Boone County
2013 Annual Report
Reliable, Responsive and Relevant to Today’s Needs
December 2013

Dear County Commissioners and Associated Friends of MU Extension:

As we enter 2014, we at University of Missouri Extension celebrate our 100-year partnership with you, with the State of Missouri and with the federal government. Through the Smith-Lever Act of 1914, the Cooperative Extension Service was established to provide practical application of research knowledge “to persons not attending or resident in said colleges in the several communities.” Over the years, the mission to bring you relevant, reliable and responsive education to improve lives and local economies remains the same. Yet, we also have changed to help you meet emerging issues and to take advantage of emerging opportunities.

Every day, MU Extension helps create value for citizens. For example:

- Throughout the state, MU Extension provides information to help address issues and opportunities related to Missouri’s economic infrastructure, public services, economic development, jobs and educational access. Counseling more than 3,000 business clients in FY12 resulted in 9,328 new jobs, sales increases of $188 million, $213 million in new business financing, and government contracts of more than $195 million.

- Our state and nation are in need of workers who are highly proficient in science, technology, engineering and math (STEM). Research has shown that 4-H members develop an increased interest in science three times higher than their non-peers. Both non-traditional activities, such as robotics, and more traditional activities, such as livestock judging and food preparation, are doorways to science-related careers.

- Livestock production accounts for about 53 percent of the state’s agricultural receipts. MU Extension’s Tier Two Show-Me-Select Replacement Heifer Program, which improves reproductive efficiency of beef herds, has garnered producers $237 to $357 per heifer, depending on breeding protocol followed. Statewide economic impact of the program has exceeded $65 million.

These are just three examples of MU Extension’s impact – made possible through your support of MU Extension in your community. I look forward to our continuing partnership, and as always, your ideas for improving our partnership are welcome.

Sincerely,

Michael D. Ouart
Vice Provost and Director

University of Missouri, Lincoln University, U.S. Department of Agriculture and Local Extension Councils Cooperating

EQUAL OPPORTUNITY/ADA INSTITUTIONS
Every Missouri county has an Extension Council comprised of elected and appointed citizens who guide local educational programming.

Council members are partners in the educational process, from needs assessment through program implementation and evaluation of outcomes.

Extension Council members...

- Work with regional faculty to determine educational programs for the county.
- Manage finances of local extension operations.
- Provide personnel to carry out Extension activities.
- Elect and organize the local Extension Council.

Greetings,

A unique partnership exists between University of Missouri Extension and the citizens of Boone County. We’re proud of the many ways our partnerships with local organizations, businesses and government work to improve the lives of our residents.

This year we dedicate our Annual Report to the memory of our long time friend and dedicated supporter, Frank Graham. Through his lifetime of extraordinary service, Frank truly exemplified MU Extension’s mission to improve the lives of all Missourians.

Lisa Wood, Secretary
Boone County MU Extension Council

Frank Graham
1920 - 2013

2013 Boone County Extension Council

Vicky Miserez, Chair............................................................................Columbia
Marie Pasley, Vice Chair........................................................................Columbia
Lisa Wood, Secretary ............................................................................Columbia
Paul Brugmann, Treasurer ...............................................................Columbia
Luke Barnett .............................................. Farm Bureau Representative, Hartsburg
Nathan Beckett ..................................................................................Columbia
Cheryl Brown .....................................................................................Hallsville
Al Buchanan .........................................................................................Columbia
Johnna Dudley ......................................................................................Rocheport
Julie Fleming .........................................................................................Rocheport
Jennifer Grabner ..................................................................................Ashland
Elizabeth Hoyos ....................................................................................Columbia
Richard Kitchen ....................................................................................Columbia
Tony Martin ..........................................................................................Rocheport
Becky Mott ...........................................................................................Rocheport
Laura Redfield-Jacobs ..........................................................................Ashland
J. R. Richardson ....................................................................................Ashland
Dan Rhoades .........................................................................................Centrailia
Bill Thompson .........................................................................................Columbia
Janet Thompson ................................................. Boone County Commission Representative
Alan Toigo .......................................................................................Columbia
Lisa Wood ...........................................................................................Columbia
Chelsea Wren .......................................................................................Ashland
Boone County 4-H Grows Future Leaders

Thirteen 4-H Clubs across Boone County offer educational experiences that teach essential life skills including leadership, public speaking and service to others. The local program has experienced a strong 21% growth over the past three year with 648 members currently.

Through the guidance of parents and certified adult volunteers, members gain knowledge and skills in over 50 wide-ranging project areas including robotics, photography, archery, sewing and woodworking. For young people with an interest in caring for pets, horses or livestock, 4-H is the premier youth organization offering expertise and support.

According to a recent national study of positive youth development conducted by Tufts University, young people who participate in 4-H programs are:

✦ 300% more likely to contribute to their communities
✦ 300% less likely to engage in risk behaviors
✦ 76% more likely to make better grades
✦ 70% more likely to go onto college
✦ 40% more likely to pursue science or engineering careers

Boone County 4-H highlights for 2013 included:

✦ Local 4-H members entered 911 youth arts exhibits at the Boone County Fair with 181 exhibits judged and selected for the Missouri State Fair. The annual Jr. Livestock Auction generated over $225,000 in sales.

✦ Six Boone County members were selected by statewide competition for the Missouri 4-H Shooting Sports team that took second place at the National 4-H Contest in Nebraska. Daniel Martz, a member of the Shaw-Harg 4-H club was the national champion in muzzleloading.

4-H Camp!

The 4-H Camp program is planned and conducted by the MU Extension Youth Development staff with over 100 youth and teens participating at Clover Point Camp at the Lake of the Ozarks.

Campers learn important teambuilding and leadership skills while enjoying traditional favorites such as swimming, archery, crafts, canoeing, singing and the evening campfire.

We are thankful for the ongoing support of the Boone County 4-H Foundation for sponsoring the camp scholarship program that assists members to attend.
Many cope with stress by engaging in unhealthy behaviors like overeating, smoking, self-medicating and not leading a physically active life. Stress is also a contributing factor in many chronic diseases like heart disease and diabetes.

Taking Care of YOU: Body-Mind-Spirit is an eight-week program that offers practical strategies and skills to help manage stress and life’s challenges. When participants use these strategies in their everyday lives they are better able to manage their stress, which leads to lifestyle behaviors that improve health.

Individuals who are less stressed have fewer health care costs, saving taxpayers money in reduced public healthcare costs and insurance premiums. Further, higher work productivity levels contribute to a healthier labor force and stronger economy.

Program participants who completed the eight-week Taking Care of YOU: Body-Mind-Spirit program reported:

- Prior to participating in the program, 50% stayed home from work or other outside the home activities (range of one to more than five days/month) because of “burnout” or other physical or mental health issues. After participating in the program, only 18% reported staying home (range of one to three days/month).
- 100% were using the concepts and strategies learned in the program in their lives, with 82% using them “daily or several times per day.”
- 91% increased their knowledge, skills and understanding of how to deal with stress, with “A great deal” compared to 22% who reported this before taking the program.
- 91% shared information they learned in the program with others.
- 100% felt the program met their needs.
- 100% would recommend the program to others.

In addition to the Taking Care of YOU multi-session programs, single session workshops, regional and statewide conference presentations and monthly newsletters were also offered. Over 200 Boone County residents participated in these programs in 2013.
Learning Home Food Preservation Skills

The interest in preserving food at home continues to grow along with the interest in gardening and eating locally grown foods. Unfortunately many people do not have the necessary skills to safely preserve foods and some are using unsafe recipes and processes that could endanger lives.

MU Extension provides research-based home food preservation information to help consumers safely preserve foods at home. Individuals who develop skills in home food preservation can decrease their risk of food-borne illness, reduce food costs, as well as improve their eating habits and health. They also help improve the environment by preserving foods that are locally grown.

Six food preservation workshops were offered in Boone County during 2013, providing more than 160 individuals the opportunity to increase their food preservation knowledge and skills. Post-program surveys revealed that:

- 100% found the workshops were helpful in improving their understanding, knowledge or skills in home food preservation, as well as feeling more confident in their ability to preserve foods.
- Prior to the workshops, 61% reported none to very limited experience preserving foods.
- 82% planned to purchase and/or update equipment and supplies for preserving foods in their homes.
- 94% planned to preserve food as a result of attending the workshop.
- 86% planned to share the food preservation information/skills/resources they received with others.

Participants shared the following comments about the food preservation workshops:

- “It was a pleasure to take this workshop. Fun and functional. Learned so much!”
- “Very helpful and informative. Nice to sample what the different foods taste like after they are preserved too. Will be making some of that salsa this week!”
- “Really enjoyed the workshop and learned lots. Feel better about my ability to can now, thanks.”
- “I have been preserving foods a long time but always learn something new and neat from your classes. I’m always sharing what I learn from your classes with friends and family too! Thanks so much!!”

Horticultural Assistance for the Home

Over 145 citizens sought home horticulture assistance, such as tree pruning, plant variety selection, lawn maintenance, or diagnostic assistance. Very often Extension resource publications provided the needed answers.

In addition, a hands-on home fruit care workshop series was conducted for the fourth year in Columbia. In a series of four classes 16 participants learned about site selection, varietal choices, pruning, pest control, and other cultural issues. Over $1,000 was raised through registrations for the Boone County MU Extension Center’s Giving Campaign.
Outreach

Strategies for Improved Crop Management

The Missouri Crop Management program uses the latest research related to crop, water and fertility management to inform producers of new and current technologies that can be used in their operations. In 2013, 1,222 contacts to Boone County agricultural producers provided information and resources to manage their production efforts. Participants learned comparisons of cultivars, crop rotations and their benefits, costs and benefits of various tillage practices, increased use of Integrative Pest Management strategies to reduce pesticide use and environmental impact.

Planting and managing the crop in 2013 was a challenge. As the season progressed, the concern became whether to stay with the original hybrid. According to data, producers would have given up about 10% in yield potential by switching to earlier maturity hybrids. The hybrids that they used were able to take advantage of late season rainfall and produced average to above average yields. A 10% yield loss this year would have amounted to about 20 bushels per acre with these producers at $4.50 per bushel that amounts to about $90 per acre extra income. At an average of 1,000 acres of corn each, that amounts to an extra $90,000 per producer.

Producers in many areas experienced drought or near drought conditions in 2013. These producers were assisted in evaluating alternate uses of the crop. For example, corn was tested for nitrates resulting in answers on how to optimally manage the damaged crop. Producers were able to recover $50 to $100 in forage value per acre from a damaged crop, resulting in an average recovered value of $5,000 to $10,000 in value for their damaged crop.

By supporting agricultural programming efforts, farmers and producers gain knowledge and skills that lead to improved efficiencies of production, profitability and sustainability in their farming operations. This benefits the citizens of Boone County and Missouri by improving farm businesses and agricultural economy, along with rural community viability; protects and enhances natural resources and water quality.

Building Local Food Systems

The climate, soils and population base of Missouri are conducive to growing of certain high value horticulture crops such as tomatoes, berries, melons, wine grapes, and peaches. Providing growers with unbiased and research-based information to make better decisions will help them be successful with commercial production and marketing of their crops.

MU Extension provides this information through workshops, newsletters, field days, farm tours and grower conferences. Over 340 Boone County participants were reached with activities in the past year through events that included the Columbia Farmers Market Fall Roundup, the International Elderberry Symposium and the Tomato Fest at MU Bradford Farm.
Outreach

New Technologies for Agriculture

When people hear the word drone some may look to the sky and question. Are they the next target for a missile strike? Are the police watching them? Is what they do in their back yard going to show up on the web? Rarely do you hear nice things about drones, yet they can have a very positive impact on farm applications.

In 2013, an educational effort on the use of Unmanned Aerial Vehicles (UAVs) technology in agriculture was the focus of field days held through the University of Missouri Extension - Northeast Region. In total 440 producers, agricultural professionals, and students participated.

In Boone County, education efforts included 30 agriculture business professionals at the Columbia Chamber of Commerce’s Food for Thought Breakfast, 50 high school students at the FFA Agriculture Day at Battle High School, and 15 producers at the Centralia Young Farmers Meeting.

Topics covered by these programs included the current regulations for utilizing UAVs, a variety of applications including crop scouting for nitrogen deficiencies, disease detection through aerial photography and monitoring livestock. Off-the-shelf commercially available action video cameras were highlighted as a method of collecting aerial photography. Today producers can get started utilizing UAVs with an investment of $1,500.

Participants gained an overall understanding of how this emerging technology can be employed today and in the future while weighing the economic impact on farm operations. For example, the economic impact of using UAVs to detect nitrogen stress in corn production result in savings as much as $20 per acre.
Building Strong Communities

The Neighborhood Leadership Program is a five year partnership with the city of Columbia that teaches citizens how to become more involved and have greater impact in their community. A primary goal is to promote a higher level of communication between residents and their city officials.

MU Extension assisted in planning and conducting the spring and fall Neighborhood Congresses attended by representatives from Columbia’s neighborhood associations and elected officials. Sessions highlight working together, neighborhood planning, citizen engagement and advocating for community issues.

MU Extension has also worked closely with the Columbia Housing Authority on a monthly series of capacity building trainings for residents and members of the Tenants Association, as well as helping to strengthen local resident associations.

The monthly radio show “Community Connections” brings together representatives of community groups, organizations and governmental bodies to talk about upcoming events and programs across mid-Missouri. The show reaches listeners in a seven county region at drive-time and invites residents to learn about community resources and events.

MU Extension works in partnership with local and regional economic development organizations to expand small business opportunities, entrepreneurship, job creation, and youth retention. One example is the ongoing collaboration with the Centralia Regional Development, Inc. (CREDI) that has resulted in a partnership with the University of Missouri to provide student interns to help implement CREDI's programs and economic development efforts.

Other efforts include assisting local community organizations in their development and planning. This includes assistance with fund raising efforts, board development, strategic planning and program development. Over 20 local organizations have been provided organizational development assistance the past year.

Forming strong partnerships enhances our ability to reach more people.
Supporting Boone County Businesses

As entrepreneurs and innovators, small businesses are becoming a more diverse group that continues to make the economy more productive. Across the state, approximately 500,000 small businesses account for 98 percent of all businesses with employees.

During 2013, MU Extension served 8,030 Boone County residents and their companies. Consultations included information and training to successfully start, run and expand businesses. The resulting increased business activity creates jobs, increases consumer demand, promotes economic development and generates tax revenue for the public’s welfare.

Note that the business programs offered in Boone County range from the basic to the advanced and include:

- Exploring Entrepreneurship is a monthly program that introduces future entrepreneurs to the challenges of starting a business.
- Understanding Financial Statements demystifies how to read, understand and most importantly use the information found in the balance sheet and income statement.
- Building an Investor Ready Technology Company helps entrepreneurs who understand technology but do not understand financing to successfully complete for private funding.
- Fast Trac for Displaced Workers provides training on how to start business to individuals who have lost their jobs due to a plant closing.

From 2011 through 2013, the Missouri Small Business & Technology Development Centers and Missouri Procurement Technical Assistance Centers assisted clients in creating almost $2 billion in economic impact.
Expertise

Master Gardeners Share and Grow Together

After completing a thirteen session training program featuring seminars, field trips and hands-on learning conducted by MU Extension, Master Gardener program graduates agree to volunteer a minimum of 30 hours for community projects and educational events. In 2013, the local Heart of Missouri Chapter logged over 1,475 service hours.

Chapter accomplishments over the past year include the Demonstration Garden located in west Columbia that produced over 800 pounds of vegetables that were donated to the Central Pantry.

The Chapter’s Habitat for Humanity Committee conducted planting sessions assisting five families.

Master Naturalists Preserve Local Prairies

Upon completion of the three month training program, Boone’s Lick Chapter Master Naturalists contribute a minimum of 40 hours of public service in natural resource conservation.

During the past year, members assisted with plant and animal surveys, natural community restoration, native plant demonstration gardens, speakers bureau presentations, outdoor classroom programs, and interpretive guide opportunities. Over 4,300 hours were donated, a 17% increase over the previous year.

One of the many local areas Master Naturalists help maintain and provide educational programs is Capen Park near downtown Columbia. The park provides recreational trails, a study garden and a wealth of plants native to the region. Volunteers are committed to educating the community about the importance and richness of it’s natural history. As expressed by Master Naturalist Louise Flenner, “Seeing nature in a new way and being able to pass that information along to others is the most fulfilling part of my volunteer experience.”
Boone County MU Extension 2013 Financial Summary

Income
County Commission Appropriation $111,000
Fundraising Support $2626
Total Income $113,626

Expenses
Salaries, wages, benefits $63,287
Travel $2,591
Telephone service $2,851
Publishing & Printing $133
Supplies/services $6,110
Utilities $4,971
Contract services $7,647
Insurance $2,200
Miscellaneous $403
Repairs/maintenance $2,303
Furniture/equipment $204
Capital Repairs/Improvement $4,781
Total Expenses $97,487

Faculty & Staff

Kent Shannon
County Program Co-Director
Natural Resource Engineering Specialist

Jim Ronald
County Program Co-Director
4-H Youth Development Specialist

Vera Massey
Nutrition and Health Education Specialist

Larry Dickerson
Community Development Specialist

Kristen Blair
4-H Youth Program Assistant

Sandra Zapata Arias
Nutrition Program Assistant

Sara Placke
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Frankie Anderson
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