

Cooperative Extension Innovation Showcase

Tuesday, October 13, 2015; 9:45 A.M. – 5:30 P.M. Located in Laurel Foyer

Infomercials will take place at 10:30 a.m. in Laurel Ballroom

The 8 showcase participants were selected from 151. eXtension was added to reflect its current work on innovative strategies. An additional 16 innovations are listed. The full *Cooperative Extension Innovation Inventory* will be available later this year. The *Innovation in Extension Executive Summary* is at www.bit.ly/ExtInnovSummary.

Commodities for Communities

Tim Cross and Keith Barber, University of Tennessee

Commodities for Communities is a program that allows Tennessee farm operators and landowners to make a direct transfer of an agricultural commodity such as grain, corn, or soybeans to the UT Foundation. Money raised from the sale of the commodity gift is designated to a UT program of the farm operator or landowner's choice. To date gifts of grain have been accepted to fund UT Extension Endowments for Agriculture programming.

By directly transferring commodities, as opposed to selling the commodity and making a gift from the proceeds, growers may realize significant tax savings. Contributing the commodity allows the farmer to avoid the sale of the commodity as income, while the production costs may still be deductible. Reducing taxable income may provide advantages such as minimizing or eliminating self-employment tax and reducing adjusted gross income.

Gifts from Commodities for Communities are not replacing funding for services provided by county Extension offices—simply boosting them—allowing agents to better serve local producers.

To participate, a grower will deliver the commodity to a local grain elevator and inform the business that he/she wishes to transfer ownership of the commodity to the UT Foundation. The producer will complete the necessary form (either a hard copy or the online version) and the grain elevator will sell the commodity at fair market value as directed by the UT Foundation. The proceeds of the commodity are sent to the UT Foundation directly for deposit into the appropriate county endowment account.

District Program Leadership Teams

Ed Jones and Michael Lambur, Virginia Tech

The Virginia Cooperative Extension (VCE) District Program Leadership Team (DPLT) program began in late 2013. Several years prior to this, VCE had no program development specialists. To fill this gap, in 2012 senior agents in the Southeast district came forward to train agents in the programming process. VCE capitalized on this innovative, agents-training-agents, effort and created a DPLT in each of the four VCE districts. The role of the DPLT is to provide training to agents, primarily new and also experienced, in the VCE Programming Process, to train new agent mentors, and to address other programmatic issues as needed. The teams consist of six agents per district (2 ANR, 2 FCS, 2 4-H). Application for these positions was through a competitive application process open to all VCE agents. Training was provided to the DPLT. The time commitment was 5-10% with a \$5,000 annual salary stipend. DPLT members serve for three-years.

The DPLT offer face-to-face training quarterly, online training sessions, and individual assistance. An evaluation was conducted in 2015 to determine the helpfulness of the DPLT to agents in 2014. When asked to rate the helpfulness of their interactions with their DPLT (where, 1=Unhelpful, 2=Somewhat unhelpful, 3=Neutral, 4=Somewhat helpful, 5=Helpful), means for less than one through four years of experience were: less than one year 4.5, one year 4.3, two years 3.8, three years 3.8, and four years 3.8. Given that the main focus was to help newer agents, the first year of this innovative program was deemed successful.

Fast Track Gardening: Using Agriculture as a Vehicle for Change through Experiential Learning

Stephanie Elwood and Gina Eubanks, Southern University Agricultural Research and Extension Center (SUAREC)

The SUAREC provides agricultural training to incarcerated and adjudicated youth. Training topics include communication and life skills, as well as horticultural and work force skills. Instruction involves both classroom and hands-on activities including the establishment of horticultural garden plots. Instructors use a community gardening curriculum that was developed by the SUAREC. Certificates are awarded upon successful completion of the program. These can be used to support applications at any horticultural-related establishment and for presentation at court to display program participation and compliance.

This program has been implemented at three facilities. Jetson Center for Youth (JCCY) was the pilot program that began in May, 2011 until the closure of the facility in January, 2014. Gardening classes were conducted twice a week. In response to Jetson's abrupt closure, the program was established at THRIVE! of Baton Rouge, a public charter boarding school that serves adjudicated students. Weekly classes at THRIVE! began May, 2014 and a garden was established and is currently maintained by students. A gardening program also has been started at the Bridge City Center for Youth in New Orleans, Louisiana. Several of the juveniles from JCCY were transferred there, and provide leadership to the project.

Future plans include formalizing a memorandum of understanding with horticultural-related establishments to allow graduates to obtain work opportunities upon release. Efforts are underway to establish internship/work release opportunities for selected, trustworthy youth to afford work-related opportunities while incarcerated.

First Generation 4-H Families Initiative

Daryl Buchholz and Barbara Stone, Kansas State University

The First Generation 4-H Families Initiative at Kansas State University, K-State Research and Extension (KSRE) is addressing the changing demographics across Kansas and engaging new and underserved youth.

The KSRE 4-H Youth Development program is growing in Kansas by building staff capacity; engaging bilingual and bicultural interns to assist in reaching new families; designing culturally sensitive programming; and using research-based strategies that attract and prepare volunteers to meet the demand. The goals of the initiative are to 1) pilot and establish new clubs in which the youth fully participate in KSRE 4-H projects and experiences that are relevant to their bicultural identity; 2) provide training and guidance to help staff and volunteers become culturally sensitive, and 3) examine systems and processes that help KSRE 4-H youth development achieve the goals of the project and build sustainability for the future.

As part of the First Generation 4-H Families initiative, youth participate in local and regional KSRE 4-H youth development events and in programs on the Kansas State University campus. Parents report that they value the KSRE 4-H program and the experiences prepare their children to think about and set goals for the future, become acquainted with opportunities for college and career readiness and become more socially integrated into their communities through service.

As a public/private partnership, the First Generation 4-H Families initiative brings critical resources, expertise and shared learning together to shape an innovative model for reaching new and underserved youth and adult audiences across the state.

Forward Learning Experience (FLEx), Iowa State University

Cathann Kress and Pete Evans, Iowa State University

The Iowa Core and Common Core recognize 21st century skills as fundamental for K-12 youth's future employability and technological literacy. A bolstered education and innovation climate can improve Iowa's and the nation's future economy. This project provides a flexible framework for knowledge and curriculum transfer that engages numerous stakeholders to address core standards and foster innovation. This project is supported by Iowa State University's College of Design, College of Engineering, and Extension and Outreach.

The *FLEx* mobile platform offers K-12 youth a *Forward Learning Experience* through emerging and immersive new technology. *FLEx* portable STEM and design-thinking experiences can be taken to any school, community, library, or industry partner across Iowa.

Iowa State Industrial Design (INDD) has developed these unique learning experiences for demonstrations, workshops, and seminars that are complementary to STEM learning, Iowa Core, and Common Core standards, and, specifically, the Universal Constructs for 21st Century Learning Skills. This includes the 4 C's (creativity, critical problem solving, collaboration, and complex communication), flexibility and adaptability, and productivity and accountability.

A Forward Learning Experience uses the latest technology in 3D printing and scanning, circuit bending, Computer Numeric Control (CNC) machines, Computer Aided Design (CAD), and virtual and augmented reality (VR and AR) to envision, advance, and realize an idea or project. *FLEx* provides students with options to explore, experience, and reflect. This portable, tech-savvy learning is a catalyst to inspire future thinkers, makers, and problem solvers--bridging the gap between ideas and opportunity.

Open Campus Initiative

Scott Reed and Jeff Sherman, Oregon State University

In the OSU Open Campus (OOC) initiative, Oregon State University is innovating the way the Extension addresses educational needs. The state's complex economic and educational issues cannot be adequately addressed by any single organization, educational institution or government agency. Through OOC, the University builds local collaborations that span the boundaries that artificially separate community-based educational providers. Under the OOC banner, OSU partners with K-12 schools, community colleges, businesses, and governmental interests to provide and coordinate educational opportunities—credit and non-credit—that specifically meet the needs identified in individual communities.

When refined and proven to be successful, these innovations are made available to other communities. OSU, with a statewide mandate as Oregon's Land-Grant University and the Carnegie Foundation's top designation for research institutions and Community Engagement classification, is a logical convener of community partners to address these issues. OOC is an outcome of the unique alignment within the University's division of Outreach and Engagement between OSU Extension, with a 100-year history of engagement, and the entrepreneurial success of the OSU Extended Campus.

In 2009-10, after conversations with community leaders looking for greater access to the University, OSU launched three Open Campus pilot sites. OOC has served more than 5,300 learners in each of the first four years, and has served over 3,500 learners in 2015. The OOC goals match and support Oregon Legislative goals: College and career readiness; increased off-campus degree completion; and improved local economic development and business vitality.

Unmanned Aerial Systems (UAS) - Applications in Agriculture

Chris Boerboom and John Nowatzki, North Dakota State University

North Dakota State University Extension Service began conducting UAS research and demonstration projects in 2014 to evaluate the effectiveness of using UAS in agriculture and natural resource management. Project personnel are using color, infrared, and thermal sensors mounted on small fixed-wing and rotocopter UAVs to collect data of ongoing crop and livestock research projects. The primary goal of the NDSU Extension UAS activities is to identify effective UAS applications in crop and livestock management.

Information from UAS image data is being used for the following management applications: crop emergence and stand counts, crop fertility status and nutrient deficiencies, identification of weed infestations, herbicide resistant weeds, specific crop diseases, and quantifying beef cattle body temperatures.

The expected outcomes are an Extension UAS education program to: 1) validate specific uses of UAS in crop and livestock production management decisions; 2) identify significant UAS services for the private sector partners; and 3) promote the commercialization of unmanned aircraft systems using sensors to manage specific crop and livestock management decisions.

Urban Food Hubs

Sabine O'Hara and William Hare, University of the District of Columbia

Food security demands a diversified food system that includes urban communities as locations for food production, food preparation, food distribution, and waste reduction/reuse. The Urban Food Hubs concept of the College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) of the University of the District of Columbia (UDC) tests the feasibility of small-scale urban food systems that include these four key components. The heart of the CAUSES Urban Food Hubs is high efficiency food production sites that utilize bio-intensive, aquaponic, and hydroponic production methods. Co-located with these urban food production sites are commercial kitchens that serve as business incubators and training facilities for food processing and nutritional health related activities. Given their location in urban neighborhoods, the Urban Food Hubs also focus on waste reduction and reuse through composting, water management, and related approaches to minimizing pressure on urban land and infrastructure systems. In addition to improving food security, the Urban Food Hubs thus also contribute to job creation and urban sustainability in its economic, social/cultural, and environmental/physical dimensions.

eXtension

Christine Geith, eXtension Foundation

eXtension is launching several new initiatives this fall focused around Issues, Innovation, and Impact: the Extension i-Three Labs, the Extension i-Three Corps, and the Extension i-Three Toolkit. Each initiative has potential to dramatically impact Extension agents, educators, specialists, program staff, directors and administrators, and volunteers systemwide. eXtension's Community Innovation Quest continues to look for innovative programs, projects, and people within Cooperative Extension.

ADDITIONAL INNOVATIONS

1. Mobile bio-diesel/bio-fuel demonstration platform: New and creative project to enhance extension outreach education. Jason de Koff, Assistant Extension Professor, Tennessee State University, jdekoff@tnstate.edu, (615)-963-4929.
2. Creative means of collecting and sharing data and management decisions of crop insect pests via mobile technologies and innovations. Brian McCornack, Associate Professor of Entomology, Kansas State University, mccornac@ksu.edu, 785-532-4729.
3. Using social media to reach out to crop producers via questions and informative/fun activities. Jeanne Falk Jones, Multi-County Specialist - Crop and Soils, Kansas State University, jfalkjones@ksu.edu, 785-462-6281.
4. Using Twitter to grow followers of the research and extension faculty and their work in the agronomy department. Gary Pierzynski, Department Head – Agronomy, Kansas State University, gmp@ksu.edu, 785-532-6101.
5. Pest Management App – The app, launched in 2014, pulls together Extension weed, insect and crop disease guides with instantaneous updates plus other features. Andrew Friskop, Extension plant pathologist, North Dakota State University Extension Service, andrew.j.friskop@ndsu.edu, 701-231-7627.
6. Wagner Racism Study Circles – SDSU Extension conducted the Horizons project with the community of Wagner. Resulting from that experience was the intent to address racism in the community. Using a local committee, an intervention model was developed using racism study circles as the foundation. David Olson, Program Director - Community Development Institution, South Dakota State University, david.olson@sdstate.edu, 605-688-5614.
7. Pocket Farmer – Brief description of innovation: New App for conifer diagnostics developed by a team of students. Nancy Gregory, Plant Diagnostician, University of Delaware, ngregory@udel.edu, 302-831-1390.
8. Atlas – Atlas is a business platform that seamlessly integrates a content management system, e-commerce system, customer relation management system, on-line registration system and on-line course development system. Stage Gate, a product development platform of the system, provides a way to prioritize the need and quality of a given product for development. Jon Emigh, Business Operations Manager, Pennsylvania State University, jxe122@psu.edu, 814-867-1816.
9. Beekeeping 101: Beekeeping 101 is an on-line 10 module course for beginner Beekeepers. Tom Butzler, Extension Educator, Pennsylvania State University, tmb124@psu.edu, 570-726-0022.
10. Cold storage on smaller vegetable farms and helping the farmers build small remotely monitored coolers in which to store their produce. Chris Callahan, Assistant Professor, Ag Engineer, University of Vermont, christopher.callahan@uvm.edu, 802 773-3349 ext. 277.
11. Enhancing vegetable and small fruit to production by demonstrating the use of high tunnels to extend production seasons in Vermont, using alternative energy approaches to heat the high tunnels, working with others to initiate appropriate food safety measures being advanced by FDA. Vern Grubinger, Professor, Small Fruits and vegetables, University of Vermont Extension, vernon.grubinger@uvm.edu, 802 257-7967 ext 303
12. Operation Grow – Extension program developed to assist returning and retiring veterans to launch a career in the local food system. Chris Becker, Regional Extension Agent; home grounds, gardens and home pests, Auburn University (AL), cmb0034@aces.edu, 256-766-6223.
13. Invasive Species Weed Management: management of giant salvania with biological control insects Rodrigo Diaz, Assistant Professor, Louisiana State University System, rdiaz@agcenter.lsu.edu, 225-578-1634.

14. GIS/GPS classes to mark historical sites and measure environmental impact and a plan for cultivating new Ag industry. Steve Brown, Ag/Hort and Natural Resources Agent, University of Alaska Fairbanks, scbrown4@alaska.edu, 907-745-3639.
15. Aquaculture programs for both research and Extension: Saltwater fish production. Mike Ogo, Extension Agent (Aquaculture & NR), Northern Marianas College (MP), michael.ogo@marianas.edu, (670) 785-5830.
16. Media Productions Learning Game Lab: A research space to better understand what makes games fun for target audiences in order to integrate those elements into Extension's educational games. Barbara Chamberlain, Assistant Director for Media Productions, New Mexico State University, bchamber@nmsu.edu, 575-646-2848.

Requested Reading

Innovation in Extension Executive Summary <http://bit.ly/ExtInnovSummary>

Recommended Reading

The Collective Genius – The Art and Practice of Leading Innovation by Linda Hall, et. al. Boston, MA: Harvard Business Review Press, 2014.

Creating Thought Diversity: The Antidote to Group Think. Fernandez, Claudia Plaisted. *Journal of Public Health Management & Practice*. 13(6):670-671, November/December 2007.

Managing the Difficult Conversation. Fernandez, Claudia Plaisted. *Journal of Public Health Management & Practice*. 14(3):317-319, May/June 2008.