leaders helped redesign the data collection procedures to better provide viable data for both the counties and state leaders. The data collection process for the second year utilized a mind mapping process on two specific extension thematic program areas as well as directed discussions designed to focus information gleaned the previous year. County mind maps were generated locally. The county mind maps were used to generate regional and statewide mind maps for the theme areas. Support materials shared will include the overall process cycle which is used by extension councils and extension leaders to ensure all appropriate partners have the opportunity to be engaged in the process, some of the information gleaned from the process and how this information was used locally and in the statewide plan of work process.

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L-15- BRAIN BUILDERS FOR LIFE: A COMPREHENSIVE PROGRAM EVALUATION

Cathy Martinez, Arizona Cooperative Extension
Ann Mastergeorge, Arizona Cooperative Extension
Katie Paschall, Arizona Cooperative Extension

Three years ago (in 2010) the Arizona Department of Health Services funded Cooperative Extension to implement training for Child Care Providers in the area of Early Brain Development (a 16 hour Brain Builders for Life Institute to be conducted statewide). Over the past three years, FCHS faculty and staff have conducted this training and gathered program evaluation data individually as the training was implemented. The evaluation results of the Brain Builders for Life training for child care providers will be shared and include quantitative analyses of the change in participant knowledge of early childhood development, analyses of individual items on the pre- and post-test surveys, analyses of participant satisfaction of the training, as well as qualitative analyses of participant journals and evaluations of the training. The evaluation included participant feedback, an analysis of the curriculum, and an evaluation of the program content. The goal of this evaluation was to detail the quantity and quality of knowledge participants gained in the areas of prenatal and early childhood development. In addition, a thorough evaluation of the strengths and weaknesses of the curriculum and its implementation was completed. This evaluation also included practical suggestions for implementation and data collection so as to strengthen the connection between researchers, the trainers, and the participants. In sum, this evaluation was meant to serve as a practical application for the developers of the curriculum as well as the trainers, so that they can provide the essential child development information in the most accessible ways to child care providers, as well as adequately assess participant knowledge using valid and reliable pre- and post-tests.
In 2012 the USDA National Institute for Food and Agriculture established evaluation indicators for the priority areas of childhood obesity, climate change, food safety, global food security and hunger, sustainable energy. (1) An evaluation subcommittee of the NIFA Food, Nutrition, and Health (FNH) Committee for Program Planning and Guidance incorporated these collaboratively developed indicators into their ongoing work. The FNH Committee is comprised of state specialists in food and nutrition and USDA program officers. This workshop will begin with a description of the development of the national evaluation indicators and the work of the FNH Committee. Participants will be provided with a set of the national indicators for future incorporation into their program evaluation and reporting work. Participants will be asked to comment on the contrasting format of indicators among the priority areas. The national indicators chosen by selected states for inclusion in the 2013 plan of work will be presented. Committee members will provide examples of programs and outcomes reporting against each of the national evaluation indicators for childhood obesity. Participants will be asked to provide their own examples of programs that could be reported toward selected indicators. A discussion format will be used to collect recommendations from participants about how to provide further training to Extension personnel nationwide on use of the national evaluation indicators in all program areas. Through use of the national indicators, the FNH Committee seeks to provide a more complete description of the impact of food and nutrition programs on the health and well being of US citizens.

Reference:
(1) NIFA National Outcomes and Indicators:
PROGRAM EVALUATION

L-17 - EVALUATION CHAMPIONS: ADVOCATES, MENTORS, AND PEOPLE WITH PASSION

Pennie Crinion, University of Illinois Extension
Gae Broadwater, Kentucky Cooperative Extension Service
Lisa Franzen-Castle, University of Nebraska-Lincoln Extension
Ben Silliman, North Carolina Cooperative Extension

Research base: “Evaluation champions are leaders who have influence in the organization and who support and value evaluative thinking. Champions are key to the success of evaluation capacity building efforts in Extension (Taylor-Powell & Boyd, in press). While evaluation champions may or may not have formal leadership positions, many formal leaders in Extension nationwide appear to be evaluation champions.” Source: Boyd, H (2009). Practical tips for evaluators and administrators to work together in building evaluation capacity. Journal of Extension, 47:2. Although there are statistics available regarding Extension membership in evaluation professional associations, a systematic effort has not been made to determine a baseline for evaluation champions nationwide. Nor has there been an effort to identify the scope of their involvement in evaluating programs and connections to evaluation resources. To ensure evaluation is fully integrated into Extension programming, the eXtension Evaluation Community of Practice undertook a study to identify and collect information from Extension faculty and staff who serve as Evaluation Champions. The overall goal of the study was to assess and establish a national baseline of Evaluation Champions located in Extension states and territories and to identify methods and resources to expand the Extension system’s evaluation capacity.

Methodology: The design and process for collecting information from Evaluation Champions will be presented. This information includes a description of the characteristics and roles used to define and recruit Evaluation Champions. Materials and strategies developed to recruit participants for the study through self-identification and/or nomination by Extension colleagues will be shared. Data collection includes one-on-one interviews. Survey questions, as well as the process to capture and analyze participants’ responses will be provided by the presenters. Results: Findings of the study include a collection of examples shared by Evaluation Champions regarding actions they have taken to promote program evaluation in general or when they were part of a team developing or delivering a specific program. In addition, study findings showing

1. how Evaluation Champions’ interest in promoting and supporting Extension program evaluation was stimulated;
2. resources they use related to evaluation development and implementation; and
3. suggestions for additional resource needs and support will be shared for use in creating, engaging, and supporting new Evaluation Champions.

Implications and/or Conclusions: The findings will be used to enhance the eXtension Evaluation CoP website as a high quality and trusted go-to national resource on evaluation for the Extension system. Ultimately, the findings are intended to encompass professional development support and stimulate a growth in Evaluation Champions that will be tracked as an indicator of increased Extension system evaluation capacity. Accessibility to these evaluation resources through rapidly
expanding technologies is and will continue to characterize this new on-going era for Extension programming. In addition, evaluation can serve as a bridge for connecting new, inexperienced staff to the foundations of Extension program development, which is critical in articulating Extension’s value to its various stakeholders and ensuring Extension remains relevant in this new century.

L-18- CREATING WORK-LIFE BALANCE

Betsy Crisp, University of Florida/IFAS Extension
Karen Headlee, University of Florida/IFAS Extension

Conflict between work and family is something that over half of working parents face (Nomaguchi, 2009). Work-family conflict increases job turnover and job dissatisfaction as well as stress and other individual health and mental health problems; and reduces marital satisfaction and negatively impacts children’s behavior (Allen, Herst, Bruck, & Sutton, 2000). However, new research is also uncovering the importance of work-family “enrichment”, whereby satisfaction in one area can improve the other (Eby, Maher, & Butts, 2010). The goal of this workshop is to help parent-employees to develop and practice solutions to work-family conflict that will help create a healthy work-life balance. Objectives: Participants will improve their understanding of work-life balance, improve time management and communication skills, feel more comfortable in their ability to balance work and family, and make plans to better balance their work-life responsibilities.

Methods: University of Florida state and county faculty developed a one hour lesson on work-family balance, including slides, skills practice exercises, activities, and an evaluation tool. Over a two-year period, eleven workshops were conducted in two counties. At the end of the workshop, participants were asked to complete a one page evaluation where they rated on a five-point scale the extent to which they agreed/disagreed with items measuring improvements in knowledge, awareness, skills, confidence, and plans to use skills; and that they would recommend the workshop to a friend. After six-months, a follow-up survey was mailed. Results: Of the 171 participants responding to the evaluation, 87% said they better understood trends in work and family; 87% reported having stronger time management skills; 79% felt confident in using effective time management strategies; 86% would recommend the workshop to a friend; 87% said they would create a healthier work-life balance using the skills they learned. After six-months participants reported: 67% improved communication with family; 76% improved communication with co-workers; 77% used stress relaxation techniques to reduce stress; 85% used time management skills to better manage their time; 90% made at least one positive change in their life related to work-life balance!
L-19: VIRTUAL VITA: A NEW OPPORTUNITY FOR EXTENSION TO HELP BUILD RURAL COMMUNITIES

Dean Miner, Utah State University Cooperative Extension
Mike Johnson, Utah State University Cooperative Extension
Margie Memmott, Utah State University Cooperative Extension

Agriculture agents, especially those in rural areas, have a new opportunity to build their communities by delivering volunteer income tax assistance to qualifying low to moderate income taxpayers. And, they can do it without dedicating a great deal of time and resources. The Volunteer Income Tax Assistance (VITA) program is designed to insure that low and moderate income taxpayers take advantage of the Earned Income Tax Credit (EITC), which is considered to be the largest anti-poverty program in the nation. The program has IRS certified volunteers prepare tax returns for qualifying households at VITA sites. Unfortunately, taxpayers in most rural communities do not have nearby access to the program, due mainly to the lack of certified volunteers and rural partners to host VITA sites. To address that obstacle, Utah State University Extension has developed the Virtual VITA process that uses basic computer communication technologies to connect rural taxpayers with certified tax preparation volunteers in urban areas. Six rural Utah Extension offices hosted intake sites for qualifying taxpayers and arranged for non-certified volunteers to help the taxpayers connect with certified volunteer preparers at scheduled times. The sites used online computer screen sharing and telecommunication capabilities to insure accurate tax return preparation and to meet IRS requirements for VITA. The process has provided the rural partner and bypassed the need for rural volunteers to be certified. In recent years participating taxpayers in Utah’s Virtual VITA program have received more than $500,000 in tax refunds and credits and have saved an estimated $90,000 in tax preparation fees. Extension agent involvement at successful VITA sites has varied. For some sites, only volunteers and office staff facilitate the VITA activity. At other locations, agents take advantage of having new clients in their offices to introduce them to Extension programs and promote upcoming events. In our model, taxpayers arrived at the Extension office at appointed times with their tax documents and were greeted by a volunteer. As taxpayers completed the IRS-required forms their paperwork was scanned and uploaded to a secure document management website. In a private area taxpayers were then connected via SKYPE to a certified preparer at an urban location. The preparer opened their tax documents at the document management website and then shared a computer screen showing tax preparation software with the taxpayers as their return was completed and reviewed. Upon completion, the volunteer at the intake site printed the return for the taxpayers. Returns were e-filed by the preparation site. Virtual VITA has provided help to hundreds of taxpayers who would not otherwise have been assisted. And, it has been done without much demand on the agriculture agent’s time and resources. The IRS has embraced this program and wants other remote locations across the nation involved. Since Extension is already a national partner with the IRS for the VITA program, VITA coordinators and coalition representatives are seeking additional rural Extension offices to help provide critical help for low to moderate income families.
Although genetically modified organisms (GMOs) have been used in crop production in the US for over two decades, they remain controversial and poorly understood among both consumers and producers. Reports of efforts to ban, restrict, or label GMO food products in the US and around the world fill the news, even as crop breeding pushes the boundaries of recombinant genetics. Extension educators working in the broad areas of food and agricultural systems—from food production, marketing, community agricultural development, to nutrition and consumer science—need to understand the basic science behind GMOs, their current and future scope of adoption, what research tells us about their health and environmental effects, and why attitudes towards GMOs are so polarized, so that they can appropriately engage with their audiences in this public policy issue. We will share presentations (Prezi and Powerpoint) and other resources we use with grower audiences to help them understand the science, issues and attitudes surrounding GMOs. These resources are easily adapted for non-farming audiences, enabling Extension educators to share this information with broader audiences including consumers, policy makers, industry, and others. This information can help producers and consumers make informed decisions on production methods and purchasing policy that best supports their communities.

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. The Marcellus team recognized how important an issue shale energy exploration could be for Pennsylvania landowners and communities when drilling company agents first started knocking on doors to secure leases to drill on private property. The team conducted its first landowner leasing workshops in 2001. Marcellus Shale and shale energy is a relatively new issue confronting Pennsylvania, but it potentially 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 citizens, businesses, local leaders, communities, and others understand what it means for Pennsylvania, and how it may affect our environment, economy, communities, and citizens. Penn State’s Marcellus Extension Education Program is unique in the United States. Increasingly other University Extension Systems and governments throughout the United States, Canada and around the world are coming to Penn State to learn how to develop similar research-based education programs. Examples include North Carolina, Ohio, Michigan, New Brunswick, British Columbia, Alberta, Poland, and South Africa. During the last six months of 2012, the Marcellus team held 160 educational programs, presentations and tours reaching nearly 12,000 stakeholders. Major stakeholders groups included: landowners, environmental advocates, business development
groups, researchers, legislators from 21 states/provinces and representatives from 10 countries. The presenters will discuss the inception and development of the Marcellus Shale educational program, current breadth of Extension Marcellus initiatives and provide thoughts on future direction of the Marcellus program. Presenters will also provide insight on how the 'Marcellus Model' could work for other emerging issues.

L-22- A GIFT FOR YOUR HEIRS: GETTING YOUR FINANCIAL AFFAIRS IN ORDER

David Marrison, Ohio State University Extension
Chris Bruynis, Ohio State University Extension

When a family member passes away, it is usually a very difficult time emotionally for family members. This difficult time can become even more frustrating when heirs begin to settle their loved one’s estate if the financial records are in disarray or non-existent. The need for this program was determined through the many requests on evaluations conducted at farm succession and estate planning workshops. To help Ohio residents better equip their heirs, the co-authors developed an educational program and teaching curriculum to address this need. The curriculum for a 3 hour class was developed and pilot tested in 2012. Thus far, 47 persons have participated in this program in 2013. These workshops have helped participants learn how to get a grasp on their financial situation by documenting their affairs for their heirs. Attendees learned how to develop a letter of instruction and learned how to consolidate their financial and personal information into one easy document. Included in this document are the location of important papers, a listing of family advisors, and all the account information for bank accounts, life insurance policies, and assets and liabilities. This document was developed using Extension resources from across the country and by consulting with estate planning attorneys. Participants also learn how to develop a year-end balance sheet, write a letter of instruction to their heirs and how to track their personal property through an asset inventory spreadsheet. On their end of class evaluation, 100% reported they will develop a record of important documents & personal information; 96.88% plan to write a letter of instruction to their heirs; 93.55% will compile an asset inventory list; and 93.33% plan to complete a balance sheet. The attendees also self-reported mean knowledge gains between 1.50 and 2.3 (on a 5 point scale) as a result of their attendance. One attendee remarked that this program saved him hundreds of dollars in professional fees as he learned how to consolidate this information himself. The authors anticipate to increase the number of courses taught now that the curriculum has been developed.
Agritourism experiences offer “disconnected” urban consumers desired connection to self, others, place and history. These experiences can potentially help guests see and understand more about themselves and others through the prism of an authentic farm experience. Agritourism is important for operators trying to increase farm profits, keep farming in the family, and educate the general public on food supply and agricultural life. Expanding on the strategies for a variety of small rural businesses given in Fiore, et. al., (2007), this paper helps Extension agents by providing strategies specifically targeted to agritourism operators who desire to increase profits by delivering authentic and transformative experiences that keep today’s consumers returning. Agritourism operators who understand today’s consumer, who understand the value of their heritage, and who can connect consumers with their heritage can render the desired authentic and transformative experiences. Today’s “Experience Economy” consumers desire authenticity and transformation (Pine and Gilmore, 2007) whereas in the past, consumers have gone from deciding what they will buy and from whom based on availability to cost to quality. Pine and Gilmor explain the changes in the dominant “consumer sensibility” associated with the progression of economic value through the process of “commoditization.” Consumer sensibility is how consumers decide what they will buy and from whom. Commoditization occurs over time when a product is no longer thought to have the specialness it once had. The dominant consumer sensibility of the agrarian economy was the availability of commodities themselves. Throughout the Industrial Revolution consumers used cost to decide their purchases. In the last 60 years, consumers have used quality as the progression of economic value transitioned to services. As services are now becoming commoditized, economic value to consumers is now based on providing authentic experiences. An agritourism experience can potentially embrace all four types of experiences that Pine and Gilmore give as key ingredients to the optimal experience: education, esthetic, entertainment, and escapist. However, many agritourism operators struggle to realize the value of their “story” and struggle to provide authentic experiences consistent with their story. Understanding one’s heritage is important because our past limits our future. A business that “knows thyself” will operate (advertise and provide experiences, e.g.) in ways that are consistent with itself, and therefore, be able to offer experiences valued by today’s consumer. For a business, “knowing thyself” involves two dimensions: being true to itself and being what it says it is to others. When operations can do both, agritourism experiences can be “real, real.” An agritourism operation that does not meet both dimensions risks leaving consumers less connected to self, others, place, and history.
The downturn in the United States economy left many people without jobs and little opportunity to pursue advanced career training. Several local citizens began to look at expanding hobbies into their own home based businesses. In 2011, Florida’s Legislature changed state law to allow individuals to manufacture certain food goods in their own homes without having to be licensed. The state definition of cottage foods included baked goods, jams, jellies, honey, spices, and other non-high risk products. The change led people to look to Extension for answers on how to get started. Escambia County’s FCS and Small Farms Program teamed up to provide community education on starting and running your own cottage food business. The first class focused on what is allowed and what isn’t allowed under the lot. Generous time was given to allow participants to ask presenters questions on their individual operations. The second class expanded on the first with a concentration on marketing and honey. Subsequent classes were offered for existing operations with a focus on developing a food safety plan, packaging, and ways to begin transitioning to a fully licensed kitchen.

**Goals:**

1. To increase knowledge of the new cottage food legislation and what is required for compliance,
2. To increase knowledge in food safety, food handling and storage, and basic production/preservation practices, thus decreasing the risk of food borne illness, and
3. To increase use of basic business planning practices and marketing plans.

**Outcomes:** The team hosted five programs between 2011 and 2012 with attendance of over 200 people from a seven county area. The first two programs focused on introduction to the new law. The next programs included: food preservation, marketing, and food safety. 50% of participants were currently manufacturing goods for sale and also considering expanding their operations to include more items. 90% of participants indicated on surveys that they increased their knowledge in the basics of the law and how to start an operation. Impact: In 2011 and early 2012, at least five new businesses began operation after attending a program and learning the basics of how to start their operation. Most attendees had been baking or canning for family, but indicated on evaluations that they now possessed the information to expand to a home based food business. The local farmer’s market has expanded the number of cottage food vendors by 25% and several attendees are looking to transition to a full commercial business in 2013 after the success of their operation the past several years.
Brandy Brabham, West Virginia University Extension
Doolarie Singh-Knights, West Virginia University Extension
Alexandria Straight, West Virginia University Extension
Jennifer Poling, West Virginia University Extension
Daisy Fryman, West Virginia University Extension

Growing consumer demand for fresh, local products have lead to new market opportunities for WV agribusinesses. An increasing number of aspiring, beginning and mid-level female farm operators in WV have responded to these trends. These female producers are considering or already undertaking sustainable, multi-dimensional, non-commodity type farming activity, and producing consumer-ready products. These producers recognize that producing and selling value-added items requires different skills-sets than does traditional production agriculture, and introducing foods directly to the marketplace opens the seller to unique business risks. Female agripreneurs face additional gender-specific challenges, namely: a lack of appropriate farming experience and business skills development opportunities; feeling isolated from other farmers and from information and educational networks; and discrimination in traditional agricultural circles. These challenges create significant barriers to success for new or mid-level, limited-resource women agripreneurs, compromising their economic viability and ability to exploit new market opportunities. A holistic risk-management educational program for WV women in agriculture based on the national Annie’s Project was developed to provide risk-management education, coaching/mentoring assistance, and networking opportunities designed to increase the number of women leading profitable agribusinesses in WV. Program objectives were to provide risk management training in business planning, record keeping, financial analysis, farm and food safety, and networking – participants learned how to evaluate business expansion/diversification opportunities and determine their costs and returns; identify farm/food safety risks and develop farm/food safety plans; and develop business plans and conduct farm financial analyses. Methodologies employed for this project were based on female producers’ reported preferred learning styles – providing simple, user-friendly information in a participatory, conversational setting; learning basic business skills from their peers; educational activities involving an exchange of ideas with other women; and training opportunities promoting interaction and communication. In this presentation, we report progress towards these objectives garnered through pre- and post-evaluations comparisons. Summarized results will include multi-dimensional activities (enterprise diversity, agri-tourism, direct sales, value added, and off farm income); farming goals and expectations; change in risk-management knowledge, skills and attitudes; and risk management strategy implementation. We will conclude by identifying the primary issues limiting adoption of risk management strategies, and training activities that are appropriate to address these limitations. The results of this survey, if properly addressed, could help our target audience better realize the opportunities and potential payoffs from fully adopting a risk management paradigm.
Libbie Johnson, University of Florida/IFAS Extension
Dorothy Lee, University of Florida/IFAS Extension
M. Allison Meharg, University of Florida/IFAS Extension

The Florida Panhandle has seen a rise in individuals expressing interest in developing small farm and other alternative enterprises. The local food movement has driven the demand for more products and thus, more small businesses to provide them. County agents in the panhandle began working to develop educational programs designed to address participants with limited production knowledge and business experience. Topic areas were chosen to determine how to reach the largest number of clientele, while also addressing the local market needs. Agents also developed programs that stretched over multiple weeks, allowing for field days and demonstrations to reinforce subjects taught in the classroom. Programs began in late 2011 with an eight week program on beekeeping and ran through 2012. Later topics included Pasture Management, Cattle Management, Fruit and Vegetable Production, and classes on Production of “Cottage Food” goods. Agents also worked alongside researchers at a local REC to begin gathering data on small produce operations to better equip farmer’s to compete in today’s agriculture industry.

Goals:
1. To increase knowledge of participants in basic production practices,
2. To increase knowledge in food safety, food handling and storage, basic preservation practices, conservation practices, and new production technology,
3. To increase use of sustainable production practices raising farm profit and viability and
4. To increase number of small farm and alternative enterprise businesses in Escambia County.

Outcomes: The team hosted five programs between 2011 and 2012 with attendance of almost 200 people from Escambia County. Surveys conducted with clientele showed a 74% knowledge gain in basic beekeeping and 96% had a greater understanding of pollination. 100% of participants in the Cattle Management program could identify ways to implement BMP’s on their operation and Vegetable Production clients showed a 60% gain in being able to correctly identify the components and follow directions on the label of a fertilizer bag. Participants were able to apply the content from classes to a practical production setting in field days and demonstrations. Surveys indicated they valued the opportunity to work with classmates and develop a relationship with the people in their own community. Impact: In 2011 and early 2012, multiple small agribusinesses began operation as a result of attending classes. The local farmers markets have expanded the number of booths on Saturdays and local farmers are now selling in local and large scale grocers. For the Cattle Management participants, every farm could now identify a specific market for their operation and one operation changed their entire breeding program to better reflect their new marketing strategy. The Beginning Beekeeper Series helped grow the number of registered beekeepers in Escambia County and expand club membership.
**Objective:** Annually, 50% (103/205) of adults participating in the ten Panhandle Outdoors LIVE field trips will demonstrate increased awareness or report positive behavior changes in the areas of ecology, plant and animal identification skills, water conservation, stormwater management, and healthy lifestyles as reported by surveys.

**Teaching Methods:** The great strength of Extension is our presence and expertise in local communities but our strong ties to a widespread network of experienced professionals. UF IFAS Natural Resource agents and specialists from the 17 counties of Northwest Florida leveraged this strength by developing “Panhandle Outdoors LIVE” (POL), a series of 10 ecological field trips that highlighted the region’s biodiversity. The multi-faceted excursions incorporated all of the excitement of a guided ecotour (kayaking, hiking, snorkeling) with highly educational topics and skills, introducing participants to a variety of topics per tour. Agents from each location developed the itinerary, curriculum, educational materials (including plant and wildlife field guides), maps and surveys for their particular tour. Agents led portions of their field trip and many recruited assistance from landowners, government partners, and other agents.

**Outcomes:** In 2012, 205 participants from 11 Florida counties and five states participated in the POL programs. Eleven percent of participants were new to Florida IFAS Extension. Of 103 returned surveys, 100% of the participants gained new knowledge as a result of attending the POL trips. This new knowledge included: ecological systems, conservation and restoration methods, local history, plant and animal species and diversity, and geology/soil science. 57% of respondents (59) indicated they would incorporate behavior changes based on information learned during the POL trips. These changes include: Increasing recycling and conservation methods, reducing stormwater runoff, practicing Florida-friendly landscaping, installing a rainwater harvesting system, using “Leave no trace” practices, sharing knowledge with others, and exploring the outdoors more. Several indicated their skills in scientific observation had improved, as did their canoeing ability. Impacts: By co-publicizing the ten trips covering the breadth of the Panhandle, county Extension Agents involved were able to reach new clientele. Many participants attended multiple trips, thus broadening their understanding of the ecosystems represented throughout the district. A similar effort could be replicated in any region of the country; the primary ingredients are agents willing to work together, a list of unique habitats worth visiting, and a vigilant coordinator to ensure deadlines are met and marketing is widespread. Communities benefit...
economically through the preservation of natural resources and tourism. Direct economic impacts were over $2,000 for involved food suppliers and liveries, which may be expanded via word of mouth and reuse by our participants. In addition, all of the participants gained health benefits from hiking, paddling, and spending time outdoors, including burning an average of 761 calories apiece (per trip). Research has shown that those who experience the environment firsthand develop a greater appreciation for natural resources. Being able to associate a positive learning experience in the outdoors increases the chances that participants will continue to make healthy lifestyle choices.

L-28 - ASSISTING PRIVATE WATER SUPPLY OWNERS UNDERSTAND WATER TEST REPORTS RELATED TO PRE-GAS WELL DRILLING

James Clark, Penn State Extension
Bryan Swistock, Penn State Extension

Six hundred and eighty-eight private water supplies (547 wells and 141 springs) in Pennsylvania were tested for 21 pre-gas well drilling parameters from November to June of 2012. All samples were collected and tested by two PA Department of Environmental Protection accredited labs. This was a joint project between Headwaters Resource and Conservation Development, Clearfield County Conservation District, the Colcum Foundation, and Penn State Extension. Penn State Extension provided an “Interpreting Water Test Reports” workshop in each participating county and provided individual water report consulting with interested participants. This poster will convey the results of these 688 water tests, covering eight counties, and the overall impacts of the project. Pennsylvania has been inundated with unconventional gas well drilling in the Marcellus shale formation. Many private water supply owners are very concerned about the quality of their drinking water. This is a new era for Penn State Extension Water Resource Extension Educators in understanding the implications of unconventional gas well drilling on private water sources and how homeowners can take steps to protect their drinking water quality. There is still no set agreed upon standard on what parameters should even be tested for, when pre-gas well drilling water testing. Penn State Extension has been at the forefront of leading PA residents through these new water issues. The development of extension factsheets, webinars, and a face to face workshop entitled “Water Test Report Interpretation” were all utilized to complete this project and these resources will be shared where appropriate. This project is an excellent example of extension partnering. The Headwaters Resource and Conservation Development Organization and the Clearfield Conservation District secured a $180,000 grant to fund this water testing effort. Because a local extension water resources educator was well connected and respected, Penn State Extension was asked to provide the educational information needed for participants to be able to read and understand their water test reports. Three hundred and sixty-two of the 548 participants in the eight extension water workshops completed a post survey. 346 (96%) stated they felt they could now identify and understand the information on their water test (16 (4%) were still unsure). 343 (95%) stated they felt the program was unbiased or neutral towards gas drilling. 359 (99%) stated they were more aware of the possible contaminants in private water supplies and 345 (95%) stated they would recommend the workshop to others. This is the first time a large number of Pennsylvania springs have been tested. As expected the springs had the highest level of bacterial contamination, followed by hand dug wells, and then drilled wells. The combined data from the 688 private water source tests will be shared covering the following parameters: pH, Total Dissolved Solids, Chloride, Iron, Manganese, Total Suspended Solids, Barium, Strontium, hardness,
methane/ethane, coliform, E. coli, Sulfate, Bromide, Calcium, Magnesium, Aluminum, alkalinity, and acidity. Extension Educators will benefit from the data shared and the extension factsheets developed to assist private water supply owners in understanding water issues and gas drilling.

L-29- WATERWISE GARDENING: PLANNING AND DESIGN, LEARNING ALL ABOUT IT ONLINE

Amy Jo Detweiler, Oregon State University Extension Service

Research indicates a trend in the western United States where 40-60% of all water use by single family residences occurs in the home landscape and that landscapes are overwatered by approximately 40%. The demand for conserving and managing water usage is critical to support, protect and preserve valuable water supplies. Oregon State University Extension Service has launched a statewide waterwise program that invests in teaching Oregonians about water conservation for home and commercial landscapes. The Oregon waterwise program includes several projects with goals to increase awareness of waterwise landscaping and change behavior with landscape practices related to plant selection, landscape design, and irrigation technology. One of the projects included the development of an on-line class entitled Waterwise Gardening: Planning and Design. This class was specifically developed to meet the needs of green industry professionals, homeowners, and master gardeners that may be place bound and need the flexibility to learn on their own time. It was also offered to assist green industry professional in obtaining certain continuing education units (CEUs) for their various associations and licenses. This class is one of the first in a series of online Ecological Gardening classes. Two others have also been released to date. Curriculum for Waterwise Gardening: Planning and Design was developed to include nine lessons and covered topics such as planning and design, plant selection, soil improvement, irrigation, using mulch, using turf and maintenance. The class was produced and distributed through the Professional and Noncredit Education unit at Oregon State University. Each lesson is a scripted powerpoint presentation including some interactive activities, quizzes, and a final landscape design exercise and is expected to take between six and eight hours to complete for most individuals. The class is offered as an open ended class with a required portfolio submission and results in a pass/fail grade for each student. The class instructor is available to students throughout the time they are enrolled. In addition, the class also provides continuing education units for several national professional affiliations including the Irrigation Association, Oregon Landscape Contractors Board, and the Professional Landcare Network (PLANET). The class officially opened in July 2012 with a soft launch and fourteen people have enrolled to date. Of those fourteen, eight students have completed the class. Some of those individuals received CEUs to maintain their licenses or professional designation. An evaluation tool will be introduced in early 2013 to measure class satisfaction, knowledge gained, and behavior change.
In March 2010, the Affordable Care Act was signed into law by President Obama. This law requires that, with a few defined exceptions, all legal residents obtain and carry insurance for themselves and their dependents every month starting January 2014. It is projected that 30 Million additional people will now enroll in health insurance, making the total number of insured approximately 210 million. However, a national assessment of the health literacy of U.S. adults found that 88% cannot calculate an employee’s share of health insurance costs using a table based on income and family size. This research suggests that poor or low health literacy contributes to the mismanagement of disease, and is very costly. Those with low health literacy are less able to understand information, to do appropriate self-care of themselves and their children or others they care for, and to get preventative care. To increase health insurance literacy of the populace, the University of Maryland-Extension led a team of professionals to explore the creation of a measure of health insurance literacy as a basis for research, policy evaluation and consumer education. In Spring 2013, University of Maryland team members piloted the program with University of Maryland employees. Discussion will include pretest and post-test impact data on knowledge, skills and confidence among the pilot audience and next steps include creating a standardized assessment instrument that will be potentially be generalizable and inform health insurance literacy education going forward. This program will affect the health of a nation for years to come. Extension is positioned with the expertise to conduct and drive such a vital and extensive educational program.
Since the 1960s, the arts have stimulated an upsurge in eclecticism. The movement is a continuum and is known as postmodernism. It is about “doing your own thing” and emphasizes creativity and working in unconventional ways. For example, postmodern furniture makers mixed plastic with expensive wood finishes. Postmodern sculptors and painters mixed folk art with classical approaches and writers have imported techniques from other cultures into popular fiction. Some orthodox Christian and Jewish groups integrate yoga or Eastern approaches to meditation into their religious practices. Postmodernists are penetrating the norm and crossing boundaries. In essence, the postmodern focus can be viewed as a response to a pluralistic culture. It's about individual competence in which the creator and spectator are linked together in ways that question traditional assumptions associated with history, geography and scientific disciplines. The postmodern perspective has spilled into the social sciences and community problem-solving in which there is less emphasis on “the rational objective world” and more emphasis on the “subjective world.” In contrast, Extension has often perceived itself as bringing “objectivity and science” to situations and minimizing subjectivity and emotions as “irrational.” While postmodernists don’t necessarily reject those values, they tend to have other priorities. This workshop offers a response to postmodern critiques of traditional problem-solving approaches. We will explore five responses to postmodernists. These five approaches respect Extension's interests and scientific perspectives and connect them with the postmodernists’ eclecticism associated with creativity and boundary crossing.

- **Response One:** Integrate the arts (poetry, music, movement and visuals) into conventional Extension programming. Find new possibilities to mix genres (i.e., rap, the poetry of the streets, with Bluegrass) in order to open hearts and minds.
- **Response Two:** Incorporate deliberation into Extension programming, especially issues involving public policy. It does not become a question of “whose side you are on?” but “what are the choices? and “what are the trade-offs for each choice?”
- **Response Three:** Foster new forms of dialogue and bridge-building social capital among public groups who lack venues for such exchanges. Move towards transforming public conflict into something productive. “Extension is the glue that brings us together” remarked participants in such exchanges.
- **Response Four:** Launch new educational programming with communities of interest (cancer survivors, alternative agriculture and other such groups) rather than an exclusive focus on communities of place. Many citizens are identifying more with virtual communities and Extension can respond to their needs by moving beyond traditional county boundaries.
- **Response Five:** Incorporate story telling into Extension programming.
The work of Brazilian educators, Paulo Freire and Augusto Boal, begins with the stories, especially the stories of those who may have been untold. There are tools to move from story-telling towards common interests and action.
The Business Retention & Expansion (BR&E) Program has been a Signature Program of the Ohio State University Extension since 2009. The initial program was developed by George Morse in the mid-80's and for over three decades has served more than 140 communities in 80 of Ohio's 88 counties. Since being established as a Signature Program, a packaged curriculum has been developed to include three workshops, programmatic templates and turn-key software to support a comprehensive BR&E program on the local or regional level. Marketing materials, including a workbook and brochures, have been professionally developed to promote the program. A trained team of professional Educators and Specialists are also prepared to deliver the program. Despite extensive historical impact, the program suffers from a tired image and keen competition from widely used private sector programs including Synchronist and Executive Pulse. To work in conjunction with these programs, the BR&E program evolved in many ways. The majority of this evolution has come in the program's areas of application. Traditional thinking of BR&E was that the program primarily served the industrial manufacturing sector of business. Since the inception of BR&E with the Ohio State University Extension, this program has served to assess a multitude of business sectors, cross sectors, and to address a number of topics. In Ohio for example, BR&E is used in the residential and commercial sectors, and has helped communities to address downtown development, community wellness, local agriculture, and emergency disaster service. With the complex needs of communities becoming more prevalent, the need to adapt the BR&E program continues to increase. The wide scope of offerings the BR&E program provides to these communities continue to be discovered. Over the last year, Ohio State University Extension worked to restructure program curriculum, templates and other tools. These efforts are making it possible to provide communities with a simple, streamlined solution that addresses different aspects of their local or regional economy and can help to shape effective directives and policy for the increasing needs of today's communities.
Today’s travelers seek new and unique “self-fulfilling” experiences, and heritage tourism, one of the fastest growing forms of tourism (Silberberg, 1995), meets this need, with heritage tourists traveling to areas rich in significant heritage and cultural resources to experience places and activities that authentically represent the stories and people of the past and present. Heritage tourism conserves local social and cultural values, while generating local economic benefits. Visitor expenditures, associated economic impact, and value-added (Apostolakis, 2003; Strauss & Lord, 2001; Kerstetter et al. 2001), are all important as these have been leading factors in the establishment of many heritage areas, developing opportunities for heritage tourism, and associated business development. The Bear River Heritage Area (BRHA) straddles the Utah-Idaho border and is home to a strong agricultural economy, abundant natural resources, beautiful landscapes, and a rich heritage involving Native American tribes, mountain men and the fur trade, Mormon pioneers, the Oregon and California Trails, and Promontory Summit, where on May 10, 1869, the Union and Central Pacific Railroads joined their rails completing the first Transcontinental Railroad. The BRHA Council, the governing body of the heritage area, is comprised of a consortium of organizations in government, business, education, tourism, and recreation, and is dedicated to economic development through promotion and stewardship of the cultural and natural resources that are unique to this region (visit http://www.bearriverheritage.com/). Although a state recognized heritage area, the BRHA has yet to achieve the federal designation as a National Heritage Area. This study has two purposes:

1. To gather baseline data on BRHA visitors through a visitors survey, in order to better understand these visitors, their motivations for visiting, sites and attractions visited, and visitor expenditures and economic impact. This information will be useful in developing future initiatives for associated BRHA sites/attractions/businesses, and communities in the BRHA, and provide valuable information for the continuing effort to achieve federal designation; and

2. To gather qualitative data about BRHA heritage businesses and artisans, specifically, to better understand the identity of heritage businesses, motivations for BRHA affiliation, and perceived values and benefits of affiliation.

During the 2012 visitation season (May through October), 780 visitor intercept surveys were conducted with BRHA visitors, at over 30 heritage sites and attractions. Some respondents agreed to complete a mailback survey after the completion of their visit; 200 mailback surveys were returned by BRHA visitors. Data generated were analyzed utilizing a variety of methods. During the spring of 2013, 40 in-depth, key informant interviews were conducted with heritage business owners and artisans throughout the BRHA, utilizing a purposeful sampling method. Only businesses and artisans currently affiliated with the BRHA were considered for sample selection, and were selected based on a number of criteria related to heritage. Key informant interviews were transcribed and analyzed to identify key words, common themes, similarities, and dissimilarities. Presented will be significant study findings, especially demonstrating the
importance of BRHA heritage tourism, visitors and their local economic impact, and opportunities for enhancing heritage-oriented business development and rural community tourism development.

L-34 - ECONOMIC GROWTH AND JOB CREATION IN RURAL COMMUNITIES THROUGH FOREIGN INVESTMENT: THE EB-5 PROGRAM IN THE NORTHEAST KINGDOM OF VERMONT

Karen Geraghty, University of Vermont Extension
William McMaster, University of Vermont Extension

This poster will highlight the use of the EB-5 federal investment visa program as a community development tool for attracting capital investment and promoting economic growth in rural regions. Using developments in northern Vermont as a case study, this presentation will outline EB-5 program requirements based on federal guidelines as well as describe project developments and report outcomes using public information sources. The presentation will include comparative analysis of other EB-5 developments in communities across the country to illustrate the benefits and disadvantages of this program for community development. Vermont’s Northeast Kingdom is a three-county area that is the largest and least populated region of the state. Rich in natural beauty the area nonetheless has been plagued by chronic unemployment and poverty for decades, most acutely with the loss of over 3,000 high-paying manufacturing jobs in the last decade. Economic development has been limited by the rugged terrain, inadequate public transportation and infrastructure as well as the lack of reliable cellular, wireless, and high-speed internet service. Despite these challenges, the Northeast Kingdom's natural resources provide great opportunities for economic development, particularly in travel and tourism. To enhance use of these natural resources for tourism and increase employment opportunities for local residents, several major developments with capital investments totaling in excess of $500 million are slated for the Northeast Kingdom. Working through the EB-5 program, a local business owner is spearheading this economic development which will result in: expansion of two ski resorts; construction of a Korean-based bio-tech facility and German window manufacturing company; development of a marina and convention center; new retail and residential space in a redeveloped city block; and expansion of the local state airport. This presentation will conclude with the proposed outcomes of these projects and discuss the impact of large-scale developments on communities in rural areas.
Basil Bactawar, University of Florida/IFAS Extension

Union County has a Soil and Water Conservation Board that has been defunct for about nineteen (19) years. During this period not much was done to address the issue of nutrient loading in the Santa Fe River. This Northern Florida River is 75 miles long and its water shed is part of Union County. During the same period, many residents have become aware of environmental pollution which is believed to originate from farming areas. Furthermore, the issue of restriction on the use of water for agriculture became a concern for Union County due, in part, to the declining water levels in the Floridan aquifer. There was need to address these issues through an organization that would bring concerned citizens, stakeholders and governmental agencies to plan and implement programs that address these issues. This is when it became evident that there was a need to re-start Union County Soil and Water Board. I began to work with this county in 2010, and decided to provide the leadership to restart Union Soil and Water Conservation Board (USWCB).

**Objective:** Organize and formalize Union Soil and Water Conservation Board by December 2012.

**Methods:** I attended Bradford Soil and Water Conservation Board meetings to learn how its Board functions. During 2011, I wrote a proposal in collaboration with two representatives from Florida Department of Agriculture and Consumer Services and Florida Farm Bureau to restart USWCB. The proposal was submitted to each County Commissioner. This was followed up with a separate meeting with each County Commissioner to explain the proposal and answer any questions. The main reason for these individual meetings with the County Commissioners is to help them understand the issues fully so that they can make an informed decision. The proposal was later presented at one of the monthly meetings of the County Commissioners.

**Results:** The County Commissioners voted to re-start the Union County Soil and Water Conservation Board. Five (5) people volunteered as interim supervisors to serve on the Board in 2012. During this period all five of them ran for elections, and became elected members of the Board for 2013. The interim supervisors developed a strategic plan in 2012 that became their road map for the next five years. Conclusions: The Board will be the advisory body on water policy to the County Commissioners, and the medium through which extension programs dealing with water and the environment will be developed and implemented.
LEADERSHIP DEVELOPMENT

L-36- PARLIAMENTARY PROCEDURE - MADE EASY

Lacie Ashby, University of Maryland Extension
Becky Yost, University of Maryland Extension

Parliamentary procedure refers to the rules of democracy—that is, the commonly accepted way in which a group of people come together, present and discuss possible courses of action, and make decisions, no matter how formal or informal. Although the Extension System has a long history of work in leadership development, there’s still lack of comfort and understanding of basic parliamentary procedure and its relevance in today's society. Parliamentary procedure has stood the test of time, and still proves useful, beneficial, and relevant, both to extension personnel and our clientele. Its significance and effectiveness has survived centuries, and will continue through future eras. Thorough understanding of parliamentary procedure is a skill that will benefit Extension personnel and clients. The overall theme of the poster will be to share basic parliamentary procedure, conduct potential uses for the information in our extension work, and share resources that can be used in extension programs, both professionally and personally. As we serve on local boards and develop leaders that will serve in those roles, we need to have the necessary skills to set a good example and educate others to be the best leaders and advocates as possible. This presentation will build the case that it is core knowledge everyone should possess as well as present a select set of basic parliamentary procedures that everyone should know in an applicable way with only supplemental lecture. The second portion of the session will focus on resources such as books, and training courses that are easy to understand. All of the information and resources shared will personally benefit Extension faculty of any program area and can also be used as they educate clientele, collaborators, volunteers, and youth. Presenters have presented several parliamentary procedure trainings to youth, volunteers, community boards, and historic commissions, working mostly from positive recommendations to agencies. It is necessary to empower everyone with the necessary leadership skills to speak up and speak out in a professional manner. The only way to gain understanding of parliamentary procedure is through experience. Participants will be active in several activities to reinforce the procedures that can be used at home with office staff, partners, and clientele. Participants will leave with handouts of very simplified condensed parliamentary procedure, as well as a lengthy resource list of books and training courses so they can further their education. Although this is not new information, it remains relevant yet very unfamiliar to a large majority of society.
In applying the principles of USDA-NIFA’s Engaging Youth, Serving Communities rural development program over four years, the presenter has empowered the development of Social and Cultural Capitals in five communities across the State of Washington. Each of the participating communities selected and/or narrowed their issue of importance using skills acquired in an introductory workshop. These skills were applied in the context of a community forum led by local youth with the requirement that they address Human and Social Capitals at the very least in the development of their action plan. The issues and plans that emerged reflect the interests and identified needs of each community and therefore were as different as the communities themselves. Process evaluation in two of these communities, particularly storyboarding and mind mapping, was quite helpful in gauging the reach and effectiveness of the project over time and provided insights for further evaluation efforts. The community contexts, chosen issues, evaluation efforts, and revisions to the program that resulted from the process evaluation efforts are highlighted in this poster with references and suggestions for replication in your community. This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under Agreement No. 2005-45201-03332. 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.
In our many roles and varied programs, Extension staff work hard to help Maine people improve their lives. We work amidst increasing financial challenges, shrinking staff numbers, changing program priorities, compelling client needs and technologies that provide constant and instant access to work. We strive for excellence and at the same time, often struggle with issues of life balance. We want to stay motivated, optimistic and inspired as we do the work we love. Personal sustainability is working in a healthy, balanced way today, so that we can continue to do the creative work we love well into the future. Based on the belief that working in a sustainable way will contribute to a sustainable organization that better fulfills our mission, UMaine Extension created the Personal Sustainability Research Project in 2012. Project goals are to support a successful staff that does excellent work in a sustainable way, and an organizational climate that supports the pursuit of work life balance and personal sustainability. The 10 members of the research team represent the diversity of roles (faculty, professionals, aides and support staff), programs, gender and geography in our organization. We chose a participatory action research design to promote reflection and self-awareness, individual and collective empowerment, and action and organizational change. Through surveys, interviews and focus groups, we sought to explore what the current situation is, what’s going well, what the challenges are and what we might do to better support life balance for staff and in the organizational culture. In this poster, presenters will share the research process, findings and actions taking as UMaine Extension moves into the implementation phase of the Personal Sustainability Project. We will share ideas and suggestions to support personal sustainability in your organization.
A New Era for Extension includes well trained Extension professionals! This session introduces the Early Career Cohort and explores program results. The University of Tennessee (UT) Extension Central Region Program Leaders and the Area 4-H Agent have a new tactic for training and retaining new County Extension Agents. The Early Career Cohort is a multidisciplinary approach for providing new Extension professionals in the Central Region with training and support not addressed through subject matter training. The Early Career Cohort targets Extension Agents in 4-H Youth Development, Family and Consumer Sciences and Agriculture and Natural Resources with less than four years of Extension experience. The first session of the Early Career Cohort was conducted in October 2011 with 14 cohort members. Training sessions are conducted quarterly. Five one-day sessions have been conducted as of December 2013. Currently there are 25 new professionals in the program and there are four sessions scheduled in 2013. Agents roll out of the program after their four-year anniversary. The curriculum for the Cohort includes the soft skills needed to be an effective County Extension Agent, the four aspects of the Tennessee LOGIC Model (Identify Needs, Plan, Deliver, Evaluate), topics identified by the Regional Program Staff and cohort members and mentoring. A training needs assessment was conducted in the first quarter of 2012 with cohort members and their immediate supervisors, County Directors. The Soft Skill assessment was based on competencies developed by the FCS Regional Program Leaders for the FCS Core Competencies which are grounded in the relevant research related to Extension competencies (Cooper and Graham, 2001). The competencies included in the assessment and addressed in the training sessions include: knowledge of the organization, human relationships, programming, communication and professionalism. The purpose of the Early Career Cohort is to provide:

- Needed training for professionals
- Sharing of ideas between staff
- Discussion of concerns
- Bonding between early career staff
- Development of mentoring relationships.

The topics of the five sessions conducted thus are:

- Session I: Program introduction and purpose.
- Session II: True Colors and building relationships.
- Session III: Soft skills assessment results and the Tennessee LOGIC Model as related to conducting needs assessment and working with advisory groups.
- Session IV: Effective techniques for balancing life and career, teamwork and mentoring.
- Session V: The Delivery aspect of the Tennessee LOGIC Model, addressing teaching and learning theory, touching on learning styles.
An optional session was conducted in November 2012 regarding writing plans of work and reporting delivery and outcomes in SUPER, the Tennessee System for Planning and Reporting. Sessions conducted in 2013 will continue to focus on identified soft skills and the Tennessee LOGIC Model. As part of the session the facilitators will explain the program, share early evaluation results and learning experiences. It is anticipated professionals involved in the Early Career Cohort will have a longer tenure with Extension; plan, conduct and evaluate programs effectively; will serve as mentors and role models for future new professionals; and be better prepared to serve in leadership roles in the organization.
NEAFCS AWARDS

L-40- NEAFCS HUMAN DEVELOPMENT/FAMILY RELATIONSHIPS AWARD

Verna Bailey, Oklahoma Cooperative Extension Service

Infant Simulator Program: Six rural counties in Northwest Oklahoma partnered with schools, businesses, and other organizations to provide the Infant Simulator Program in eighteen school districts.

L-41- NEAFCS EARLY CHILDHOOD CHILD CARE TRAINING AWARD

Lisa Jordan, University of Georgia Cooperative Extension

Most injuries are preventable!: To ensure children’s safety in child care a FACS team and UGA Specialist developed a curriculum aimed at educating providers on Injury Prevention and Control.
Andrew Behnke, North Carolina Cooperative Extension
Cintía Aguilar, North Carolina Cooperative Extension
Kim Allen, North Carolina Cooperative Extension
Diana Urieta, North Carolina Cooperative Extension

This session will demonstrate how 4-H and FCS educators can come together to help youth (with special emphasis on Latino youth) be leaders and succeed in high school and beyond. Dr. Andrew Behnke will share his research on what factors keep youth in school and what makes them dropout, and what helps them engage in afterschool programming. Cintía Aguilar will share ways to effectively recruit, engage, and retain youth and their families in afterschool and family workshops. The primary focus of this presentation will be sharing the free six-week Together for a Better Education Program (Juntos Para Una Mejor Educación) curriculum which brings together schools and families to create a type of familial synergy that facilitates positive leadership and academic success. During the last four years the Juntos program has really taken off to serve more than 1000 English and Spanish-speaking 6th - 12th grade students and their parents in over 50 communities in six states (Iowa, Missouri, Nevada, North Carolina, Oklahoma, & Oregon). The goal of the program is to help youth and families come together to help each other graduate from high school and promote higher education. This is accomplished by providing youth and families with an educational six-week family workshop series, individualized mentoring and success coaching, afterschool programs, and 4-H club activities. In North Carolina the Juntos program works in collaboration with a program called Youth and Families with Promise (YFP) to provide weekly visits with local success coaches and college-age mentors, to provide afterschool 4-H clubs twice a month, and monthly parent nights that promote graduation and continuing on to higher education. Entire families participate in the newly revised Juntos 6-week family workshop curriculum that helps them work together to make higher education a reality. In addition hundreds of Latino youth participate in our eight-week Juntos Summer Program that culminates in a Juntos Summit, a week-long learning experience on NC State University campus and a three-day Leadership Academy at RockFish Adventure Camp. Evaluation of the program has been published in the Journal of Extension and large-scale evaluation will be reported. For example, results from our evaluation revealed that 92 percent of parents reported increased confidence in working with their child’s school. Parents also significantly improved in many areas including: Monitoring their teenager’s homework, talking with their teenager about school, and talking with their teenager about college or other future plans. Youth show significant gains in academic grades, school attendance, and club involvement. Dr. Behnke will also discuss how to fund and sustain these types of programs over time. Diana Urieta will also share strategies and tips for implementing this program model effectively.
L-43 - BUILDING BRIDGES WITH POVERTY & NEW EXTENSION PROFESSIONALS

Rachel Monteverdi, North Carolina Cooperative Extension

Poverty and inequality are the biggest challenges human beings face in the twenty-first century (Agostino, 2007). Across the globe more than 1.6 billion live in poverty and in America the percentage of people with income below 125 percent of the poverty threshold is increasing (Bishaw, 2012). Experts predict the upward trend of poverty will continue to persist. To make matters worse, as seasoned professionals retire experts state it may take two or three individuals to replace them (Coleman, Hladikova, & Savelyeva, 2006). This is especially bad news for Cooperative Extension. Reductions are taking place and oftentimes one person is hired to do the work of many in a position that may have been vacant for some time.

New Agents may not always have the tools necessary to be effective in teaching, empowering and understanding low wealth families. Further, if budget cuts continue, Cooperative Extension administration may not have the staff or resources necessary to provide in-depth trainings as inexperienced agents come on board. The one hundred year old agency needs empowering individuals who can work with diverse audiences but if an educator becomes overwhelmed, the results can be negative for the agency and for lower wealth populations.

Preliminary research shows a lack of comprehensive information available for field faculty through eXtension or another entity that serves Agents across the United States. This workshop will highlight findings from the latest research from educational, political, economical and social institutions related to working with those who live in poverty. Building Bridges Between New Extension Professionals and Poverty will allow for a discussion of the many facets of poverty including: Political-economic theory, geographic theory, cyclical theory, cultural theory and individual theory; Ruby Payne’s work related to situational and generational poverty, hidden rules and language; and best practice strategies for educators.

It will challenge Cooperative Extension professionals take a closer look at this issue and develop a plan to work together ‘to build bridges’ from the past to the future. Participants will be able to identify theory, consider approach and increase knowledge related to poverty. Handouts and power point will be provided on site and online and a new eXtension COP will be formed.

L-44 - PROTECTING CHILDREN AGAINST ABUSE

Christy Bartley, Penn State Extension
Marilyn Corbin, Penn State Extension

To be an advocate for a child, adults must be knowledgeable of the circumstances related to child abuse. This presentation will discuss child abuse statistics and proactive steps to be taken to ensure child safety. Connecting children to safe environments is critical to the future of our children. If child sexual abuse was a disease impacting 1 in 4 girls and 1 in 6 boys, society would react by investing millions in research and spare no expense to provide services and implement prevention campaigns. We must be proactive in discussing impact, signs of abuse, and risk factors. Adults can work with children to develop resistance skills. Adults must also report any suspicions that a child
is in danger. As a case example, presenters will discuss the actions taken at Penn State to ensure child safety in all university programs including Extension.

L-45- REGIONAL AGING CONFERENCES - A NEW FRONTIER

Libby Curry, Kansas Cooperative Extension Service  
Melinda Daily, Kansas Cooperative Extension Service  
Gayle Price, Kansas Cooperative Extension Service  
Barbara Stockebrand, Kansas Cooperative Extension Service  
Tranda Watts, Kansas Cooperative Extension Service  
Nadine Sigle, Kansas Cooperative Extension Service  
Anna Muir, Kansas Cooperative Extension Service

According to the U.S. Census Bureau (2010), 18.5% of Americans are age 65+. This percentage will only increase as Baby Boomers (born 1946-1964) move through the life cycle. This social fact presents challenges our society has not previously seen. This generation is seeking information on managing the aging process not just for themselves, but also for their parents. They want to be active in the decision making of their “golden” years. The need to provide current, easily accessible information can present a challenge in any size community - particularly smaller rural communities. In Kansas, where 18.4% of the population is 65+, bridging the information gap between the “early elderly” and their needs are ushering in a new era for Extension programs. In a closer look at the northwest region of Kansas, 18 of 26 counties have 20% or more of their population over age 65. The county population of 65+ range in NW is from 13.3% - 27.7%. Because of limited resources and agencies to meet the demands, plus the number of miles between locations with resources, residents are looking for ways to secure accurate information and assistance. With a sound reputation for delivering outstanding community educational opportunities, Kansas Extension has found a niche as a leader in providing programming for this growing audience through regional conferences focused on aging and related issues. Since 2005 multiple Extension units in Northwest KS have combined efforts with community partners to provide conferences designed not only for the elderly, but also for family members and caregivers who are in need of support and information. The general goals of the conference are to reach the early elderly, 55-65; provide education on aging issues; and to collaborate and create awareness of resources and agencies. A multi-session and general speaker format has been utilized to address a variety of issues at each conference. Based on a 6 month post interview, attendees reported:

- 90.4% have taken steps to increase brain activity
- 80.9% have increased physical activity
- 66.6% have shared wishes with family members regarding end of life issues and/or difficult emotional issues
- 42.8% established a more open dialogue with health care providers

Based on the efforts in the northwest part of the state, two major group successes have occurred:

1. A similar conference has been established in Southeast Kansas using the model established by the NW group. The 65+ population in SE ranges from 14.0% to 22.7%. Based on follow-up surveys, participants from the SE have reported:
   a. 76% now knowing where to go for information on aging issues
b. 50% indicated making a positive change as a result of attending

c. 34% have shared information with others

2. To meet a need, the Northwest conference implemented a professional track allowing care providers to earn CEUs.

The positive response from participants and care facilities indicate the professional track will be a part of future conferences. www.northwest.ksu.edu/fullcircle  www.southeast.ksu.edu

L-46- TRUTH AND CONSEQUENCES: THE CHOICE IS YOURS

Christy Nuetzman, Kentucky Cooperative Extension Service

Extension professionals have a strong history of work in promoting safe and healthy communities. Substance abuse prevention must be a component of these efforts in the new era. Youth and adults need to understand the physical, emotional, financial, and legal consequences of getting involved with substance abuse. Although many Extension professionals have not been formally trained in substance abuse prevention, we are specialists in event planning and implementation, youth-adult partnerships, decision-making and health programming, and working with community partners. This session will share information regarding substance abuse trends, scenarios related to use of various substances, and connect Extension professionals to prevention resources.

Truth and Consequences: The Choice is Yours is an enrichment activity designed to show students the impact of getting involved with illicit and legal substances. Based upon the format of the 4-H Reality Store, students role-play scenarios including: possession of prescription drugs; driving under the influence; sniffing; and stealing drugs; etc. Depending on the scenario, students visit appropriate officials and/or agencies to experience the consequences of their behavior. Parents are encouraged to participate with their children. When parents are unable to participate, Extension Homemaker members or community volunteers assume the role of “parents” to the youth and accompany them as they visit agencies such as law enforcement, hospital, judges, school officials, etc. Students are encouraged to track the financial and life costs associated with the identified substance abuse behavior. Truth and Consequences has developed evaluation instruments including student pre and post tests as well as evaluations for community partners, parents, and school personnel. Pre-test results of 704 students indicated that 39% of youth felt it was safer to get high on prescription drugs rather than illegal substances. Post-test measures indicated that only 8% still maintained that belief after participating in Truth and Consequences.

Truth and Consequences was reviewed for content, appropriateness of content for the intended audience, and reading level/presentation style of the materials as well as spelling, grammar and punctuation per guidelines set forth in the University FCS Extension Publication Process. It was copyrighted in January 2010. Participants will learn how to plan and implement a local Truth and Consequences event, how to facilitate community partnerships, and strategies to increase awareness of the health, economic, and other risks associated with substance abuse. Truth and Consequences provides an excellent joint programming opportunity for FCS and 4-H agents. Participants will receive power point handouts and access to the how-to-manual for replicating Truth and Consequences in their communities.
L-47- RADON EDUCATION: MAKING POSITIVE CHANGES AS RESOURCES DECREASE

Pamela Turner, University of Georgia Cooperative Extension  
Ines Beltran, University of Georgia Cooperative Extension  
Morgan Barnett, University of Georgia Cooperative Extension  
Christa Campbell, University of Georgia Cooperative Extension  
Rebecca Chenhall, University of Georgia Cooperative Extension  
Edda Cotto-Rivera, University of Georgia Cooperative Extension

How can we continue to provide quality programming with increasingly limited funding? Economic conditions and reduced grant funding have impacted most, if not all, programs, including radon education. The radon education program in Georgia has been in existence since 2003. Funding shortfalls in 2012 led to dramatic changes in the program, with the team of five radon educators reduced to two. Many changes had to be made to adapt to new funding levels and continue to provide quality programming. Working closely with the state partner, the program was revamped to focus on replicating and expanding successful programs, increasing collaboration and incorporating new methods of outreach. Over the past 10 years, this highly successful program has received awards and recognition from NEAFCS and EPA. More than 73,000 students and adults have participated in workshops and over 176 million were reached through print, broadcast and online media outlets. The majority of individuals attending a workshop reported improving their knowledge about radon and almost 80% reported that they planned to test their home for radon. Radon educators distributed around 44,000 radon test kits. About 18% of those testing received test reports of radon levels at danger levels of 4 picocuries per liter or above, requiring action from the homeowner. Households with high test results received follow-up and information to help them determine the next steps. Follow-up remains an important part of the program and helps to show impact in the state. Building on the strengths of the program, positive changes were made that provide opportunities to reach new audiences as well as replicate the program in other states. The five primary changes are listed below.

1. Counties have been empowered to take charge of the highly successful radon poster contest, in which over 1,000 youth have participated, bringing home five national awards. The contest engages students in a national health topic while using their talents to help spread the word about radon-induced lung cancer.
2. Family and Consumer Sciences Extension Agents will be trained to conduct radon programs and outreach activities in their counties. Previously, radon programs were most often taught by a radon educator.
3. Radon information is incorporated into existing healthy housing programs as one of several contaminants in your home that can be reduced.
4. Funds received from the sale of test kits in select county offices will remain in the county to help fund Family and Consumer Sciences programs.
5. Online and social media outreach continues to be increased. Social media has been instrumental in helping us reach across state lines as well as share resources with colleagues in other states.

Working together we can more easily expand our outreach more quickly reach the national goal of 10 million homes mitigated for radon by 2015, resulting in 6,500 lives saved.
Kids don’t cause divorce but they are caught in the middle for the rest of their lives.” As a result of a state legislative mandate in 2008, all parents who are divorcing or seeking custody modification, or never-married parents seeking custody must attend a basic level parenting education course. Statewide, since 1999, 10,057 parents caring for approximately 18,102 children have benefited, including 1,852 parents and 3,512 children in 2012 from Co-Parenting for Successful Kids (onsite & online). Co-Parenting for Successful Kids was developed to meet the requirements of the Nebraska Supreme Court Parenting Act. It is research-based education to help separating and divorcing parents cope with divorce and custody. It helps parents focus on implementing positive parenting skills. They learn to answer children’s questions, to keep children safe and out of their conflict. They learn communication skills that can improve interactions with children and the other parent and learn what needs to be included in a parenting plan. Due to scheduling conflicts and driving distance, some parents found it difficult to attend an onsite class. In response to that need, and with the approval of the state supreme court, an Online Co-Parenting for Successful Kids version was designed. The online class includes video examples and instruction, interactive pages, and chapter reviews. Preliminary online evaluation data indicates that 100% of participants rated their knowledge high, compared to 65% prior to class. Six-month follow up results are not available yet. Online participants complete journal entries which are reviewed by extension staff. Parents may take the class in one approximately three hour setting or break it up into segments. They have 30 days to complete the course and receive the Nebraska Certificate of Completion of Parenting Education Course by email. Online participants say: “The mix of journal entries, quizzes and videos made the information sink in better than just quizzes alone would have.” “I was able to continue my normal day to day duties as a mom without trying to schedule a class somewhere with a busy schedule.” 2012 Onsite Co-Parenting for Successful Kids evaluation completed by 92% (n=904) of the 983 participants indicate after class: 99% understand the effect of divorce on children compared to 53% prior; 98% understand ways to resolve conflict, compared to 41% prior; 96% understand how to develop a co-parenting plan, compared with 43% prior. A six-month follow up phone survey in 2012 of 51 onsite participants randomly selected from all 20 program sites indicated that 92% of the families actually made changes to improve and encourage their child’s growth and development. Divorce Education: extension.unl.edu/divorce Online Registration: go.unl.edu/coparenting. Additional information: Contact Cynthia Strasheim, Statewide Coordinator and Extension Educator at cstrasheim1@unl.edu, or call 402-762-3644, or Maureen Burson, Extension Educator at mburson1@unl.edu, or call 402-441-7180. Team Members: Gail Brand, Leslie Crandall, Tonia Durden, Nancy Frecks, Jeanette Friesen, Jackie Guzman, Janet Hanna, Cathy Johnson, Patricia Jones, Debbie Kuenning, Mary Nelson, Susan Pearman, Lisa Poppe, Michael Riese, Deanna Vansickel, Rebecca Versch, Ruth Vonderohe, Mary K. Warner, Holli Weber, LaDonna Werth
Little research on the Body Image (BI) of rural youth exists. This study examined correlations among children’s BMIz, BI, and other measures as part of the 4-Health program, a project delivered by County Extension Agents. These pre-intervention correlations provide insight on the associations of body image with many childhood obesity risk factors. This project was developed to provide healthy living programs focusing on the topic of BI as well as food and nutrition, physical activity, and parenting/family communication to rural parents of 8-12 year old children participating in Montana’s 4-H Youth Development programs. Body image curriculum content included:

1. acknowledge each individual’s positive traits and capabilities;
2. encourage size and body acceptance of self and others (adapted from Health at Every Size tenets);
3. understand media influences on the development of body image; and
4. teach and model healthy self-esteem, respect, and confidence.

The pre-intervention correlations among BI, BMIz, and measures of Body Image include:

1. higher BMIz was associated with more body dissatisfaction and lower body esteem;
2. higher body dissatisfaction is associated with lower body esteem;
3. higher BMIz scores were associated with lower physical well-being;
4. higher body dissatisfaction was associated with lower psychological well-being.
Unexpectedly, results indicated that higher BMIz and lower body esteem scores were associated with more positive perception of family mealtime atmosphere. Full study results will help clarify the extent that BI disturbances can be mitigated through educational programs like 4-Health. Such changes may reduce the child’s obesity risk by raising body esteem, reducing the impact of unrealistic social attitudes about appearance, and improving perceived quality of life and sense of well-being.

**L-50- ILLINOIS CONTRIBUTES TO BRAIN FITNESS OF OLDER RESIDENTS**

Cheri Burcham, University of Illinois Extension  
Chelsey Byers, University of Illinois Extension  
Molly Hofer, University of Illinois Extension  
Rachel Schwarzendruber, University of Illinois Extension

With more than 222,300 Illinois residents over the age of 65 suffering from Alzheimer's disease, memory loss and dementia are common concerns for many as they get older. To address this issue, University of Illinois Extension family life educators developed the programs, Building a Better Memory for Everyday Life (2005), and FIT WITS (2009) to teach participants what is normal to expect with memory as we age, and strategies for aging adults to enhance their memory. To address the continuous demand for more in-depth information on memory improvement strategies, the latest memory program, Head Strong was developed in June 2012 to further engage participants in activities that are both interactive and mentally challenging for memory enrichment. The Illinois Municipal Retirement Fund administration specifically requested the Head Strong program to be presented across the state to their retiree members and also published an article on memory and aging provided by educators, that reached nearly 100,000 of their retirees. Because many participants indicated that ongoing “memory classes” would be beneficial, Wits Fitness was developed as part of the Learning is Timeless older adult program model at the Urban Leadership Center in northern Illinois. Wits Fitness is a bi-weekly, ongoing series where participants get together to work on intellectually stimulating and challenging activities. Participants in the Wits Fitness classes were asked to identify if any of the strategies they learned from attending sessions were transferred into their daily lives and 96.6% indicated that they did transfer learned skills. Annually, family life educators reach nearly 5000 active adults statewide who, through community classes, are encouraged to remain socially active, challenge themselves intellectually, and focus on healthy habits for mind and body. Brain Fitness is currently a very "hot" topic in the area of human development and aging. By attending this poster session, Extension professionals would benefit professionally by becoming exposed to several programs focusing on the topic of brain fitness and would be able to replicate the materials for use in their own states as requested. Personally, Extension staff will gain knowledge of strategies and techniques used in these programs, to assist them with improving their own memories and problem-solving capacities.
Lisa Poppe, University of Nebraska-Lincoln Extension
Angela Abts, University of Nebraska-Lincoln Extension
Gail Brand, University of Nebraska-Lincoln Extension
Tonia Durden, University of Nebraska-Lincoln Extension
Jeanette Friesen, University of Nebraska-Lincoln Extension
LaDonna Werth, University of Nebraska-Lincoln Extension

U R Parent is a new app that is designed for parents during the first year of their child’s life. It is a user-friendly innovation designed for iPhones, droids or iPads to make high quality, research-based information available to families 24/7. By developing this app parents and caregivers will be able to access research based information. The app is divided into five educational sections. How I Understand and Feel, How I Grow, How I Stay Healthy, How I Stay Safe and Note to Parents. Each one of these sections is included by an infant’s age starting at newborn and going up to 12 months. The vision is to reach all parents with key information that can help their family unit thrive, and support their children as they grow. University of Nebraska Extension Educators partnered with “Just in Time Parenting” (part of eXtension) to derive much of the research-based information for the app. Unique features include month by month information, the ability to customize the app to your child and replacing pictures with your own child’s in the app’s time-line. There is also a baby book to record the baby’s 1st along with keeping their immunizations dates in a handy place on your phone device or iPad. Additional features include podcasts and videos to support the research based parenting information. A special section also focuses on Military families and special issues that they may face as a family. This app can be accessed in the Apple iTunes store for free.
Functional foods, as defined by the Academy of Nutrition and Dietetics, are those that “have a potentially beneficial effect on health when consumed as part of a varied diet”. The International Food Information Council reports that consumers have increasing interest in learning about the connection between these foods and their potential health benefits. As a result, forward-thinking, nutrition-focused FCS Extension educators may benefit from developing and providing traditional, or virtual, functional foods programming to consumers of all ages. This type of programming, although a nod to early FCS education styles, looks forward with a focus on research and wellness to meet the needs of foodies and health-conscious individuals alike. The Functional Foods for Life Educational Program series (FFL) was developed to provide evidence-based information through individual seminars on the following functional foods: berries, chocolate, coffee, mushrooms, tea, vegetables and whole grains. Each seminar, developed for youth or adults, is presented with a combined lesson and an interactive and tasting component and comprises the food's origins, its current research results, its potential health benefits and consumption recommendations. To date, FFL seminars have reached over 4300 individuals in 173 sessions. Retrospective tests and follow-up evaluations are utilized to assess adults attendees knowledge gained and behavior change respectively. Retrospective tests indicate a 62% increase in understanding of current research about the food/beverage (n=611); a 67% increase in understanding of what health benefits food/beverage may provide (n=608); and a 26% increase in plans to eat/drink food/beverage as part of a healthful diet (n=614). Six to eight week follow-up evaluations indicate that 73% eat/drink food/beverage as part of a healthful diet (n=199); 67% eat/drink more food/beverage for health benefits (n=144); and 60% are more interested in nutrition and health (n=383). FFL programming presented to youth ages 11-13 years allow them to utilize the knowledge gained to create unique videos about each of the foods. Videos are edited for use on video-sharing websites, self-promoting consumption of these and other plant foods to youth of a similar age. Video views are averaging approximately 200 views per day. FCS Extension educators can utilize the FFL teaching model to promote evidence-based knowledge on any number of plant-based functional foods, supporting current nutrition recommendations for increasing plant food intake to promote chronic disease prevention. Following a quick-paced, interactive session, attendee outcomes will include the development of a personal outline to plan the implementation of a community- and age-specific functional foods program. Each attendee will leave the session with their completed outline for
their unique topic, the tools to develop additional outlines and youth videos, and a template for creating a retrospective test to assess knowledge gained and plans for behavior change when presenting their topic. FFL programming was determined to be exempt from review by the Institutional Review Board of Rutgers University. Prior to implementation of evaluations, the review board approved all methods.

**L-53- THE TWENTIETH CENTURY VOLUNTEER**

Melanie Thomas, University of Florida/IFAS Extension  
Joanne Cooper, University of Florida/IFAS Extension  
Jane Corless, University of Florida/IFAS Extension  
Meg McAlpine, University of Florida/IFAS Extension  
Natasha Parks, University of Florida/IFAS Extension  
Jackie Schrader, University of Florida/IFAS Extension

**Introduction:** The Northeast Florida Master Food and Nutrition Multi-County Volunteer program is a bridge to the community from the Extension Faculty. Selected individuals are trained to increase the number of volunteers providing nutrition, food safety, food preservation, and food preparation education to residents in each participating county. Graduates of the program are required to provide twenty-five hours of volunteer service in their respective counties and participate in ten hours of update training each year.

**Objectives:** Participants will:
1. enhance Extension food and nutrition Family and Consumer Sciences programs while improving the health and well-being of Northeast Florida residents,
2. gain knowledge in the principles of food preparation, food preservation and food safety techniques, and
3. demonstrate an understanding of nutrition information by creating and conducting a presentation of choice with appropriate educational materials.

**Methods:** The training involved a nine-week series of classes with participants from six neighboring counties. Announcements were conducted on local Extension websites, as well as, monthly newsletters and newspapers. Each class was approximately six hours in length and consisted of lecture, demonstrations, and experiential learning activities. Participants were trained in basic nutrition along with the latest USDA techniques in food safety, preservation and preparation. Hands-on activities included, but were not limited to, understanding basic nutrition, food preservation, food preparation techniques, and a variety of food safety practices. Volunteers were given time weekly to research information for required presentations related to teaching nutrition curriculums.

**Evaluation:** Several different tools were used to evaluate program effectiveness. Pre and post-tests were given to assess nutrition and food safety knowledge. The evaluation provided feedback for future programs. Hands-on activities including a ten minute educational presentation, provided agents with visual assessments of knowledge gain and an opportunity to identify inaccurate procedures. The written evaluation consisted of short answer, multiple choice, and Likert-scale questions. Results: Pre/Post assessments indicated participants increased their knowledge
by twenty-two percent (71% to 93% increase in test scores). Ninety-six percent (24 of 25 participants) successfully completed the course and currently volunteer for Family and Consumer Sciences Extension programs. Participants reported implementing behavior changes in food safety practices and preparation, nutrition and health. One hundred percent of volunteers indicated an understanding and agreed to use land grant, research-based information when working with clientele. All participants received the nationally recognized five-year certificate, SafeStaffâ (food safety), from the Florida Restaurant and Lodging Association.

**Conclusions:** Twenty-four volunteers were trained to provide at least 600 hours of service in support of healthy lifestyles and chronic disease prevention. This equates to $10,920 saved annually within County Extension budgets. Practicing proper food safety/preservation techniques decreases the potential for foodborne illness, promoting safer home and workplace environments. This multi-county program bridges knowledge and skills to support the resurgence of home food preservation which continues to grow due to economic value and health benefits. The program also decreases the prevalence of poor dietary habits.

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**L-54- HEALTH INSURANCE LITERACY INITIATIVE: A DECISION TOOL FOR CONSUMERS LIKE YOU**

Mia Russell, University of Maryland Extension
Karen Aspinwall, University of Maryland Extension
Bonnie Braun, University of Maryland Extension
Virginia Brown, University of Maryland Extension
Nicole Finkbeiner, University of Maryland Extension
Christine Garcia, University of Maryland Extension
Martie Gillen, University of Florida/IFAS Extension
Lyle Hansen, University of Idaho Extension
Jinhee Kim, University of Maryland Extension
Elizabeth Kiss, Kansas Cooperative Extension Service
Lynn Little, University of Maryland Extension
Teresa McCoy, University of Maryland Extension
Megan O’Neill, University of Maryland Extension
Maria Pippidis, University of Delaware Cooperative Extension
Crytstal Terhune, University of Maryland Extension
Molly Vetter-Smith, University of Missouri Extension
Andrew Williams, University of Maryland Extension
Debra Wood, Kansas Cooperative Extension Service

Do you dread making health insurance purchasing decisions? Are you confused by the choices you must make and uncertain you’ve make a good decision that meets your health needs and financial resources? Would you like a tool to make sense of your options? This session will introduce you to a decision tool you can use personally or in your educational programming. It was developed in response to the Affordable Care Act that increases the number of adults making health insurance purchases. To tool helps individual’s increase their competence to evaluate different health insurance policies, confidence in making an good decision for them and empower them to take control of health insurance purchasing. We will share results of our multi-state pilot testing.
educational program materials and ideas for how you can help others make informed decisions.
Our nationwide Extension System is positioned to provide this and other tools. Open enrollment in
the fall of 2013 is prime time for teaching as Extension gears up to inform consumers like you.

L-55- VENISON 101: FROM FIELD TO TABLE

Ami Cook, West Virginia University Extension
Hannah Fincham, West Virginia University Extension

According to the West Virginia Division of Natural Resources, “Hunting in West Virginia is a time-
honored tradition in which the majority of families have at least one member who participates on a
regular basis. Each year more than 350,000 hunters take to West Virginia’s woods in search of
some sort of quarry.” Preliminary counts of game checking tags indicate West Virginia hunters
harvested a total of over 131,000 white-tailed deer in 2012. The 2011 total was over 132,000 deer
harvested by West Virginia hunters (www.wvdnr.gov). West Virginia has seen significant increases
in the amount of deer harvested in the state in the past 15 years. Hunting was, and has continued to
be, a sport as well as a source of economical food supply for West Virginians. More recently, the
tough economic times, desire for healthier foods, and concern for food safety may contribute to the
resurgence in people growing, preparing, hunting, and/or preserving their own foods. Regardless
of the reason, it is vital to educate people on food safety. Venison 101: From Field to Table
addresses food safety while getting a deer from the field to the dinner table. The class, offered
throughout the state, coincides with the beginning of deer season and is offered in collaboration
with the Division of Natural Resources. The program addresses food safety issues in each
component of the process, literally from field to table. There is a mixture of lecture, discussion, and
interactive demonstration involved. Lecture and discussion topics include deer herd management,
hunting wounding loss, deer health, field dressing, and nutritional value of venison. The
collaborating partner, the Division of Natural Resources, covers deer herd management and deer
health. Agriculture and Family Consumer Science Extension Agents offer information on hunting
wounding loss, field dressing and the nutritional value of venison. Participants observe interactive
demonstrations on cutting, preserving, and preparing venison for safety and quality. Agriculture
and Family Consumer Science Agents may provide these demonstrations; however, many times,
local, certified meat processing businesses are eager to provide demonstrations on cutting the
venison. Since an actual deer carcass is used for the demonstration, participants can get hands-on
experience cutting meat using the knowledge and information given. Family Consumer Science
Agents provide information and demonstrations on preparing and preserving venison. Often,
people are still using recipes passed down from generation to generation that do not meet USDA
guidelines. USDA guidelines are followed in demonstrating safe and effective ways to enjoy venison
throughout the year. Venison 101 is a replicable program that any educator may adapt to suit
their needs, content, audience and budget. NEAFCS participants will receive the information
necessary to create a similar program to meet their unique needs.
L-56- BUILDING BRIDGES TO EXPAND DRINKING WATER QUALITY AND WATERSHED STEWARDSHIP EDUCATION

Karen Aspinwall, University of Maryland Extension
Kate Manchisi, University of Maryland Extension
Lis Maring, University of Maryland Extension
Daphne Pee, University of Maryland Extension
Rachel Rosenberg Silverstein, University of Maryland School of Public Health
Amy Sapkota, University of Maryland School of Public Health

Using a multi-disciplinary approach and successful collaborations, an Extension project tackles a long time need: providing a new and coordinated approach to well water safety, septic system maintenance and water stewardship education. 850,000 people in the state use private wells, but little is known about private well testing and maintenance, or private well water quality. Educators from multi-state Extension programs, University researchers, and the Mid-Atlantic Water Program collaborated to develop a comprehensive program that addresses these knowledge gaps and provides related septic system education and water conservation strategies to residents that use private wells. Targeted outcomes of the program include increasing participants’ understanding of where their drinking water comes from and how their well system functions; active development of strategies to maintain and monitor their drinking water supply; and implementation of actions to conserve household water supplies and contribute to protecting groundwater quality. Three clinics have been completed, with two more planned for fall, 2013. During the two session program, water samples are collected and analyzed for 7 biological contaminants, total dissolved solids, pH, nitrates and arsenic. Researchers interpret test results and participants learn about local groundwater conditions, treatment solutions for problems discovered, and household and backyard water conservation strategies. Evaluation tools include a prior knowledge needs assessment survey, end of session intent-to-change-behavior surveys and mid-term (6 month to one year) follow-up impact surveys using traditional and social media tools to record actual behavior change. Preliminary impact data from end of session surveys indicate that over 50% of participants responding plan to: test their water within the next year and be more careful with activities within 50 feet of their well; 40% plan on inspecting their well. Program curriculum, evaluation tools, results of surveys, lessons learned and tips for replication will be shared.

L-57- FOOD PRESERVATION RESOURCES

Julie Cascio, University of Alaska Fairbanks Cooperative Extension Service
Roxie Dinstel, University of Alaska Fairbanks Cooperative Extension Service
Kari VanDelden, University of Alaska Fairbanks Cooperative Extension Service

Preserving foods at home, a necessity a few generations back that fell out of favor with the advent of commercially available preserved foods, is resurfacing as more people are growing and preserving their own food. Newer technologies to measure safety have changed methods, processing times and other factors in food preservation. Older recipes are not always safe. Reaching this new audience who often looks first to the internet for information, means that extension, too, needs to use the internet with current, research-based materials that use the interactive and video based technologies available. This presentation will highlight the use of Extension web modules and
YouTube videos that go step by step through food preservation processes. A Facebook page strives to get researched methods to people who otherwise try to make up their own canning times. Extension agents who teach food preservation can use these resources to answer individuals' questions, to supplement in-class activities, and to use as follow up resources to classes. The food preservation methods available online include modules that cover basic canning information such as food acidity, using a boiling water canner, and using a pressure canner. For example, using audio clips of various types of pressure gauges and the sounds they make when up to pressure helps clients who use these resources feel more confident that they are indeed reaching the pressure, and thus the temperature, in the canner. This helps them feel more confident in the safety of their product. Other modules go through steps in processing specific low-acid foods in glass jars or metal cans. Procedures for using a can sealer to seal cans accurately is another module topic, as well as processing pickles, fermenting sauerkraut, making jellied products, and dehydrating and freezing. Another way to inform audiences is through video. YouTube videos made by Extension can be viewed on the web and offer clients who may not be able to attend a class a visual way to access accurate food processing information. These resources can be used in face-to-face classes as well to illustrate "how-to" or as a visual reinforcement of a hands-on classroom component. Class attendees will learn where these materials are located on the web, how to access them when using with an individual or in class.

L-58 - KIDS IN THE GARDEN

Julie Garden-Robinson, North Dakota State University Extension Service
Stacy Wang, North Dakota State University Extension Service

Childhood obesity remains a topic of concern in the United States. The Centers for Disease Control and Prevention (CDC) reports that approximately 12.5 million children and adolescents aged 2 to 19 years are obese. Research shows obese children are more likely to become obese adults, and obesity has been linked to serious long-term health consequences such as high blood pressure, type 2 diabetes and asthma. Gardening has emerged as a valuable way to teach children skills, enhance their intake of fruits and vegetables and increase their fitness levels. In addition, growing produce in a home garden can be less expensive than purchasing in a supermarket and can be very rewarding. Children who help in the garden gain self-confidence, a sense of responsibility and an appreciation of growing food. Children are more likely to try new fruits and vegetables they helped grow, which helps promote the U.S. Dietary Guidelines/MyPlate messages to increase fruits and vegetables. A diet rich in fruits and vegetables has been shown to reduce the risk of obesity, heart disease, diabetes and certain types of cancer. "Kids in the Garden" is a newly developed eight-lesson curriculum highlighting the benefits of gardening and the consumption of fruits and vegetables. This session will build the capacity of Extension professionals in the area of nutrition and health programming for children and families, with potential use in 4-H Cloverbud programming, junior master gardening programs, and work with a variety of Extension audiences, including participants in Head Start. The peer-reviewed curriculum, based on a collection of published children’s books, engages preschool-aged children and their parents/caregivers in lessons about seeds, roots, leaves, stems, flowers and vegetables. The lessons feature hands-on gardening activities, art activities and preparation of simple recipes using picture-based recipes. Parents received a weekly newsletter with information about gardening, nutrition and food preparation. In the pilot project, 13 families completed the lesson series and the pre/post surveys. All (100%) of participants indicated that growing their own food was a healthier alternative to buying it, 85% stated they enjoyed gardening.
with their child/ren, and 69% of participants reported reading the gardening newsletter. About
92% of parents/caregivers reported that their child talked about gardening, 69% of families grew a
garden or container garden at home, and 85% reported their child talked about the gardening
activities. On a 1 to 6 scale (6 = highest), parents rated their agreement with the statement
“gardening is economical” a score of 4.62 on the post-survey, compared to 4.13 on the pre-survey.
They rated the statement, “growing food is a healthier alternative,” a score of 5.38 on the post-
survey, compared to 5.07 on the pre-survey. They rated the statement “I enjoy gardening with my
child/ren” a score of 4.54 on the post-survey, compared to 4.2 on the pre-survey.

L-59- ASSESSING THE EFFECTIVENESS OF PRE-SCHOOL NUTRITION
EDUCATION

Amy Gannon, West Virginia University Extension
Lesley Cottrell, West Virginia University Extension
R. Jeff Olson, West Virginia University Extension

The WV Family Nutrition Program (FNP) is a statewide outreach program that focuses on nutrition,
food and physical activity behaviors. We employ paraprofessionals who traditionally target
children in elementary grades 3, 4, and 5 during school year and summer programming. The
current school environment has made accessing children during regular classroom hours more
challenging. The pre-school audience in WV is highly under served. Statistics indicate that 38
percent of WV children who enter kindergarten are either overweight or obese (based on BMI >
85th /95th percentile, respectively using BMI for age growth chart) (cardiacwv.org, 2011). Experts
say that preschool children who are overweight are almost five times more likely to be overweight
as young adults. Three-fourths of US children spend time in organized childcare and this is the ideal
setting for promoting healthy behaviors (JADA, 2008). Pre-school nutrition education helps
children learn about the basic origins of food through books, posters and hands-on experiences
during formative years. An age-appropriate nutrition education program was implemented in pre-
school classrooms and day care centers in a seven-county pilot area between May and August 2012.
Only classrooms with at least 50% of students qualifying for free or reduced lunches were provided
pre-school lessons. Scripted lessons were taught daily over a one to two week period. The lesson
plans included reading books about food and nutrition, food tasting experiences, hands-on nutrition
activities (food art, coloring and other kinesthetic activities), and didactic material on food safety,
healthy food choices and the benefits of increased physical activity. Newsletters containing
nutrition facts and recipes were sent home to parents. Teacher feedback questionnaires and other
surveys were used to assess children’s behavior changes, and the process and feasibility of the
program. Approximately 170 pre-school aged (4 and 5 year olds) children were enrolled in the
program. A total of 75 nutrition education hours were provided. Results of teacher feedback
surveys include:

- 86 percent of children are more aware of good nutrition;
- 50 percent chose healthier meals and snacks after the nutrition education lessons;
- 50 percent ate breakfast more often after the nutrition education lessons;
- 75 percent are more willing to try new foods;
- 75 percent improved hand washing after the nutrition education lessons.
Qualitative feedback from teachers included, “The children will try their vegetables and tell their friends that eating their veggies are good for their hair, skin, and eyes.” The benefit of nutrition education is well-documented through evidence-based research. Children of pre-school age are greatly influenced by modeling of behaviors from teachers and parents. Preference for food is still being determined at this age and nutrition and physical activity habits have not yet been formed. Therefore, it is easy to postulate that nutrition education during the pre-school years could have a profound impact on a child’s long-term health behavior, particularly when combined with parental education and behavioral modification.

L-60-SHOWCASING LOCAL SEAFOOD INDUSTRY AND PROMOTING INCREASED SEAFOOD CONSUMPTION

Elizabeth Shephard, University of Florida/IFAS Extension
Holly Abeels, University of Florida/IFAS Extension

It is well known that the benefits of eating seafood outweigh the potential risks. These benefits include high levels omega-3 fatty acids and low levels of cholesterol and saturated fat found in many fish species. Many community members still don’t know where to buy fresh local seafood or the types of local seafood that are available to them. Nor are they knowledgeable about the fisheries themselves and the level of sustainability in fisheries overall. The goal of this program is to increase participants’ knowledge of local seafood products and the benefits of buying and consuming local seafood. Participants’ will increase their knowledge of fisheries and sustainability within fisheries. Two-hour classes present content on sustainability of fisheries, what seafood is found locally and the benefits of buying local seafood, health benefits of eating seafood, recipes, cooking demonstrations, and tasting of local seafood. A partnership was created with Brevard County Extension’s Marine Science and Family and Consumer Sciences Extension Agents and Wild Ocean Seafood Market, a local market that has provided local, wild-caught seafood on the Florida coast for over four generations, in order to provide information on seafood found locally and tasting of local seafood. This partnership allows this program to teach and discuss a wide variety of topics related to seafood consumption and purchasing. It also allows the program to be held at Wild Ocean Seafood Market’s store and working waterfront where the fishermen unload their catch for both the market and partner restaurant. Participants in the class get to see a working shrimp boat, net and gear as well as seeing the process of recording, cataloging and storing the seafood that is brought into the market. As a result of this class, participants feel more confident about purchasing and cooking seafood leading to an increase in consumption of seafood per week and also increased their knowledge after the class. Several participants also purchased seafood from the market after the class. This benefits both the participant and the market since the participant now knows at least one seafood market where they can purchase locally caught seafood and the market now has a new customer. The long-range impact of this program is to increase knowledge of local seafood products and the benefits of buying local, which will support the local economy and increase local revenue. Another impact is to increase knowledge of benefits of eating seafood, which will result in increased health overall.
There is growing consumer interest in purchasing and consuming both fresh foods and locally produced fruits and vegetables, with a consequent increase in popularity of farmers markets, community supported agriculture, produce auctions, etc. Although many consumers perceive locally produced, fresh produce to be healthier, few have the knowledge, awareness and/or skills to be able to retain optimal nutritional quality following harvest or purchase. Therefore, a collaborative team from Ohio State University Extension, Medical Dietetics, and Food Science and Technology set out to develop educational materials on the best practices for optimal micronutrient and phytochemical levels following purchase, storage, preservation and consumption of local produce. Social Marketing Theory (SMT) guided the development of educational materials and strategies for consumers at farmers markets. Farmers’ market consumers and coordinators were surveyed to identify their knowledge levels, current practices, and opinions (motivations, barriers, needs, and wants) related to optimizing nutritional value of local produce. Survey information was used to develop a marketing mix strategy using the 4 “Ps” concept of Promotion, Price, Place, and Product. Our presentation will discuss the SMT process, survey results, and resulting marketing strategy to promote best practices for obtaining optimal nutrition from local produce. The project goal is that improved dietary awareness could change dietary practices, ultimately improving long term health.
L-62- CASH COURSE: ADAPTING CURRICULA AND MERGING RESOURCES TO MEET A SPECTRUM OF NEEDS

Lacie Ashby, University of Maryland Extension
Karen Aspinwall, University of Maryland Extension
Michael Elonge, University of Maryland Extension
Kathy Gordon, University of Maryland Extension
Jinhee Kim, University of Maryland Extension
Nancy Lewis, University of Maryland Extension
Lynn Little, University of Maryland Extension
Patricia Maynard, University of Maryland Extension
Wesley Musser, University of Maryland Extension
Mia Russell, University of Maryland Extension

Bridging the centuries has required that Extension educators continue to exercise the ability to adapt to changing programmatic demands and new technologies. This Program Development Report shares how the Cash Course Financial Education and Outreach Program enables Maryland’s Money Smart Team to do just that. By meeting the unique needs of various audiences through the adaptation of existing resources and incorporation of new elements, Extension will continue to be successful in meeting the demands of our growing clientele in this new era. Cash Course is a youth-targeted financial programming initiative that utilizes various resources and technologies to respond to community requests for financial education in a variety of settings across Maryland. This session showcases how Cash Course “bridges the centuries” by merging best practices of program planning and delivery into a new era of evolving technology and resources. By adapting delivery methods and curricula (including National 4-H Curriculum, Reading Makes Cents) to meet the needs of community partners seeking reliable financial educational opportunities for youth, especially in light of recently established Maryland State Department of Education Financial Literacy Standards, Cash Course has reached diverse youth and family audiences at various locations and settings statewide. Site examples include military installations, elementary and middle schools, YMCA, Salvation Army day camps, University family events, community colleges, Extension offices, county fairs and various community events. Cash Course has been embraced by 4-H Youth Development and FCS Finance Educators, as well as by community partners engaged in train-the-trainer sessions led by Extension. This report highlights the work of ten educators that have experienced various aspects of piloting, teaching, adapting and/or evaluating elements of Reading Makes Cents youth-targeted curriculum merged with other resources and technologies to respond to requests for financial programming and outreach—which is the product of the Cash Course program. Outcomes and impacts resulting from this work have been recorded and continue to be measured, indicating that youth involved in a series of workshops showed improved scores after participation in the series. For example, 92% of participants can describe the difference between needs and wants most of the time; 90% said most of the time they will think about whether they really need something before they buy it; 80% of participants said they would have a spending goal based on needs and wants; and 80% will set savings goals for things they want to buy. Cash Course will be described in a way that guides participants through the unique aspects of this program, covering successful adaptations and program delivery; examples of partnerships
formed and audiences reached; resource lists providing useful connections to financial education tools; and evaluation methods used, including lessons learned and challenges faced. Participants will also enjoy take-home resource lists (handouts or CD) suggesting curricula, activities, technologies and media that can be merged to enhance your own financial education programming, as has been done in the University of Maryland Extension’s Cash Course program. To continue idea sharing, e-mail follow-up with participants will ensure that learning and feedback continue after the session.

L-63 - REALITY CHECK: ELEVATING FINANCIAL LITERACY

Lindsey Miner, Oklahoma Cooperative Extension Service
Samantha Ephgrave, Oklahoma Cooperative Extension Service

By learning basic budgeting skills, and establishing savings plans, families will accelerate the asset building process and in turn, decrease the number of people requiring public assistance. The goal of the Reality Check program is to help students become aware of basic skills in financial planning, goal setting, decision making and career planning. The intended outcome is for students to make realistic educated choices, which will increase chances of financial success. The program allows students to experience a realistic game of Life. By throwing a few curves into the picture, such as children and obligations, these young adults quickly realize life is not just a game, but an adventure for which they should prepare. Each student is given a ledger with a randomly assigned profession, income, marital status and number of dependents. The students will have one hour to visit each booth. Booths include: Uncle Sam, bank, housing, insurance, health care, clothing, food, furniture, utilities, communication, entertainment, etc. The SOS booth is available for students who need a second income in order to make ends meet. 3 states are currently required to have students complete one semester in financial literacy. Another 17 states are required to have financial literacy incorporated into existing courses. This program is a cost effective way to assist school districts in meeting those requirements. Along with the experiential element of this program, Extension can provide school enrichment before and after to reinforce the key elements of Reality Check. All program materials will be available in digital form at no cost for all attendees.

L-64 - CHOOSING AND USING RELOADABLE PREPAID CARDS

Bobbie Shaffett, Mississippi State University Extension Service
Susan Cosgrove, Mississippi State University Extension Service
Teresa Lyle, Mississippi State University Extension Service

The U.S. Department of the Treasury is requiring everyone who gets federal benefit payments by paper checks to switch to an electronic payment method. People who did not choose an electronic payment option by March 1, 2013, will receive their payments via Direct Express (a MasterCard Debit Card offered by Comerica Bank). Were you involved in the national Go Direct Campaign to provide information to consumers and assist them in choosing an electronic payment method? If not, you can still serve seniors and under-banked consumers with programs on how to compare, choose, and use prepaid and debit card accounts wisely. Prepaid cards, like Direct Express, Green Dot, Bluebird, and the many others offered online and by local financial institutions, are commonly
used as an alternative to bank accounts by the unbanked or under-banked, as well as those who have had difficulty managing bank accounts. Consumers who use traditional accounts at local financial institutions may also use prepaid cards as an alternative to credit cards. Terms and costs of prepaid cards vary widely! Consumers should learn to shop around and compare prepaid cards, and consider how costs and safety compare to debit, checking, or savings accounts at local banks and credit unions. For example, prepaid cards may charge fees for reloading money, ATM withdrawals, balance inquiries, or making a purchase without enough money on the card, in addition to a small regular monthly fee. Safety is another issue to be considered. Prepaid cards are not covered by the CARD Act which regulates credit cards either, although some cards do offer their own forms of protection against loss. Several national organizations offer consumer education programs and online resources to inform consumers about prepaid cards, including the Federal Reserve Bank of St. Louis, the Consumer Financial Protection Bureau, FDIC, and Consumer Action. The Consumer.gov website also has basic information about prepaid cards, including a brief video, in the money management section (for non-readers or auditory learners, this information is included in an optional audio format). Information about the Direct Express Card offered by default to consumers who did not choose an electronic deposit account on their own may be found online at the Go Direct Campaign website: [www.godirect.gov](http://www.godirect.gov)

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**L-65-PARTNERING TO TRAIN IDAHO TEACHERS TO OFFER A FINANCIAL LITERACY PROGRAM TO STUDENTS**

Lyle Hansen, University of Idaho Extension  
Luke Erickson, University of Idaho Extension  
Karen Richel, University of Idaho Extension  
Marsha Lockard, University of Idaho Extension

Nationally, the last five years have proven to be a tough economic time. With high unemployment rates, high foreclosure rates, record use of credit (as of March 2012, US revolving consumer credit was about 855 billion), and low savings rates, people are financially struggling. However, there is good news. In 2010, President Obama signed an executive order creating an Advisory Council on Financial Capacity to help improve Americans’ financial literacy. Government, school, and business leaders in our state emphasize the need to teach basic financial management skills in schools to help better prepare students for the future. Research shows that as little as 10 hours of personal financial education positively affects spending and saving habits of students. In a 2008 Jump Start Coalition for Financial Literacy survey (www.jumpstart.org), high school seniors answered only 48.3% of questions correctly. Without crucial financial management knowledge and skills, our youth’s future economic well-being is at risk. Since 2006, Extension educators and partners have developed and led 26 free workshops for 527 high school teachers from 41 counties. These one-day (8 hour) workshops trained teachers how to use and implement the award winning nationally tested six unit National Endowment for Financial Education’s High School Financial Planning Program (HSFPP) curriculum. The HSFPP curriculum was developed by a National Network and has been evaluated by high school teachers. Objectives: Participants will learn about program implementation and be able to ask specific questions about the program. Participants will also receive information about how to access the HSFPP curriculum, PowerPoints, agenda and activities that are used to help them replicate the program. Combined Program Evaluation and Outcomes: A post-test evaluation was used to ascertain what the teachers learned. Teacher Outcomes: 90%
agree, “I will use the information from this workshop in my teaching and/or personal life.” 90% agree, "I will recommend this workshop to another teacher." 93% agree, “After attending this workshop, my capacity to teach personal finance has been strengthened.” Extension provided HSFPP Student Guides that have an estimated value of more than $49,000 to teachers and youth leaders. Extension leveraged an additional $59,000 of in-kind contributions to implement teacher education. Workshop participants have taught the High School Financial Planning Program (HSFPP) curriculum to 43,000 students in schools, correctional facilities, church groups, Indian Reservations, and other settings throughout the state. Student outcomes (National Study): A national study of students studying the curriculum stated it impacted their knowledge, confidence, and behaviors. Three months after completing the HSFPP: 60% of students said they increased their knowledge about credit costs, auto insurance, and investments. 91% believe that managing money affects their future. 91% gained confidence in money decisions. This subject matter fits well with the overall conference theme, because youth financial literacy education has become vital in this “New Era for Extension.” Extension educators from all disciplines can benefit from this program.
This study analyzed rural youths’ attitudes and aspirations regarding their future career, education, and residency choices. Researchers surveyed high school seniors in three central West Virginia counties to gain insight into rural youths’ perceptions of post-graduation opportunities in the areas of education, occupation, and social mobility. Specifically, researchers sought to determine the effects of parental influence versus peer influence, and the effect of socioeconomic status on youths’ future educational and career goals. Participants were also asked to identify perceived supports and barriers influencing post-graduation educational and occupational aspirations. Prior research on the topic indicated that rural youths’ aspirations may be less ambitious when compared to those of their non-rural counterparts. Rural youth may not aspire to the highest-level professional jobs, because these jobs are not commonly found in rural areas. Most jobs found in the counties involved in this research project are classified as service-providing jobs. Higher-paying jobs available to residents of these communities mainly include labor-intensive employment in adjacent counties or states within the oil and gas, timber, and agricultural industries. Researchers had anecdotally observed that many youth in their communities see these jobs as an adequate way to make a living. Additionally, researchers felt that many youth were exposed to discouraging messages regarding the value of higher education from their family and friends. Less than 10% of the counties’ populations hold a BA degree in all three of the rural counties in this study with Calhoun at 9.3%, Roane at 9.0%, and, Wirt at 9.9%. Most of the opportunities that West Virginia’s rural students aspire to pursue require youth to leave their local communities. Once youth move away from their rural communities to pursue educational or career opportunities, they may not return. The populations of two of the counties involved in this research project have declined by 750 residents since 1980. Furthermore, youth who do return to their communities after attaining their educational goals are often unable to find positions related to their chosen field. In November 2012, WorkforceWV rated all three counties’ unemployment rates much worse than average, when compared to the rest of the state. For this study, researchers chose a descriptive research design utilizing a survey questionnaire. High school seniors residing within five rural West Virginia counties comprised the target population. The sample included 94 seniors attending three high schools in central West Virginia. Initial findings show that: 77.7% of respondents planned to attend college or trade school after graduation; the most important factor affecting their decision was higher earnings, followed by job opportunities; 20.2% felt that their family or friends would prefer that they not attend trade school or college; friends have a more negative influence than family members; lack of money is the most prevalent barrier to achieving career and educational goals, followed by the lack of jobs in respondents’ communities. Extension professionals working in rural communities can easily replicate this study to gain insight into youths’ post-graduate aspirations. Findings can be used to guide youth programming efforts to promote higher education opportunities.
Previous research has demonstrated that AmeriCorps members serving with the West Virginia University Extension Service’s Energy Express program gain in self-efficacy immediately after completing their term of service with the program. However, researchers wanted to determine if service with Energy Express may have long-term impacts on AmeriCorps members’ self-efficacy as well. Anecdotal reports provided by Energy Express county contacts and state-level Energy Express administrators lead researchers to believe that service with Energy Express influences AmeriCorps members’ long-term self-efficacy, their educational and career paths, their future parenting choices and practices, and their commitment to service and volunteerism throughout adulthood. Through an examination of prior literature on the topic, researchers identified and grouped common factors that can influence individuals’ commitment to service activities as adults, and the short and long-term impacts of involvement in service activities. Factors that can influence individuals’ long-term commitment to service include prior involvement in service activities, the duration of the service activity, and the nature of the service activity. Involvement on service activities can have both short-term and long-term impacts on civic engagement, education, employment, and life satisfaction. Researchers used this information to guide the development of the research questions. Those questions included: 1. What are the factors related to service in the college years that influence future commitment to service? 2. What are the impacts of service in the college years on employment, civic engagement, life satisfaction, selection of a life partner, parenting styles, and use of expendable income? Researchers developed and piloted a survey instrument containing questions regarding subjects’ prior involvement in service activities such as in high school, duration of service activities in which they have participated, intensity of service activities in which they have participated, involvement in service activities requiring direct interaction with people versus indirect activities such as office work, construction, etc., reflection on service afterwards, and service with Energy Express versus other service choices. Control groups for the survey were identified utilizing partnerships with college alumni organizations and coordinators were contacted. The survey was then placed online and links to the survey were sent to participants. Researchers are currently gathering data and plan to analyze the data in February 2013. Results and findings will be available shortly thereafter. Extension professionals working with adult volunteer populations, especially AmeriCorps programs, will find the results beneficial and may want to replicate this study to gain insight into long-term volunteerism. Findings can be used to guide volunteer programming efforts to promote life-long service opportunities.
How to successfully bridge the generations in an extension volunteer organization was the subject of a West Virginia University Extension Task force study. The group examined the association of Extension and adult groups associated with family and consumer sciences programming, partnerships and future sustainability. The process included a survey among Extension professionals, focus group discussions, and literature reviews. The survey examined perceptions of Extension advisers and the needs that are met by membership in service/leadership/learning groups. In the study, Extension professionals perceived membership as an overall positive value to individuals and communities. In a background study, published in the Journal of Extension, members credited their experience to increased skill level in public speaking, leadership, planning, committee membership, and teaching. The article challenged Extension to develop groups to become "hothouses" for developing leadership skills in volunteers, particularly young women (Ohnoutka, et al. 2005). Literature reviews revealed research-based evidence of membership benefits with service organizations. Social groups and volunteerism provide health benefits; participation in social groups reduces risk factors for disease and encourages physical activity. Social connectedness and volunteering can improve mental acuity and decrease mental deterioration in aging. For younger adults parenting skills and confidence can be increased through socialization. Self-confidence, self-esteem, reduced depression and self-reported happiness all increase with participation in groups. One compelling review examined the current literature about engaging Baby Boomers, Generation X, and the Millennials in social organizations and volunteerism. Each generational group indicated a high level of social engagement and/or volunteerism. All of these groups will be even more engaged when it matches their value set. How will a traditional organization adapt to such diverse sets of interests and needs from the generations? Groups must be willing to try new approaches and listen to new ways of doing things. They must be creative, open-minded and prepared for change when recruiting younger members into a traditional organization. It will be imperative that groups show value and respect members of the other generations. The findings from this task force review have implications that are relevant to all of Extension programs that engage volunteers. This poster session will provide: Steps for accessing a volunteer group, Benefits of volunteer groups, Literature review summaries and references, Tools for creating volunteer organizations of the future. The target audience is all Extension professionals who work with volunteer groups. They will receive a handout which includes a summary of the task force project, references, on-line resources, and a link to a guide developing new volunteer groups.
**R-4-ENGAGING VOLUNTEERS THROUGH GROUP ONLINE TRAINING**

Sarah Kleinman, University of Vermont Extension  
Ellen Rowe, University of Vermont Extension

The Northeast Region 4-H Program Leaders saw attendance diminish at the traditional 4-H Volunteer Forums, often considered a treat and vacation for many volunteers. Given tightened budgets and staff capacity reduced, the Northeast 4-H Program Leaders wanted to get a better understanding of who attends the traditional 4-H Volunteer Forums and what those attendees do as a result of the training. An online survey was distributed in 2009 with questions focused on program topics of interest and acceptable delivery methods to give us data that would help to determine the future of the traditional training. With this survey data, the northeast region determined it was time to explore other methods of training our 4-H volunteers using new technology. University of Vermont Extension took the lead on developing the region’s first ever Virtual Forum to engage county groups across the region over 3 Monday evenings in the fall of 2012. Each evening consisted of 2 topics related presentations which included powerpoint presentation, related handouts and group activities to ensure participants were able to learn from one another and experience the camaraderie that comes with 4-H experiences. Session attendance ranged from 150 to 265 individuals (based on presentation survey response) across the 12 states, about the size usually reached through the traditional in person volunteer forum. With the move to a virtual forum, Vermont 4-H had 3 intended outcomes: increased acceptance that distance education could be used to train 4-H volunteers and staff; increased understanding around best practices for the content areas chosen; and an increase in volunteers and staff using the skills learned in their club or program settings. At this point, our summative data has not yet been captured but the formative evaluation results indicate that the majority of participants (over 2/3) both gained new knowledge (excellent and good categories) and that distance education was an acceptable approach for training.

**R-6-FAST TRACK 4-H VOLUNTEER TRAINING**

Brenda Aufdenkamp, University of Nebraska - Lincoln Extension  
Kimberly Cook, University of Nebraska - Lincoln Extension  
Karna Dam, University of Nebraska - Lincoln Extension  
Elizabeth Janning, University of Nebraska - Lincoln Extension  
D’Ette Scholtz, University of Nebraska - Lincoln Extension

On your mark! Get set! GO ONLINE to view the Fast Track 4-H Volunteer Training modules! The University of NE-Lincoln Extension is offering a fun, fast-paced way for volunteers to receive important information that is available anytime, at any computer, right in their own home. Fast Track modules are short, 2-10 minute video segments that target topics important to today’s 4-H volunteers. Online training is perfect for busy volunteers wanting to learn more about the Nebraska 4-H program and improve their youth development skills. The Fast Track online modules will enhance the face-to-face volunteer programming that you already provide, and will ultimately benefit the youth involved with your program. Learn how your organization can create similar Fast Track modules by utilizing free downloadable software and/or software already available on your computer.
Tonya Price, Virginia Cooperative Extension

Virginia 4-H relies heavily on volunteers and until now little research had been conducted exploring the motivations and youth experiences that contributed to their willingness to volunteer. Given the important role volunteers play in implementing 4-H programming and the demographic makeup of the 4-H program, it is pertinent to understand more about the motivations involved in adults becoming 4-H volunteers. Understanding volunteer motivation has been recognized by both researchers and administrators as a valuable component of program development. Thus, it is important to explore the motivational needs that contribute to Virginia adult 4-H volunteerism. This quantitative research study was designed to fill a gap in the current volunteer literature, bridge the centuries, and provide a "new era for Extension" regarding our understanding of the motivational needs of Virginia adult 4-H volunteers. The following research questions guided this study: 1. What are the motivations of Virginia adult 4-H volunteers and how are these volunteers distributed in terms of their primary motivational need (power, achievement, or affiliation)? 2. What is the relationship between motivational needs (power, achievement, and affiliation) and volunteer satisfaction as self-reported by Virginia adult 4-H volunteers? 3. To what extent are Virginia adult 4-H volunteers motivated to volunteer for Virginia 4-H? 4. To what extent do motivational needs (power, achievement, and affiliation) differ in urban and rural Virginia adult 4-H volunteers? 5. What are the most prevalent youth experiences influencing adult 4-H volunteerism in Virginia 4-H? This study was a comprehensive look at volunteerism among Virginia adult 4-H volunteers and was conducted quantitatively using descriptive statistics (frequencies and measures of central tendency), Spearman Rank Correlation Coefficient, and Independent Sample t-test analyses. Qualitative analysis was also conducted to analyze open-ended responses. The population under study includes Virginia adult 4-H volunteers. Data were collected from 296 Virginia 4-H volunteers via a 20-item questionnaire utilizing McClelland’s Trichotomy of Needs Theory. The survey instrument, adapted from Independent Sector (2001) and Henderson (1981) was used in a mailed survey to gather information from participants. The results showed that the top three motives for volunteering with Virginia 4-H were within the achievement and power subscales and included to teach and lead others, to improve the community, and to have an influence on how young people learn and grow. Further, a significant positive relationship was revealed between motivational needs (achievement, affiliation, and power) and satisfaction level. Results also indicated that the majority of Virginia adult 4-H volunteers described their current motivational level as “motivated.” Additionally, no significant differences were found between the motivational needs of urban and rural Virginia adult 4-H volunteers and 4-H involvement was the most prevalent youth experience that influenced the decision to volunteer for 4-H. Findings from this study help raise awareness and provide guidance for increasing and sustaining volunteerism within 4-H. Volunteer managers will learn that they may need to adapt their programs to reflect the motivational needs and motivational level of volunteers. Furthermore, based on the results of this study, implications and recommendations for practice and further research are suggested.
The "Grow in Green" training punch card program was established as an incentive and means of encouraging volunteer participation in valuable youth development trainings. The innovative training punch card idea was modeled and crafted to resemble popular retail business punch cards (coffee shops, apparel shops). For the "Grow in Green" training punch card program, volunteers commit time to attend trainings (4-H Orientation, leader meeting, youth development training, etc.) and they receive a "punch" on their card. When the card is full (5 punches received), the volunteer receives a financial reward from the 4-H Council to build the 4-H program as they choose: for club project work, service-learning opportunities, 4-H celebrations, and more. The Grow in Green program serves as an incentive to increase volunteer participation in youth development trainings, resulting in an increase in youth development knowledge and higher quality youth educational experiences for Nebraska 4-H club members.

Four out of every 10 American fourth-graders cannot read at the basic level on national reading assessments. Children's school success is greatly diminished if they cannot read well by the end of third grade. Poor readers at the end of third grade comprise an overwhelming percentage of school dropouts, juvenile delinquents, and prison inmates (Kingery, 2008). Brain science and developmental research both show that the quality of children’s earliest relationships and experiences set the stage for school success, health and future workforce productivity (West Virginia Department of Education, Closing the Achievement Gap, 2010). These early experiences shape the hard wiring of the brain and that hard wiring impacts how children approach life in general, how they learn, how they manage their emotions and how they relate to others (NCCP User Guide, 2007). Children with below average reading skills show significant gains after opportunities to read with caregivers and volunteers (Collins, 1998). To prepare volunteers and caregivers to read with children using shared reading strategies the West Virginia University Extension Service 4-H Youth Literacy Team researched and developed a new Reading Partner curriculum. Reading Partner's helps persons understand the early stages of reading and how to support a child’s learning to read. The curriculum is designed to prepare community volunteers, 4-H teen leaders, parents, and caregivers to read with children and to create a fun and positive reading environment. Reading Partners can strengthen vulnerable populations understanding of children’s literacy development and shared reading strategies. The target audience for this workshop is Extension professionals working with families and 4-H youths. Participants will learn:

1. shared reading strategies that support a child’s learning to reading,
2. about the components of the Reading Partner curriculum,
3. and target audiences for teaching shared reading.
Participants will receive a brief overview of the Reading Partner curriculum and learn how to use it to train community volunteers, 4-H youth volunteers, parents and caregivers. A seven minute Reading Partner video will be shown to demonstrate using the strategies with children. They will receive a CD of the curriculum and on-line access to the educational package including:

- Shared Reading PowerPoint Presentation
- Volunteer Training PowerPoint Presentation
- Art and Writing PowerPoint Presentations
- Reading Partner Booklet Handout
- Shared Reading Video
- Teaching Outlines and Evaluation Tools

This program is inexpensive to deliver with the materials provided. Educators can easily train others to deliver the program, producing a multiplier effect. Reading Partners can be taught as a stand alone workshop or as a component of a larger community-based program delivered to vulnerable populations and families. Reading Partner evaluations have shown significant positive gains among persons who attended training in

1. understanding shared reading strategies,
2. understanding children’s literacy development, and
3. the importance of reading with children among. Follow-up post evaluations have shown that persons trained read more with children and that they do use the shared reading strategies with children.

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**R-10-GIVING YOUR BEST - VOLUNTEER DEVELOPMENT SERIES**

Elizabeth Janning, University of Nebraska-Lincoln Extension
Brenda Aufdenkamp, University of Nebraska-Lincoln Extension
Kimberly Cook, University of Nebraska-Lincoln Extension
Debbie Kuenning, University of Nebraska-Lincoln Extension
D'Ette Scholtz, University of Nebraska-Lincoln Extension

Are you looking for new ideas and ways of reaching your volunteers? Giving Your Best is a webinar series for volunteers, youth professionals and club leaders who are looking for additional resources. The three week series consisted of a 50 minute webinar that was recorded. Participants could listen live on-line or receive the recorded webinar link to watch at their convenience. Topics are selected based upon current needs or interests. Participants stated “I really appreciate this being available over the noon hour and via the web” and “I like the webinars being recorded. I was not able to get on at the time it was held as I had planned but with it being recorded I still was able to view it.” Over 100 volunteers watched the recorded sessions that were posted to the website. This new format allows volunteers to receive training to enhance programs while fitting into their busy schedules.
Empowering, updating and sharing ideas are important to the success of all 4-H programs and volunteers. In an effort to meet the needs of volunteers in this region, 11 local 4-H educators worked as a team to create a learning experience that was specialized. The training combines education to one location for volunteers to learn and grow from one another. While there is some participation in the Ohio Volunteer Conference by 4-H volunteers in the Maumee Valley EERA (northwest Ohio), distance continues to be a barrier for most 4-H volunteers to attend. In an effort to offer specialized training to meet the needs of volunteers in this region, local 4-H educators worked as a team to design, implement, and evaluate the Maumee Valley EERA Volunteer Training. The geographical outlay of the counties in the Maumee Valley was conducive to offering two planned volunteer trainings annually whereas each one offered is within an hour driving time for volunteers and the combined efforts of the 4-H professional involved is within the concept of EERA programming. As educator time is always limited, the additional goal of the program was to capitalize on our regions staffing resources to reduce the time we invest in local training and utilize this new offering as a training option. Empowering, updating and sharing ideas are important to the success of all 4-H programs. These actions have proven to be a key in the success of the eleven 4-H programs in the Maumee Valley EERA. It is essential to the success of our volunteers to have learning opportunities to gain insight in working with today’s ever changing youth. The goals of the training include: To provide education in the areas of 4-H Program Management, Educational Design & Delivery, Positive Youth Development, Charting Success with Traits of Good Character; To provide an opportunity for new advisors to learn about their first year journey into 4-H as a volunteer; To continue promotion of the EERA concept to current volunteers while educating new volunteers as to the benefits of the collaborative efforts of the 4-H professions in the EERA; To provide at least one concrete tool to utilize in the management of a club. In 2012 the volunteer training doubled in size from the previous year~ 160. As more volunteers have experienced the training, they are spreading the word of the benefits of working together with other counties. The poster display will outline our approach in design, curriculum and evaluation materials, and ways in which the regional 4-H training can be adopted elsewhere.
Objective: Due to the geography of our large state, volunteers located in the fringes of Florida often do not engage in state forums or trainings because of the time and money required to travel 6 or more hours to Gainesville or Camp Ocala. This difficulty is the same for many other states with limited travel budgets and large geographical areas. The objective of this program was to increase capacity of 4-H volunteers by providing geographically convenient, high quality training.

Methods: Over the last seven years, the Northwest Florida 4-H Program Implementation Team (PIT) has implemented district volunteer forums at 4-H Camp Timpoochee. The most successful forums have attracted over 80 volunteers and included shooting sports certification as well as positive youth development and subject matter training. Networking was encouraged with share fairs and mixers. Tracks for new and experienced youth and adult volunteers were offered. Grants from the internal and external sources kept the cost reasonable. A sample of teaching materials will be on display for the conference audience. Materials will be posted on our NW District website for Agent/Teacher use and a sheet with the presenters’ contact information will be distributed at the session.

Impacts: Volunteers reported that the forums increase their knowledge and skills, and the average overall rating of the form was 4.57 (5-point Likert scale). Although they valued opportunities for interacting with specialists and volunteers, they were not willing to travel more than 2-3 hours. They appreciated the number of workshops available, and the flexibility to come for the entire weekend, or for just one day.

Conclusions: Future forums will include chaperone certifications and live scan fingerprinting for camp volunteers, creating a “one stop shopping” experience for volunteers. District forums make
training more accessible to volunteers by reducing cost and travel time and cultivate collaborative programming within the administrative district.
R-15-USING CITIZEN SCIENCE TO SPARK INDEPENDENT SCIENTIFIC INVESTIGATIONS

Andrea Lorek Strauss, University of Minnesota Extension  
Robert B. Blair, University of Minnesota Extension  
Pamela Larson Nippolt, University of Minnesota Extension  
Nathan J. Meyer, University of Minnesota Extension  
Karen Oberhauser, University of Minnesota Extension

Citizen science programs across the country invite the public to participate in scientific research. Through these experiences, participants learn scientific data collection protocols and have opportunities to observe nature, which naturally leads to asking questions about the natural world. A new project in Minnesota is training leaders of youth groups to use citizen science experiences to stimulate curiosity and inspire motivation to design and carry out scientific research projects. The poster will describe the program model and methods used to foster authentic inquiry in youth age 10-14 outside the traditional school setting, such as 4-H clubs, scout groups, or community youth programs. A discussion of formative evaluation results detail changes in youth attitudes towards science and changes in adult leader confidence. Biography: Authors are from the University of Minnesota Extension and serve as PI and Co-PIs on a five-year, $1.2 million grant from the National Science Foundation to investigate the potential for enabling authentic inquiry through citizen science.
As a nationally certified Emergency Medical Technician and 4-H Program Coordinator I see a gap in the training that we as professionals provide to the teens (and adults) that we train to be camp counselors. Through the camping program professionals rely on the maturity and ability of teens to take care of the youth in their cabins. They are a type of first responder in the cabins to address problems in behaviors, hygiene and even health. Through their training they receive in-depth information regarding how to handle many of the problems they encounter but many professionals shy away from teaching healthcare. The topic of healthcare is intimidating for 4-H professionals. It can be a tough subject for those who are not trained and scary in terms of legal repercussions or understanding what might be going on in a camper’s health. While we take trained healthcare professionals to camp, there is a need for training camp counselors to become a first responder in the cabins. Someone who can access the situation, call for help and be present when an emergency occurs. Through proper training from local healthcare organizations it is possible to prepare educators and counselors for situations to alleviate as much stress as possible during emergency situations at camp. Simple preparations such as the addition of an I.C.E. (In Case of Emergency) Pack can help provide useful information to camp counselors within reach of their backpack or binder in a moment’s notice. Preparing teen counselors for these situations can help alleviate much of the stress in a situation where otherwise they may feel unable to solve the problem at hand. However, it is also important that camp counselors learn life-saving skills also. Basic life support skills such as CPR, first aid and blood borne pathogens can help keep the counselor and the group safe from harm. These skills also provide additional benefits past the camp environment. Good healthcare can help to lead to healthy life long decision or career exploration in those areas. The goal of this poster presentation is to give educators the tools and resources to train the counselors for camp to be as ready as possible for emergency situations. Counselors who know and understand how to react to an emergency are less likely to panic and further injure the victim and themselves. This training plan was developed to be modified to work in most camping programs and a diverse amount of youth from many audiences and could be easily adapted to work with adults, volunteer groups and audiences from all areas of Extension. Educators should expect to explore the steps to building their own emergency preparedness program in collaboration with healthcare professionals and their community, be better prepared to serve clientele (whether adopted for youth or adults), and learn more about how to bridge the gap between their programs and healthcare. Please note: research grant recently approved, data to be available at time of conference.
R-16-A NEW ERA FOR EXTENSION - INNOVATION IN ACTION...

Jennifer Murray, West Virginia University Extension
Alicia Cassels, West Virginia University Extension
Karla Knoepfli, Oklahoma Cooperative Extension Service

In 2009, the Communications and Expressive Arts Task Force of the NAE4-HA Programs Committee was established out of recognition of the importance of the arts to youth life skill development. Albert Einstein once stated “Imagination is more important than knowledge” and research shows the connection between learning and the arts. Champions of Change: the Impact of the Arts on Learning (1999) researchers found that learners can attain higher levels of achievement through the arts as youth “learn to think” but also how they feel and behave. One critical research finding was that learning in and through the arts helped “level the playing field” for youth. In Real Learning, Real Work, author Adria Steinberg identifies six elements that are critical to the design of project-based learning: authenticity, academic rigor, applied learning, active exploration, adult relationships, and assessment practices. All of which are part of the Extension culture. The NAE4-HA Communication & Expressive Arts Task Force asks, “How are we going to bridge the ever changing role of Extension through innovation?” The Task Force developed and administered a survey to Extension Professionals in 2010-2011 to determine 4-H arts programming interests and needs as a way of laying the groundwork for our 4-H profession’s future county, state, regional and national 4-H arts programs. Many respondents incorporated their arts-related programs with the 4-H Mission Mandates of Citizenship, Healthy Living and Science. Public speaking, at 80 percent, and writing, at 68 percent, were the programs most likely to incorporate Citizenship. Dance/Movement, at 70 percent, was the program incorporated most in the Healthy Living mandate. And finally, programs in photography, (47 percent), filmmaking/videography (46 percent), and metal arts (45 percent) were the most likely art-related areas incorporated into the Science mission mandate. The NAE4-HA Communication and Expressive Arts Task Force challenges Extension professionals to think about “what could be” if we embrace “arts-based” programming. Learn how to reach your clientele by way of inquiry, engagement, and innovation through the arts.

R-17-4-H DESIGN CAMP – A NEW ERA OF SEWING

Megan Burda, University of Nebraska - Lincoln Extension
Susan Pearman, University of Nebraska - Lincoln Extension

Take your traditional clothing camp to the next level by introducing new techniques in textile and apparel design. 4-H Design Camp is bridging the centuries of sewing skills with science and career-based learning. Youth will develop essential design skills through hands-on activities that integrate science and identify careers. This 20-hour 4-H camp instructs youth how to create a complete wearable garment through fabric design, pattern manipulation and clothing construction. Program evaluations have indicated that 93% of 4-H Design Camp participants are learning skills that they will use in a future job. Workshop activities include fiber identification using textile dyes, principles of color theory and various fabric dyeing techniques. Each participant will receive program materials and a CD with lesson plans, promotional materials and evaluation tools. At the end of this workshop, you will have all the resources to bridge the centuries and begin a new era of sewing!
R-18-VOICES OF 4-H HISTORY: DOCUMENTING THE RICH HISTORY OF 4-H FOR THE FUTURE!

Tom Tate, USDA Extension  
Linda Horn, Connecticut Cooperative Extension System  
Steven Worker, University of California Cooperative Extension

As Extension prepares to celebrate its Centennial Year in 2014, commemorating the 100th anniversary of the implementation of the Smith Lever Act, The National 4-H History Preservation Leadership Team has been working with states across the country to capture oral recollections of former 4-H members, staff and volunteers about their 4-H experiences. Six states conducted pilot tests of the project in late 2012/early 2013. Nationwide, current 4-H members are trained to conduct interviews in their local communities in 2013. The Voices of 4-H History project aims to increase public awareness of the Cooperative Extension Service and its 4-H Youth Development Program. The local youth history project involves mentors to youth teaching interviewing techniques, editing and targeting alternative news outlets. Selected projects will be shared during 2014 to honor the Centennial; ultimately many will be archived on the National 4-H History Preservation website and other online locations. This poster shares the process of collecting visual and oral records to preserve 4-H history for generations to come, highlights state projects, and provides lessons learned for project replication so that all extension programs can participate in this project. The goal of the Voices of 4-H History project is to create multi-media works that reflect personal and community-based 4-H history and treasured memories from former staff, volunteers, members, and stakeholders to illustrate the program’s richly significant story. Project objectives are: 1) 4H youth working directly with news media and history groups in their own communities gain skills in fact finding, critical thinking, communications and public presentation skills and become aware of career opportunities; 2) Local, state, and national extension programs re-connect with staff, volunteers, former 4-H members, and stakeholders to bridge the past and the new era of extension, increasing support for new directions in extension programming; and 3) Increased public awareness about one of the nation’s best kept secrets: the national, state, local, tribal Cooperative Extension Service 4-H partnerships, extending the Power of Youth across the generations for the past 100+ years. The Voices of 4-H History Project is a part of a larger effort to preserve and share the rich history of the 4-H youth development program of Cooperative Extension. The work of the 4-H History Preservation team is based on the belief that “the more you know about the history of 4-H, the better you can understand your current position and do a better job in the future”. The ongoing work of the 4-H History Preservation Team, documented on the website (http://4-hhistorypreservation.com) is a model for the restoration and preservation of the rich history of 4-H and extension that local and state extension programs can replicate. As we bridge from the past to the future, it is clear that the underlying principles of extension work have remained the same, and will continue to for a very good reason, they work! 4-H youth can develop communication skills while they record 4-H history to bridge the past and the future.
Fits the overall theme: This program is a "bridge" between high school education and "real-to-life" experience of living on your own.

Description of skill set: This program provides the opportunity for youth to practice basic living skills beyond high school, where errors in their decision-making or judgment can be learned in a safe environment without harsh consequences. This can build their confidence when confronting life issues; build character when solving roommate issues, knowing connections with real employers and their expectations and appreciation for the help and caring of others.

Target outcomes of program: Youth learn how to write and manage a budget; problem-solve roommate issues; prepare a job resume; prepare and practice job interviews; open and balance a checking account; negotiate a lease agreement with a landlord, prepare meals for all.

Target outcomes for conference audience: Learn how "Survivor" Camp is structured; review lesson plans and resource materials. Evidence of previous success: survey results show significant impact on life skills learned; we have conducted this program since 2002; it has received the NAE4-HA national award for Teen Programming in 2005. Instructional techniques/program replication at conference: power point presentation, group discussion, handouts.

Take-home materials: fact sheets distributed; information on how to access a free copy of the curriculum online.

Contribute to new interpretation: The purpose of the program is to teach basic life skills for a successful transition from high school to living on their own. The curriculum was written by 4-H faculty to meet the needs of all 8th through 12th graders. Like the TV show, "Survivors", the weekend camp takes place in a secluded camp site that restricts contact with the outside world. Youth spend the weekend living with roommates in "apartments", sharing responsibilities of renting an apartment, budgeting a paycheck, paying monthly bills, dealing with financial crisis as they happen, and cooking their own meals. Local businessmen are invited to share tips on what they look for during a job interview. There are classes on writing resumes, applying for a job, how to open a checking account with a bank, negotiate with a landlord for a lease agreement. 4-H alumni are invited to share their roommate experiences. Meals are prepared by the youth participants. Throughout the weekend team building activities are intermixed with classes. The curriculum includes five core lesson plans. A resource section includes handouts, job descriptions, supply lists, time line, schedules and more. If a weekend retreat is not feasible each lesson can stand alone or be used independently in a classroom setting. The intent of the workshop is to provide another educational tool to the extension professional to help youth bridge the gap between high school and living on their own.
Four-H includes youth ages 5-19 in age appropriate leadership activities to foster knowledge gain and skill development through hands-on activities (4-H National Headquarters, 2011). Four-H has long been known for developing youth leadership and life skills. However, research related to the leadership development of Virginia 4-H teens is limited and all previous studies measuring these skills have originated outside Virginia. This research project has effectively bridged previous results to findings from this statewide leadership study. Numerous studies have focused on development of these skills and the benefits to 4-H youth who actively participate in the program. In particular, one study found that 4-H members self-reported that being in 4-H was quite effective in developing their leadership skills (Astroth, 1996). This study focused on the leadership skills developed by 19 high school 4-H members who served on the 2009-2010 Virginia 4-H State Cabinet. The Cabinet consists of officers, ambassadors, mentors, liaisons, and advisors from across the state. This elite group of teen leaders represents the voice and needs of over 198,000 Virginia 4-Hers and influences the direction and leadership of the 4-H program. Cabinet members are called upon to enhance the public understanding of 4-H, serve in advocacy roles with elected officials, and speak at major 4-H events. This study showed that serving on a statewide 4-H team increased leadership skills in teens. Specifically, this experience increased responsibility, improved ability to use decision making skills and proactively share personal opinions and views, improved public speaking skills, and increased ability to work with and appreciate diverse audiences. Research methods included focus groups, surveys, observations and telephone interviews. While the focus groups with the teens indicated leadership skill development in the previously mentioned areas, the parent interviews confirmed the overall growth of their teens. The major finding of this study indicated that these highly motivated 4-H members embraced the opportunities provided to them to become leaders in their communities and statewide. A longitudinal study is currently being conducted to further validate the research findings of this study. Four-H professionals can use the results of this study to further develop their teen leadership and development programs. Having knowledge of the skills gained from participation on the State 4-H Cabinet will help enhance and sustain program effectiveness by targeting programming efforts on positive leadership development.
In Wyoming, the horse project has over 1,371 youth enrolled in it. As one of the largest projects in the state, many youth are engaging in a sport that carries an element of risk. Recognizing that with proper instruction horseback riding can be very safe, as a youth development organization, it’s important that the teaching instrument -- the horse -- needs to be safe as well. The horse is the single largest risk factor in the sport of horseback riding, and prior to 2009 Wyoming did not consider this in the horse safety certification process that was in place. Additionally, in competitive environments we add additional 3rd party elements such as higher speeds, ropes, obstacles, other livestock and more. This further exaggerates the need for safety. In 2009, Wyoming test piloted -- in five counties -- a new horse certification process that evolved around each horse the youth would utilize in their project learning experiences. Realizing that riding skills with youth are on a continuum of advancement, this certification involves testing the youth’s knowledge of general and necessary vocabulary terms and testing the skills of each horse on a progressive scale. Horses can be certified as safe for ground work only, for riding in basic western and english classes, and for additional endorsement areas such as speed, trail, and jumping. In 2010, after taking input from parents, youth, volunteers and extension personnel, a new era was brought to light. Changes were made and the new Wyoming Horse Safety Certification was adopted state-wide. Along with the new certification program, a leader training piece was developed to create a team of volunteers across the state that have the knowledge to facilitate a positive environment for youth to test the abilities of their horse and ensure the horse has the skills necessary to provide a safe environment for the youth to learn. Through the assistance of the trained volunteers a statistical review in 2012 shows that an estimated 2,000 horses have been certified as safe to utilize as a project teaching tool; over 90% of horse project members have completed the certification; leaders have been given the training which aids in facilitating a positive learning environment for youth. This certification program has resulted in positive changes to existing procedures and practices relating to Wyoming’s overall horse educational efforts. This certification program is very clear and easy to understand and could be replicated in any program. Presenters will provide a CD with the certification forms, commonly asked questions handout, youth certification cards and the volunteer training power point.

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Middle school youth challenge educators in formal and non-formal settings. Successful educators understand the dynamics of this difficult age group and capitalize on their strengths. This workshop provides techniques to utilize the cognitive, emotional and social skills of the
Research indicates these skills must be understood and met to have lasting and long term impacts and outcomes. Workshop delivery methods share simple techniques used when working with this age group, utilize role modeling on typical activities that can be replicated with any subject and promotes individual plan development by participants. Presenters will share clear and practical techniques for usage of the essential elements of youth development for extension youth in 4-H as well as across programming efforts. Presenters will provide both research and practical examples for participants to replicate in their educational programs. While extension educators and middle school youth have different experiences from past generations, learning styles as well as learning needs and skill development have always been consistent and standard, thus workshop presenters will share simple techniques to blend the needs of today's middle school youth with the educational experiences of the participants. This workshop allows the mixture of successful skills from extension educators to be presented in the learning environment of the youth as well as our extension technological and multi-tasking savvy workforce. Workshop targeted outcomes include the following objectives:

1. assist educators in multiple delivery settings (school enrichment, after school programming, club programming, day and residential camping),
2. provide age and stage development and how it is intertwined to the cognitive, emotional and social skill development, and
3. participants will create an action plan to incorporate the concepts shared during the session. Additionally, the session materials will be available in a user friendly format to incorporate in programming.

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R-23-EXPERIENTIAL APPROACH ACROSS THE SPECTRUM

Ellen Rowe, University of Vermont Extension
Stephanie Atwood, University of Vermont Extension
Debbie Fajans, University of Vermont Extension
Lindsay Jones, University of Vermont Extension

We will be sharing our experiences at three very different sites where Tech Wizards (OJJDP NMP II funded site) program youth have the opportunity to engage with STEM curricula through the experiential approach (Experience/Reflect/Apply). Tech Wizards capitalizes on middle school youths' interest in emerging technology as a way of involving underrepresented youth and their families in learning basic life and workforce skills and aspiring to post-secondary education, productive jobs and careers, and community engagement. Youth learn skills from adult mentors who provide positive role models for students to emulate. We focused our assessment on documenting knowledge and mastery of three life skills (Goal Setting, Critical Thinking and Communication) and four science skills. Kurn Hattin Homes, our first site, is a year-round residential school for at-risk youth in grades 1-8. The school provides a safe place for children whose real home is in temporary need. Our second site is Winooski which operates in partnership with the Vermont National Guard and Operation: Military Kids and targeted their summer camp program to youth with parents in the military. Lyndon, our third site, is a small rural community in the northeast corner of Vermont (“the Northeast Kingdom”) noted as an area with great need and limited services. Adult mentors are extremely important for our youth programming as they significantly contribute to four of the 5Cs identified in the Tuft's Study (Lerner) specifically: confidence, character, caring and connection. Tech Wizards are recruited to contribute the fifth C as well, competence. Community members with skills in the STEM curricula are recruited, screened
and trained as mentors in our program. Duration of the adult mentor and youth relationship is important and monitored for reporting. We applied a spectrum of experiences for our program youth, time for reflection and opportunities to apply their new tech skills to reach 176 youth (over 30% more than our target number identified by funder). Over 55 youth (30%) were engaged with our programming for between 11 and 15 hours. An additional 43% (77 youth) were reached with 26 or more program contact hours with leaders and mentors. STEM curriculum was delivered to site youth through in-school, after-school and day camp experiences. Reflection included participation by the youth through Journaling, Science Skill Process Inventory (SSPI) formatted as a post reflective-pre assessment and group dialogue. Program leader and mentors served as trained observers applying their observations against a program specific skill log. Application of the skills learned also can be viewed as a spectrum of community service opportunities from trail mapping for town forests and mapping location of invasive species (GPS and digital photography), to Public Service Announcements on bullying (videography), and sharing skills with younger youth (robotics).

**R-24-LIFE SKILLS EVALUATION SYSTEM: AN INSTRUMENT TO MEASURE THE EFFECTIVENESS OF A 4-H SCIENCE PROJECT WITH LATINO YOUTH**

Sonia G. Morales Osegueda, Washington State University Extension
Nancy Baskett, Washington State University Extension

In Washington State Hispanics was the fastest-growing group in the past decade. King County ranks second of 39 counties in diversity. Spanish is the most common spoken languages in the region. Age structures also influenced the swift growth of Hispanics. Immigration’s impact is often first seen in the classroom. Recognizing that how critical it is to engage Latino youth to 4-H programs, it is imperative to create strategies that support youth participation. 4-H has developed a dynamic partnership with schools and other diverse organizations to build sustainable programs that meet the unique needs of urban youth. This program is in a unique position to contribute to the evidence-base out-of-school enrichment project which benefits youth. Providing them with the best chance to succeed in life, 4-H Youth Development program offers youth the opportunity to participate in programs not only to develop skills but also to learn in the fields of science, technology, engineering and math, collectively known as STEM. Forty three Latino youth ages 9-14 participated in the Eco Bot Challenge Project in two locations in King County, WA. The Life Skills Evaluation System was used to assess skills learned during the enrichment program. Five skills were measured: decision making, communication, accepting differences, leadership, and self-responsibility. Students explored robots and how technology can be used to preserve and protect the environment. Also they discovered opportunities in science, engineering and math. A significant impact on students was based on the evaluation reported gains from pre-test to post-test. The stronger impacts on potential skills evaluation have demonstrated the program’s effectiveness resulting in positive changes in youth behavior. This presentation will discuss how involving Latino youth in school enrichment programs are very positive opportunity for youth to show better behavior, develop life and educational skills that are required in their life and education. Finally, sharing findings and lessons learned from “Life Skills Evaluation System” will assist other colleagues in achieving their goals.
Livestock projects are the most popular 4-H projects in Idaho. According to the Idaho ES-237 report, showing beef cattle is the third largest livestock project. However, more youth taking beef cattle projects are not from a livestock or farming background. Parents and leaders have fewer skills necessary to teach livestock showmanship skills, making the teaching of showmanship even more difficult. Showmanship is the one area of a livestock project where youth can have the most control of the result. With the current economic situation, it may not be possible for families or individuals to see a national or regional livestock show to observe current showmanship in action. Many county shows and local judges hold on to more traditional showmanship techniques—not keeping with current trends. For these reasons some Extension Educators in Idaho decided to bring the showmanship experience to 4-H members. The goal of the educators is to teach youth by having them “attend” an actual show, affording them a rich educational experience. Several regional and national cattle showmanship contests were attended and videotaped. A peer reviewed, numbered DVD was produced with University of Idaho Educational Communications using video footage from these shows demonstrating the real show-ring experience. The DVD is divided into chapters so users can look at a specific skill without searching all the footage. Judges and educators at any level of experience can benefit from observing these current showmanship practices. Because the techniques in the DVD are not staged, users can see both competent and less competent showmanship maneuvers in every section. Users will see some of the top showmen in the nation demonstrating the most correct and current showmanship techniques used in the industry today. The showmanship contest is one of the key events that build upon the essential elements of youth development. By using the beef showmanship DVD correctly, viewers will observe how youth can:

1. build a positive relationship with caring adults (Livestock Judge),
2. affirm their opportunity to be in an inclusive and safe environment (a livestock show),
3. be engaged in a positive learning experience (showmanship contest),
4. build on self-determination by having a positive show ring experience,
5. create the desire for mastery as they observe skilled showmen, and
6. observe show ring etiquette allowing youth to value and practice service for others.

A copy of the DVD has been placed in each county in Idaho for educational use. The DVD was presented as a workshop at the University of Idaho Extension Conference, used as a tool to train judges and at county and club 4-H meetings. Viewers completed a written evaluation at the conclusion of the DVD. An average of 44.1% of DVD viewers felt they received new information from each of the major chapters. One 4-H leader noted; “The instruction in this DVD is useful for the beginning showman as well as the more seasoned showman.” A youth stated; “the length of the video was good. It kept me interested from the beginning to the end.”
R-5-PLAY IT FARM SAFE - DIVERSIFIED FARM SAFETY PROGRAMS FOR YOUTH

Sarah Kleinman, University of Vermont Extension

The Youth Farm Safety Project of the University of Vermont Extension 4-H is responding to long-term issues in a new way. Working on a farm has been, and continues to be, one of the most dangerous jobs for young people in North America. According to the 2010 Journal of the American Medical Association, agriculture has the second highest fatality rate among youth workers at 21.3 per 100,000 full-time equivalents compared to 3.6 per 100,000 across all industries. Based on a statewide needs assessment and extensive review of the agricultural safety training materials available nationally and in Canada, the YFS has developed a menu of safety training options for young people who work, live on, and visit diversified farms. Products include hands-on training programs offered in day-long and overnight venues, a newly developed internet-based quiz game – Play It Farm Safe – and companion materials aligned with Common Core State Standards. Additionally, reflecting the increase of women who are operating and managing farms – particularly among diversified farms of the northeast – YFS offers an overnight safety training program specifically for young women (teens) and their female farming mentors. These programs and approaches respond to the need demonstrated by the high rate of youth injury and the demographic trends found within our agricultural communities. They are also responsive to the developmental need for mastery, the power of the educational relationship, and the popularity and accessibility of computer-based activities. (Occupational Injuries and Deaths Among Younger Workers-United States, 1998-2007. Journal of the American Medical Association, 304 (1). 33-35 (2010).)

R-13- BUCKEYE AMBASSADORS: BUILDING LEADERS FOR TOMORROW

Heather Gottke, Ohio State University Extension

Each year, teens apply for leadership positions within their county 4-H program including Camp Counselors, Junior Leaders, and Junior Fair Board. With limited space within each of these groups, many outstanding youth are not given the opportunity to work in leadership roles outside of their club structure. The 4-H Buckeye Ambassador Leadership program is a way to include those youth who are interested in developing their skills in leadership and have an interest in taking leadership roles outside of their normal club structure. Lessons in a variety of areas help teens to learn basic skills that are immediately usable within the Buckeye Ambassadors Program. Youth are trained in the areas of public speaking, teaching skills, marketing, event planning, and communications. The training occurs simultaneously as youth plan events to promote the programming. At the end of the lesson they will begin thinking and brainstorming about those areas. The group is open to any 4-H member ages 13-18. 17 youth are currently involved in the group in 2013. At the conclusion of the program teens were asked a series of open-ended questions at the conclusion of the program. Program evaluation was data were collected from 14 of the 17 teens who participated in the program in 2011. One teen stated that he “felt responsible for teaching kids about 4-H and the many fun things they could do as a member.” Another teen indicated that she “came out of my shell and
was more willing to speak up and talk once I was an ambassador.” Youth were also asked to indicate their favorite parts of the program and their aspirations and goals for future year’s events. One youth stated that she felt as if she “got kids interested in 4-H and helped members learn about their responsibilities as officers.” Many of the teens gave specific examples of what they could do to improve programming such as “Making sure that we have all the things we need to do our station at the open house” or “Asking more questions about my officer station before I start teaching” that show they have learned from the events and hope to improve on those things for the following year. This program is flexible in that it allows an educator adapt the program to fit their own county’s needs. The costs for the program are minimal. For another program to replicate the Buckeye Ambassadors they would be able to adapt the events to fit their own costs and needs. The main goal of the ambassadors is to teach them to relate to the public and connect with youth who might otherwise not consider the 4-H program. How you accomplish that task is different from area to area. The poster session will offer resources in the form of lesson plans, media, and outlines from the activities that the Buckeye Ambassadors group has completed.

R-26-EXPLORE THE WORLD WITH A GLOBAL EDUCATION CURRICULUM

Julie Tritz, West Virginia University Extension
Tina Cowger, West Virginia University Extension
Denis Scott, West Virginia University Extension

Communities across the U.S. have become increasingly more diverse in the last 25 years. Recognizing and celebrating this diversity has become paramount in our land-grant institutions and cooperative extension programs. With no comprehensive global education curriculum with age-appropriate lesson plans, Extension Educators are left to search the Internet and other resources for ideas, programs or activities to celebrate diversity and to help bridge our understanding of different cultures and customs. The USDA’s National Institute for Food & Agriculture (NIFA) recognizes the importance of an international perspective. It notes that the success of the U.S. farm sector is increasingly dependent on our ability to trade and compete with other nations. It points to the importance of international research partnerships to address issues of food safety, sustainability, resource management, biotechnology and crop and livestock disease prevention. It recognizes that our youth are entering a global workforce and expected to have a skill set that:

1. appreciates differences in food, geography, language, traditions, values, and the priorities of different countries;
2. evaluates global issues and challenges and problem-solve possible solutions (ex. climate change, poverty); and
3. understands the interconnectedness of global systems i.e. economic, social, cultural, racial, technological and ecological.

Given these expectations, a Global Education Curriculum was developed by members of the WVU Extension Global Education & Engagement Team. The curriculum will be presented during the workshop and is designed around six key themes that include:

1. Agriculture & Food,
2. Art & History,
3. Communication & Media,
4. Geography,
The targeted outcomes that participants can expect as a result of attending this workshop include: understand the importance of global education for youth and the adults who support them; and learn the content of the Global Education Curriculum and how it may be delivered at the local or state levels. Conference participants should have an interest in global education and in using the curriculum with youth and the adults who support them. Participants should also have an appreciation, if not a basic understanding of world geography, culture, customs, and traditions. The Global Education Curriculum addresses the core competency of youth program development in the following ways. First, it aims to instill a deeper understanding of and appreciation for cultures and people around the world among our youth and the adults who support them. It also aims to provide Extension Educators with a curriculum guide where lessons may be used with youth in a variety of settings i.e. 4-H Club meetings, 4-H camp, after-school, and in-school programming as well as in training adults on issues of diversity and social inclusion. Thirdly, the lessons showcase multiple instructional techniques that recognize youth at different stages of development, learning styles, and needs. Conference participants will receive copies of the lessons delivered during the workshop as hand-outs to take home. The presenters will also email participants an electronic copy of the power point presentation used and a copy of the curriculum after the conference.

R-27-MOBILE LEARNING FOR YOUTH: EXPLORING THE UNCHARTED WATERS

Deb Weitzenkamp, University of Nebraska - Lincoln Extension
Brian Bosshamer, University of Nebraska - Lincoln Extension
Lindsay Chichester, University of Nebraska - Lincoln Extension
Karna Dam, University of Nebraska - Lincoln Extension
Elizabeth Janning, University of Nebraska - Lincoln Extension
Robert Meduna, University of Nebraska - Lincoln Extension
Tracy Parcheil, University of Nebraska - Lincoln Extension
Darci Pesek, University of Nebraska - Lincoln Extension

As we reshape distance education to the discussion of mobile learning, how we reshape Extension delivery will follow in an attempt to develop Extension into an organization providing research-based information any time, any place, any path and any pace. Nebraska’s 4-H Livestock Quality Assurance team has been striving to achieve this goal. While initially the development of an online course was designed to overcome challenges with the face-to-face course, the process of overcoming these obstacles presented new opportunities and different challenges through online curriculum delivery which focuses on youth audiences. Using eXtension’s Moodle we were able to create a course that upheld the Children’s Online Privacy Protection Act of 1998 (COPPA) while also cultivating content that was developmentally appropriate, research based, and available where ever the youth had internet access. Nebraska’s youth now have access to research based information about livestock quality assurance from their computer, their tablet devices, and their smart phones; and information is available to them 24/7. The course is offered by grouping short targeted modules into three developmentally appropriate age groups: Juniors (ages 8-10), Intermediates (ages 11-14), and Seniors (ages 15-18). The content of each module was developed by either a
general livestock educator or a species focuses educator, and all modules individually were peer reviewed. To capitalize on the gamification of online courses, certificates are issued upon completion of each module and recorded within Access 4-H. Completion of modules is determined by participants receiving an 80% or better upon corresponding quizzes. Participants are required to complete at least three modules to receive credit for completing their quality assurance requirement online through the Moodle course. In the pilot year, 2,340 youth participated in the online course. Research about online characteristics of enrolled youth reveals that the course does reach demographics representative of all Nebraska youth participating in livestock project areas. Participants were from 80% of Nebraska’s counties and the average youth completing 3.4 modules. Research on the traffic patterns of the online participants revealed that while modules are not designed to be sequential, youth complete them in a sequential manner. This would allow online instructors to encourage youth to take modules of greater significance while not making them mandatory and restricting 24/7 access to any modules. Further research is being conducting on the traffic patterns within the online course.

R-27-COMMUNICATE USING A LANGUAGE YOUR CLIENTELE UNDERSTAND

Deb Weitzenkamp, University of Nebraska - Lincoln Extension

Five years ago UN-L Extension in Pawnee County implemented a text messaging system in an effort to improve the quality of communication with 4-H families. The change was implemented in response to a decreased newsletter readership and increased event reminder requests. Through sending emails via a listserv, we could send out mass text messages for free. Additionally, we coupled the delay send feature available through Microsoft Outlook so that email reminders could be set up weeks, even months before they actually would be sent as text messages to cell phones. Text message reminders were sent for workshops, registration deadline, meeting times, etc. The response from the 4-H families was very positive, and nearly 90% of all 4-H families enrolled to receive the text messages on both parent and child cell phones. The Pawnee County text message system significantly improved the quality of communication with our 4-H families.
Children who learn the importance of environmental stewardship are likely to take better care of the land and water. During the past 24 years of Water Celebration, over 8200 5th grade students and their teachers have participated in this one-day experiential learning workshop centered around environmental stewardship. Youth participants report that they know more about water resources, have a better understanding of the importance of water to plants and animals, and are willing to take steps to conserve and keep water cleaner. Water Celebration is offered through the University of Nebraska-Lincoln Extension and partnerships with the Nemaha Natural Resource District, the Natural Resource and Conservation Service, and the Nebraska Rural Water Association.

The targeted outcomes include:
1. Enhanced capability of Extension faculty, staff and camp staff to prepare youth to succeed and live responsibly in the global society.
2. Increased understanding of the concerns, beliefs, and possible responses to citizen reactions to various international and domestic challenges related to global conflict; trade and competition; environmental and safety standards; and intolerance and discrimination in the United States and abroad.
3. A skilled, flexible camping program that is better-prepared to respond to the needs of communities, youth, and families affected by cultural diversity and global interdependence.

This presentation will focus on ideas and assistance from members of the WVU Extension Global Education & Engagement team on how to plan, implement, and evaluate an internationally themed camping program. The workshop will focus on the planning a variety of different aspects of camp such as daily themes, menu and snack planning, assemblies, crafts and classes, and many more. Participants will have the opportunity to preview the camp theme in a box and provide input and ideas on the project. In addition, participants will gain knowledge of how to plan programming around an international theme and will leave with ideas and activities that can be used within their camping programs. The teaching methods to be utilized include: lecture with discussion, hands on activities and role playing. Handouts and training materials will be offered at no charge to the participants.
R-31-MO0-VING BEYOND THE COUNTY FAIR

Jenny Cocanougher, Kentucky Cooperative Extension Service

The logistics of using the traditional county fair as a culminating event for 4-H projects has become more difficult over the past decade. Competition for space, time of year and funding can cause conflict between fair boards and 4-H advisory councils. The Woodford County 4-H Council made a bold move and implemented a “Youth Expo” in response to continuing conflicts. The decision and transition took place over three years. The result was a paradigm shift for many in the community, as well as additional opportunities for youth involvement. The objective was to emphasize the educational value of 4-H project evaluation. The workshop will cover the conflicts that generated this move and how alternatives were developed. Details on how input from stakeholders was collected, how the decision was reached and how the county 4-H program was adapted to meet the new event will be shared. Funding and event structure will be also shared. The role of extension staff, advisory council members, club leaders and volunteers will be shared. Discussion during this session will provide suggestions on how to work with groups in conflict.

R-32-MAKING YOUR PROGRAM AVAILABLE ANYTIME, ANYWHERE, TO ANYONE: HOW TO TRANSLATE IN-PERSON PROGRAMMING INTO INTERACTIVE ONLINE LEARNING APPLICATIONS

Shane Potter, University of Nebraska-Lincoln Extension
Heather Borck, University of Nebraska-Lincoln Extension

To remain relevant Extension must be able to provide learning opportunities that are personally customizable and available on the learner’s time. Utilization of online leaning through P.C. and mobile technologies is a valuable outlet able to meet the needs of today’s clients. This workshop will take participants through the process University of Nebraska–Lincoln Extension utilized to translate in-person programming into successful mobile applications. In an effort to reach new markets and respond to the needs of current clientele, online learning applications were explored by University of Nebraska–Lincoln Extension as they offer clientele flexibility and convenience that is not available with traditional teaching methods. Other advantages of online applications that were considered include cost effectiveness and the increased number of clientele, regardless of location, that could be reached. Examples from UNL Extension that will be shared include program translation from career development (Connecting the Dots), healthy lifestyles (Health Rocks!), and the Nebraska State Fair. The workshop will utilize hands-on learning examples which will allow participants to compare and contrast aspects of in-person programming to interactions done through an online application. All applications used during the session are free download-loadable programs. The participants will have the opportunity to experience the applications used as examples (Career Explorer, Health Rocks, and Nebraska State Fair) through iPads provided or by downloading the free applications onto their own devices. Participants in the workshop will weigh the benefits and shortcomings of in-person programming examples with the mobile iPad equivalents. This process will help participants develop the skills needed to begin the process of translating their own programs into online interactive applications. Participants will work through a needs assessment process to determine in what area an application is needed. Finally, participants will have the chance to explore potential application concepts and brainstorm ways to
make them functional in an online environment. After attending the session participants will be able to

1. identify the benefits and shortfalls of translating an in-person program to a web-based or mobile application;
2. analyze the process used by UNL Extension to create mobile applications; and
3. access potential application concepts and brainstorm ways to make them functional in their programs.

**R-33-WEST VIRGINIA 4-H CITIZENSHIP FORUM**

Shay McNeil, West Virginia University Extension
Tina Cowger, West Virginia University Extension
Jeremy Farley, West Virginia University Extension
Lewis Honaker, West Virginia University Extension
Doug Hoavatter, West Virginia University Extension
Debbie McDonald, West Virginia University Extension
Andrea Mender, West Virginia University Extension
Liz Post, West Virginia University Extension
Chad Proudfoot, West Virginia University Extension
Denis Scott, West Virginia University Extension
Julie Tritz, West Virginia University Extension

Citizenship is one of three mission mandates set forth by the United States Department of Agriculture (National Institute for Food and Agriculture) for 4-H youth development programming. Leadership and Personal Development, Community Action, and Communication and Expressive Arts are all elements of citizenship. In addition, civic engagement can be defined as individual and collective actions by communities that are designed to identify and address issues of public concern. West Virginia University (WVU) recognizes the importance of youth civic engagement and is concerned that youth are not engaging at a high level in political or government based volunteer activities. A lack of knowledge of government and policy-making processes, a distrust of public institutions and leaders, and few opportunities to get involved in decision making have contributed to low participation levels. 4-H provides many opportunities for youth to volunteer in their communities, however, there is an opportunity to engage youth on a civic and public service level in a more sustained fashion. It has been identified that there is a knowledge gap between youth and higher levels of civic engagement. The WVU Extension Service is developing goals, objectives, and programming to bridge that gap. One program that has been developed to empower youth to become knowledgeable, engaged citizens is the inaugural WV 4-H Citizenship Forum to be held in conjunction with WVU Extension Day at the Legislature (March 21 - 23.) This three day West Virginia 4-H Citizenship Forum will provide participants with opportunities for hands-on educational and civic engagement programs that focus on a variety of topics including government and citizenship, and experience activities at the Day at the Legislature available only to Forum participants. Each county in the state may send four Ambassadors (grades 7 – 10) to the Forum. This program broadly aspires to impart youth with the life skills and experiences needed to serve as effective and politically involved leaders in their communities. The Camp Context Instrument will be used to evaluate the program and will consist of Life Skills and Essential Elements questionnaires. The data collected will be compared to other state level 4-H programs to determine
the impact of the Forum and to develop future research agendas. It is the goal of the WVU Extension Service that this program and its methods will be a model for future youth in government and citizenship initiatives. This presentation will provide information regarding a new 4-H program for the state of West Virginia. A program overview, results of the questionnaires and comparisons with other state level 4-H programs will also be included. The methods used and evaluation will be presented in an easily replicable manner for dissemination.

R-34-FAMILY SCIENCE NIGHT: A FUN, INTERACTIVE WAY TO BRING SCIENCE TO 4-H AND 4-H TO THE COMMUNITY

Shannon Cromwell, Utah State University Cooperative Extension
Sally Upton, Utah State University Cooperative Extension

4-H Family Science Night sessions foster creativity and curiosity by providing youth with opportunities to participate in science-based experiential learning activities in partnership with caring adults. Using 4-H research-based science curriculums, participants rotate through 3-4 “learning by doing” science experiments led by Extension staff, 4-H volunteers, youth leaders, and other community partners. By engaging the community in 4-H programming, 4-H Family Science Night sessions further the goals of the 4-H science mission mandate. The targeted outcomes of 4-H Family Science Night sessions are grounded in the 4-H Science Core Competencies.

1. Youth will participate in science-based activities with caring adults in a safe, inclusive environment.
2. Youth and adult participants will become engaged in the communities in they live.
3. Youth and adult participants will actively engage in learning through the process of discovery and exploration.
4. Youth and adult participants will be presented with opportunities for mastery by engaging in science-based experiments.

4-H Family Science Nights are developed based on results from the National 4-H Science Initiative (2010) that have shown that structured, out-of-school, science-based, youth focused programs have a positive effect on youth and their communities. Family based, out-of-school programs bring communities together by providing youth with support and guidance from caring, adult mentors (Durlak, Mahoney, Bohner, & Parente, 2010). Family Science Night activities are designed to foster creativity and curiosity through the process of discovery and exploration. By focusing on the Experiential Learning Model, program participants are given the opportunity to experience, reflect, and apply their new skills (Diem, 2001). An IRB approved posttest-then retrospective-pretest evaluation will be administered to youth and adult participants following spring 2013 Family Science Sessions. The evaluation will allow participants to reflect upon and rate what they have learned “BEFORE and AFTER the Family Science Night sessions” (ranging from 1=completely disagree to 5=completely agree). Evaluation questions will focus on the 4-H Science Core Competencies. Sample items may include: ‘I feel safe and included at 4-H Family Science Night,’ ‘I enjoy learning about science from other community members,’ ‘I feel confident in conducting science experiments,’ and ‘I enjoy exploring new science topics.’ This poster is intended to share an example of a successful 4-H science-based experiential learning opportunity that can be implemented in any county 4-H program. To replicate a program such as this, support and collaboration among Extension staff, 4-H volunteers, and community agencies is highly
recommended. Attendees will be provided with examples of science-based activities that can be adapted to any 4-H science program, as well as, recruitment materials and event organization ideas.

**References:**


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**R-35-BRIDGING THE COMMUNICATION GAP BETWEEN EXTENSION PROFESSIONALS & VOLUNTEERS: BUILDING THE SOUTHERN REGION 4-H VOLUNTEER ADVISORY GROUP**

Harriett Edwards, North Carolina Cooperative Extension
Ken Culp III, Kentucky Cooperative Extension Service
Jenny Jordan, University of Georgia Cooperative Extension

Advisory committees are key to sustaining relevant, responsive programs in Extension. Grassroots programming necessitates engagement of program participants and stakeholders in partnership with professionals to meet the mandate of citizen involvement. Strengthening advisory systems can rejuvenate “tired” programs and lead to creative innovations. In an effort to increase volunteer voice in developing and implementing programming for volunteer development in the Southern Region, the Southern Region 4-H Volunteer Advisory Group (VAG) was developed. The VAG is designed to combine efforts of the state volunteer specialists in the region with volunteer perspective to ensure that efforts are focused appropriately for the most effective impact. The vision of the Southern Region 4-H Volunteer Advisory Group is to provide 4-H volunteer representatives from each state in the southern region a discussion platform that solicits input, strengthens communication and delivery systems, and identifies resources that will aid volunteers in more effectively conducting 4-H projects, programs, events and activities. The mission is to engage 4-H volunteers and staff in advisory group discussions, designed to identify problems, issues, needs, concerns and contemporary trends, then innovate solutions that will serve as a basis for programming and the development of resources for 4-H volunteers in the southern region. The VAG is comprised of two volunteers from each of the Southern Region states and territories, and meets quarterly with three tele- or web-conferences and one face-to-face meeting at an annual conference. Meetings are facilitated by one of the region’s Extension Volunteer Specialists who schedules the meetings, develops meeting agendas and keeps the group focused upon the objectives. VAG input is critical in the development and implementation of several regional resources designed to help both paid and unpaid staff relative to volunteer engagement. These
resources include the Volunteer Development Website (a clearinghouse or resources and links), a regional newsletter (which can be localized or shared as is), webinars (real-time and archived training resources), and fact sheets (to support staff working with volunteers and to assist volunteers in carrying out their youth development roles). The VAG also provides capacity to ensure that contemporary trends in 4-H youth development programming and in volunteer participation are considered when developing new resources and in strengthening or updating existing materials and programs. It ensures that volunteer voice extends throughout the programming model. This workshop will provide a perspective and tools from which others may approach regional advisory group development. It will provide an opportunity to share how information generated by the group is being applied to program development and will examine volunteer advisory group activity from a multi-state viewpoint. These same strategies and tools will be applicable for those developing multi-site or multi-county advisory groups. This workshop will engage professionals in strengthening their competency in program management. Handouts will include vision and mission statements, action steps, meeting agendas, and volunteer role descriptions. Instructional techniques will include lecture (with visuals), group discussion and a web tour. The three presenters have more than 75 years experience working with volunteer advisory groups and developed the VAG.

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**R-36-STEM AMBASSADORS: A NEW ERA OF SCIENCE EDUCATION**

Sherry Swint, West Virginia University Extension  
Shannon Cotrill, West Virginia University Extension  
David Hartley, West Virginia University Extension  
Jen Robertson, West Virginia University Extension  
Jenny Murray, West Virginia University Extension

The need to reach our rural youth with quality STEM programming and to expose our youth to STEM-related career opportunities has never been more urgent. America faces a future of intense global competition with a startling shortage of scientists. In fact, only 18 percent of U.S. high school seniors are proficient in science (NAEP 2005) and a mere 5 percent of current U.S. college graduates earn science, engineering, or technology degrees compared to 66 percent in Japan and 59 percent in China (www.4-H.org). The WVU STEM Ambassador program is a new bridge to reduce the gap of science proficiency in WV youth. In 2012, the WVU STEM Ambassador Program was launched to bridge between West Virginia youth and science with the goal of providing West Virginia youth with opportunities to engage in hands-on STEM projects during the 4-H summer camping program. The WVU STEM Ambassador Program is a collaborative partnership of WVU Extension and three WVU colleges. Eleven college students majoring in STEM degrees were selected and trained to implemented summer inquiry-based education across West Virginia. Building upon the STEM education currently available, the program offered a unique delivery mechanism through ambassadors and encompassed a broad array of scientific knowledge including chemistry, physics, robotics, agriculture, forensics, and animal science. Ambassadors represented WVU as a whole providing over 300 days of STEM programming in 20 WV counties, which resulted in over 1500 hours of direct STEM programming for K-12 outreach. It is estimated that over 14,000 youth across the state received education and activities in STEM during the 2012 summer. The workshop will focus on two 4-H core competencies—Youth Program Development and Partnerships. The program design focused on science inquiry as a framework of STEM
curriculum selection. Evaluation results, instructional methods and delivery strategies will be shared as identified skills required for successful STEM Ambassador program implementation. Instruction on the importance of organizational alliances and collaboration as a mechanism to bring financial and other resources will be highlighted as a necessary piece to sustaining a state-wide educational program. The presenters, WVU faculty who has spent years instructing adults and youth in the youth development and science fields, will use presentation and demonstration as the instructional techniques due to the short allotted time. Handouts with specific information on curriculum, partnerships, and program framework will be sent electronically to participants. At the completion of the presentation, participants will have an understanding of what necessary tools and skills are needed to replicate a similar program. While this presentation focuses on STEM education in a summer camping environment, this program’s framework may be replicated to focus other issues such as nutrition, community development or agriculture thereby appealing to all audiences attending Galaxy.

R-37-A NEW ERA FOR A COUNTY 4-H PROGRAM – SHIFTS FROM ROYALTY TO ADVOCACY

Tracy J. Behnken, University of Nebraska-Lincoln Extension

More than four years ago, a county 4-H Council made the difficult decision to eliminate the county 4-H King and Queen awards. Taking its place would be the newly developed Dodge County 4-H Ambassador Program. The primary goal of the Dodge County 4-H Ambassador Program is building communication skills to be utilized in an advocacy role for the Dodge County 4-H Program as well as in other aspects of the ambassador’s life. As part of an application process through the county 4-H Program, four high school students were selected for the first time to serve as the 2010 Dodge County 4-H Ambassadors. Since then, there have been six 4-H members serving from one to three years (one-year term, annually selected) in this focused 4-H advocacy program. The roles and responsibilities of the ambassadors include serving as a positive role model to all 4-H youth; assisting with 4-H events at area and county fairs and other miscellaneous county, regional or state 4-H events as a Dodge County 4-H Ambassador; attending the University of Nebraska-Lincoln Communications Workshop where they develop testimonials that are utilized in marketing and promotion throughout the year; serving as 4-H spokespersons for printed media and radio. To be eligible, 4-H members must be 16 - 18 years old, enrolled in the Dodge County 4-H Program and must be an active member of 4-H, either independent or with a club for at least one full year prior to application. “The Dodge County 4-H Ambassador program strives to promote 4-H and encourages youth to become actively involved in their communities. The Dodge County 4-H Ambassadors volunteer their time to assist with a number of county and regional events and programs,” states the local Extension Educator. She continues, “By assisting with these functions, the Ambassadors are given the opportunity to enhance their advocacy and leadership roles with the 4-H program and to develop an increased interest in volunteer work and community service.” As a means to identify program impact, the ambassadors completed an impact questionnaire at the beginning and end of their yearly term. On a Likert scale of 1 = “Extremely Poor” to 5 = “Excellent”, the ambassadors are asked to rate their knowledge and/or understanding in seven focus areas related to serving as a 4-H Ambassador. Results indicated an average 3.49 level of knowledge and/or understanding prior to the start of the program and a 4.29 average upon completion – a 16% increase of knowledge and/or understanding. When the 4-H Ambassadors completed the post survey, 67% of the responses demonstrated a one- to three-point increase from the pre survey.
Each Dodge County 4-H Ambassador will receive a $500.00 college scholarship if all duties are fulfilled within the one-year time period and is awarded by the Dodge County 4-H Council. Session participants will be provided with a website posting all the information presented and will also have the opportunity for dialogue with the Extension Educator who developed the Dodge County 4-H Ambassador Program and is actively involved in its success.

R-38- CAREER DAY - BRIDGING THE GAP FROM HIGH SCHOOL TO COLLEGE...AND BEYOND

Tracy J. Behnken, University of Nebraska-Lincoln Extension

More than seven years ago, an Extension Educator attended a meeting at the local Chamber of Commerce regarding career development efforts within the chamber area. During the discussion, the need to enhance career development opportunities for area youth evolved. As the local Extension Educator with a focus in career development, she decided to take leadership and form the Career Development Coalition. With the diverse attendance of educators and administrators in all levels of formal and non-formal education, service professionals, and area business representatives, it was determined that their focus would be to host an area career day. The goals and objectives were to organize and implement a Career Day for area high school sophomores. Since 2008, the Career Development Coalition has organized and held a spring career day at a local college campus. Since then more than 4,000 high school sophomores from 15 school districts have attended. This one-day event provides students with a better knowledge and understanding of their career interests, college life and the career opportunities in their local communities. Students hear from motivational speakers during opening and closing of the event and attend two career panels/sessions and two enrichment sessions of their choice. Prior to the opening and during lunch break students have the opportunity to visit the variety of career booths on display. More than 125 career professionals serve on the career cluster panels (2-5 speakers) and present enrichment sessions. There are 16 career panels (based on the Nebraska Department of Education’s Career Clusters) and 16 enrichment session opportunities. Financial support is provided by local banks and businesses that cover the costs of the key note speaker and refreshments for the volunteers/speakers. Evaluation results reported 88.8% of the students (N=1,771) completing the hard copy (2008 & 2009) and web-based (2010 & 2011) survey indicated an increase in knowledge and understanding as a result of attending this one-day event. The student evaluation instrument used a scale of 1 = "Not At All" to 5 = "Very Much." Responses and the percent of students responding "3", "4" or "5" as a result of attending the Career Day are as follows: (89.0%) Helped me learn more about my favorite careers; (90.8%) Provided information to help me prepare for college or training after high school; (90.4%) Provided information to help me make decisions about my life after high school; (87.6%) Made me feel more confident about my success in college or post-high school career; (89.4%) Allowed me to hear from professionals who chose the greater Fremont area as a good place to work and raise their family. Student testimonials about the event included; “I learned that my career choice is definitely not what I want to truly do with my life. I’m glad that I found out now!” and “I learned all of the things I need to do in order to prepare and be successful in college.” Session participants will have the opportunity to gather resources and have dialogue with the Extension Educator serving as facilitator of this program.
R-39- RECRRAFTING WITH THE DUMPSTER DIVAS: A NEW ERA IN 4-H ENVIRONMENTAL EDUCATION

Rebecca Mills, Utah State University Cooperative Extension

In rural central Utah, consumers have few options when it comes to recycling despite more advanced and established programs in urban areas of the state. In 2010, a small committee with representatives from the Extension Service and other local groups, began an educational campaign with hopes to one day establish a formal recycling collection program and coalition. Efforts for community-wide change take considerable time and it is difficult to educate people on recycling when there are no outlets for citizens to practice the principles taught. 4-H staff recognized the need, in the Fall of 2010, to capture the interest that youth had in the "going green" movement and the "Recrafting with the Dumpster Divas" 4-H program was born. Over the next two years, 20 classes, reaching over 250 youth and adults, brought the idea of fun and creativity into environmental education. Each "Recrafting with the Dumpster Divas" class focused on giving a item a new purpose - a soda can into a fashion ring, toilet paper tubes into faux metal art, etc. - thus using recyclable materials for a new purpose and avoiding the landfill. By pairing the creativity of making a useable object with the education about the recyclable commodity (paper, metal, plastic, glass) youth and adults gained knowledge of environmental principles and responsible resource management. Many sharable resources have been developed as part of this project including recyclable commodity fact sheets (what happens when I recycle ___?), project how-to sheets, and other resource information. This project created interest across state lines for the development of a formal 4-H project curriculum that will be available in the next three years. Most importantly, this 4-H program has allowed youth to be engaged in the current events issue of environmental stewardship despite slow efforts in community-wide change.

R-40- TUCSON VILLAGE FARM - A SEED-TO-TABLE URBAN FARMING EXPERIENCE

Elizabeth Sparks, Arizona Cooperative Extension
Leza Carter, Arizona Cooperative Extension
Mathias Pollock, University of Arizona

Tucson Village Farm (TVF) is a seed-to-table, urban farm built by and for the youth of our community. Our goal at TVF is to reconnect young people to a healthy food system, teach them how to grow and prepare fresh food and empower them to make healthy life choices. We are innovative program of the University of Arizona, Pima County Cooperative Extension, 4-H Youth Development. To accomplish our goals, TVF offers year-round, instructional, hands-on programs for youth of all ages, as well as programs for the community and families. We serve urban youth from all socio-economic backgrounds, however, we focus on low-income, at-risk populations. The farm serves as a safe urban location where youth can come to be out of doors and engage in physical activity while contributing to and participating in local food production, preparation and consumption. TVF’s model offers the following hands-on programming for youth: Growing Forward: This two-hour, hands-on agriculture and nutrition education program cycles groups of students through “stations” on the farm, where they learn about planting and harvesting, whole grains, the importance of a healthy diet, worm composting, food preparation, and participate in
non-competitive movement games that encourage physical activity. Digging Deeper/Service Learning and Volunteer Programming: This three-hour program for middle and high school students is a more in-depth look at agriculture, nutrition, soil science and culinary skills. Family Workshops: This program allows parents and youth to learn side by side. Classes and activities focus on gardening and culinary skills. Farm Camp: Through the camp we serve 70 youth ages 7-11 from all areas of Tucson. Participants experience a 35 hour farm immersion, learning the ins and outs of farm life through daily farm chores, live animal demonstrations, dynamic presenters, hatching chickens and seed to table daily food preparation. For example, participants harvest wheat during farm chores, winnow and grind the wheat berries into flour and make pizza for lunch. TVF Youth Corps: This apprenticeship program is an opportunity for youth ages 12-18 to learn first-hand our seed-to-table model. Youth are trained in farming, culinary skills, public speaking, leadership, facilitation and mentoring. Tucson Village Farm was a barren lot when we broke ground in January of 2010. TVF’s accomplishments over the past 2 years are indeed impressive; Since inception, more than 13,000 people have come to learn and grow on the farm; we have put over 6000 pounds of fresh, organic produce into the mouths of Tucson’s youth, taught hundreds of children where their food comes from and how to prepare it, and encouraged all of these children to get outside and move their bodies. Our seed-to-table programming is changing the way that youth view food by empowering our young people to make healthy food choices. The program has been evaluated by the University of Arizona’s College of Public Health and results indicated that students who participated in our “Growing Forward” program showed a scientifically “significant increase in fruit and vegetable consumption after participation”.

R-41 - BRIDGING THE SKILLS GAP: PREPARING JUNIOR FAIR BOARD MEMBERS FOR SUCCESS!

Lisa McCutcheon, Ohio State University Extension

As teens are selected to serve in leadership roles within their local fairs, they often find themselves in over their heads, just trying to survive the experience. These youth have a great deal of potential, and are in need of training to bridge the gap between potential and reality. Ohio’s Junior Fair Conference serves that purpose, and brings together many stakeholders in order to offer a high quality training experience for our leaders of tomorrow. This session will offer participants a glimpse of an effective state-wide training program, attended by more than 1,200 Junior Fair Board members annually, that offers teens an opportunity to gain skills in the areas of conflict management, public speaking, decision making, and time management. Sponsored by the Ohio Fair Managers’ Association, this conference offers approximately 40 sessions to conference participants on an annual basis. Striving to continue improvement each year, a new workshop was added in 2013 that targeted third and fourth year Board members. This workshop offered participants the ability to step in to the shoes of their Senior Fair Board counterparts and work to secure entertainment acts for a hypothetical fair. This session was well received with 100% of participants responding that it was a valuable experience. It is the intent that this session will help to prepare our teens to return to a position on the Senior Fair Board in the future, or simply better understand the process of entering into contracts and negotiating with business professionals. This is a classic example of how sessions offered during the conference can challenge teens to take a new approach or step beyond their perceived limitations. This presenter has served as the Junior Fair Conference Chair for the past four years, and has made nearly twenty presentations to youth participants over
the past ten years. Her familiarity of the program and the preparations that are essential to its success will be very helpful to those professionals involved in local Junior Fair programs. Participants will gain sample program schedules, a listing of potential presenters, and copies of past session descriptions. The materials gained during this workshop will give the participant all that they need to return home and begin the process of implementation – To Make the Best Better!
For many years, the Utah 4-H Program tested horse project members on topics such as conformation, nutrition, disease prevention, and management. As a result, members enrolled in the horse project have a breadth of horse knowledge, beyond riding and showing skills. Furthermore, the testing program has helped youth excel in programs such as horse bowl, horse judging, and hippology contests. Using the horse testing program as a model, Utah 4-H developed and implemented a Livestock Testing Program in 2009 to measure Science, Engineering and Technology (SET) competency in the Animal Science program. A bank of species-specific test questions was developed for beef, sheep and swine and entered into a test generating program. Separate tests were created for each grade division. The question difficulty and test length increased according to grade divisions. Test content included nutrition, conformation, disease, management, breeds, and carcass quality questions in a true or false, multiple-choice, and fill in the blank format. Different livestock tests were administered each year with efforts to create tests of similar levels of difficulty. Tests were administered on a voluntary basis for livestock exhibitors at the Utah State Fair, with incentives provided for participation and awards for the top three scores in each species and each grade division. Test scores for 2009 were compared with scores in 2011 using a Two-Sample T-Test. Evaluation of test scores shows a statistically significant knowledge gain over the three year period. The livestock testing program, along with appropriate awards and recognition, provides an incentive for members to learn more about their livestock project, beyond showing an animal at the fair. The resulting increase in knowledge will help members excel in state and national livestock judging and livestock bowl contests, improve the quality of 4-H livestock portfolios, and improve members’ ability to answer questions during showmanship classes. Broadening knowledge of nutrition, physiology, health care, reproduction, and record keeping will strengthen the participant’s SET competencies and aid in the safe and humane treatment of project animals as they enter the market.

R-74-DEVELOPING A COMPREHENSIVE 4-H ROBOTICS PROGRAM AT THE LOCAL LEVEL

Brian Luckey, University of Idaho Extension
Kelton Jensen, University of Idaho Extension

Program Description - Idaho ROKS (Robotics Opportunities for K-12 Students) is a framework around which statewide support has been built for robotics programs. Using this framework, county 4-H personnel can formulate a program that best serves the needs of the youth in their specific counties. Ada County is the most populous county in Idaho. Youth in Ada County have limited access to agricultural-based projects; a robotics program, however, is very attractive in an urban setting. In its early stages, the program reached over 100 youth in 2011 with more than 6
hours of robotics education. The following year, that number reached over 300 youth, substantiating the community need for the program. Why is this Competency Important? -- The mission of the Ada County 4-H Robotics Program is to provide a K-12 continuum of interconnected programs to engage K-12 youth in authentic, meaningful, and high-quality educational science, technology, engineering, and mathematics activities. Our program addresses its mission by implementing state-supported programming using Lego NXT, Lego WeDo, and Tetrix kits and software. We have learned to implement local programming piece-by-piece so that participants and families can develop a level of comfort and trust with the materials and the staff. In five years of programming, The Ada County 4-H Robotics Program now offers five different robotics programs in various settings, and has plans to expand as the demand continues to grow.

Program Replication Requirements -- Robotics programs are equipment-intensive, but many expenses are one time. Much of the effort at the state level to promote Idaho ROKS has been focused on making resources available to local programs. Our county program was initially started with 100% state support, but sustainability has been built in. This poster will include potential sources of funding for robotics programs and resources available online for a variety of programming needs.

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**R-76-BE AN OLYMPIAN IN THE KITCHEN**

Stefanie Duda, University of Florida/IFAS Extension
Heidi Copeland, University of Florida/IFAS Extension

Overweight children, more than overweight adults, put themselves at risk of serious lifelong illness. In 2004, the prevention of childhood obesity became a national priority. Local communities and community organizations play the second largest role in helping youth gain the knowledge and skills necessary to live healthy lifestyles (Eisenburg, Radunovich, & Brennan, 2012). For this reason, the UF/IFAS Leon County Extension created a day camp to target the prevention of childhood obesity by focusing on three areas: increased knowledge of what it means to make healthy food choices, preparation of those healthy food choices, and increased awareness and of where local farmers are and where healthy (local) food is produced. 4-H Youth Development, Family and Consumer Science, and Horticulture Agents worked together to implement this program. Be an Olympian in the Kitchen targeted youth ages 8 - 13 years old in Leon County. Teens were recruited to serve as group leaders as well as co-instructed interactive nutrition lessons. Participants received 60 minutes of physical activity every day, conducted one community service project during the week, toured three local farms, prepared six meals and five desserts, and received eight hours of nutrition instruction. A total of 26 participants attend in the summer of 2012 with a waiting list the same length. Summer of 2013 will include two weeks of culinary camp. Participants reported knowledge in cooking and kitchen safety as well as the correct amounts of fruits and vegetables to eat and how to read nutrition labels. The most enjoyable parts of the week (as reported by youth) were touring the chicken and dairy farm and making homemade pizza and sushi.
Addressing the unique needs of military youth and families has become part of Cooperative Extension programming over the last decade. Camps have become quite popular as a setting to conduct programming for military youth. More recently, the residential camp format has been extended to reach the entire family. Specifically, there are many reasons to support conducting camps for military families. Such an approach aligns with an ecological family systems perspective (Bronfrenbrenner, 1979). Research shows that outcomes for youth are dependent upon parents’ ability to deal with the challenges and stresses of deployment and military life (Barker & Berry, 2009; Flake, Davis, Johnson, & Middleton, 2009). Additionally, Flake et al. (2009) found that community support helped mitigate family stress during periods of deployment. Other research suggests that the natural environment has a restorative value (Berman, Jonides, & Kaplan, 2008; Herzog, Black, Fountain, & Knotts, 1997). In partnership with the National Guard, our state has conducted 11 camps for military families the past four years. These camps are quite popular with military families, reaching over 800 participants. As with camps for youth, family camps provide the opportunity to meet other military families, which is particularly important in a state where the military population is largely geographically dispersed from any military installations. We have found that family camps can accommodate families of different sizes, ages, and configurations and they work well for all phases of the deployment cycle. Furthermore, the camp setting enables families to “get away from it all” without the daily hassles of preparing meals and distractions of television and technology. Funding partners such as the USO make the camps affordable for families to attend. Family camps begin with a variety of icebreakers and get-acquainted activities. Other programming takes advantage of the particular features of the camp facility, such as a high ropes course, a lake with opportunities for water activities, and bicycles. Many of the activities offer a degree of challenge and novelty. Other activities are designed to facilitate teamwork, such as a camp version of the Amazing Race. Tie dyeing camp T-shirts is another popular activity, as well as creating family photo frames as a memento of the weekend. Educational programming such as disaster preparedness, bike safety, and healthy eating are also included with the assistance of partners such as the American Red Cross and Extension Family and Consumer Sciences. Evaluations of the camps have been extremely positive. A recurring theme in these evaluations is that parents and children appreciate the chance to take a break and have quality time they are able to spend together as a family. They also enjoy the connections that they develop with other military families. Based on this consistent and enthusiastic feedback, we believe we have found a format that works well in meeting military families’ needs. To aid others in replicating a similar program, this poster session will provide an overview of a typical program schedule and activities, marketing, funding, staffing, and elements that contribute to a successful camp.
NEW COMMUNICATION TOOLS & TECHNOLOGIES

R-43- FARM & RANCH EXTENSION IN SAFETY AND HEALTH (FRESH): THE NEW FRONTIER FOR AGRICULTURAL SAFETY AND HEALTH

Dennis Murphy, Penn State Extension
Linda Fetzer, Penn State Extension
Aaron Yoder, Penn State Extension

eXtension is an ideal fit with the conference theme of ‘Bridging the Centuries: A New Era for Extension’ as Cooperative Extension continues to encounter changes in staffing, funding, and information needs causing a need for new resources for educators and agricultural producers that is available 24/7/365. Resources available through eXtension can equip educators with online tools to enable them to better access current information, serve their constituents, and provide them with the skills needed to be a digital broker of objective information that is based on research and other science.

Agricultural safety and health information is located on numerous land-grant university websites, the National Ag Safety Database, and various other websites. However, much of this information is not current, is not peer reviewed and often disjointed making it difficult to locate. The Farm and Ranch eXtension in Safety and Health (FReSH) Leadership Team and Community of Practice (CoP) grew from members of USDA’s North Central Education Research and Activity (NCERA) 197 Committee which wanted to address these issues with agricultural safety and health resource materials through an eXtension grant.

The number of Extension personnel continues to decline in most states resulting in the role of an educator to change by causing them to cover more territory and be responsible for more activities. And many traditional extension programs continue to be dropped completely. This decline is especially true for farm safety specialists and programs within the Cooperative Extension system which leads to outdated information on old websites for current Extension personnel to utilize. FReSH provides current, cited, and peer-reviewed content that can be accessed and utilized throughout the United States. If a farm safety specialist is not available in your Extension office and a resident has an agricultural safety and health question, the user has the option to ‘Ask an Expert’ through the eXtension system that will be directed to the FReSH CoP to be answered in a timely manner. Attendees will learn about opportunities through FReSH such as resources, online courses, mobile device apps, ‘Ask an Expert’, and video resources. By learning about the opportunities through eXtension, educators can continue to learn about and share new resources in their area of expertise.

R-44- INNOVATIVE USER-INTERFACE TOOLS FOR EXTENSION WOOD ENERGY COP

Ben Jackson, University of Georgia Cooperative Extension
Krista Merry, University of Georgia Cooperative Extension
Wood energy is too big a subject to be encompassed in one website. Our Wood Energy Community of Practice is designed to provide an introduction to the many topics that must go into considering the use of wood-based heat and energy technology. However, hundreds of other websites exist concerning this energy source. Due to the proliferation of information available, potential users may find it impossible to easily locate specific, detailed information they need. Our challenge was to enhance user satisfaction of our website by streamlining and improving the search process. The goals were to increase the number of visitors to our CoP and have them stay longer on our site. To combat the issue and frustration of not finding what the user is looking for, we added user-interface tools to our CoP to make it possible to more easily locate needed information. Our map-based graphical tools allow quick access to geographic-level and topic-based wood energy knowledge in an easy-to-use format. For example, it is possible to select a state and a particular subject and go directly to the online resource that contains that material if it exists. The graphical interface is designed to be updated easily and remain current at all times. We will explain how it works, what it does, and how others might adopt the methodology for their CoPs and other websites. Using this approach to the design of our CoP has the potential to greatly increase the number our users and increase the time spent at our site. We use several means to measure the value of these user-interface tools. We use feedback from our online survey instrument, google analytics, RSS feeds, and Twitter and Facebook sites.
R-45- MAKING PRESENTATIONS INTERACTIVE

Shawn Banks, North Carolina Cooperative Extension
Amie Newsome, North Carolina Cooperative Extension

With increasing methods of obtaining information, such as through the Internet, Cooperative Extension is facing more competition for attracting clients. In order to better connect with clients, extension agents need to offer programs that educate and engage. Interactive programming provides clients with knowledge they will easily retain and be able to transition into action. To create programs that excite clients, agents can use a mix of new technologies with an “old school” approach. Having an open mind, a willingness to try something new, and the ability to have fun increases your ability to produce interactive activities. Using these techniques has increased participation in programs here in Johnston County, NC. Evaluations of programs where these activities were implemented always mentioned the enjoyment of participating during the program. Keeping participants active helps them retain what is being taught.

R-46- EXPANDING EXTENSION OUTREACH IN THE DIGITAL ERA

William Sciarappa, Rutgers New Jersey Agricultural Experiment Station Cooperative Extension

As extension staff numbers decline in the new national economy; agents and educators are being asked to do “more and more” with “less and less”. Often they are “closing the ranks” and engaging audiences that differ significantly from their previous clientele experience. Therefore, it is important for the educational roles of university and extension faculty to continue to rapidly evolve and modernize. New technology as wireless, digital response systems, on-line communication and video capture systems can facilitate learning and increase impact among a diversity of extension clients. Participants in these specific studies were gathered from commercial vegetable meetings, pesticide training sessions, Master Gardener classes, environmental groups, primary and secondary school science seminars, university guest lectures in Agricultural and Horticultural Science and my four university classes in Organic Farming & Gardening and Environmental Issues. Over 1,000 participants were surveyed in 26 learning sessions which represented 36% of the 73 of the educators’ horticultural presentations from 2010 to 2012 compared to a conventional approach from 2007-2009. Student numbers were tripled over combined three year spans from approximately 200 to 600 with the systematic use of these technologies. Assessment of programmatic impact and behavior change were more conveniently assessed with audience response systems compared to conventional alternatives. Instant analysis of student responses was quite valuable especially with data representing class demographics and pre-post evaluations. These “Clickers” - Client Response Systems - allow the educator to quickly gauge the diversity of both adult and pre-adult class levels with a preliminary survey and pre-test, and then accurately assess class learning with a post-test on-line. Education processes can become asynchronous and quick adjustments in presentation approaches could be flexibly made according to class experience and understanding. The quantification of knowledge gained, adoption or behavior change provided empirical data to support programmatic impact needs. This feedback
fostered positive group dynamics and allowed non-linear instruction. Remote evaluation on an e-College system for undergraduate students provided an efficient and accurate method of knowledge gain. Significant gains were documented with pre and post testing. On-line teaching evaluations from students consistently rated learner satisfaction, teaching methods and educational technology systems very favorably – from ca. 4.1 to 4.4 on a 5.0 scale with 5.0 being best. On-line distance options utilizing educational video modules were integrated within the Bio-energy Curriculum of eXtension – NACAA. This dual frame, high resolution virtual approach in cloud-based web-streaming offers a more humanistic and time saving method that minimizes travel and classroom space requirements as well as engages new audiences with flex-time, independent programs of learning. These educational studies utilizing various forms of new digital technology as student response tools, remote communication and cloud-based, digital video allows an educator to expand extension outreach in the on-line era into new client pools.

**R-47- ELEARN URBAN FORESTRY: A STATE-OF-THE-ART ONLINE, DISTANCE EDUCATION PROGRAM IN URBAN FORESTRY PRACTICES AND PRINCIPLES**

Sarah Ashton, University of Georgia Cooperative Extension

The Office of the Southern Regional Extension Forester, the USDA FS Region 8--Urban and Community Forestry Program along with the Southern Group of State Foresters have partnered to analyze, design, develop and implement a state-of-the-art online, e-Learning program geared specifically toward beginning urban foresters and those allied professionals working in and around urban and urbanizing landscapes including service foresters, Extension agents, natural resource planners, landscape architects, city officials, public works employees and others. e-Learning is any instruction or training that is delivered on a digital device such as a stationary desk-top computer or mobile device such as a lap-top computer, tablet or phone, and research (Runnels et. al. 2006) shows that learning this way can be just as effective as learning in a classroom, when the instruction is designed well. Perhaps even more compelling is the cost effective and time efficient nature of e-Learning. Digital, online devices can be accessed almost anywhere at anytime. This poster highlights the eLearn Urban Forestry program. Powered, by Articulate, an industry standard e-Learning authoring tool, eLearn Urban Forestry is both inexpensive and accessible with key features including Flash-based interactivity, video and professional audio. Topic areas taught within the program include tree growth and development, urban soils, site and tree selection, planting, arboriculture, assessing and managing tree risk, tree disorder, diagnosis and management, trees and construction, policy, and urban forest management.
The Seafood at Your Fingertips program was created by a multi-disciplinary team consisting of professionals in the seafood, marine, nutrition and industry fields. The objectives of this program are to provide extension agents in Florida with updated, easy-to-access information regarding seafood, which will result in increased consumer awareness and consumption. Due to the abundance of outdated/inaccurate information available, it is difficult for both extension agents and consumers to determine the difference between science-based information and myths regarding seafood consumption and safety. As technologies improve and access to information becomes unlimited and overwhelming consumers are often receiving misinformation. As a result consumer confusion and misconceptions are rampant. This program is taking the science-based information and packaging it into an easy-to-use and understand educational tool for University of Florida IFAS Extension agents. A combination of traditional extension teaching methods and new technologies make this program timely and a bridge between various teaching and learning styles. Through the use of focus groups and a statewide survey, the program was designed with input from the consumer in order to provide appropriate information in educational tools created for this program. Program tools include outreach education modules that are given as a resource kit for extension educators to teach their clientele about Florida seafood nutrition, preparation, seasonality and purchasing. Extension educators will be given training through webinars on the resource kit and its content as well as guidance on teaching the curriculum. The educators will use these modules in their extension programming and be able to offer workshops on seafood education when previously they did not have the information or resources available to them in a succinct package. The goal is that seafood extension programming can now be regionally tailored yet conducted statewide, in multiple discipline areas, and allow the program to reach a greater audience of consumers throughout the state where we did not previously have an impact. Additionally, a mobile application was created for the general consumer to assist in purchasing and handling of seafood and promoting seafood consumption. By combining education modules, public displays, and the mobile application with the community teaching expertise of extension professionals, this program has provided a wide-reaching Florida Seafood promotion opportunity. Overall, a more informed citizen is the ultimate goal and, with targeted programs based on their input, is a successful way to achieve that goal.
For the past two years 4-H members have prepared as teams to compete at the county fair and top teams have moved on to the State Fair. This may seem like a typical scenario that plays out across the country, however the event is not a livestock judging contest, these members are preparing and competing in the Maryland State 4-H Robotic Challenge. High school 4-H robotics team members and leaders in Garrett County have been working to spread the enthusiasm of robotics across the state of Maryland. In 2011, working with the state 4-H staff they created the Maryland State 4-H Robotics Challenge. The Challenge takes members beyond individual completion of a robots project or attending a one session workshop, to competing as a team much like other 4-H areas. Teams (2 to 6 members) work to complete a robot challenge, prepare a technical presentation and complete a service project related to the Challenge theme. The challenge combines the important attributes of 4-H such as team work, leadership, citizenship and public speaking disguised as high energy, fun, and competitive event. Teams get their challenge (guidelines, rules and challenge models) in the late winter and have until summer county fairs to create a robot that can accomplish the Challenge tasks. Presenters will share their past 2 years’ experience in designing, conducting and evaluating a statewide robotics competition. Those attending will gain tips, sources for materials, and sample “challenges” to prepare them to replicate this popular program. Take-home materials will include references to the national professional development modules and my4-H.org resources. The competition is divided into two divisions: LEGO Robotic Challenge and Senior Robotics Challenge. The LEGO Robotics Challenge test the teams skills in building a robot completely out of LEGO's including a Lego Mindstorms NXT. The robot must autonomously (with hands off programed instructions) manipulate LEGO models on a 4’ X 4’ playing field. The LEGO models represent real world tasks that complement the yearly theme. The theme for the past two years have been “Recycling” and “Local Food”. The LEGO robotics division has three age divisions according to the age of the oldest member on the team. Senior Robotics Challenge teams compete on a 12’ X 12’ playing field with two teams playing one on each side of the field. While the robots do not come in contact with each other, some game manipulatives are interactive. Senior RC teams can build their robot from any type of robotic platform that can meet the guidelines. Senior teams can be made up of intermediate (11 to 13) and senior (14-18) age 4-H members. This contemporary youth robotics event is a popular vehicle for 4-H staff and volunteers to move successfully into a new era of relevant and in-demand programming.
Since its existence, Cooperative Extension has transferred knowledge from the land-grant universities to the people it serves to tackle problems and emerging issues. Historically, this was done in face-to-face settings or using traditional media such as newspapers and radio. Members of the Penn State Extension Office in Clinton County adhered to this traditional format by offering beginner beekeeping classes over the years but have experimented with emerging technology to determine the feasibility and acceptance amongst clientele. For many years, beginner beekeeping in Clinton County was offered in a 'brick and mortar' setting with classes set up a variety of ways – from a weekly evening series to a one-day course. In 2010, a six-part webinar series was offered that was free of charge to gauge interest. Because of that initial success the Beginner Beekeeping webinar series was conducted in 2011 and 2012 with expanded offerings and a fee. There were now 8 webinars in addition to a discussion forum and office hours. The forum and office hours were created to allow instructor/student interaction over the course of the webinar series. In addition, to create a setting similar to a field day, a virtual field day was held. The latest reiteration of the beginner beekeeping course is a collaborative effort between Penn State Extension and Penn State Public Broadcasting to create Beekeeping 101, an interactive 10-module course. This course is a totally asynchronous course that includes info-graphics, videos, animations, virtual field experience including video and audio, online office hours, discussion boards, self-assessments, and email communication. One of the main objectives of this course is to show other educators the feasibility to take existing content and present it into a format that meets a consumer's busy schedule and differentiated learning styles with engaging and visual content anytime, anywhere. In addition to experimenting with a nontraditional delivery format, multiple methods of marketing extension programs were explored. Advertising for the beginner beekeeping class was changed from the standard press release and extension mailing to the utilization of social media through Google Ad words and Twitter feeds in Beekeeping 101. Currently, 172 people have enrolled in the online course as there is continual enrollment. The course was open for enrollment on July 1, 2012 with an evaluation November 2012. Evaluation responses indicate that time demand played a role in involvement with the course as 61% stated that the reason for taking the online course was that it worked best for their schedule. Forty-six percent of participants stated that they chose to take Beekeeping 101 was continuous access to content it also matched their learning style. Seventy-seven percent stated that the self-assessments at the end of each module were very useful with the same percentage of respondents indicating that they would recommend this course to others.
USE OF SOCIAL MEDIA

R-51- BRIDGING THE KNOWLEDGE GAP THOUGH SOCIAL MEDIA

Meredith Berry, University of Missouri Extension

Social Media has made connecting with numerous people almost effortless. Cooperative Extension is more about building relationships and impacting the lives of the people we encounter, not just counting numbers on an analytics page. Using the professional development monies provided by National Epsilon Sigma Phi, the University of Missouri Extension secured Dr. Anne Mims Adrian of Auburn University as a speaker at their statewide conference in October 2012. Dr. Adrian is the Social Media Strategist for eXtension and considered one of the nation’s leading authorities on social media use in Cooperative Extension. This poster session reflects the information she presented at the conference as it relates to Cooperative Extension and the impacts on session attendees. In the two sessions presented by Dr. Adrian, she discussed the shifting paradigm we face in Cooperative Extension as we reach for the less traditional and younger audience using social media. According to Adrian, only 11% of the U.S. population has used Extension services. And while we are very good at what we do, we are very limited in our reach. Through the nodes of social media, Adrian suggests the number of people we reach (that is those who have been touched by or noticed Extension) and those we are able to influence (that is those whose lives, businesses or communities we have impacted) can grow exponentially as our services become part of the conversation. Using social media, we can increase the number of social ties Extension professionals have and more importantly, capitalize on social ties and connections to discuss and develop our education efforts. Social media platforms provide Cooperative Extension Service with a new way to teach, a new way to learn, and a new way to share information. According to Adrian, “Extension becomes defined by how we contribute to ecosystems — platforms—assuring optimal levels of sharing, serendipitous insights and innovative thinking”. The goal of utilizing social media goes beyond reaching new audiences. Social media allows us to reach existing audiences in new, engaging ways; stay connected with communities between program meetings; build relationships with new and existing clientele; build personal learning networks; and respond effectively to emerging situations. Through Twitter, blogs, Facebook, Scoopit and other social media platforms, we become part of the sharing community where information is fluid, creative, and connected. Social media is an avenue to build the credibility that keeps Cooperative Extension Service relevant. In addition to the content shared, results from a survey taken by participants who attended the conference sessions will be displayed showing the increase in the number of people using social media, the increase in the number of different social media platforms being utilized and programming impacts credited to social media.
**R-52 - UTILIZING PELLETED BIOSOLIDS TO REPEL DEER FROM SOYBEANS**

James Lewis, University of Maryland Extension

Pelleted biosolids were applied to different areas of 3 different farms with significant deer damage. The hypothesis was the pellets still had a human odor and would repel deer for long enough to allow the soybeans to be able to outgrow feeding. A broadcast spreader pulled with an ATV was used to simulate farm scale application. Large plot size on opposite side of fields were used in the study to eliminate any edge affect or contamination affect. Treatments were made at different growth stages to determine proper timing and effectiveness. Feeding damage and yields were recorded to compare treated areas to non treated areas. In the 1st year there seemed to be a response and reduced damage on a farm that is hunted, but not on a farm with no hunting pressure. So, it seemed that deer associated the odor with danger and avoided the treated area. However, in the 2nd year, the pellets didn’t reduce deer damage in any areas.

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**R-53 - THE TRI-STATE CLIMATE WORKING GROUP: ENGAGING FARMERS, RESEARCHERS AND EXTENSION TO INTEGRATE CLIMATE RELATED INFORMATION TO AGRICULTURAL PRODUCTION SYSTEMS**

Elena Toro, University of Florida/IFAS Extension
Wendy Lin Bartels, University of Florida/IFAS Extension
Jed Dillard, University of Florida/IFAS Extension
Dan Fenneman, University of Florida/IFAS Extension
Libbie Johnson, University of Florida/IFAS Extension
David Wright, University of Florida/IFAS Extension

Within the context of a changing climate and its effects on row crop agriculture values, beliefs and goals shape stakeholder perceptions and actions about climate change. Simply translating climate based scientific information and presenting it to farmers to use in their decision making process has proven ineffective in the past. Objectives: To build a shared understanding of the impacts climate has on row crops and potential adaptive responses. Methods: The tri-state climate working group gathered information from innovative farmers, Extension agents and specialists from Florida, Georgia and Alabama. The group has met six times in the last four years to discuss climate related information and its effects on production systems. Survey Questions discussed during the workshops included: How might a La Niña or an El Niño affect row crop yields? How have growers adapted to seasonal variations and extreme climate events in the past? How might future changes in climate affect agricultural production in the southeast? Results: The core group (25-30 participants) have increased knowledge of climate related effects and how they affect agricultural production; seven technologies to reduce climate-related risks have been identified. Extension gained a better understanding of perceived changes in climate and the informational needs of farmers to manage associated risks. Conclusions: Results of the working group will be shared during future events with other Extension agents, growers, local government decision makers,
water management district personnel, insurance agents, and crop consultants. This effort was led by the Southeast Climate Consortium and the Florida Climate Institute.

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**R-54- ALTERNATIVE FORAGE CROPS FOR LIVESTOCK PRODUCTION**

Chris Benedict, Washington State University Extension  
Andrew Corbin, Washington State University Extension

Driven by consumer demand for inexpensive meat and dairy products, livestock production over the past century has become centralized such that farmers today rely on imported grains (e.g. corn, soy beans) to satisfy livestock nutritional needs as opposed to historical foraging activities. Socio-economic and agronomic factors contributed to the evolution of today's farming systems, including: inexpensive land in the mid-west that is well suited to extensive feed grain production; the development of improved varieties that are well suited to the mid-west production environment; inexpensive marginal land in the west that is well suited to concentrated animal feeding operations (CAFOs); the development of improved livestock breeds that are productive with grain feeds; and the development of a national transportation infrastructure in combination with inexpensive transport costs. However, reliance on imported grain for livestock feed has increased exposure to volatility in market grain prices. Much of the grain today flows into new markets such as energy production and export markets, thereby decreasing available supply and increasing costs for animal feed (Trostle, 2008). Nationally, feed costs increased 55% between 2002 and 2007 (USDA NASS, 2008). In Western Washington, feed costs represent between 30-70% of overall production costs (unpublished data, producer interviews). Historical importance of vegetable crops as livestock feed is well documented (Wrightson, 1889). Root crops including fodder beets, rutabagas, and turnips were harvested and stored for consumption during winter and fed in a specific pattern (Wrightson, 1889). Shown to produce equal quantity and quality of milk when compared to silage corn in modern production systems (Ferris et al., 2003), these crops have the potential to flourish in soils and environments not suited to corn or hay (Herbert and Hashemi, 2002). Seed companies have developed new types and varieties for use as fodder and forage crops, but these have not been rigorously tested. This project was initiated to evaluate forage and fodder vegetable varieties that can be utilized for livestock production. Many producers are looking for market diversification alternatives. Coupled with better access to USDA livestock slaughtering facilities and increased demand for local livestock products, many producers are offering meat and dairy products as part of a diversified portfolio. These crops offer a low-cost way to produce viable feed products to sustain livestock towards market preparation. Field testing of these crops began in 2010 at a diversified vegetable/beef operation and an organic dairy operation. Similar trials occurred again at a diversified vegetable/beef operation and at the Northwestern Research and Extension Center in 2011 and 2012. Across all years crops were grown for less than 100 days. Yield in western Washington was found to be considerably higher than reported from field trials from other portions of the country. Laboratory analysis of nutritional quality found that many of these crops offer high protein levels which commonly represent a substantial production cost for livestock producers. Results from these trials underscore the important role that these crops can play in livestock production.
Beef feeder-calf production is a major economic enterprise in West Virginia with over 200,000 cows in the state. In 2012, the annual value of feeder calves produced in West Virginia approached 100 million dollars, with economic impact approaching 500 million dollars per year. The primary cost in producing feeder-calves is feed cost, with the major feed cost being hay or hay crop silage needed for winter feeding. The usually wet springs that occur in WV make it difficult for farmers to produce high quality, early cut, dry hay. Therefore, many farmers have adopted the practice of making hay-crop silage using hay balers. The hay is baled with a higher than normal level of moisture and the bale is then wrapped with stretch-wrap plastic to exclude air. An anaerobic environment is formed within the plastic wrapped bale (baleage) that allows beneficial bacteria to ferment soluble carbohydrates in the forage, producing by-product volatile fatty acids that “pickle” the hay and preventing it from spoiling. However, if the proper procedures for making baleage are not followed, the hay may not ferment properly to produce enough acid to preserve the silage. When this happens, toxic bacteria present in the environment may reproduce in sufficient numbers to cause a buildup of toxins that result in livestock death. Almost every year one or more farms in the state will have cattle death losses due to round bale silage that did not ferment properly. This often results in the death of five to ten, or more, cows per farm. With the cost of the replacing a beef cow being $1500 or more, this results in $7,500 to over $15,000 lost per incident. Based on forage analysis of baleage WVU-ES faculty have often found that baleage has not fermented adequately to protect the forage from bacterial or fungal contamination. This can result in livestock death due to botulism, listeria, or mycotoxin poisoning. When the best management practices (BMPs) needed to make high quality baleage are followed, the risk of these toxins is greatly reduced. Extension faculty became aware of the need for this project, through regular interactions with WV beef producers and their increasing adoption of baleage as a winter feeding option. Year one of this on-farm, three year research project, was completed in 2012. This included a survey to determine how well producers know of, understand, and implement these BMPs; and moisture and forage testing to quantify how BMP implementation affects the fermentation quality of baleage. The survey results showed farmers followed some BMP’s closely, the highest being followed by 76%, but the BMP followed the least was only 21%. The first year of moisture and forage testing revealed that when moisture levels fall below 45%, the probability of the baleage forming the critical level of volatile fatty acids is very low. An understanding of the BMPs required to make well fermented, safe baleage will be extended to neighboring farms through evening farm walks, field days and web based fact sheets.
Haycrop quality is a factor influencing milk production of dairy cattle. Dairy farms in the Catskill region of New York State rely heavily on homegrown grass and mixed mostly grass hay crops, the timing of the first harvest of which sets the stage for quality and yield of subsequent harvests and ultimately farm profitability. Over the last eight years, Cornell Cooperative Extension of Delaware County has conducted a haycrop scissors cut project in early May of each year, sampling approximately 30-60 fields across the county weekly, analyzing the haycrop for neutral detergent fiber (NDF) and sharing results in a timely manner with farmers and agriservice professionals to help them make decisions on when to begin first cut harvest in order to meet target NDF levels for high quality dairy forage. Data from each field (including field elevation and county township location) as well as harvest recommendations are shared in a weekly haycrop quality report that is emailed directly to farmers and agriservice professionals. Recently, a quantitative analysis was conducted to evaluate the impact of this program on forage quality on dairy farms in the county over time. A ten year summary was completed of forage analysis results (n=5,057) for three main forage types (grass, mixed mostly grass, and mixed mostly legume silages) analyzed through the DairyOne Forage Laboratory (Ithaca, NY) for dairy farms in Delaware County and additionally, those within the county who were participating in the Delaware County Precision Dairy Feed Management (DCPFM) program in years 2005-2010, a program that worked intensively with farmers on feed management. Data was summarized to create a sample number weighted average NDF content across all three silage types for both farm types for each crop production year from years 2003 to 2012. Across all farms in the county, forage NDF levels for these harvested haycrops decreased on average 2.9 points after the scissors cut program began compared to the two year period prior to the scissors cut program. Based on previously reported studies, this decrease in haycrop NDF level could yield 1 to 3 pound more milk per cow per day. Herds participating in the DCPF program showed a similar level of haycrop NDF reduction (2.7 vs. 3.1 percentage units) but achieved a lower average NDF than non DCPF peers (52.8% vs. 53.6% of haycrop dry matter). Both groups have experienced an increase in harvested haycrop silage NDF content in the last two years despite the continuation of the scissors cut program, but remain below baseline pre-scissors cut levels. A recent program evaluation survey of the agriservice professionals using program information indicate they value the information highly, and would like to receive more detailed information on field locations. To address this request, the scissors cut program team is considering in 2013 creating an interactive geo-referenced map with field sites identified and embedded crop quality information. An extension scissors cut program can combine traditional field research with the use of new electronic technology mediums to effectively disseminate information to clientele and make measurable change.
Rangeland management across large western landscapes is challenging. Grazing animals are allowed to select and consume their diet from a variety of forages that occur on a given ranch. The ranch manager can regulate the grazing animal’s access to forage through construction and maintenance of fences, water availability, mineral/protein supplementation, herding, and other strategies. Sustainable forage production is matched with the appropriate number of domestic grazing animals (stocking rate) being grazed on the ranch. To further complicate matters, much ranching in the western U.S. occurs on public lands and must operate within federal or state agency guidelines and demonstrate that their management is sustainable. Increasingly, environmental groups are challenging whether or not grazing on public lands can be done sustainably. In the past, ranchers have relied on agency professionals to collect ecological data, but diminishing agency resources and personnel have led to a decrease in their ability to regularly collect and evaluate quantitative ecological data. When faced with an environmental challenge (lawsuit), the best defense a rancher on public lands can provide is timely, ecological data indicating their livestock management is sustainable. The University of Arizona Cooperative Extension (UACE) has advocated this philosophy for over 20 years by conducting rangeland monitoring workshops that teach scientifically valid data collection techniques to ranchers, agency professionals, and concerned members of the public. The UACE also provides leadership and personnel assistance to early adopting ranches to encourage neighboring ranches to initiate their own rangeland monitoring programs. The data collection methods used are easy to learn, repeatable, and designed to minimize bias. Collaborative rangeland monitoring utilizes ranch personnel, multi-agency professionals, and engaged volunteers to collect and discuss the data as a team. The following is a brief description of the collaborative rangeland monitoring at the Yavapai Ranch, near Seligman, Arizona. The Yavapai Ranch is 110,000 acres of private (51%) and US Forest Service land. It ranges in elevation from 4,900 to 6,800 feet above sea level. Vegetation types include ponderosa pine forest, pinyon/juniper woodland, shrubland, and short grass prairie. The Yavapai Ranch has a Coordinated Resource Management Plan with multiple agencies participating. Each fall, the author organizes between 15 and 25 people (CRM agency partners, students, and adult volunteers) to monitor rangelands for two days. Of the 24 monitoring sites (called key areas), 6 are monitored each year and the data is processed and interpreted by the author and shared with participants. Data collected includes: frequency, cover, species composition, and landscape photos. Following data collection, a few variables are evaluated on-site and compared with prior data and discussed among participants. Other ranches have also participated and one has begun its own rangeland monitoring program. Data is used to guide management and monitoring participants are encouraged to provide management input. The Yavapai Ranch monitoring team has proven that ranching in the west can be done sustainably and with minimal contention.
R-56- A NEW LOOK AT AN OLD FORAGE: TEACHING COWS TO EAT BIG SAGEBRUSH TO REDUCE WINTER FEED COSTS AND IMPROVE BIODIVERSITY

Beth Burritt, Utah State University Cooperative Extension

Livestock can eat more of a food that is high in toxins if they receive appropriate supplemental nutrients. This study examined how supplementation and experience affected intake of sagebrush by cattle. The study was conducted at the Cottonwood Ranch in NE Nevada. Trials began in late October and ended in early November from 2007 to 2009. Each year cattle spent 11 to 14 days in an adaptation paddock followed by five to seven days in a half-acre trial pasture. During the study, cattle were supplemented with grass hay and protein-energy pellets to lessen the effects of terpenes in big sagebrush. Cattle behavior was monitored using scan samples. Experienced animals consistently ate more sagebrush and were more productive than inexperienced animals. Cow/calf pairs, bred yearling heifers, and first-calf heifer/calf pairs were used in the study. Most ate sagebrush as a significant portion of their diet. Fall grazing also reduced abundance of big sagebrush and promoted production of grasses and forbs in the understory. Over the three-year study, 98 head were trained to eat sagebrush. During the winters of 2010 and 2011 to encourage intake of sagebrush, a portion of the cattle on Cottonwood Ranch were fed half their normal hay ration on sagebrush-dominated rangeland. Cattle were fed for two to three months from January to March during their second trimester of pregnancy. They ate sagebrush through winter and maintained adequate body condition. In 2012 cattle were fed mature crested wheatgrass and sagebrush. Cattle ate mature crested wheat grass but ate very little of the sagebrush and cattle body condition suffered. Reduction in sagebrush consumption in 2012 by livestock was likely due insufficient nutrients to detoxify sagebrush. Cottonwood Ranch will continue to use sagebrush during winter to reduce feed costs, but will provide adequate nutrients to enable cattle to consume the sagebrush.

R-57- UTILIZING WEBINAR TECHNOLOGY TO EDUCATE BEEF PRODUCERS

Jeannine Schweihofer, Michigan State University Extension
Kevin Gould, Michigan State University Extension
Gerald Lindquist, Michigan State University Extension
Brenda Reau, Michigan State University Extension
Jason Rowntree, Michigan State University Extension
Kable Thurlow, Michigan State University Extension

The MSU Extension Beef Team conducted four-part webinar series in 2011 and 2012 designed to assist beef producers with marketing and production. Webinar technology was not previously used to educate beef producers. In 2011, participants were offered the option to attend the webinars at host locations across Michigan or participate via their own connection. Thirty-nine percent of participants (n=13) attended a physical location while remaining participants (n=20) participated via their own internet connection. In 2012, all of the participants (n=35) participated via their own internet connection. Specialists and educators conducted the webinars. The host educator worked
with presenters prior to the webinars to make sure they were familiar with the technology, materials were uploaded, and that the audio connection was working. A site was utilized to allow participants to test their computer and internet compatibility with the Adobe Connect technology used. Participants were given an introduction to webinar technology at the beginning of each webinar including checking audio, identifying how to ask questions by typing into a chat pod, and interacting through options like raising their hand to agree or answering poll questions. Pre-registration was required to obtain access to the webinar. The cost of the webinars was $15 each or four for $50. Post-webinar and nine-month follow-up surveys were conducted using Survey Monkey to capture intended and resulting behavior changes from participation in the webinar series. Evaluation data demonstrated that the webinar format was a viable tool in educating producers. Follow-up surveys documented significant changes on the operations of the webinar participants. In 2011, 73% reported they had never participated in a webinar series. The series was reported as a very good value by 37% of respondents for the price, 40% rated it as a good value and 23% rated it as a fair value for the cost. Follow-up survey results of behavior changes mirrored the planned changes reported in the initial evaluation quite closely showing some significant changes in the operations of the participants as reported: 12% not previously raising beef started raising beef, 25% expanded their beef herd, 12% began direct marketing of beef, 50% expanded direct marketing of beef, and 25% began marketing a differentiated beef product. In 2012, there was a 32% response rate for the nine-month follow-up survey. Respondents reported that 60% expanded their existing beef herd, 10% reported changed production method used for producing beef, and 20% reported changed type of genetics used to produce beef. The behavior change most often reported was expanded direct marketing with 70% indicating implementing direct marketing. Furthermore, 20% reported starting to market a differentiated beef product such as grass fed, organic, no added hormones, 10% reported expanded existing marketing of a differentiated beef product, and 10% reported developing a processed meat product. A business plan was written by 20% of respondents and 40% updated an existing business plan. Overall, the webinar series provided producers with education and skills to market beef locally. The follow-up evaluation demonstrates that producers utilized this information and made changes in their operations.

**R-79-WYOMING BEEF MANAGEMENT AND ARTIFICIAL INSEMINATION SCHOOLS PROVIDE TOOLS TO PRODUCERS**

Kellie Chichester, University of Wyoming Extension  
Ron Cunningham, University of Wyoming Extension  
Steve Paisley, University of Wyoming Extension  
Scott Lake, University of Wyoming Extension

Beef Management and Artificial Insemination (AI) Schools have been held in two rural communities in Wyoming- Laramie and Riverton. The schools are designed to provide tools to producers including nutrition, bull selection, management and artificial insemination in beef herds. The Riverton school was first held in 1986 and has recorded over 390 participants who have completed the 4-day school. The Honor Farm, a state minimum security prison, provides volunteers to help. In return, the staff is able to participate and apply what they have learned to the Honor Farm cattle herd. Laramie held its first class in 2012 with 15 attending. Those participating in the schools include a mix of beef producers and college and high school students with an interest in beef management and AI technologies. Follow up surveys were sent four months following the
Laramie school to those participating. Respondents (n=15) reported all would attend another school. Thirty-three percent said the Beef Management and AI school would positively impact the economic status of their beef operation during the next 12 months, through either additional income or cost savings by over $1,000. Another 33% said that the impact would be $251-$500. Both schools include a combination of classroom and hands on instruction. The teachers are both extension educators and specialists, along with graduate students. Both locations were supported by Select Sires; supplying manuals and supplies. In the past year, the educational team was successful in getting this course at the Riverton location listed with the local Community College to provide students the opportunity to received college credits for the class. Work is still underway to provide the same opportunity for the Laramie location.
America in Bloom is a program that promotes nationwide beautification through education and community involvement by encouraging the use of flowers, plants, trees, and other environmental and lifestyle enhancements. Communities compete against other communities of like-size for a national award. Through this process, participants experience better cooperation among municipal, commercial and residential sectors while working towards a common goal. Communities are evaluated by two national judges on floral displays, landscaped areas, urban forestry, environmental efforts, heritage preservation and overall impression. Our local effort was called Springfield in Full Bloom (SIFB) and the OSU Extension Master Gardener Volunteers (MGVs) of Clark County were an integral component. MGVs provided leadership to the overall SIFB effort for two years and served as a participant in the 3rd year. The first two years, the Extension Educator served on the steering committee and was responsible, along with the MGVs, for the judge’s tour. The MGVs showcased several of their projects on the tour for the judges and community members participating on the steering committee. This opened stakeholder’s eyes to the breadth and depth of our program. The tour included a community garden site, the hanging baskets grown for downtown, several display gardens, our tree inventory efforts with the city, as well as our five acre display garden, the Gateway Learning Gardens. The 3rd year, we stepped back from the leadership role for the tour but participated with our projects on the tour and hosted the judges reception in the garden. This opened our garden up to an entirely different audience. As a result of our ability to showcase our talents and skill-sets to various community members and organizations, local recognition for our MGV program has increased ten-fold. There is a greater awareness of OSUE as a go-to resource for horticulture information for homeowners, green industry companies, as well as municipal stakeholders. This program has increased our ability to partner with other organizations on various community projects. Stakeholders now come to us for assistance in community-wide initiatives that have a horticulture component. In the past we were challenged to make these connections. For instance, we had difficulty connecting with the city staff that made urban forestry decisions. The City Service Superintendent served on the steering committee and learned of our services and talents and has reached out to us for assistance in updating the street tree planting list. We now have a strong relationship with him as well as staff in the department; we are planning training programs for 2013. Participation in SIFB has helped extend our outreach in the community. We now have people come to us requesting programs and information as opposed to us going to them. With that said, however, we are cautious not to rest on our laurels and continue to market as necessary. The community now recognizes the MGV name and our reputation and frequently requests our services. It is common to hear the MGV name in the community when it comes to horticulture education leadership.
Community groups and individuals in Maine are developing produce donation gardens to provide free produce to food pantries and people in need. These volunteer-driven projects often involve traditional Extension program participants, such as Master Gardener Volunteers, 4-H clubs, and school gardens. Success can be difficult due to high volunteer requirements, specific and frequent crop requirements, and unpredictable schedules due to weather. “Problem solving, it's just never ending,” in the words of one volunteer. This qualitative research study identified lessons learned by four existing produce donation gardens of varying size, structure, and age. The observations and stories will appeal to volunteers in a way that the available literature--project reports and organizational recommendations--do not. They also will be useful to other volunteer-driven garden projects, such as school gardens.

Following an on-line background survey, volunteers from each of four gardens were interviewed between 2011 and 2012. A standard set of 36 questions about the following topics was used: their own interest and involvement in the project; organization of the physical garden; the group’s organization, funding, and communication; relationship with the receiving organizations (typically food pantries); task identification and prioritization; work sessions and events; and overall successes and roadblocks. The interviews were transcribed and coded for common themes. The research protocol was approved by the University of Maine Human Subjects Review Board.

Many volunteers reported a strong desire to use their gardening skills and interest to help others. They reported positive, though often infrequent, feedback from the receiving pantries: “We took them [the soup kitchen] in 30 pounds of green beans one day, on a Saturday. They cooked them up Sunday. . . People came back for seconds, said how wonderful they were. . . And by the end of the day they had one little bowl left. . . That was a good feeling.” Email was a primary mode of communication for the groups. Different methods were used to coach and train volunteers, schedule work sessions, and deliver produce. In addition to required gardening skills, there was a need for “[e]nergy, including energy in bad weather. Like just because it's hot doesn't mean you don't have to go [to the garden].” Volunteers reported stress when leadership roles fell to them by default. (“It's been a good focus for me. However, too much a focus at times, I think.”). To keep the projects manageable, volunteers advised keeping the garden small and choosing crops that are less maintenance, have a flexible harvest schedule, and are less perishable.
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.
R-61 - PLASTICULTURE STRAWBERRY PRODUCTION FOR SEASON EXTENSION IN THE MIDWEST

Brad Bergefurd, Ohio State University Extension
Thom Harker, Ohio State University Extension
Shawn Wright, Kentucky Cooperative Extension Service

There is a growing consumer demand for a year-round supply of fresh high-quality small fruits in North America (Vanden Heuvel, 2006). Until recent years, there have been few attempts in the midwest United States to evaluate alternative types of strawberry production systems including western varieties, alternative cultural systems or specific products such as row covers that could be used for either season extension and/or off-season production. In the early 2000s, research was undertaken by OSU Extension South Centers to evaluate plasticulture strawberry production in Ohio to extend the harvest and marketing season for this popular direct marketed specialty crop. The effect of cultivar, planting dates, row cover management, plant spacing and plant cultivar types was studied at the OSU South Centers/Piketon Research & Extension Center, Piketon, Ohio (lat. 39.07° N, long. 83.01° W, elevation 578 m) over several seasons. Since 2000, plasticulture strawberry growers in the Midwest have achieved success by adopting the plasticulture strawberry production technique and advancing the strawberry harvest by 2 to 4 weeks in the early spring with the use of floating row covers applied in midwinter and left on the crop until the early blossom period. This session will provide results of this replicated field research performed in Ohio.

R-62 - USING ELECTRONIC STUDENT RESPONSE SYSTEMS AT THE GREAT PLAINS GROWERS CONFERENCE

Timothy Baker, University of Missouri Extension
Patrick Byers, University of Missouri Extension
Tom Fowler, University of Missouri Extension
Sanjun Gu, North Carolina A&T Cooperative Extension Program
Karma Metzgar, University of Missouri Extension
James Quinn, University of Missouri Extension

Interest in fruit and vegetable production continues at a high level among Extension agricultural clients. Extension offers a variety of opportunities to teach these new growers how to grow and market produce, including traditional meetings, guide sheets, tours, and working one-on-one. Many of these are time-honored methods, honed from programming delivered in the past century. In 1996, horticulturists in Iowa, Kansas, Missouri, and Nebraska decided a regionally focused approach could bring several benefits, including being more comprehensive and diverse. They started a conference, called the Great Plains Vegetable Conference, held in St. Joseph, Missouri. This two-day meeting featured multiple tracks, covering all aspects of vegetable growing. The format offered producers an opportunity to network with the presenters, which included growers, industry representatives, researchers, and Extension personnel. This highly successful conference has grown through the years. A major change was the addition of the High Tunnel Workshop in 2003, on the Thursday preceding the original Friday/Saturday conference. The Thursday sessions have now increased to six workshops offered in 2013. Likewise, topics have expanded from the original vegetable emphasis. Crops now include tree fruits, small fruits, cut flowers, and honeybees.
Topics around these crops include growing, marketing, urban horticulture, and tracks with an organic emphasis. To reflect the expanded nature of crops being featured at this conference, the name was changed to Great Plains Growers Conference. With the success of the Great Plains Growers Conference, which now draws up to 700 participants, South Dakota has joined in the planning and implementation of this meeting. To aid in planning the conference, organizers have used traditional paper evaluations handed out in registration packets. While there is good information obtained using this method, compliance is far from total. The survey also did not provide much information about the nature of conference participants and their farming operations. To get that kind of data would require a much longer survey, which would probably result in less compliance. In 2009 an interactive and instantaneous ‘21st century’ evaluation was implemented: the electronic student response system that employs handheld ‘clickers’. The survey was conducted right before the keynote address, when the most participants could be reached. Information gathered included the participant’s state, level of production, demographic data, income from the farm, organic vs. conventional, and more. The information gathered from the clicker survey has been invaluable in making programming decisions for future conferences. Conference organizers have, for example, learned that a great majority of attendees consider themselves organic, and farm relatively small acreages. This survey has been used for four years. Compliance is 100% of those who are present and receive clickers. Audience reactions to the results are also interesting, since the numbers voting for each selection are displayed immediately. These results and more, including trends through the years, will be explored in depth in this presentation. Complete information about the conference can be found at: http://www.greatplainsgrowers.org/

R-63- INVEST - A COLLABORATIVE TEAM FOCUSING ON INVASIVE SPECIES EDUCATION

Cynthia Meyer, Ohio State University Extension
Joseph Boggs, Ohio State University Extension
Jame Chatfield, Ohio State University Extension
Erik Draper, Ohio State University Extension
Amy Stone, Ohio State University Extension
Curtis Young, Ohio State University Extension

Five new invasive species have been introduced in Ohio in the past century. As a result of these introductions and in response to the need of bridging the educational outreach for these species a triad was formed representing academia (OSU), industry (Davey Tree Expert Company), and a national non-profit (The American Public Gardens Association). This triad is the INVasive Educational Strategies Team (INVest) which focuses on raising awareness and supporting research through educational outreach on invasive species through partnerships with diverse communities of interest. This partnership begins a new era for invasive species education and encompasses all aspects of the issues at hand and results in easier replication of educational outreach methods. INVest’s key audiences include extension volunteers (i.e. Master Gardener Volunteers), industry professionals, local legislators, key players, and youth (i.e. 4-H). In this session participants will learn about INVest’s educational initiatives and current outreach goals. Participants will walk away with ideas, educational outreach methods, and materials that can be replicated in their programming.
R-75-TREE IDENTIFICATION LABS TEACH PROFESSIONALS AND HOMEOWNERS SKILLS NEEDED FOR MANAGEMENT

William Sheftall, University of Florida/IFAS Extension
Stanton Rosenthal, University of Florida/IFAS Extension

Situation: Correct species identification (ID) is a prerequisite for managing natural (wild) woody plant growth in urban and rural landscapes. Many traditional Extension audiences are interested in improving their proficiency at tree and shrub ID. These include arborists, loggers and foresters; public workers managing parks, greenways, rights-of-way; private managers of game lands and rural properties; Master Gardeners, Master Wildlife Conservationists and citizen-naturalists. Woody plant ID is not an easy skill to learn on one’s own, so there is high demand for classes that offer effective instruction.

Objectives: We wanted clientele to be able to increase their proficiency at woody plant ID through repetitive attendance at labs and field hikes offered annually. Labs and hikes include both “easy” and “hard” species. At each event, learners with basic skills will master some of the species more difficult to differentiate, while those without basic skills will master the more distinctive species.

Methods: Indoor labs on foliated woody specimens (summer/fall ID) utilize a lab practical approach to instruction. One hundred fresh specimens of native and invasive exotic species are collected and laid out on tables. They are grouped according to similarity in leaf shape, which means that some which are classified together end up grouped together (such as the pines, hickories and oaks) while most do not. The audience is led through the lab practical as if on a field hike, with agents instructing on tips for differentiating between species having similar leaf and branch morphology. We review phytography first. Winter ID is taught differently. Each student is given the same 20 species of twigs for close examination. The instructor talks the class through observing twig and bud characteristics which allow ID of dormant deciduous species. A field hike following the lab provides practice, while focusing on teaching the usefulness of bark and form to an accurate field ID.

Results: Over the past 14 years, 1131 professionals and amateurs have attended 26 summer/fall ID labs, and 437 have attended 7 winter ID labs and 6 hikes. Pre- and post-tests have been set up lab-practical style, using 10 species. Increase in knowledge measured in 2010-11 indicated an increase of 119% for summer/fall foliage ID and an increase of 150% for winter twig & bud ID.

Conclusions: Our ID labs have been perennially popular programs because of their instructional effectiveness at meeting the educational needs of a wide range of traditional Extension audiences. Repeat attendees have been pleased with the pace at which they have increased their ID skills.
Extension is sometimes thought of as a bridge between agricultural research and the general public. The farmers’ market at the Utah State University Botanical Center (30 acres in size) is adjacent to the Kaysville Research Farm (60 acres in size) of the Utah Agricultural Experiment Station. This has provided unique collaborative opportunities to involve the public in food tastings at the market. The market is situated in the middle of the USUBC display gardens and the market provides a convenient starting point for garden tours conducted by Extension. During the 2011 and 2012 markets, shoppers were asked to evaluate 37 cultivars of raspberries and blackberries grown at the Kaysville Farm. One clamshell container of each cultivar was placed at the front of a table, with a small coin bank placed directly behind each clamshell. Participants were provided with 10 pennies and instructed to taste berries from each container and then vote for their preferred cultivars by placing pennies into the corresponding coin bank. Results of this trial were communicated to local garden centers so they could consider ordering the most popular cultivars. The results will be summarized into factsheets geared toward commercial growers for summer-bearing raspberries, fall-bearing raspberries, and blackberries. The Kaysville Farm recently certified one area of the farm for organic research. An adjacent area will continue in conventional production to allow side-by-side comparisons. This arrangement allowed for a public taste testing at the market of the ‘Starfire’ cultivar of peaches grown organically and grown conventionally. Samples of peaches were cut up for people to taste fruit from each production system. People asked if they could taste the difference between peaches and if they had a preference for organically grown produce when shopping. Most people could not taste a difference between the peaches. Produce from the Kaysville Farm was made available to Food Sense nutrition aides who had a booth at the farmers market. They demonstrated low-cost and nutritional ways to use produce in meals by providing taste samples and recipe cards. The market was a great starting point for two garden open house tours conducted by the Extension Horticulture Faculty member and master gardeners. Tours included the ornamental grass garden, arboretum, and teaching garden. Extension taught short classes on how to grow vegetables and ways to prepare them. Extension sponsored a fall garden fair that included taste testing of apples grown at the Kaysville Farm and a sale of water-wise plant grown by the USUBC. Take-home materials will include factsheets on the berry variety trials and a recipe book on preparing different vegetables prepared by Food Sense.
Despite West Virginia's mostly rural environment, opportunities for agriculture in urban areas abound. More and more individuals are interested in self-sufficiency, especially in urban areas, and they see small-scale agriculture as a way to meet that interest. Opportunities for agri-business also abound, as many individuals are interested in supporting the local food economy by purchasing locally produced goods. Collaborations within the state's capital, Charleston, have led to a boom of urban agriculture opportunities and Extension fills the role of ensuring its sustainable and directed development using best-practices and leadership development. These opportunities include community gardens, urban agriculture entrepreneurial training, and an urban agriculture hub with a community orchard and leasable urban farm plots. Community gardens provide space for urban dwellers to have small garden plots. In addition, these gardens serve as community and leadership development opportunities for Extension professionals. In order to ensure the sustainability of community gardens in the Charleston metropolitan area, a county-wide association of community gardens was developed with Extension serving an advisory role. The association, working together with Extension, assists in the proper development of new community gardens, seeks resources and supplies, and provides leadership development to garden volunteers. A large demand for locally grown produce has developed in West Virginia and many other areas. Many of the small producers in West Virginia are small cow/calf operations that produce exclusively for wholesale shipping to markets in the Midwest. In order to meet the demand for local produce with the interest in local sustainable production, a partnership with a local community development organization led to the development of the Sustainable Agriculture Entrepreneurs program (SAGE). This program leads applicants through a year-long production workshop cycle, entrepreneurship training and hands-on assistance in production and business planning. At the end of the program, applicants will have created a viable sustainable production plan and a workable business plan tailored to their situation. In addition, Extension is working to develop a city-owned lot into a working urban farmstead with leasable production plots for graduates of the SAGE program and others interested in farming within the city. The 1.25 acre plot will include leasable farm plots, a community garden, a children's garden and a community orchard. This project is located in a socio-economically depressed area of the city and will provide not only fresh food to the neighborhood, but self-employment opportunities to its residents.
R-65- A PROACTIVE APPROACH TO STRATEGIC PLANNING: PREPARING A COMMUNITY FOR SHALE GAS DEVELOPMENT

David Civittolo, Ohio State University Extension

Strategic planning can be difficult. Often times, communities or organizations are not interested in participating because of timing issues or they don’t see the value of planning. In eastern and central Ohio communities, a new economic topic: shale gas is causing communities to review their current strategic plan or to develop a plan. Ohio State University Extension Community Development has worked with communities to develop a strategic plan that is focused only a shale gas and its impact on the local economy. Participants attending the session will be introduced to: developing a community enhanced strategic plan for a new industry, shale gas, and its potential economic impact on the community and discuss specific economies that could be enhanced as a result of the industry. Folks will also learn about potential negative impacts the shale gas economy has on a community. Lastly, as a new economy unfolds, not everyone is in favor developing shale gas. Participants to the session will learn techniques to deal with potential unruly and unwelcome guests to the strategic planning sessions. Participants will be provided a copy of a strategic planning document that they can use as a reference tool.

R-73-UTILITY SCALE RENEWABLE ENERGY DEVELOPMENT – PROJECT SITING & CONFLICT RESOLUTION

Wayne Beyea, Michigan State University Extension
Eric Romich, Ohio State University Extension

Large scale wind farm development requires non-bias, factual based information on both the positive and negative community impacts to guide conflict resolution and the evolution of community perceptions. Local elected officials and decision makers need access to research-based information that will help them better understand the potential for their local community and how to reach it. Extension is uniquely positioned to help given its connection to university resources, its objective and unbiased research, and its commitment to transformational education. A team of Extension professionals recently received funding through the North Central Regional Center for Rural Development (NCRCRD) at Michigan State University to develop curriculum which address this critical need for outreach and education on renewable energy development. Ultimately, the project aims to distinguish the public attitudes and opinions toward wind energy in Ohio and Michigan by conducting focus group research, case study review, and public comments review from the permitting process. Results from this field research will enforce the development of a non-bias research based curriculum (3 modules) including topics on project development, utility siting issues and concerns, and methods for resolving conflict involving renewable energy projects. Key components of the curriculum will include developing web and classroom based presentation material that could be used by Extension Educators in the great lakes region (and beyond) to address opportunities and concerns associated with renewable energy projects at the community or utility scale. The ultimate objective of the curriculum is to support sustainable community
development and promote informed decision-making, local elected officials, community planners, and community residents require more than a basic understanding of renewable energy projects. This session provides a summary of our team’s research findings to date and a preview of the curriculum modules to be released later in 2013. To support sustainable community development and promote informed decision-making, local elected officials, community planners, and community residents require more than a basic understanding of renewable energy projects. Wind energy development in particular requires non-bias factual based information on both the positive and negative community impacts to guide conflict resolution and the evolution of community perceptions. Local elected officials and decision makers need access to research-based information that will help them better understand the potential for their local community and how to reach it. The results from this study identify how Extension is uniquely positioned to help with its connection to university resources, its objective and unbiased research, and its commitment to transformational education.
In 2010, the USDA-US Forest Service organized a collaborative group, facilitated by USU Extension, to help address decreasing regeneration and recruitment of aspen (Populus tremuloides) on Monroe Mountain in the Fishlake National Forest in Central Utah. Decreased populations of aspen cause decrease ecosystem biodiversity, health, water quality, and water yield, important to agriculture and other societal values. The primary cause is the long-term lack of disturbance of aspen clones from natural or manmade events including fire, disease, harvest, etc. Chronic herbivory by wildlife and livestock is considered by some scientists and interest groups to be a significant factor decreasing aspen regeneration and recruitment. There is conflict between user groups about how to protect values important to their interests including livestock grazing, development of trophy elk and ecosystem conservation. The USFS seeks compromise between these groups to support needed aspen management activities, as they attempt to provide multiple-land-use management of publicly administered lands. Livestock were implicated as the major contributor to aspen herbivory, but there was no evidence or research based information. In 2011, members of the collaborative established 4, 6’x100’ belt transects to measure herbivory of aspen shoots, pre and post livestock grazing. Extension conducted a study to document which large herbivores were active in the transects by using digital trail cameras, equipped with motion and infrared sensors, installed at both ends of each transect with cameras facing each other. Thousands of photographs and video clips were taken in 2011 and 2012 documenting herbivory by domestic beef (Bos primigenius), elk (Cervus canadensis), deer (Odocoileus hemionus), and other environmental, wildlife and human activity. In 2011 the highest percentage of sensor triggers at Burnt Flat-South 71% and Squaw Springs-North 73% was by beef. The highest percentage of triggers at Tibador-North 94%, Tibador-South 57%, White Ledges-North 73% and Burnt Flat-North 100.0% was by elk. At White Ledges-South 59% and Squaw Springs-South 52% was by deer. In 2012 the highest percentage of sensor triggers at Tibador-North, 50% and Tibador-South, 46% was by beef. The highest percentage of triggers at Burnt Flat-North 41%, and Burnt-Flat South, 38%, was by elk. At Squaw Springs-South, 65%, White Ledges-South, 63%, White Ledges-North, 55%, Squaw Springs-North, 50%, was by deer. Results of the study persuaded members of the collaborative and USFS personnel that wildlife, in addition to livestock, are herbivores of aspen. Aspen management recommendations are being formulated by the collaborative equitably reflect wildlife and livestock herbivory of aspen. Additional research is being conducted with the 2012 construction of 2, 4 part exclosures to further document, which large animal species are browsing aspen. An additional study is being planned to establish 60 smaller belt transects to determine the browsing patterns and intensity.
R-68-PEEP - A COMMUNITY ENERGY PROGRAM

Ramona Madosingh-Hector, University of Florida/IFAS Extension

With the anticipated rise of energy costs and the aging of built infrastructure, an action plan to encourage energy conservation and move towards a sustainable energy future is vital to conserve natural resources and protect the environment. PEEP is Pinellas Energy Efficiency Project, a cooperative education outreach project focusing on energy conservation and greenhouse gas reduction across Pinellas County. PEEP delivers training and product to target audiences through a variety of educational methods (radio, TV/video, website, social media) that motivate and engage participants to change behaviors. PEEP also leverages partnerships with community and civic organizations to reach underserved audiences. PEEP provides participants with energy saving devices and collects data to identify kWh saved, dollars saved, and CO2 emissions prevented. Since 2010, PEEP has reached more than 18,000 residents and surveys indicate that 74% of participants turned off lights in unoccupied spaces, 57% unplugged “energy vampires”, and 17% performed home efficiency improvements including insulation and duct checks. Participants continue to change energy consumption behaviors and make modifications to home energy use to achieve energy efficiency beyond the classroom training.

R-69-EVALUATION OF THE EFFICACY OF RADON OUTREACH PROGRAMMING IN CHAFFEE AND PARK COUNTIES, COLORADO

Kurt Jones, Colorado State University Extension

Radon gas is odorless, colorless, tasteless, and is considered a Class A carcinogen by the Environmental Protection Agency (EPA). It is a leading cause of lung cancer in the United States; estimated to cause 21,000 deaths annually. The EPA has classified Chaffee and Park Counties (Colorado) as a Zone 1 geographic area; the highest probability of having elevated levels of radon gas present in the homes. Colorado State University Extension conducted numerous outreach educational activities between 2007 and 2010. A follow-up evaluation was conducted in 2010 to determine whether one outreach activity was more effective at encouraging individuals to test their homes for radon or to mitigate their homes. The outreach activities included face-to-face classes, distance delivery classes, booths at local health fairs, and individual consultation. There was no statistical significance between the four outreach activities and short term testing behavior. Evaluation of short term testing data did show statistical significance for all communities within Chaffee and Park Counties, but was not significant for neighboring counties or for kits from throughout Colorado. Participants in the face-to-face class reported an increase in knowledge about the hazards of radon gas exposure (p<.05). Based on these data, continued outreach education is warranted, a variety of outreach activities is necessary, and individual testing of homes and businesses is needed.
Lara Miller, University of Florida/IFAS Extension

**Brief Description of the Project:** The Traveling Tree Walk is an educational outreach project that focuses on urban forestry and building an understanding of ecosystem services in Pinellas County. The Traveling Tree Walk utilizes signs in an urban setting to incorporate tree identification and statistics on the monetary value of ecosystem services by various tree species. The goal is to improve knowledge gain and awareness of the importance of trees in relation to both the natural and anthropogenic world. The project will be open to all residents of the county as well as visitors and will be traveling to different locations throughout the county over a year’s time.

**Methods Used:** Common trees throughout the county were identified for the sign-making process. Signs were designed in the shape of a large price tag to emphasize the ecosystem services component of this project. Signs include specific tree statistics from the National Tree Benefits Calculator as well as tree pictures and a QR code that links to a factsheet of the particular tree species participants are viewing. Various sites will reserve the signs for a three month period through an EventBrite registration page. The Traveling Tree Walk will be accompanied by a brochure indicating the various tree species that can be found along the walk as well as explanations of identified ecosystem services. Participants will use these brochures to identify trees and the positive impacts they have on the environment. Knowledge gain and behavior change will be evaluated with an online survey accessed by a QR code supplied on the brochures. Supplies for this project include weather proof signs, Velcro straps, brochures, brochure holders, and promotional cards.

**Results:** This project will be begin in 2013 and thus results are not available at this time. The idea has been well received by the Director of the Parks and Conservation Resources Department and the Director of Pinellas County Watershed Management. Participants will be asked if their knowledge of ecosystem services has increased, if they value trees more, and if they are more likely to plant a tree in their yard as a result of their participation in the Traveling Tree Walk. The objectives of this project are based around these questions.

**Theme Application:** The Traveling Tree Walk is a great example of “A New Era for Extension” project and directly ties into the theme of “Bridging the Centuries”. As the world population continues to grow, so too does urban development. Hundreds of year ago it was inherent that folks understood the value of trees as many made their livelihood off the land. As time has passed, this connection to the land has been lost and one of the objectives of the Traveling Tree Walk is to re-establish that connection, help people to understand the value and importance of the trees that surround them. Utilization by Other Extension Professionals: The Traveling Tree Walk is unique in that it is a project any extension agent can implement anywhere in the world.
Purpose: Around the globe, water availability and quality are significant issues and will continue to play a large role in the political decisions made by elected officials, resource managers, and concerned citizens. Political boundaries are established around the nation, but watersheds extend beyond those boundaries, making collaboration amongst neighboring counties extremely important. Limited resources cause political, economic, and social conflict at every scale. In Florida, the University of Florida IFAS Extension Service hosts Water Schools in five southwestern counties to provide local elected officials, county and municipal employees, community leaders, and the voting public with the background information needed to make informed decisions about water resource issues and management.

Scope: The primary goal is to increase participants’ awareness and knowledge of the following: local and regional water issues; regulatory stakeholders (e.g. Water Management Districts, National Estuary Programs, etc.); the scientific information available from Extension and land grant universities; and the influence that water issues have on public policy. The objective for elected officials is for the knowledge gained from this program to be utilized as they make sound policy decisions regarding future planning and development.

Methods: Each Water School’s format is unique to a county and the target audience. All Schools bring in experts from partnering organizations and include field tours to illustrate real-life implications of the principles discussed in class. The evaluation process involves a self-assessment of knowledge gained and potential behavior change as well as informal feedback after each class. Results: Data collected from post-evaluations indicate participants gained knowledge and understanding of water systems and their interconnectedness to human activities within the watershed; learned of resources available to communities and governments to make better choices regarding water management; and acknowledged the need to consider potential impacts of future policy decisions on local and regional water supplies.

Theme Application: Water has served as a critical resource throughout history and will continue to be a major topic of discussion. From water wars to floods and droughts to saltwater intrusion, these events are real and affecting all life on earth.

Recommendation: Water Schools can be implemented in any political arena worldwide.
R-72-PRECISION NUTRIENT MANAGEMENT USING A SYSTEMS APPROACH IN KARSTS GEOLOGY IN JEFFERSON, BERKELEY AND MORGAN COUNTIES, WEST VIRGINIA

Mary Beth Bennett, West Virginia University Extension
Tom Basden, West Virginia University Extension
Craig Yohn, University of Maryland Extension

This project was a comprehensive approach to nutrient management in highly vulnerable soils using GPS technology with a set of proven conservation practices. Producers demonstrated a willingness to adopt these precision and adaptive management practices increasing the effectiveness of their nutrient management planning and implementation. Eleven producers participated in 9 practices on their farms with cost share being provided. The practices used were: Yield monitor, Manure hauling, Split Nitrogen Application, Nitrogen Evaluation, Late Season Corn Stalk Test, Cover Crop Planting, Precision Soil Sampling, Variable Rate Application of P & K and Variable Rate Application of Lime. The top practice was Yield Monitoring followed by Manure Hauling. A distant third was Split Nitrogen Application. When producers were asked to rank the same practices they tended to rank the practices they used. Dairy producers ranked Manure hauling first while other producers ranked Cover Crops first followed closely by Yield monitoring. Based on discussions with producers at the conclusion of the project, several producers said that they would like to continue with several of the Precision agriculture practices. Several would like more programs on the GPS component and how they might better use it in their farming practices. This desire to utilize these practices and have more technical support over the long term will only be accomplished if a sustainable cost share program is put in place to provide confidence to farmers and commercial enterprises that their investment in precision practices and technologies is not short lived. Based on these results several of these practices should be offered to farmers in West Virginia under the USDA NRCS EQIP program.