



**University
of Missouri
Extension**

**Daviess and
Caldwell
Counties
2017**

**Annual
Report**

**BRINGING KNOWLEDGE AND
RESEARCH TO ALL MISSOURIANS**

UNIVERSITY OF MISSOURI
M Extension

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December 4, 2017

Dear County Commissioners and Friends of MU Extension:

For much of the past year, MU Extension was focused on a long-overdue assessment of statewide needs and a deep look at how we respond to these needs with programs and resources.

We crisscrossed the state to gather input from 42 community conversations with 1,200 people and reviewed analysis and recommendations from a range of external experts. As a result, MU Extension is working on a variety of changes in the interest of providing better university engagement with your communities.

We are steadfast in our resolve to help local communities and the state meet grand challenges associated with economic opportunity, educational excellence and healthy futures. These challenges reflect what Missourians from every corner of the state told us they were most concerned about.

As you read your county's annual MU Extension report, I believe you will be pleased to see the results that have been accomplished through county-based University of Missouri faculty. These faculty members work in response to input received from local extension councils.

At the state level, local MU Extension efforts really add up. Though we have long known extension funds were leveraged, an independent review revealed that MU Extension created more than \$945 million dollars of public value from the \$80 million it received from federal, state, county, grant and contract partners. A public value ratio exceeding 11:1 even surprised us.

As we go about implementing changes based on the recently completed needs assessment and review of our organization, I am confident that our ability to create value at the local level will be even greater.

I encourage you to read the attached annual report from your MU Extension county center to gain an understanding of how MU Extension has worked this past year to serve your community.

Your support of MU Extension and your efforts in your community is greatly appreciated. As always, I welcome input on how the University of Missouri can better serve your community and its people.

Sincerely,



Marshall Stewart, Ed.D.
Vice Chancellor for Extension and Engagement

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Dear Friends of the University of Missouri Extension,

The University of Missouri Extension faculty, staff and county councils would like to thank the Daviess County and Caldwell County Commissioners for their continued support and funding for programming in 2017. The faculty, staff and county councils remain committed to carrying out the University of Missouri's land-grant mission—bringing the university's knowledge and research to all Missourians while helping to improve lives and create vibrant, resilient communities.

MU Extension is a partnership of the University of Missouri campuses, Lincoln University, the people of Missouri through county extension councils, and the National Institute for Food and Agriculture of the U.S. Department of Agriculture.

MU is a land-grant university, meaning it is a part of a federally mandated mission to carry the benefits of university research beyond campus. Federal legislation in the 1800's provided for the donation of public land to individual states. Missourians chose to apply their land grants to the existing Columbia campus. Today, through statewide offices, publications and web-based services, extension faculty in every county of Missouri continue to carry the benefits of MU research throughout the entire state.

By tapping into statewide university research, MU Extension specialists provide Missourians with a wide range of programs in agriculture, community development, human environmental sciences, business development, youth development and continuing education. Current programming efforts statewide focus on agricultural profitability and viability; building family and individual strengths; building human resources; business, community and economic development; enhancing health and nutrition; environmental quality and stewardship; and positive youth development.

The contents of this report are a summary of the highlights of our educational efforts during the past year. We hope this report provides a greater understanding about University of Missouri Extension programming efforts in Daviess and Caldwell Counties.

Jayla Smith

Daviess Council Chair

Jerry Cook

Caldwell Council Chair

Becky Simpson

Daviess County Program Director

Debbie Davis

Caldwell County Program Director

Elected Officials Serving Caldwell and Daviess Counties

Caldwell County Commissioners



Jonathan Abbott, Bud Motsinger, Rex Hibbler

Daviess County Commissioners



David Cox, Randy Sims, Wayne Uthe

Northwest Region 4-H Camp 2017-Crowder State Park



CALDWELL COUNTY 4-H YOUTH DEVELOPMENT

A community of youth building life skills, engaging in science and connecting to their community.

Debbie Davis

4-H Youth Development Specialist



Steven Steiner

4-H Youth Development Associate



Number of Caldwell County Learners	Total Hours of Collective Participation in 2017	What Did They Learn and What Action Did They Take?	How Does This Work Make Caldwell County and Missouri Better?
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106
4-H members

20
Volunteers

10,600 4-H'er learning hours

20,000 volunteer hours

One of every five Missourians between the ages of five and 18 participated in a Missouri 4-H program in 2017



Caldwell County 4-H members learn to use their talents to engage in their communities. Young people in 4-H are engaged in twice as many leadership roles than their non 4-H peers. This provides them with the experience in problem-solving to step up and lead in a complex, changing world. 4-H members were engaged in leadership and service experiences in their communities.

Caldwell County 4-H serves youths through six organized clubs, school enrichment opportunities, camps and more. Caldwell County 4-H clubs offer long-term educational experiences in which members learn life skills such as decision making, public speaking and working with others. Members learn by doing under the guidance of adult volunteers, who teach projects ranging from aerospace and arts to veterinary science and sport fishing. Clubs also involve children and teens in community service, camping and educational trips. The youths of Caldwell County have continued to demonstrate leadership and learning through the following regional, state, and national activities:

- National 4-H Congress— 1 member
- 4-H Summer Camp—19 youths
- Missouri State Fair—8 youths
- State Fashion Revue— 1 member
- State Public Speaking Contest— 1 member

4-H Youths are equipped with the knowledge, skills, attitudes and health for the 21st century workforce. Missouri 4-H members spend almost nine times more of their leisure time than peers engaged in projects anchored in science. As a result, 4-H members are three times more likely to go into science related careers than similar peers (Lerner and Lerner, 2011). Fostering career development is the reason that Missouri 4-H members are connected to college campuses and faculty. MU Extension 4-H connects 5,176 young people to University of Missouri campuses. Being on campus is a predictor of youth going on to higher education (Dalton & St. John, 2016).

These students are more likely to go to college and enjoy:

- increased financial success for themselves and their children,
- being better consumers,
- improved quality of life through more opportunities for leisure and hobbies,
- improved health for themselves and their children (Porter, 2003)
- being more likely to vote as adults and
- being more likely to contribute to their community (Lerner, 2009; Zaff et al, 2003).

Youths who earn their bachelor's degree increase annual earnings by \$2 million over their lifetime (NACUBO, 2012). If 50 percent of Caldwell County members participating in 4-H events on the MU Campus go on to earn their bachelor's degree, 4-H will help these young people earn \$218 million more in lifetime earnings.

Volunteers create, support and are part of the 4-H community. Missouri 4-H volunteers responding to a survey report they contribute on average 100 hours per year. Valuing their time at \$21.30 per hour, based on average Missouri incomes, the contribution of Caldwell County 4-H volunteers was worth more than \$140,6464 in 2016. More important, these adults serve as mentors for our youths helping them transition into a healthy and productive adulthood.

4-H project work and related educational experiences help youths explore interests in leadership, citizenship and communications. 4-H youths report three times more opportunities than their non 4-H peers to engage in meaningful



DAVISS COUNTY 4-H YOUTH DEVELOPMENT

A community of youth building life skills, engaging in science and connecting to their community.

Becky Simpson

4-H Youth Development Specialist



Number of Daviess County Learners	Total Hours of Collective Participation in 2017	What Did They Learn?	What Action Did They Take?	How Does This Work Make Daviess County and Missouri Better?
<p>55 4-H Members</p> <p>12 Adult Volunteers</p>	<p>6,100 4-H'er learning hours</p> <p>1,200 adult volunteer hours</p>	<p>Daviess County 4-H serves youths through 2 organized clubs, school enrichment, camps and more. Daviess County 4-H clubs offer long-term educational experiences in which members learn life skills such as decision making, public speaking and working with others. Members learn by doing under the guidance of adult volunteers. The youths of Daviess County have demonstrated advanced learning through the following events:</p> <ul style="list-style-type: none"> • County, Regional and State 4-H Events • Clover Kids Day Camp • 4-H Summer Camp • Missouri State Fair • Missouri State Fair Demonstrations • School Enrichment/Water Festival • Teen Conference • State 4-H Congress <p>One of every five Missourians between the ages of 5 and 18 participated in a Missouri 4-H program in 2017.</p>	<p>4-H project work and related educational experiences help youths explore interests from animal science to aerospace, resulting in increased interest in science at a rate three times that of non-4-H peers. Projects such as robotics, water quality, conservation, livestock, veterinary science and computer software allow 4-H'ers to practice: wise use of resources, decision making, goal setting, marketable skills and self-motivation.</p> <p>Interest in science is a predictor for young people to choose science-related careers. Compared to non-4-H youth, 4-H youth are 70% more likely to participate in science, engineering, or computer technology programs and 40% more likely to pursue science, engineering, or computer technology courses or careers. This interest in science, along with 4-H members' 70 percent greater likelihood to go to college than youths participating in other out-of-school programs, is helping grow future scientists.</p>	<p>4-H Youths are equipped with the knowledge, skills, attitudes and health for the 21st century workforce. Missouri 4-H members spend almost nine times more of their leisure time than peers engaged in projects anchored in science. As a result, 4-H members are three times more likely to go into science related careers than similar peers (Lerner and Lerner, 2011). Fostering career development is the fact that Missouri 4-H members are connected to college campuses and faculty. MU Extension 4-H connects 5,176 young people to University of Missouri campuses. Being on campus is a predictor of youths going onto higher education (Dalton & St. John, 2016).</p> <p>Youths who earn their bachelor's degree, increase annual earnings by \$2 million over their lifetime (NACUBO, 2012). If 50% of the Daviess County members participating in 4-H events on the MU Campus go onto earning their Bachelors, 4-H would help young people earn \$22.5 million more of lifetime earnings.</p> <p>Volunteers create, support and are part of the 4-H community. Missouri 4-H volunteers responding to a survey report they contribute on average 100 hours per year. Valuing their time at \$24.14 per hour, based on average Missouri incomes, the contribution of Daviess County 4-H volunteers was worth more than \$28,968 in 2017! More importantly, these adults serve as mentors for our youths helping them transition into healthy adulthood.</p>

Missouri 4-H Foundation Liberty Tree's

In recognition of National Volunteer Month, 4-H members in Daviess and Caldwell Counties partnered with Crader Distributing and local Stihl dealers for a week of service and citizenship in April 2017, by planting Liberty Trees in their communities. The effort is part of a month-long 4-H True Leaders in Service initiative with thousands of youth nationwide rolling up their sleeves in service to their communities.

Through this initiative, Crader Distributing and local Stihl dealers donate up to 20 bud-grafted Liberty Trees to Missouri 4-H clubs throughout the state. "These trees are clones of the last standing Liberty Tree, under which the Declaration of Independence was read and America was born," said Stan Crader, president of Crader Distributing.

Daviess and Caldwell County 4-Hers had the opportunity to plan a tulip poplar Liberty Tree in their communities between Saturday, April 22 and Saturday April 29, 2017. The tree in Daviess County, was planted by members of the Knee-Hi 4-H Club, veterans of the Vietnam Conflict and Daughters of the American Revolution. The tulip poplar was planted at Dockery Park in Gallatin. Caldwell County 4-H members planted their tree at the Caldwell County Courthouse.



Caldwell
County
Courthouse,
Kingston



Daviess
County,
Dockery
Park,
Gallatin

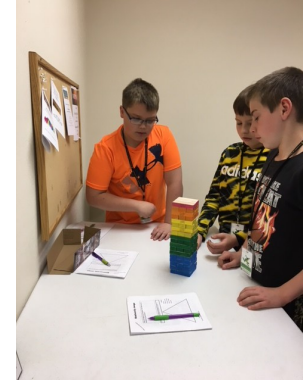
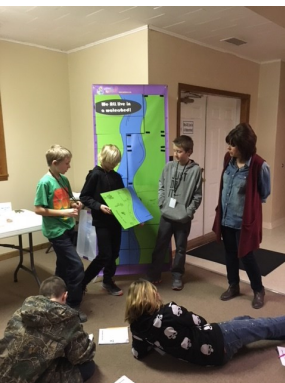


Northwest Region Water Festivals

Fifth grade students across Northwest Missouri attend a one day event to review and prepare for the Missouri Assessment Program (MAP) testing. Students rotate through eight different workshop sessions. The team annually presents seven to ten locations, reaching approximately 1,000 students across the region. The Water Festival focuses on water preservation, watersheds, point-source and non-point source pollution, composition of soils, erosion, science investigation skills, use of microscopes to identify what is in a water source, biodiversity, ecosystems, and species adaptation. Each session is directly tied to Missouri Grade Level Expectations for science. The team partners with the Missouri Department of Conservation and Department of Natural Resources to provide additional sessions. Comparative results from pre and post tests have consistently proven increased understanding of concepts being taught in the workshops.

Daviess County Schools participating at the festival hosted by First Baptist Church of Gallatin with 102 participants: Gallatin, Jamesport, North Daviess, Winston, Pattonsburg and Tri-County. Faculty and staff members teaching at the festival included, Tim Baker, Debbie Davis, Shawn Deering, Tom Fowler, Tyler Hall, Beverly Maltsberger, Kathi Mecham, Shaun Murphy, Becky Simpson, Bart Skroh, and Jessica Trussell. In addition

Caldwell County Schools participating at the festival hosted by the Hamilton United Methodist Church with 140 participants: Hamilton, Cowgill, Breckenridge, Braymer, Kingston, Mirabile, New York, and Polo. Faculty and staff members teaching at the festival included Tim Baker, Katie Buchs-Pemberton, Debbie Davis, Tom Fowler, Tyler Hall, Beverly Maltsberger, Kathi Mecham, Shaun Murphy, Becky Simpson, Steven Steiner, Cynthia Wells, and Sarah Wood.



FAMILY NUTRITION PROGRAM (FNP)

DAVISS COUNTY

Connie Griffith
Nutrition Program Associate



Number of Daviess County Learners	What Did They Learn?	What Action Did They Take?	How Does This Work Make Daviess County and Missouri Better?
<p>University of Missouri Extension's Family Nutrition Program (FNP) reached 856 participants directly and 373 indirectly with nutrition education in Daviess County during 2017 a significant percentage of which were low income. FNP provides information on nutrition, food safety, and physical activity for lifelong health and fitness by working with qualifying schools, community groups and agencies.</p>	<p>Youth from Pre-school to 8th grade learned through kid-friendly, hands-on lessons and activities. Activities include opportunities for taste-testing healthy foods and practicing skills that lead to good health. Education for adults also includes nutrition, food safety, and physical activity, as well as food resource management.</p>	<p>Nutrition Program Associates (NPA's) go into schools and other grant eligible locations and interact with community members to help them make healthier choices and build healthy habits. They see the difference the program makes in people's lives.</p>	<p>The Family Nutrition Program (FNP) brought \$9,681, 129.00 federal funds to the state of Missouri. These funds were used to provide nutrition education to 838,295 Supplemental Nutrition Assistance Program recipients and eligible citizens of Missouri. There were 3,831,270 educational contacts. This year we had 3,064,781 indirect educational contacts. Indirect contacts are reached through newsletters, health fairs, food pantries and the Show Me Nutrition help line. 1,229 of these participants reside in Daviess County.</p> <p>Participants in FNP become more aware of nutrition, make healthier meal and snack choices, eat breakfast more often, are more willing to try new foods, increase their physical activity and in general make healthier food choices. Those who practice healthy eating and activity behaviors are more likely to enjoy a high quality of life as an adult and into old age. A healthy labor force is critical to attracting and keeping jobs in Missouri. In addition, this important programming effort serves to reduce healthcare costs over the participant's lifetime, saving taxpayers money in reduced public healthcare benefits and insurance premiums.</p>

FAMILY NUTRITION PROGRAM (FNP)

CALDWELL COUNTY

Julie Meek
Nutrition Program Associate



Number of Caldwell County Learners	What Did They Learn?	What Action Did They Take?	How Does This Work Make Caldwell County and Missouri Better?
<p>University of Missouri Extension's Family Nutrition Program (FNP) reached 910 participants directly and 91 indirectly with nutrition education in Caldwell County during 2017 a significant percentage of which were low income. FNP provides information on nutrition, food safety, and physical activity for lifelong health and fitness by working with qualifying schools, community groups and agencies.</p>	<p>Youth from Pre-school to 8th grade learned through kid-friendly, hands-on lessons and activities. Activities include opportunities for taste-testing healthy foods and practicing skills that lead to good health. Education for adults also includes nutrition, food safety, and physical activity, as well as food resource management.</p>	<p>Nutrition Program Associates (NPA's) go into schools and other grant eligible locations and interact with community members to help them make healthier choices and build healthy habits. They see the difference the program makes in people's lives.</p>	<p>The Family Nutrition Program (FNP) brought \$9,681, 129.00 federal funds to the state of Missouri. These funds were used to provide nutrition education to 838,295 Supplemental Nutrition Assistance Program recipients and eligible citizens of Missouri. There were 3,831,270 educational contacts. This year we had 3,064,781 indirect educational contacts. Indirect contacts are reached through newsletters, health fairs, food pantries and the Show Me Nutrition help line. 1,001 of these participants reside in Caldwell County.</p> <p>Participants in FNP become more aware of nutrition, make healthier meal and snack choices, eat breakfast more often, are more willing to try new foods, increase their physical activity and in general make healthier food choices. Those who practice healthy eating and activity behaviors are more likely to enjoy a high quality of life as an adult and into old age. A healthy labor force is critical to attracting and keeping jobs in Missouri. In addition, this important programming effort serves to reduce healthcare costs over the participant's lifetime, saving taxpayers money in reduced public healthcare benefits and insurance premiums.</p>

FNEP Success Stories 2017

Daviess County Success Stories:

One of the lessons in Choosing Foods for Me, the Show Me Nutrition curriculum for 4th grade, focuses on Calcium. While discussing types of dairy foods (an excellent source of calcium) a student asked if there is a difference in the nutrients found in white milk and flavored milks. I explained that all milk will supply our bodies with calcium, but since flavored milks contain a lot of added sugars, they may be a better “sometimes” choice. Later that day, the teacher told me she noticed her students really thinking about which milk to choose for lunch. Some of them decided to get the white milk instead of flavored milk. It is great when information from my lesson encourages students to think about their food choices!-North Daviess Elementary

Teaching The Healthy Change Workshops are an excellent way for me to share information with food pantry clients as they pick up their commodities. One of the clients told me that she had read the materials from the first lesson and really enjoyed them. She was thrilled to get the Handy Dandy Label Tool she could use to help her determine which packaged foods are nutritious choices. She even picked up extra copies to share with co-workers. It is wonderful to see our program in action and to hear how the information I share is helping people make healthier food choices.-Gallatin Seventh Day Adventist Food Pantry

Caldwell County Success Stories:

NPA, Julie Meek, was recently approached by a Kindergarten parent from Hamilton Elementary. She wanted to let me know her daughter really enjoys my nutrition classes and is wanting her family to make better nutrition choices for snacks and meals. The mother went on to say she now requests healthier snacks and wants her family to eat from all five food groups when eating meals. It is great to hear how my nutrition classes are impacting not only students in class but also their families.

While teaching a lesson about the Vegetable Group to a 5th grade class at Breckenridge Elementary, one student said he didn't like any vegetables except plain, shredded lettuce. I explained the importance of eating different colors of vegetables, remembering to include dark-green, yellow, red and orange vegetables, to give our bodies the nutrients needed for good health. Before finishing our lesson that day, this student decided to try the vegetables I'd taken for our food-tasting: carrots, kale and cherry tomatoes. He loved the kale and carrots and was excited to add these two vegetables into his diet. Even though he didn't like the tomatoes, the rest of the class encouraged him to keep trying them.



Family Nutrition Education Programs

Nutrition and Lifeskills for Missouri Families

Daviness County Public Board Training

Number of Daviness County Learners	Total Hours of Workshop Participation in 2016	What Did They Learn?	What Action Did They Take?	How Does This Work Make Daviness County and Missouri Better?
4 board members	~ 24 hours of learning in 2, 3-hour evening sessions.	<p>Knowledge gained as result of attending program (1 being lowest, 5 highest):</p> <p>Before Program and After Program</p> <p>3.2 understand Sunshine Law and how it impacts our board 4.6</p> <p>3.0 know resources UOE has for boards and how to access them 4.8</p> <p>3.7 know how to make our board meetings run more efficiently 4.3</p> <p>3.7 understand the importance of having written board policies and procedures 4.2</p> <p>3.4 now know the fiscal responsibilities I have as a board member 4.8</p> <p>So as a result of attending this program, knowledge gained was significant.</p>	<p>~ As a result of attending this training:</p> <p>~ 100% of participants would recommend this program to others.</p> <p>~ 78% will adopt or amend their board policies and procedures.</p> <p>~ 67% plan to utilize printed materials from UOE related to public boards.</p>	<p>Participants not only consider this training very useful they also see Extension as a resource for their governmental questions. This helps them make better decisions at board and gives their constituents more confidence in their government.</p> <p>This helps Missouri by creating more effective leaders. Furthermore, it can help prevent poor decisions and even money issues and that frees the Missouri Secretary of State's office to pursue that are more critical.</p>

Some participant's statements about this training were "I appreciated the low cost of the seminar and location was very nice"; "excellent info".

PROGRAM AREA-FAMILY FINANCIAL EDUCATION

SPECIALIST-MERIDITH BERRY

TITLE OF PROGRAM-VITA TAX PREPARATION AND FINANCIAL EDUCATION



Number of Daviess County Learners	Total dollars returned from Federal and Missouri refunds	What Did They Learn?	What Action Did They Take?	How Does This Work Make Daviess County and Missouri Better?
40 participants representing 30 households	A total of \$18,795 was returned in federal tax dollars and \$5,273 in state tax dollars were refunded.	<ul style="list-style-type: none"> • Importance of retirement savings • Savings Credit • Other available tax credits • Lowering tax liabilities • Consequences of bankruptcy • Student loans and paying them back • Health insurance mandate • Rules for self-employment and taxes. 	<p>Many clients are repeat customers or referrals from past clients.</p> <p>Clients made appointments to have their tax returns completed and filed at no charge. The electronic filing provided faster refunds.</p> <p>Returning clients have shown progress in saving for retirement and for children's college funds. This is providing tax free savings and interest free earnings when used for qualified expenses.</p>	<p>In addition to the income and education, an average of \$90 per return was saved by having taxes prepared by University of Missouri Extension.</p> <p>Regionally, federal and state tax forms were filed for more than 300 households. In addition to Missouri tax returns, state returns for seven other states were prepared.</p> <p>Supporting extension saved low income families the cost of a tax preparer and brought money to the area in refunds, earned income credit, child tax credits, and other tax credit benefits.</p> <p>According to the IRS, regionally, the VITA program had an economic impact of over 2 million dollars in northwest Missouri.</p>
<p>Some clients were encouraged to change their W-4 to lessen the burden of taxes to be paid in April.</p>				
<p>A former client set up a retirement account after learning about the Saver's Credit in 2016.</p>				
<p>Strategic spending for college expenses helped to maximize tax benefits for clients.</p>				

PROGRAM AREA-AGRONOMY

AGRONOMY SPECIALIST-WAYNE FLANNERY



Programs	Topic	What Did They Learn?	What Action Did Participants Take or How Did They Benefit?	How Does This Work Make The County and Missouri Better?
<p>The value of all crops including row crop, forages and commercial horticulture is \$406 million in Holt, Atchison, Andrew, Nodaway, Clinton, Buchanan, DeKalb. To maintain a competitive, viable agriculture requires the latest research, education and resources to continue its growth.</p> <p>Management of Genetically Improved Crops</p> <p>Mo Crop Management Systems</p> <p>Plant Protection</p> <p>Nutrient Management Planning</p> <p>Forage Production and Management</p>	<p>Crop management</p> <p>Forage management</p> <p>Fertilizer management</p> <p>Pest management</p> <p>The agronomic programming focused on timely delivery of crop management information and research to the seven counties in Northwest Region. The programming effort is accomplished through media such as radio, newspaper and newsletters. Other methods include meetings, research and demonstration plots and directly answering grower's questions.</p>	<ul style="list-style-type: none"> • New precision ag technology and biotechnology and how technology fits into a grower's operation • New hybrids and varieties through our testing program • Improved weed control research and teaching • New weed, insect, and disease pests that potentially can attack crops and utilizing our pest monitoring program • Product evaluation to determine if the product is effective and how to adopt and utilize this in a grower's operation • Pesticide safety • Product costs and determining their cost effectiveness • Choosing and applying fertilizers 	<p>Formal surveys of growers' attitudes to teaching in formal meetings as follows:</p> <p>During the last eight years, the value of the agronomic meetings rated a 4.25 on a scale of 1 to 5 with 5 being excellent and 1 being poor.</p> <p>Also, data summarized over past eight years indicated that growers would recommend this meeting to other growers rated a 4.38 average on a scale of 1 to 5 with 5 being excellent and 1 being poor.</p> <p>As to speaker being knowledgeable, data summarized was 4.58 on the same scale.</p> <p>Agronomic programs vary with methods of delivery. The result is an action or a decision and knowledge is gained by growers. Also, growers request what the research indicates, what are the advantages and disadvantages of using a product, a strategy, or sometimes how to address a situation or problem.</p>	<p>Winter Ag Update meetings focus on critical topics for row crop and livestock producers enabling them to be competitive.</p> <p>Private applicator training provides growers with the knowledge to apply pesticides safely while protecting the environment.</p> <p>Cooperation with commodity groups helps growers expand markets and produce food not only locally but also globally.</p> <p>Certified crop adviser meetings provide technical information to crop advisers resulting in scientifically sound recommendations when they work with area growers.</p> <p>Graves Chapple Research Center and Hundley-Whale Research Center provides the latest research to help growers remain competitive and provide an economic driver for northwest Missouri.</p> <p>As world population continues to increase, the need for food production continues to grow. It is critical to continue to increase crop yields while maintaining competitiveness to increase food production in an environmentally responsible manner.</p>

PROGRAM AREA-LIVESTOCK

SPECIALIST-JIM HUMPHREY
BEEF AND FORAGE PRODUCTION EDUCATION



Number of Learners	Topic	What Did They Learn?	How Did Participants Benefit?	How Does This Work Make Our Counties and Missouri Better?
40 participants representing 30 households	In total approximately 400 hours were spent in learning beef cattle production, forage production and utilization, nutrition management and ration balancing by area participants.	Strategies to optimize beef production and improve costs on their operations, including managing feedstuffs, pregnancy checking females, documenting individual animal performance throughout the entire production phase, including what determines value on each animal.	Beef and forage producers are better prepared to make informed decisions on their operations, regarding animal health, genetic selection, nutrition, as well as income and expenses that affect the bottom-line for their respective operations. Including reducing feed wastage and marketing low or non-productive animals in a more-timely manner.	Many beef producers contacting me are looking for answers to questions specific to their operation. By taking a total quality management approach for each operation we can help producers get the information and resources they need in a timely manner to improve the bottom line for their operations. When we support beef and forage production in our area, participants learn high quality unbiased research based production strategies which result in increased success for producers in reaching their production and financial goals. By maintaining or improving soil health and water quality through better distribution of nutrients on our forage and beef cattle operations, we ensure future generations will have safe and plentiful natural resources.
450 youth participants	In total approximately 700 hours were spent by area youths learning conservation, water cycles and good agricultural production practices.	Strategies to best determine the value of their forages, the variation in quality of forages and how best to manage these feedstuffs, while maintaining productivity, maximizing nutrient utilization, while minimizing soil and nutrient losses and other negative impacts on the environment.	Furthermore individual feeding programs were designed based on feedstuff availability, nutritional analysis and cost structure for each operations animal's production stage requirements.	With over 80,000 head of beef cattle in the area a viable agriculture economy has a positive impact on our area and plays a key role in our local, regional, state, national and world economies.
		Strategies area beef producers are using to optimize their operations while minimizing soil and nutrient losses and other negative impacts on the environment.	By having a better understanding of the research-based information and good production practices producers utilize on their operations, youths will be better able to understand why they as producers themselves need to be good stewards of their land and resources.	Well-informed youths are better prepared to make good management decisions based on research-based results. Youths are our future and provide great opportunities for our area.
				

Horticulture

Horticulture Programming in Northwest Missouri

New and existing growers keep Tim Baker, Horticulture Specialist, busy almost year-round by answering questions and helping when troubles arise.

Educational meetings such as the Great Plains Growers Conference in St. Joseph are offered each year. Local meetings are held as well. In 2017, a workshop on the Food Safety Modernization Act (FSMA) was held at the North Missouri Produce Auction in Jamesport. Attendance at a FSMA Workshop is required for growers selling over \$25,000 in produce covered under the law. This requirement must be met by most growers by 2020.

(Right) A grant from the USDA provided the opportunity to help Farmers Market vendors improve their sales and marketing techniques. Vendors from Daviess, Harrison, Buchanan, and several other counties attended the workshop.



(Right) A gardener near Gallatin called about a problem she was having with her roses. After examining them under a microscope, Mr. Baker found the culprit... thrips. These tiny insects feed on flowers and cause extensive damage and even diseases.



(Left) A tour was held for MU Extension administrators in Jamesport. Blake Naughton meets Debbie Davis, while Rob Kallenbach discusses Extension programming with Jerry Baker. (Right) After the tour, an opportunity to hear from Marshall Stewart, Vice Chancellor for Extension about his vision and plans for MU Extension. Here, Dr. Stewart and Joe Lear (NW Regional Director) discuss Extension with Kristy Letner.



Diagnostic Services for Homeowners and Commercial Growers

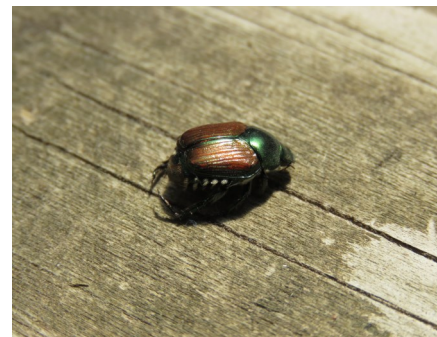
Throughout the year, the Daviess County Extension Center receives questions on horticultural questions, insect identification, weed identification, and even agronomic questions. When questions come in, Extension Specialists respond with timely, research-based information and a site visit when needed.



A Jamesport grower told Mr. Baker that he was having a problem with his tomatoes. Upon inspecting the tomatoes, Mr. Baker discovered a virus disease.



Extension gets all sorts of objects to identify. The senior center in Gallatin had this fruit donated to them. It turned out to be Chayote, an edible fruit related to gourds.



Invasive pests seem to be a continual problem. This year, Mr. Baker discovered that Japanese Beetles had arrived Daviess County. These pests attack all sorts of crops.

By supporting horticulture: When you support MU Extension's horticulture programs for commercial producers, farmers are aided in their battle with insects, diseases, and the everyday challenges of growing fruits and vegetables. Helping these growers gives Missouri citizens a source of locally-produced and nutritious food of much higher quality compared to food which has been shipped thousands of miles. More nutritious food leads to better health for everyone.

Daviess County Master Gardeners

The Daviess County Master Gardeners have completed their twelfth year of service to the community.

Master Gardeners meet monthly and perform both group and individual community service projects. Group projects include landscaping projects at the Gallatin Library and Log Cabin. The Daviess County Master Gardeners also participate in the MODot Adopt-A-Highway program for a section of Highway 13 around their ornamental landscape beds on the north edge of Gallatin.

In addition to community service, members continually learn by attending and conducting educational meetings. They also take interesting tours and field trips. Continuing education classes are also offered to Master Gardeners, on topics such as plant propagation, winter injury to woody plants, and beneficial insects.

By supporting the MU Master Gardener Program: When you support MU Extension's Master Gardener program, Master Gardener students are trained in all aspects of horticulture to serve their fellow citizens through volunteer work. This may take the form of community beautification programs, working with youth or elderly, or educating the public about gardening. This results in more beautiful communities, leading to increased property values, teaching youth to be better citizens, leading to decreased crime, and producing more nutritious food, leading to better health for everyone.

Master Gardeners perform many hours of volunteer work each year, beautifying Daviess County.



Tours can educate in any aspect of horticulture. This year, the Daviess/Caldwell Master Gardeners visited a Serbian Orthodox Monastery near Winston, where they inspected a newly-planted vineyard.



Daviess County Master Gardeners and the Knee Hi 4-H Club helped establish a youth garden in cooperation with the Daviess County Library. The MG's taught a class on gardening, while the 4-H youth provided the labor to start it.



Missouri State Fair Farm Families



**Daviess County
Donnie and Barbara Uthe Family
Gallatin, Missouri**



**Caldwell County
Dennis and Kim Snodgrass Family
Hamilton, Missouri**

Daviess County



UM System Footprint in the County in 2017



Students

18 County students

- 18 Undergraduates
- 17 Full-time students
- 1 Part-time students



Employees and retirees

4 people employed by UM

- 4 Campus

5 UM retirees and beneficiaries

UM salary and retirement income:
\$152,368

UM state tax revenue: \$4,574

UM federal tax revenue: \$16,839



Alumni

Selected school alumni

- 5 - Nursing
- 1 - Health Professions
- 2 - Dentistry
- 6 - Pharmacy
- 2 - Veterinary Medicine
- 47 - Agriculture
- 16 - Engineering
- 6 - Law

Alumni teaching K-12

- 10 teachers
- 8% of all county teachers
- 1 principal or administrator
- 9% of all county principals and administrators



Breakdown by campus

MU

- 13 students
- 119 alumni
- 3 employees

UMKC

- 1 students
- 41 alumni
- 1 employees

Missouri S&T

- 4 students
- 10 alumni
- 0 employees

UMSL

- 0 students
- 0 alumni
- 0 employees



Properties and offices

MU Extension in: Daviess/Caldwell Counties



County population:
8,277



Services provided

Health care

- 26 patients seen at UM Health Care, with \$7,485 of uncompensated care
- 17 patients seen at the UMKC School of Dentistry with an average of \$54 per patient in uncompensated care

Extension

- 7,299 total educational contacts from MU Extension to residents of county, including:
 - 1,197 contacts related to productive farming, better gardening, and managing natural resources
 - 6,062 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
 - 40 contacts related to starting businesses, developing community leaders, or renewing the local economy



UM System Statewide Footprint

Economic and community development highlights

- Business development specialists worked with **small businesses and entrepreneurs** statewide to create **8,149 jobs**.



For every dollar invested in University of Missouri Extension **\$11 of public value is returned**, generating **\$945 million** in direct and economic benefit to Missouri in 2016.

- Between FY2011 and FY2016, UM System brought Missouri more than **\$1.1 billion** in federal and private research funds, funded primarily from outside the state but spent within the state.



In 2017, the university was issued **49 patents** and filed **74 patent applications**.

- In 2017, the UM System construction projects resulted in a total investment in the state of **\$136.7 million**.



In FY 2017, Missouri Telehealth Network brought the expertise of University of Missouri Health Care physicians to underserved areas — **2,270 patient consults in 42 counties**.

Education and training provided



42,576 police, fire fighters, nurses, and doctors attending continuing education

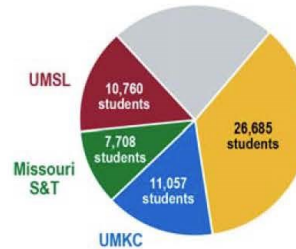


Agriculture and natural resource programs served **94,830** farmers and related businesses



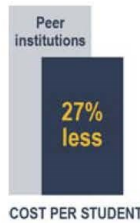
190,300 youths served in 4-H clubs, schools, camps and other programs

Education highlights



77% of the UM System's 72,877 students receive some financial aid totaling **\$910.6 million**.

- UM System's MOREnet (Missouri Research and Education Network) provides internet connectivity, access, support and training to **59 higher education institutions** (267,000 students), **502 K-12 school districts** (828,900 students) and **116 public libraries** (serving nearly 5 million Missourians) in 2016.
- UM System awarded **54%** of Missouri's 32,575 bachelor's or higher degrees from four-year public institutions in academic year 2015-2016.
- In 2017, UM System's **\$34.5 million** in National Science Foundation (NSF) grants represented **97%** of all NSF grants made to Missouri public universities.



The cost of supporting full-time students in the UM System is **27% less than peer institutions**.

Supporting the University of Missouri is an investment in the future of Missouri.

The university advances Missouri citizens and communities through its mission of teaching, research, public service, and economic development across our four campuses and University of Missouri Extension.

Prepared in December 2017, based on the best available and most recent data. Data Sources include: Missouri Office of Administration • UM IR • Office of Social and Economic Data Analysis (OSEDA) Center for Applied Research and Engagement Systems (CARES) • MU • UMKC • Missouri S&T • UMSL • UM System • UM Health Care • MU Extension US Census Bureau • US Dept. of Health and Human Services • National Science Foundation



Caldwell County



UM System Footprint in the County in 2017



Students

36 County students

- 32 Undergraduates
- 4 Graduates
- 34 Full-time students
- 2 Part-time students
- 15 Pell grant recipients (aid year '17)



Employees and retirees

2 people employed by UM

- 1 Campus
- 1 UM Health Care

3 UM retirees and beneficiaries



Alumni

Selected school alumni

- 1 - Medicine
- 8 - Nursing
- 2 - Health Professions
- 5 - Dentistry
- 9 - Pharmacy
- 4 - Veterinary Medicine
- 55 - Agriculture
- 8 - Engineering
- 5 - Law

Alumni teaching K-12

- 10 teachers
- 6% of all county teachers
- 2 principals and administrators
- 15% of all county principals and administrators



Breakdown by campus

MU

- 22 students
- 124 alumni
- 0 employees

UMKC

- 11 students
- 41 alumni
- 1 employees

Missouri S&T

- 3 students
- 7 alumni
- 0 employees

UMSL

- 0 students
- 0 alumni
- 0 employees



County population:
9,083



Services provided

Health care

- 32 patients seen at UM Health Care, with \$449 of uncompensated care
- 23 patients seen at the UMKC School of Dentistry with an average of \$54 per patient in uncompensated care

Extension

- 4,615 total educational contacts from MU Extension to residents of county, including:
 - 7 contacts related to productive farming, better gardening, and managing natural resources
 - 4,556 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
 - 52 contacts related to starting businesses, developing community leaders, or renewing the local economy



UM System Statewide Footprint

Economic and community development highlights

- Business development specialists worked with **small businesses and entrepreneurs** statewide to create **8,149 jobs**.



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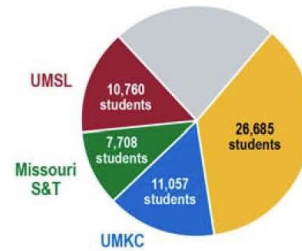


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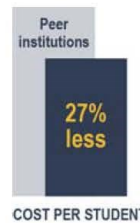
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NORTHWEST REGION BY THE NUMBERS

County Direct and Indirect Contacts by Region

County	Youth Direct Contacts		Adult Direct Contacts		Total Direct Contacts		Youth Indirect		Adult Indirect		Total Indirect		Total Youth Contacts		Total Adult Contacts		Total Contacts		
	1,504	608	2,101	901	337	213	741	997	613	647	609	160	1,572	1,132	390	1,293	609	711	174
Andrew	1,504	0	1,504	159	384	543	1,663	384	1,663	384	2,047	1,663	384	2,047					
Atchison	608	0	608	30	169	199	638	169	638	169	807	638	169	807					
Buchanan	2,101	274	2,375	3,408	1,887	5,295	5,509	1,887	5,509	2,161	7,670	5,509	2,161	7,670					
Caldwell	901	9	910	0	91	91	901	91	901	100	1,001	901	100	1,001					
Carroll	337	197	534	116	104	220	453	104	453	301	754	453	301	754					
Clinton	213	19	232	203	885	1,088	416	885	1,088	904	1,320	416	904	1,320					
Davies	741	115	856	94	279	373	835	279	835	394	1,229	835	394	1,229					
DeKalb	997	46	1,043	0	265	265	997	265	997	311	1,308	997	311	1,308					
Gentry	613	19	632	0	134	134	613	134	613	153	766	613	153	766					
Grundy	647	77	724	35	72	107	682	72	682	149	831	682	149	831					
Harrison	609	69	678	0	496	496	609	496	609	565	1,174	609	565	1,174					
Holt	160	37	197	24	188	212	184	188	212	225	409	184	225	409					
Lafayette	1,572	292	1,864	391	919	1,310	1,963	919	1,310	1,211	3,174	1,963	1,211	3,174					
Livingston	1,132	89	1,221	0	1,338	1,338	1,132	1,338	1,338	1,427	2,559	1,132	1,427	2,559					
Mercer	390	108	498	0	193	193	390	193	193	301	691	390	301	691					
Nodaway	1,293	39	1,332	140	2,804	2,944	1,433	2,804	2,944	2,843	4,276	1,433	2,843	4,276					
Ray	609	46	655	213	655	868	822	655	868	701	1,523	822	701	1,523					
Saline	711	28	739	107	246	353	818	246	353	274	1,092	818	274	1,092					
Worth	174	0	174	17	185	202	191	185	202	185	376	191	185	376					
Totals	15,312	1,464	16,776	4,937	11,294	16,231	20,249	11,294	16,231	12,758	33,007	20,249	12,758	33,007					

Region Code: 938
Region: Northwest

Daviess County Council

Chairman

Jayla Smith, Jamesport, appointed member, City of Jamesport

Vice Chairman

Raymond Heldenbrand, Winston, appointed member, Master Gardner

Secretary

Melinda Uthe, Winston, elected member

Treasurer

Alicia Chrisman, Gallatin, appointed member, 4-H

Other Members:

Marcia Bird, elected member

Frank Dunnington, appointed member

Cory Endicott, elected member

Eben "Bill" Estes, elected member

Terry Jarboe, appointed member

Lori McLaughlin, elected member

Mandy Prescott, elected member

Bob Teegarden, NW Region 4-H Camp, appointed member

Wayne Uthe, Daviess County Commissioner

Unique partnership

Daviess and Caldwell Counties University Extension Councils are a full partner with Missouri's land-grant universities to deliver high-quality education and research-based information that helps people solve real-world problems and take advantage of opportunities.

Council members:

- Work with extension specialists to provide the county with quality educational programs;
- Manage finances of local extension operations;
- Provide personnel to carry out extension activities; and
- Elect and organize the local extension council.

Caldwell County Council

Chairman

Jerry Cook, Hamilton, appointed member, MFA

Vice Chariman

Jesse Pratt, appointed member

Secretary

Joni Loxterman, elected member

Other Members:

Jonathan Abbott, County Commisssoner

Becky Bowen, elected member

Phillip Cox, elected Member

Jerry Creason, Cowgill, appointed member

Jack Critchfield, Cowgill, appointed member

Megan Gazaway, elected member

Bud Motsinger, County Commissioner

2017 Financial Reports

Daviness County

Income		
0210	County Appropriations	27,089.98
Total Income		27,089.98
Expense		
2700	Personnel Salary and Wages	15,828.54
2800	Payroll Expenses	2,196.45
3100	Travel	4,124.76
3700	Telephone Services	1,098.47
4300	Rent /Lease Space	0
4400	Rent/Lease Equipment	1,114.54
5100	Supplies/Services	1,191.97
6400	MU Internet	0
6800	Insurance/Surety Bond	119.67
7010	Extension Council Election	0
Total Expense		25,674.40
Net Income		1,415.58

Caldwell County

Income		
0210	County Appropriations	20,000.00
Total Income		20,000.00
Expense		
2700	Personnel Salary and Wages	5,000.00
2900	Non Payroll Salaries (YPA)	3,306.63
3100	Travel	2,045.99
3600	Postage	25.16
3700	Telephone Services	1,098.40
4300	Rent/Lease Space	50.00
4400	Rent/Lease Equipment	1,789.57
5100	Supplies/Services	695.21
5130	Newsletters	113.40
6800	Insurance/Surety Bond	119.67
7000	Miscellaneous	520.00
7010	Extension Council Election	28.00
Total Expense		14,792.03
Net Income		5,207.97

State, Federal and County Funding for Extension

University of Missouri Extension programs in Daviess and Caldwell Counties are funded by Daviess and Caldwell Counties, state and federal appropriations. Local funding for support of the Daviess/Caldwell County Extension Center is provided by the Daviess and Caldwell County Commissions. They provide office space, funds for office expenses, clerical salaries and travel expenses of extension specialists who conduct educational programs in Daviess and Caldwell Counties.

University of Missouri's Contribution to County Extension Program

University of Missouri provides salaries and benefits for all professional and all para-professional staff members headquartered in Daviess/Caldwell County.

The University provides in-service training expenses, including travel and lodging for staff, metered postage for staff communications and matching funds for computer equipment costs and maintenance.



Caldwell County Courthouse, Kingston



Davies County Courthouse, Gallatin

UNIVERSITY OF MISSOURI
 **Extension**
 Live. And Learn.

Equal opportunity is and shall be provided to all participants in Extension programs and activities, and for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, sexual orientation, national origin, age, disability, or status as a Vietnam-era veteran. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or military organizations associated with the armed forces of the United States of America.