

UNIVERSITY OF MISSOURI EXTENSION

Dent County

SERVE MISSOURI. DELIVER MIZZOU. 112 E. 5th Street Suite 4 Salem, MO 65560 573-729-3196

2023 Annual Report



an equal opportunity/ADA institution



EMAIL: cchiggins@missouri.edu

December 2023

Dear county commissioners and friends of MU Extension and Engagement,

Thank you for your important partnership with the University of Missouri Extension this past year.

I want to highlight three areas that address needs you helped us identify.

You may recall that the FY 23 state budget provided a one-time \$5 million infusion to MU Extension for growth. Of that, we allocated about \$3 million for field faculty in the areas of agriculture, 4-H, health/human development and business and community development.

Through a dedicated hiring effort, and thanks to that allocation, we have hired 168 new employees since November 2022. That includes 72 academic/faculty members, most of whom are field specialists in a priority area noted above, and 96 staff members (e.g., office administrators, youth and food and nutrition associates, etc.).

We also returned more faculty to local program delivery that best serves your county's needs, while preserving the partnership and relationship building work you value. Our extension and engagement specialists focus full-time on that work as they serve their assigned multi-county groups. Currently, 19 have been hired, with two more in the pipeline.

Finally, we are prioritizing our work with county extension councils. In the new role of partnership and council development director, Lorin Fahrmeier focuses on strengthening council representation and governance. This role will build stronger links with regional, educational and campus leadership to better identify and address local priorities.

At the UM System level, our engagement work across four universities and with leaders across the state makes a difference in areas of greatest need: broadband, workforce development, health access, food security and healthy futures for our youth.

Your county annual report shows what we are accomplishing together as we Serve Missouri and Deliver Mizzou. We look forward to strengthening that partnership with county commissioners and community stakeholders in the coming year.

Sincerely,

Chal Hijs

Chad Higgins, PhD Interim Vice Chancellor, MU Extension and Engagement Chief Engagement Officer, UM System

Who we are

Faculty and staff

SERVE MISSOURI. DELIVER MIZZOU.

Eric Meusch-Field Specialist in Livestock

Ray Walden-Field Specialist in Community Development

Stephanie Wofford-Nutrition Program Associate

Cary Terrill-Steelman- Bookkeeper

Janet Brannan- Administrative Assistant

Brandi Richardson-Extension Engagement Specialist

Kevin Crider- Cooperative Feral Hog Educator

Gatlin Bunton-Director, Wurdack Extension & Education Center. Field Specialist in Agronomy

Charles Ellis-Field Specialist in Agricultural Systems Technology

Sarah Higgins-Field Specialist in Natural Resources

Sarah Hultine-Massengale- State Specialist in Community Development

Kate Kammler- Field Specialist in Horticulture

Rachel Hopkins- Field Specialist in Agricultural Business

Emily Poncher- Community Health Specialist

Council members

Kyle Case, Chairman Charlee Sue Jadwin, Vice-Chairman Krystal Sims, Secretary Jason Jones, Treasurer Elizabeth Burrus-Barnett **Randy Burrus** Kelly Chapman Thom Haines CarrieLee Holliday Dru Howard **Betty Kunkel** Lyndsey Parker **Terry Phelps Dalton Sanders Krystal Sims** Kolson Seav Karla Tiefenthaler **Crystal Trosper**



County commissioners

Gary Larson, Presiding Commissioner

Wes Mobray, First District

Gary Polk, Second District

Budget and more

Appropriations budget

Income County Appropriations	42,500
Total Income	42,500
Expenses	
Salaries/Benefits	48,832.55
Travel	1,934.90
Prog.Exp/Supplies	17,330.79
Capital Repairs	248.68
Total Expenses	68,226.92

Serving Dent County



MU Extension is a unique funding partnership.

Extension funding is a three-way partnership of federal, state and county government. Federal and state money, through the University of Missouri system, pay professional staff salaries, training costs, computers and communication equipment. County funds support the local office, secretarial and youth assistant salaries, staff mileage and council expenses.

The Dent County Extension Council, faculty and staff would like to express our appreciation to the Dent County Commissioners for their continued support of extension programs.



Local Support

Did you know you can donate directly to Dent County Extension with a gift to be used immediately or as an endowment contribution for long term efforts. Monies put into the endowment are left forever to earn interest with the county office benefiting each year. You can also direct your donation to a specific program such as 4-H or Master Gardeners.

University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS

UM System Footprint in the county in 2023



FY23 county students

16 students

- 9 Undergraduates
- 7 Graduate and professional students
- 8 Full-time students
- 8 Part-time students



County employees and retirees

11 people employed by UM

- 10 Campuses
- 1 UM System

6 UM retirees and beneficiaries UM salary and retirement income: \$524,664 UM state tax revenue: \$17,072

UM federal tax revenue: \$84,285



County alumni

Selected school alumni

- 6 Nursing
- 2 Health Professions
- 1 Dentistry
- 2 Pharmacy
- 1 Veterinary Medicine
- 11 Agriculture
- 20 Engineering
- 4 Law

Alumni teaching K-12

- 18 teachers
- 10.1% of all district teachers
- 3 principals and administrators
- 20.0% of all district principals and administrators

County breakdown

- 7 students
- 46 alumni
- 2 employees

ИМКС

- 0 students
- 6 alumni
- 0 employees

Missouri S&T

- 9 students
- 39 alumni
- 8 employees

UMSL

- 0 students
- 6 alumni
- 0 employees

Construction projects

 \$17,417 remitted to 2 county vendors, for 3 projects



County properties and offices

MU Extension in: Dent County



County population: 14,585



County services provided

Health care (FY23)

- 207 in-state patients seen at MU Health Care, with \$216,663 of uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 497 visits to 259 patients having ZIP codes associated with the county

Extension (2022)

- 1,339 Total educational contacts from MU Extension to residents of the county, including:
- 565 contacts related to productive farming, better gardening, and managing natural resources
- 551 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
- 223 contacts related to starting businesses, developing community leaders, or renewing the local economy

UM System Statewide Footprint

Economic and Community Development Highlights

In 2022, Business Development Specialists worked with small. businesses and entrepreneurs statewide to create or retain 81,645 jobs.



For every dollar invested from 2019 to 2021, the MU Extension Business Development Program has returned \$133 in economic impact for its clients by increasing sales more than \$1.6 billion. For a total impact of \$3.1 billion, the program has generated more than 37,000 jobs and attracted nearly \$451 million in capital investments and \$1,5 billion in government contracts.

 Between FY17 and FY22, UM System brought Missouri more than \$1.46 billion in federal and private research funds, funded primarily from outside the state, but spent within the state.



In FY23, UM System was issued 33 patents and filed 61 new U.S. patent applications.

 In FY23, the UM System awarded 805 design and construction project contracts throughout Missouri, for a total investment of \$279.2 million in the state.



In FY23, to improve access to medical and health related services, MU Health Care's Missouri Telehealth Network's Show-Me ECHO program provided 18,381 hrs of case-based instruction to 2,938 learners located in 112 of 114 Missouri counties and the city of St. Louis.

Education and Training Provided







41,992 police, fire fighters, and medical professionals attending continuing education (2022)

Agriculture and natural resource programs served 174,692 farmers and related businesses (2022)



stakeholder educational contacts in 4-H clubs, schools, camps and other programs (2022)

Education Highlights

FY23 Financial Aid Awards

In FY23, 67.3% of the UM System's 80,702 students received financial aid totaling \$973.7 million

MU		UMKC		
27,256 students receiving financial ald	\$536.0M financial aid awarded	11,859 students receiving financial aid	\$217.3M financial aid awarded	
Misso	uri S&T	UN	MSL	
6,748	\$117.7M	8,489	\$102.8M	

0,748 students receiving financial aid awarded financial aid

\$102.8M 8,489 students receiving linancial aid awarded financial aid



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UM System's MOREnet (Missouri Research and Education Network) provides internet connectivity, access, support and training to 58 higher education institutions (230,000 students), 485 K-12 school districts (832,000 students) and 132 public libraries (serving nearly 3 million Missourians) in 2022.

- UM System awarded 50.5% of the 32,098 Bachelor's or higher degrees awarded by Missouri four-year public institutions in 2022-23.
- UM System awarded 36.6% of the 1,935 research doctorates and 26.9% of the 3,593 professional doctorates awarded by Missouri public and not-for-profit private institutions in 2022-23.
- In FY23, UM System's \$37.9 million in National Science Foundation (NSF) grants represented 88.3% of all NSF grants made to Missouri public colleges and universities.
- In 2023, over 10,900 Missourians accessed mobroadband.org, part of the UM System Broadband Initiative which helped the statewide build-out of high-speed internet infrastructure. MU Extension also supported residents in making individual challenges to the FCC that resulted in \$810,000 in additional funding for the state of Missouri.

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 2023, based on the best available and most recent data. Data Sources include: Missouri Office of Administration - UM IR - MU Institute for Public Policy - 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



Data last updated 12/18/2023

www.umsystem.edu

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For more information, go to: community.umsystem.edu/impact-report

Missouri Grand Challenges: Local Solutions

DENT COUNTY



Knowing Missouri's Needs

MU Extension asked Missourians to share the greatest challenges they and their communities face.

We heard that feedback and made big changes in the way we work with council and local partners to improve lives. Locally, a network of county engagement and subject matter specialists now share MU's knowledge, research and engagement, targeting programs, information and assistance in:

- agriculture and environment
- youth and family
- business and community .
- health and safety



Health and well-being Improve Missouri's health ranking from 40th to 35th in the nation

For each grand challenge, MU Extension and

Engagement targets a specific gain by 2023:

Increase MU Extension and Engagement's

billion to \$100 billion in agriculture, the top

Educational access and excellence

education from 66% to 70%

Increase participation in postsecondary

economic impact to the State of Missouri from

\$1 billion to \$1.5 billion overall, and from \$88

Economic opportunity

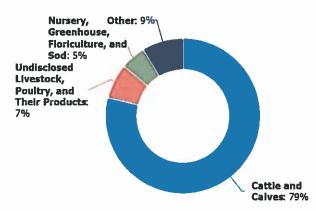
economic sector

Knowing Local Challenges

5 CHALLENGE 1: Economic Opportunity: Agricultural Economics

Leading Agricultural Products

Total Commodity Sales: \$21,818,000



Data Source: US Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture, 2017.

Net Farm Income

Net farm income (total sales, government payments, and other farmrelated income minus total farm expenses) reflects the strength of the local agricultural community and can be an important measure for lenders and policy makers. The report area had a combined net farm income of \$3,937,000 in 2017, an average of \$5,673 per farm. This is below the statewide average farm income of \$29,485.

Report Area	Total Farms	Average Farm Income
Dent	694	\$5,673
Missouri	95,320	\$29,485

Data Source: US Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture, 2017.

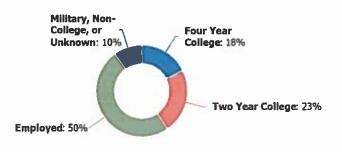


Office of Extension and Engagement University of Missouri



Post High School Report

The 12-month post-graduation activity of recent high school graduates can inform communities about postsecondary education, career readiness, and characteristics of the future workforce. In 2022, of 131 graduates surveyed in the report area, 23 went to a four-year college, 30 to a two-year college, 65 directly entered the job market. The remaining 13 are reported as in the military, not in college, or unknown.



Data Source: Missouri Department of Elementary & Secondary Education. 2022.



Mental Health Care Providers

Mental health is a critical public health issue worldwide. Access to mental health services is a challenge across Missouri, which ranks 46 out of 51 states in provider access. In the trio there are approximately 5 credentialed professionals providing mental health care to serve the area's 14,421 residents. The patient-provider ratio in the report area is 2,884 to 1, which means there is 1 provider for every 2,884 persons. The ratio of persons to providers in the report area is higher than the state average of 855:1, which means there are fewer providers per person in this area.



Missouri



855:1

Dent

Data Source: Centers for Medicare and Medicald Services, <u>CMS - National Plan</u> and Provider Enumeration System (NPPES), December 2023.

Primary Care Providers

Older adults make up a historically large percentage of the U.S. population and meeting the healthcare needs of an aging population can be challenging. In the report area, there are approximately 3 primary care physicians (MDs and DOs) to serve the area's 3,359 residents over the age of 65. The patient-provider ratio in the report area is 1,120:1, which means there is 1 provider for every 1,120 older adults. The ratio of adults to providers in the report area is higher than the state average of 242:1, which means there are fewer providers per person in this area.

Ratio (Population to Providers)

Missouri



242:1

Dent

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, <u>HR\$A - Area Health Resource. File</u>. December 2023.



Office of Extension and Engagement *University of Minnuri*

CHALLENGE 4: Agricultural Growth & Stewardship: Soils Testing

Recent public initiatives and USDA programs are putting a focus on producers to improve the health of their soil. The USDA-NRCS defines soil health as the continued capacity of the soil to function as a vital, living ecosystem that sustains plants, animals and humans. A variety of practices can improve soil health, including regular monitoring, sampling and testing protocols. The MU Soil and Plant Testing Laboratory provides testing and unbiased, research-based recommendations for economically viable and environmentally safe nutrient management practices across Missouri.

Report Area	Agriculture	Home and Garden	Community Areas	Research	Total
Dent	321	15	2	0	338
Missouri	11,785	4,192	315	3,708	20,000

Data Source: University of Missouri Extension Soil and Plant Testing Laboratory Annual Summary, 2022.

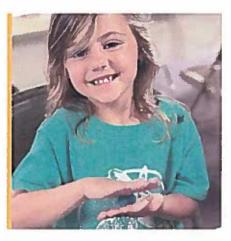


Missouri 4-H



Community clubs are

organized by volunteer club leaders and teams of recognized volunteers. Members attend club meetings, elect officers, enroll in projects and plan learning and community service activities. Some clubs opt to be single-project clubs, where all members focus on the same project.





4-H In-school clubs meet during the school day. Members participate in projects that supplement their existing lessons. Clubs may meet for short periods or span the full 4-H program year. Members can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.



A SPIN club focuses on a specific topic led by an expert in the field. While community clubs may meet over the full 4-H program year, SPIN clubs meet for set periods, typically from several weeks to a couple months. SPIN clubs can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.

Missouri 4-H



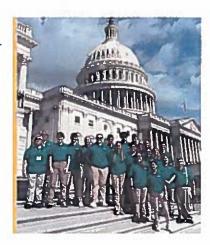
Afterschool clubs

These clubs meet after school for periods ranging from a few weeks to a full 4-H program year. These clubs typically focus on a single project at a time but can rotate through more than 100 different project topic areas. Members can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.





4-H's Leadership and Civic Engagement programs foster understanding, confidence and decision-making skills to empower youths to become informed and active young citizens. 4-H civic engagement initiatives prepare young people to become future leaders by engaging them in programs where they have voice and influence.





4-H Natural Resources programs employ hands-on activities in climate science, environmental sustainability, renewable energy, sportfishing and wildlife conservation. The **Shooting Sports program,** which teaches marksmanship, safe firearm use, hunting and archery principles, is a prime illustration of how 4-H programs promote holistic youth development and responsible citizenship. Supported by caring adult leaders, these programs offer opportunities to cultivate life skills, self-worth and conservation ethics.



Missouri 4-H



Missouri 4-H Agriculture and STEM programs

employ hands-on activities that foster problemsolving, creativity, critical thinking and exploration in engineering and technology. Agriculture programming emphasizes biology, environmental science, agri-science, veterinary science and engaging activities such as animal care and agronomy. STEM programs delve into computer science, robotics, aerospace, physics, chemistry and veterinary science.





4-H's Healthy Living

programming teaches skills for healthy choices and lifestyles, enhancing overall well-being and equipping youths to tackle life's challenges. Emphasizing socialemotional health, 4-H fitness, health, nutrition and safety programs cultivate confident, caring young leaders who prioritize mental and physical well-being.



4-H's College and Career Pathways program

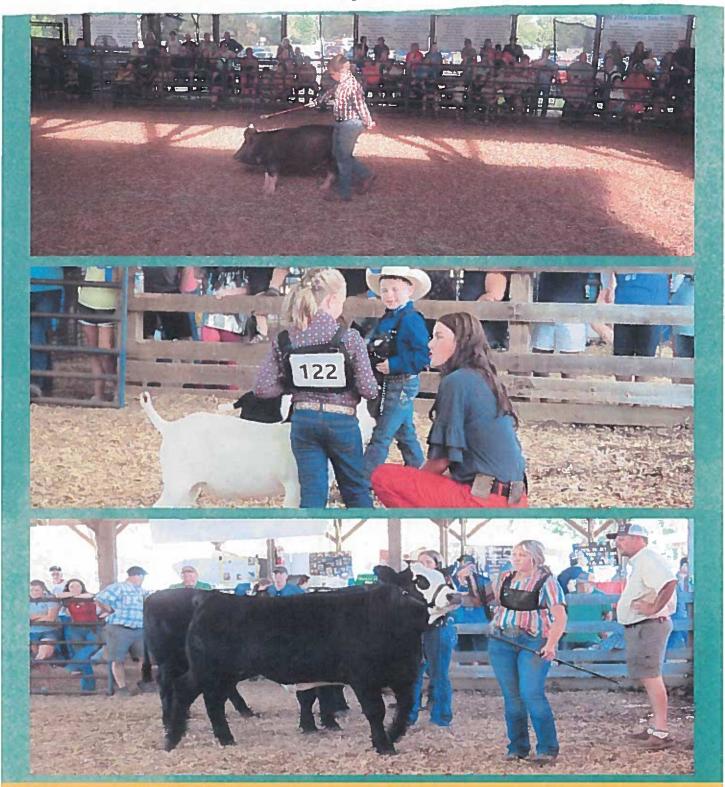
emphasizes the pivotal role of education in attaining career goals, creating paths to success through exposure to project areas and mentorship. In addressing workforce challenges, 4-H strives to equip young people with financial literacy and basic skills for productivity.





MU EXTENSION Serves MISSOURI and Delivers MIZZOU through credible statewide programs

Missouri 4-H for ages 8 – 18



Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Missouri 4-H

Local Impact

A community of 219 youth building life skills, contributing to their community, and becoming college and career ready.

1 in every 8 Dent County youth between the ages of five and eighteen participated in a MU Extension 4-H Youth Development program in 2023.

4-H Members

- 4-H programs are grounded in the belief that youth learn best by doing. Through hands-on projects like science, health, agriculture, and civic engagement in a positive environment, youth receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Youth have the opportunity to concentrate on one focus area, or they can try a variety of programs throughout their 4-H experience. Dent County served youth through 4 community clubs, and 3 In-school 4-H SNAC Clubs offering long-term educational experiences in which members learn life skills such as decision making, public speaking, and working with others.
- There were 219 members in the community clubs and in-school SNAC clubs in Dent County during the 2022-2023 4-H Year.
- Over 95% of 4-H members were engaged in science related projects and experiences.
- Collectively youth participated in 1,903 hours of community club work in Dent County.
- Over 4,150 hours of community service projects were completed by 4-H members and volunteers during the 2022-2023 4-H Year.

4-H members have demonstrated learning through the following activities:

- There were 443 exhibits at the 2023 Dent County 4-H/FFA Expo from 4-H members and FFA members, who are also supported through youth programming.
- Dent County youth exhibited over 30 exhibits in the 4-H Building and livestock shows of the Missouri State Fair.
- 4-H members from Dent County Participated in skill development contests on the State level including State Meats Contest, State Livestock Judging, State Poultry Day and State Public Speaking. Participation in these events helps youth to develop confidence and practice their decision making and public speaking skills through competitions tied to project areas they are passionate about.
- 16 members represented Dent County as counselors or campers at Camp Clover Point 4-H Camp.
- 4-H Clubs offer in-depth educational experiences in which members learn life skills such as decision making, public speaking, and working with others. Members learn by doing under this guidance of adult volunteers, who lead a wide variety of projects that support 4-H members in finding their SPARK. Club and project leaders also involve youth and teens in community service, leadership opportunities, and educational trips. 4-H project work and related educational experiences help youth explore interests in citizenship, communication, and leadership.

Missouri 4-H

Local Impact

Dent County members enrolled in a combined total of 606 projects in 2023. The top project areas were agriculture with the top two being beef and swine.

Impacts of 4-H Programming

- 4-H members are twice as likely to go to college compared to their non 4-H peers and they tend to pursue careers in STEM fields (Lerner & Lerner, 2011).
- 4-H also prepares youth for the workplace. Youth must be prepared to live and work in a world we cannot completely envision- competing for jobs that do not yet exist, using technologies that have yet to be identified. 4-H is the only youth development program with direct access to technological advances in agriculture, life sciences, and social sciences from the university system. This brings relevant science content and hands-on learning that helps youth thrive (Arnold, Bourdeau, & Nott, 2013).
- Youth who earn a bachelor's degree increase their annual earnings by \$2 million over their lifetime. (U.S. News and World report, 2011) If 50% of the Dent County youth participating in 4-H events on a college campus receive a bachelor's degree, 4-H would help young people acquire \$1,000,000 more in lifetime earnings.

4-H Volunteers

- Dent County 4-H members were supported by 53 enrolled, screened, and oriented adult volunteers and 4 youth volunteers supporting the development of youth in 2023.
- Volunteers contributed 5,700 hours to the Clark County 4-H program valued at \$181,260.

Volunteers participate in development opportunities like project leader training and club leader summits, in addition to ongoing support from MU Extension youth faculty and staff gaining knowledge in how to offer a valuable learning experience for the youth they are working with while maintaining a safe, supportive environment. Volunteers create, support, and are a vital part of the 4-H community. Dedicated volunteers help to organize club meetings, fundraisers, and events. They also provide learning opportunities for youth in their projects, teaching life skills and instilling qualities of character like respect and responsibility in members. Adult volunteers serve as mentors for our youth, helping them transition into caring, healthy adults who contribute back to their communities, which is priceless.

Missouri 4-H

Local Impact

Findings from a 2021-2022 evaluation study shows that Missouri 4-H:			
Missouri 4-H Inspires Kids to Do 98% said they are willing to work hard on something difficult. 91% set personal goals. 97% said they try to learn from their mistakes. 98% said they treat others the way they want to be treated.	 Missouri 4-H Grows True Leaders 97% said they like to learn about people who are different than them. 93% said they think about others' feelings before they say something. 75% reported feeling comfortable being a leader. 	 4-H Builds Leadership and Communication Skills 95% help others reach their goals. 86% are comfortable speaking in a group. 99% said they show respect for other's ideas. 85% can work with someone who made them upset. 95% Look for ways to involve all members of a group. 	 4-H Builds Social and Emotional Skills 94% said they keep trying until they reach their goals. 89% stop to think about their choices when making a decision. 97% reported that they like to learn new things. 91% of Missouri 4- H'ers surveyed said they are willing to try something they might get wrong.

Missouri 4-H

Local Impact

4-H SNAC Clubs

4-H Student Nutrition Advisory Council (SNAC) clubs are offered in a variety of settings including before school, during school, afterschool, and in other community settings helping youth build knowledge about nutrition and fitness. Youth participate in a leadership project where they are encouraged to become an ambassador of Healthy Living in their communities by designing and implementing a leadership project that will improve education and the fitness of others. Across the state, youth have developed creative ways to advocate for healthy living. In 2023, there were 91 SNAC Clubs across Missouri with 2,577 youth participating and reaching 4,300+ youth through the leadership projects.

In Dent County, SNAC efforts reached 46 youth for a total of 368 youth leadership project hours.

Resources

Arnold, M., Bourdeau, V., & Nott, B. (2013). Measuring science inquiry skills in youth development programs: The Science Process Skills Inventory, *Journal of Youth Development*, 8(1).

Independent Sector (2023). Independent sector releases new value of volunteer time \$31.80 per hour. Retrieved from: <u>https://independentsector.org/blog/independent-sector-releases-new-value-of volunteer-time-of-31-80-per-hour/</u>

Lerner, R.M., Lerner, J.V. (2011). The positive development of youth: Report of the findings from the first seven years of the *4-H Study of Positive Youth Development*. Retrieved from <u>http://www.4-h.org/about/youth-development-research/</u>.

U.S. News and World Report (2011). How Higher Education Affects Lifetime Salary. Retrieved from <u>https://www.usnews.com/education/best-colleges/articles/2011/08/05/how-higher-education-affects-lifetime-salary</u>





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Missouri 4-H

Local Profiles and Stories





We're on the web! extension.missouri.edu/dent/4-h



UNIVERSITY OF MISSOURI EXTENSION



Eric Meusch Livestock Specialist 573-729-3196 meusche@missouri.edu



Dent County

Serving Dent, Phelps, Crawford, Pulaski, Shannon Reynolds, Carter, and Texas Counties

2023 AT A GLANCE

- Drought was one of the main topics working with beef producers. This included programing on herd management and nutrition.
- Show Me Select Heifer development activities expanded as I took over coordination of Central Missouri, working with producers and assisting with the Spring Sale in Vienna.
- Poultry programs including backyard chickens and home butchering of chickens were in demand in many counties.
- Show Me Quality Assurance events held in Dent, Phelps and Crawford Counties trained youth on proper care of livestock. Other youth-oriented activities included Ozark Cattlemen's Beef Day in Salem and the Wurdack Education Day event.
- The Value-Added Meats (VAM) team collaborated with Feedlot School team to develop the Direct Marketing Beef School. VAM also worked through the 2501 Program to conduct a hands-on chicken processing workshop for urban farmers in the St. Louis area



Producers learned how to add value to their cattle by finishing animals and marketing beef direct to consumers. They also toured a confinement beef feeding operation and learned from local processors.



A Livestock producer shares her experience in developing and managing her grazing system at a Grazing School in Texas County

KEY SUCCESSES

- 94 Show Me Select Heifers were sold at Central Region Sale in Vienna in May totaling \$199,450 in sales. Statewide a total of 1647 Show Me Select heifers were sold for \$4,180,575 in 2023.
- Over 200 youth in 3 counties received Show Me Quality Assurance training, learning industry standards for food animal care and husbandry. This training is required for youth exhibiting livestock at county fairs and Livestock Expos.
- Participants in Missouri Grazing schools learned the basics in management intensive grazing, including soil and forage management, grazing system layout, livestock management and infrastructure development..
- Socially Disadvantaged and Veteran Farmers and Ranchers participated in livestock related programs such as backyard poultry, sheep and goat production, and small-scale chicken processing. This was part of the grant funded 2501 program. This program also supported farm visits, learning circles and team to one coaching.



2023 Livestock Highlights



Discussing herd management during a drought at the Wurdack Extension Farm Field Day.



Presenting on Direct Marketing Meat at the Ag Connect Conference in Poplar Bluff as part of the Value-Added Meats Team



Show Me Quality Assurance training for youth that will be exhibiting livestock in Phelps county.



A Show Me Select Heifer sold at the Central Regional Heifer sale. .



Small-scale chicken processing is a popular hands-on training. This event was hosted by the 2501 Program.



Ozarks Cattlemen's Beef Day is a collaboration between Extension, Cattlemen's Association, FFA and others in the community targeting grade-schoolers in Dent County.

2023 Update

Kevin Crider Cooperative Feral Hog Outreach Educator 573-301-3971 Kevin crider@missouri.edu



Covering Shannon, Dent, Texas, Crawford, Phelps, and Pulaski Counties

2023 in review

Hello all! It has been a busy year for the Missouri Feral Hog Elimination Partnership.

New equipment was purchased for several counties affected by feral hogs and is in place for use free of charge to those with feral hog damage. The equipment can also be rented for those wishing to utilize the equipment for other projects. The equipment is managed by the local SWCD offices and oversight is provided by the Missouri Department of Conservation and MU Extension.

There was an increase in feral hogs taken off of the landscape in 2023 with Elimination Specialists removing 7,885 feral hogs, compared to 6,289 in 2022. This is an increase of 23.7%. One contributing factor to the increase could be due to the large acorn crop in the Ozarks during the fall of 2022 when hogs were not responding to bait as well as they did during the fall of 2023. MFHEP also assisted 660 landowners with feral hog problems.

Air operations began again in December and the MFHEP staff are busy with their drones locating feral hogs and sending the coordinates to the helicopter for daytime aerial gunning. Aerial operations are planned through March with the USDA helicopter, as we have done for the last few years.



Photo of the new Haybuster 107 drill purchased by MFHEP for Dent County SWCD.



Pictured here is a new Great Plains dral purchased by MFHEP for the Shannon County SWCD

Looking at 2024

I hope to visit more counties and attend some Extension council meetings.

- The MFHEP 2023 Annual Report will be completed very soon...
- The four MU Extension Outreach Educators will be finishing up the winter edition of the Hog Herald Newsletter at the end of March.
- Outreach educators will continue building partnerships with new cooperators to eliminate any potential sanctuary properties for feral hogs.

Please contact me for any details related to the programs above.



Agriculture and Environment

Local Impact

Gatlin Buntin -Director, Wurdack Extension and Education Center, Field Specialist in Agronomy

Integrated Pest Management: Each year farmers, gardeners and homeowners find that they need information and education on pest management. Weeds, insects and diseases are the primary pest problems. People who have questions about pest management will call or bring in pests to the Extension Center for identification and management options. Pest identification is the first step in developing a management plan. Pest management options are presented for the person to use to make decisions. For farmers and commercial vegetable growers, pest management can be important to profitability. For homeowners, pests may cause aesthetic concerns.

Private Pesticide Applicator Training: Farmers who wish to purchase or apply restricted use pesticides must go through training to obtain or renew a private pesticide applicator license. Approximately 15 farmers participated in private pesticide applicator trainings in Dent county in 2023. Farmers who participate in the training learn about pesticide labeling, personal protective equipment, environmental concerns, pesticide mixing and application, principals of pest control and pesticide formulations. The Missouri Department of Agriculture issues private pesticide applicator licenses.

Soil Testing: Soil testing provides farmers, gardeners and homeowners information about the fertility of their soil and recommendations on how to fertilize and lime to improve plant growth. In 2023, nearly 400 hundred soil samples were tested in Dent County. Farmers who use soil testing have reported that yields have improved because of using their soil test results. Other farmers have reduced fertilizer inputs due to soil tests showing that fertility levels are already high. Gardeners and homeowners use soil testing to improve fruit and vegetable production or to make their lawn grow better. Soil testing is the first step in making the most of fertilizer application. Extension guides and personal consultations help people understand their soil test reports and how to use the information in the report.

Farmer Consultations and Site Visits: Throughout the year farmers need timely answers and advice on various forage, weed management, and agronomic issues. Forage quality assessment was one of the most common reasons for one on one consultations in 2023. Nitrate toxicity was a concern of many producers. Nitrate toxicity is a serious issue for grazing animals. When certain forages are exposed to cold or drought stressors they may increase the level of nitrates within the plant. An acid quick test allows you to visually assess whether or not the forage has toxic levels of nitrate and allows the producer to make informed decisions.





High nitrate levels are indicated by blue after the acid test.

Agriculture and Environment

Local Impact

Dent County Forage Loss Assessment 2023

Rusty Lee- Extension Agronomy Specialist, East Central Region

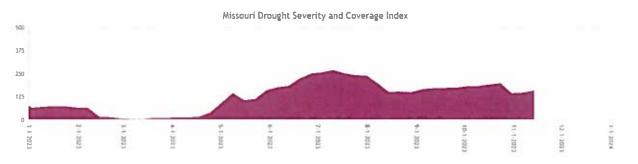
State-wide Overview

The 2023 forage production season featured a prominent drought event that continues to impact the State. Drought conditions first emerged in April (Figure 1) when the state recorded its 4th driest April (- 2.17") dating back to 1895. Precipitation totals remained below average in May (-1.87") and June (-2.72") with average monthly temperatures running 1 to 2 °F above normal (Figure 2). Several rounds of heavy rainfall in late July and early August helped to bring temporary drought relief, but dry conditions returned in September and October. Overall, the seven-month period from April to October has been the 14th driest

(-6.02") for Missouri and 2023 is currently the 7th warmest year on record through October (Figure 3). The largest precipitation deficits and areas most impacted by drought are approximately located along an axis from southwest to northeast Missouri (Figures 4 and 5).

This year's drought occurred during the growing season, resulting in widespread negative impacts to the agricultural sector. Depleted soil moisture has led to poor pasture and crop conditions along with mature tree stress. Timely rainfall in July and August provided some relief to crops, but the return of hot and dry conditions in September and October limited fall pasture growth. Agricultural water supply has also been a persistent issue with many pond levels low or dry. Larger streams and rivers have also been dry, with up to 40% of the state's monitoring gauges measuring streamflow that is well below normal since April. Hydrological drought has also contributed to commercial navigation impacts along the Mississippi River, especially south of St. Louis. Altogether, there have been 984 community drought impact reports through the Condition Monitoring Observer Reports (CMOR) program this year (Figure 6).

The transition from October to November in Missouri was marked by beneficial rainfall and colder temperatures but conditions were short lived. As of November 20, Missouri is on track for another month featuring both above normal temperatures and below normal precipitation, extending the 2023 drought through the end of the fall season. This has resulted in a continuation of drought impacts including agricultural concerns, enhanced fire risk and low water levels on streams, rivers and ponds. As of November 14, approximately 55% of the state remains in drought with 19% of the state being characterized as either severe or extreme drought (Figure 7).





Agriculture and Environment

Local Impact

Dent County Forage Loss Assessment 2023 Rusty Lee- Extension Agronomy Specialist, East Central Region

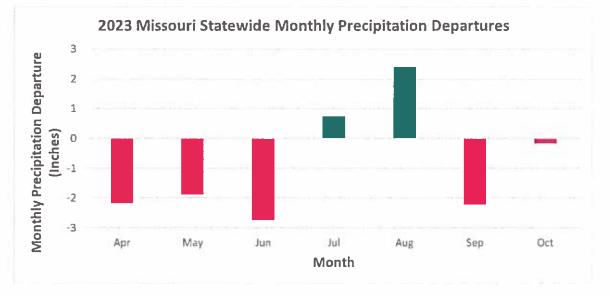
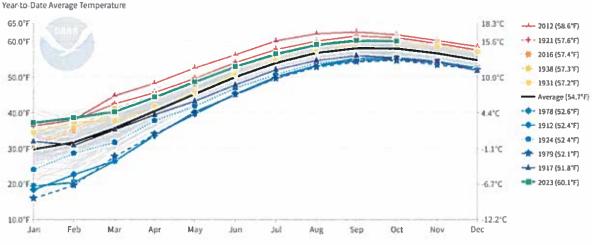


Figure 2. Statewide monthly precipitation departures from normal during April to October 2023. Precipitation normals based on 1901 – 2000. Data provided by the National Center for Environmental Information (<u>https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/</u>).

Missouri



and by Front later

Figure 3. Missouri 2023 average temperatures (green) compared to other years. Data provided by the National Center for Environmental Information (https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/).

Agriculture and Environment

Local Impact

Dent County Forage Loss Assessment 2023

Accumulated Precipitation (in)

Rusty Lee- Extension Agronomy Specialist, East Central Region

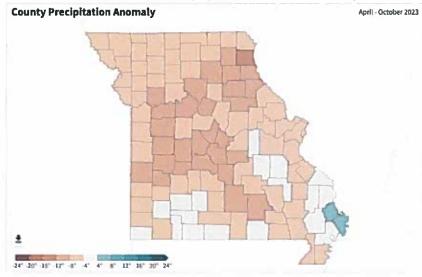
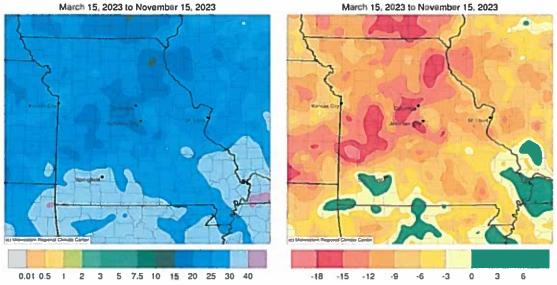


Figure 4. County-averaged precipitation departures from normal during April to October 2023. Precipitation normals based on 1901–2000. Data provided by the National Center for Environmental Information (<u>https://www.ncei.naaa.gov/access/monitoring/climate-at-a-glance/</u>).



Accumulated Precipitation (in): Departure from 1991-2020 Normals March 15, 2023 to November 15, 2023

Figure 5. Precipitation accumulation (left) and departures from normal (right) from March 15 to November 15, 2023. Data provided by the Midwestern Regional Climate Center (<u>https://mrcc.purdue.edu</u>).

Agriculture and Environment

Local Impact

Dent County Forage Loss Assessment 2023 Rusty Lee- Extension Agronomy Specialist, East Central Region

Condition Monitoring Observer Reports (CMOR)

Figure 6. Missouri drought impact reports submitted by the community to the National Drought Mitigation Center's Condition Monitoring Observer Reports (CMOR; https://droughtimpacts.unl.edu/Tools/ConditionMonitoringObservations.aspx) system from January 1 to November 19, 2023.

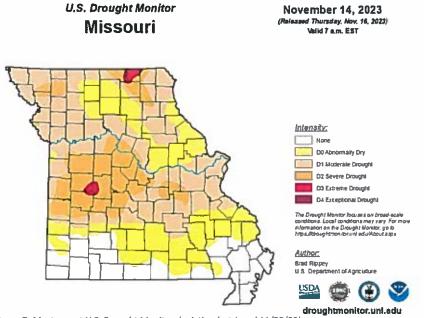


Figure 7. Most recent U.S. Drought Monitor depiction (retrieved 11/20/23).

Agriculture and Environment

Local Impact

Dent County Forage Loss Assessment 2023 Rusty Lee- Extension Agronomy Specialist, East Central Region

County Specific Data - Dent

Cool-season grasses are the predominate forage species in Dent County. Much of its annual forage production occurs prior to the summer "slump" period of July and August. That makes April, May and June the quarter of the calendar to make or break a year's forage production.

Assuming soil fertility is adequate, soil moisture is the largest determining factor of forage production. This direct plant response makes tracking rainfall, and its contribution to soil moisture, an excellent barometer of forage production. During the April - June period, rainfall for Dent County was 7.10 inches below the 1901-2000 average amounts. This represents a 51 % decline in precipitation during this critical period of forage production. My observations of pastures and hayfields in the county, including conversations with area producers, provided a verification of this expected reduced forage productivity claim.

While there was some short-term relief from a few July and August rains, our cool-season grasses saw April - June temperatures for the county being 1 % above the 100-year average, and more importantly, a lower-than-normal soil moisture level to start the growing season due to our drought actually beginning in the fall of the previous year.

These measurements, observations and conversations shape my opinion to be that Dent County experienced a 51 % reduction in forage growth for the 2023 growing/grazing season.

UNIVERSITY OF MISSOURI EXTENSION



Katie Kammler Horticulture Specialist 573-883-3548 kammlerk@missouri.edu



Serving Ste. Genevieve, St. Francois, Washington, Crawford, Dent, Gasconade, and Franklin Counties

2023 AT A GLANCE

- 3689 direct contacts through programming where participants are actively engaged in the learning process. Programs included home vegetable gardening, commercial organic specialty crop production, Garden Hour with MU Extension, bug bingo, plant diseases, pumpkin production, weed control, and many more.
- 757 requests for horticulture information through calls, emails, walk-ins or site visits from 28 counties and 6 states.
- 2200+ subscribers to the monthly Garden Spade newsletter with a 15% increase in subscriptions during 2023. Topics include insects, weeds, landscape plants, trees, fruit, vegetables and much more.
- 6,200+ view of horticulture MU IPM YouTube video for commercial producers.



Bug Bingo with high school students to learn insect identification, pests vs. beneficial insects.



Desk top hydroponic units in my office, growing tomatoes, lettuce, kale, and bok choy. Hands-on learning about hydroponics allows me to better help clients.

KEY SUCCESSES

- Commercial Pesticide recertification provides participants with knowledge on pesticide handling, safety, restricted use, disposal, contamination, labels, and guides.
- Client learned how to follow the fruit tree spray guide, resulting in a bumper crop of apples to share with the neighbors.
- Garden Myths program dispelled numerous myths so gardeners can have better gardens.
- Participants in Weed Warfare program learned that weed identification is the key to successful control measures.
- Many soil tests results have excess phosphorus and potassium. Provide clients education on "loving" their plants to death—save clients money and the environment by not over applying fertilizers, manures, composts, & organic matter.



UNIVERSITY OF MISSOURI EXTENSION



Sarah J. Higgins Field Specialist in Natural Resources 314-971-4826 sarah.higgins@missouri.edu



Covering Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Howell, Iron, Jefferson, Madison, Maries, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pulaski, Reynolds, Ripley, Scott, Shannon, St. Francois, Ste Genevieve, Stoddard, Texas, Washington, and Wayne Counties

About me & 2023 in review

Hello all! I started my position as a Natural Resources Specialist on July 5th, 2023. I am based out of Phelps County in Rolla, and I serve 28 other counties in southeast Missouri. I got the opportunity to work in this part of the Ozarks while pursuing my undergraduate degree Environmental Science from Mizzou and loved getting to explore the beautiful landscapes in this region. I moved back to Missouri after receiving my master's in Environmental, Soil, & Water Science from West Virginia University, and I feel so grateful to be back. I'm excited to work with the people in this region to conserve our beautiful natural resources.

Since starting in July, I've gotten the opportunity to meet many others in the area involved in natural resources, including private landowners, Missouri Department of Conservation employees, and Natural Resources Conservation Service employees, people involved in the timber industry, and other Extension professionals. I'm looking forward to developing these partnerships more in 2024 and collaborating on programs to deliver in southeast Missouri. Please contact me to talk more about what kinds of natural resource programming you'd like to see in your county. Looking forward to working more with you all in 2024!



Field site demonstrating the need for timber management at the MO Tree Form Conference.



Invasive bush honeysuckle from an invasive species workshop in Versailles, MO Other invasive species discussed included autumn olive, mutuflora rose, wintercreeper, sericea lespedeza, princess tree, and eastern redicedar (a native field invader)

Looking at 2024

Here are a few programs to keep an eye out for in 2024. I also hope to visit more counties and attend some Extension council meetings, so please reach out if you'd like me to come!

- Restarting Women Owning Woodlands program. We hope to have social hikes and monthly virtual meetings.
- · White Oak, Whiskey, and Wine webinar series at 12 pm on Mondays in January.
- Hybrid (virtual & in-person) Succession Planning workshop on February 29th.
- Invasive Species workshop in March.
- Forest health webinar series in early April, followed by a forest health field day on April 13th.

Please contact me for any details related to the programs above. I will send more information and updates on programs throughout the year. I'm eager to work with you all next year!



Business and Community

Local Impact



I started my position as a Community Development Specialist on June 12, 2023. I am based out of Salem in Dent County and also serve the counties of Crawford, Maries, Phelps, Pulaski and Washington in the East Central Region. I previously served Extension as Coordinator for the Salem Telecommunications Community Resource Center (TCRC) from 2000 through 2011 and also served as Salem's City Administrator and Economic Development Director.

Since June, I have had the opportunity to meet people from the counties I serve along with other Community Development and Extension staff. I have also been on-boarding with various Community Development programs and their use to meet different types of community needs.

Looking at 2024

Plans for 2024 include:

- Work with counties to identify community development priorities and potential partners in support of community development programs and services
- Provide regular updates on community development programs and formal presentations to county councils and other stakeholders as requested

Other projects I am assisting with include:

- Collaboration to offer a Public Manager Certification
- · Rural Infrastructure Challenge Grant with Missouri S&T
- Multi-State Housing Survey

Please contact me with any questions about community development programs or services. I am glad to be serving the East Central Region and look forward to working with your county!

COMMUNITY DEVELOPMENT PROGRAM

BUILDING CIVIC CAPACITY FOR

THRIVING COMMUNITIES

What is Civic Capacity?

The collective strength of people in a place to respond to challenges and pursue thriving communities.

What we do

Experienced community development specialists provide research-based programming and resources to individuals, organizations and local governments based on their unique issues and assets.

How we do it

Through statewide programming, we empower residents, organizations and governments to build:

COLLECTIVE BELONGING LEADERSHIP Building social canital and inclusivity Engaging residents in civic life and decision-making

Guiding collaborations with diverse community leaders conditions for equitable, thriving,

VITALITY

Creating

resourceful

places

CONTRIBUTION

Why it's important:

When people feel belonging within the community, they are more likely to contribute to cultivating strong, equitable, prosperous places.

Community-led change is more likely to meet the needs of all residents and make enduring progress toward local vitality.

UMSL Economic and Community Development



Testimonial

"I have learned that my voice is very important, and I am a force to be listened to. I had many ideas but didn't have the courage to pursue all avenues and to make things better for my community, but I now feel that my voice is very important and should be heard."

> - Community Development program participant

Programs and Services

Asset Mapping Community Arts Programming Community Assessment Community Engagement Community Planning Support/Coaching Community Resource Development Facilitation Neighborhood and Leadership Classes Strategic Doing Youth Civic Engagement Programs

About us

The University of Missouri Extension and the University of Missouri-St. Louis have a history of successful partnerships building capacity for thriving communities.

Contact us to discuss how we can work with you to build civic capacity for YOUR thriving community.

extension.missouri.edu/topics/community-development





an equal opportunity/ADA institution

Community and Professional Health Education

Local Impact

Stephanie Wofford- Nutrition Program Associate

The Supplemental Nutrition Assistance Program Education (SNAP-Education or SNAP-Ed) brought \$10,874,798 in federal funds to Missouri. During FY2023, Missouri's SNAP-Ed program reached over 78,000 Missourians through direct classroom education. Each person participated in an average of 6 hours of education totaling over 15,000 hours. In addition, an additional 760,135 persons participated in indirect education. Direct and indirect education resulted in over 1.8 million total contacts with Missourians.

A total of 325 participants were from Dent County.

Participants in SNAP-Ed learn the importance of making healthier meals and snack choices, eating breakfast more often, are more willing to try new foods, increase their physical activity, and make healthier food choices. Those who practice healthy eating and are physically active are more likely to contribute to a healthy labor force and enjoy a high quality of life throughout the lifespan.

This vital programming effort also reduces healthcare costs over the participant's lifetime, saving taxpayer money in reduced public healthcare benefits and insurance premiums.

Community

Local Impact

The Wisdom family was selected as the Dent County Missouri Farm Family by University of Missouri Extension in Dent County and the local Farm Bureau, and were among the families honored during the 66th annual Missouri Farm Family Day, Aug.14 at the Missouri State Fair. Teel was the 4th generation raised on his family's cattle farm in Boss, Missouri, where he and his dad also raised and showed world champion quarter horses. Farming has always been a major part of his life, and now, his passion for farming is being passed onto the next generation. Teel and Richelle's 5-year-old son, Reed, also helps on the family farm. According to Richelle, "raising goats has provided an opportunity for Reed to learn many different skills and responsibilities, while growing his own herd. Reed plays a major part in helping his parents by taming, handling, and preparing goats for show kids throughout Dent County, and various other counties."

Each year, the fair sets aside a day to recognize farm families from across the state that are active in their communities, involved in agriculture, and/or participate in local outreach and extension programs such as 4-H or FFA.

The Wisdom's operate a 49-acre meat goat operation. Teel summed up his entire life with this statement; "I can't imagine living a life without farming. It's all I've ever known. I've worked alongside generations before me who have worked so hard at this and, I'm honored to continue to pass this passion to the next generation. It allows me to provide various resources for my family, it gives so much peace and serenity to see God's immense beauty in everything he does, and it allows me to teach my family some of the most important qualities of life."

The annual event is sponsored by five partner agencies: the Missouri Farm Bureau; the Missouri Department of Agriculture; the Missouri State Fair Commissioners; the MU College of Agriculture, Food and Natural Resources; and MU Extension.

The event showcases the impact that Missouri farm families have on the economy and heritage of the state, said Missouri State Fair Director Mark Wolfe. "These families are involved in agriculture activities in their communities and are active participants in local outreach and extension. As the premier showcase for Missouri agriculture, the Missouri State Fair is most certainly the appropriate place to celebrate these families."



Community

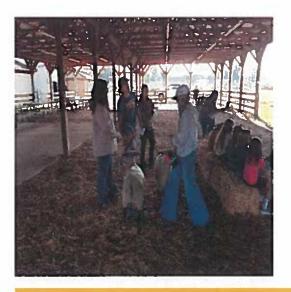
Local Impact

Beef Days

Over 200 4th graders and adults from Dent County attended Ozarks Cattlemen's Beef Days to learn about livestock, agriculture production, forestry and rural safety. Salem FFA, MU Extension and volunteers from the community hosted stations with 17 different topics. The students were able to participate in hands-on activities and were fed hamburgers provided by local donations and prepared by the Dent – Phelps County Cattlemen's Association.









Community

Local Impact

Beef Days









Community

Local Profiles and Stories

Leaders Honor Roll

The Leaders Honor Roll program is intended to honor outstanding community leaders who have excelled in supporting MU Extension programs such as 4H, agriculture, business and community, or youth and families. Leaders Honor Roll recipients are recognized for efforts that support the University of Missouri Extension mission to enhance economic viability, build strong individuals, families, and communities, and create and sustain healthy environments. The Dent County Extension Council chose to recognize Cary Terrill-Steelman and Jannell Blair at their annual banquet in February. The Extension Council appreciates their long-term commitment and support of our extension programs and activities within the community.

Extension Tax Schools

University of Missouri Extension ag economics department and ag business specialists worked together to coordinate one summer and three fall tax schools. The summer school was in person and live online. Fall schools were in Columbia and Springfield and in addition a was online. The schools were designed for those who prepare taxes including enrolled agents, tax preparers, CPAs, individuals, and attorneys.

The training included updates on legislation, rulings and cases, individual taxpayer issues, agricultural and natural resources topics, ethics, trusts and estates, agriculture and natural resource tax issues, business tax issues, business entity tax issues, IRS issues, penalties and defenses, form 4797 sales of property, retirement tax issues, like-kind exchange issues. The schools were approved for 8 and 16 hours of continuing education credit by the IRS, Missouri Bar and for CFP continuing education. Total continuing education hours reported to IRS for the schools was 3,336 hours The teaching teams included a CPA and former IRS stakeholder liaison, an IRS certified retired ag economics professor, an attorney, Missouri Department of Revenue and extension ag business specialists.

The trainings received positive evaluations and planning is underway to offer trainings in 2024. Local county residents benefit when local tax preparers have the opportunity to gain knowledge, which benefits their clients and communities. The tax schools are a program of the ag business and policy program of MU Extension, coordinated by Mary Sobba with help from a team of ag business specialists throughout the state.

The resources for the schools included the IRS, the National Income Tax Workbook from the Land Grant University Tax Education Foundation, and materials written by the instructors.

The 2023 school attendance totaled three hundred twenty-seven people. The participants were from throughout Missouri, six participants were from Dent County.



Community

Local Impact

Leaders Honor Roll

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