



UNIVERSITY OF MISSOURI EXTENSION Gasconade County

2023

Annual Report



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Extension

University of Missouri

an equal opportunity/ADA institution



Office of Extension
and Engagement
University of Missouri

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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,

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



Extension
University of Missouri

Who we are



Gasconade County Office

Caren Vogt, County Support Staff

Nancy Stephan, 4-H Youth Program Associate

Rachel O'Halloran (Buenemann), Field Specialist, Nutrition and Health

Rebecca Fuchs, Nutrition Program, Administrative Support

Tanner Adkins, Field Specialist, 4-H

Extension

Eric Meusch, Field Specialist, Livestock

Charles Ellis, Field Specialist, Agriculture Engineering

Brianna Anderson, Field Specialist, Human Development and Family Sciences

Rusty Lee/Rudra Baral, Field Specialist, Agronomy

Deborah Raaf, Nutrition Program, Manager

Kate Kammler, Field Specialist, Horticulture

Brandi Richardson, Extension and Engagement Specialist

Matt Herring, East Central Region, Regional Director

Allison Grzeskowiak, Chair
Jackie Gray, Vice-Chair, 4-H
Amanda Greunke, Secretary
Sarah Powers, Treasurer

Charles Rademacher
Susan Lenger
Heather Schlottach
Julie Warren
Liz Manning

Tim Schulte, County Commissioner
Marilyn Rademacher, Farm Bureau
Chad Peanick, MFA
Jeanne Dorner, Master Gardeners



County Commissioners

Tim Schulte, Presiding Commissioner
Jim Holland, Northern District
Jerry Lairmore, Southern District

Budget and more

Appropriations budget

Income

County Appropriations	62,239.00
Total Income	62, 239.00

Expenses

Salaries/Benefits	41,084.21
Travel	2161.40
Telephone	1263.80
Office Supplies/Service	1755.18
Utilities	5400.00
Insurance	2110.31
Capital Repairs	1877.09
Total Expenses	61,124.90

Return on investment

The University of Missouri provides funding for staff salaries, benefits, and professional development. They contribute nearly \$300,000 to Extension programming efforts in Gasconade County.

Gasconade County partners

Your partnership has been a catalyst for growth and progress. Your dedication and collaboration are deeply appreciated.

- ❖ Scenic Regional Libraries (Owensville, Hermann)
- ❖ Gasconade County Farm Bureau
- ❖ Owensville Senior Center
- ❖ Gasconade County R-1/R-2 Schools
- ❖ White Mule Winery
- ❖ Gasconade County Fair Association
- ❖ Gasconade County Fair Foundation
- ❖ Helping Hands of Owensville
- ❖ Gasconade County Chamber of Commerce
- ❖ USDA/Soil and Water
- ❖ Gasconade County Health Alliance
- ❖ Women in Ag
- ❖ MFA
- ❖ Maries County Bank
- ❖ Legends Bank
- ❖ St. Peter's/St. Paul's Churches
- ❖ Gasconade County Head Start
- ❖ Gasconade County Commission

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



Local Support

Did you know you can donate directly to Gasconade 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.



Gasconade County

UM System Footprint in the county in 2023



FY23 county students

87 students

- 71 Undergraduates
- 16 Graduate and professional students
- 69 Full-time students
- 18 Part-time students
- 23 Pell grant recipients (aid year 2023)



County employees and retirees

27 people employed by UM

- 18 Campuses
- 9 MU Health Care

21 UM retirees and beneficiaries

UM salary and retirement income: \$1.4 million

UM state tax revenue: \$37,850

UM federal tax revenue: \$166,337



County alumni

Selected school alumni

- 2 Medicine
- 35 Nursing
- 38 Health Professions
- 1 Dentistry
- 1 Pharmacy
- 9 Veterinary Medicine
- 138 Agriculture
- 86 Engineering
- 6 Law

Alumni teaching K-12

- 35 teachers
- 17.9% of all district teachers
- 3 principals and administrators
- 23.1% of all district principals and administrators



County breakdown

MU

- 62 students
- 397 alumni
- 15 employees

UMKC

- 4 students
- 13 alumni
- 1 employee

Missouri S&T

- 17 students
- 98 alumni
- 1 employee

UMSL

- 4 students
- 84 alumni
- 1 employee



Construction projects

- \$6,800 remitted to 1 county vendor, for 3 projects



County properties and offices

MU Extension in: Gasconade County



County population: 14,803



County services provided

Health care (FY23)

- 1,163 in-state patients seen at MU Health Care, with \$519,606 of uncompensated care
- 3 in-state patients seen at UMSL Center for Eye Care with a statewide average of \$34.82 per patient in uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 423 visits to 230 patients having ZIP codes associated with the county

Extension (2022)

- 1,630 Total educational contacts from MU Extension to residents of the county, including:
- 143 contacts related to productive farming, better gardening, and managing natural resources
- 1,332 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
- 155 contacts related to starting businesses, developing community leaders, or renewing the local economy

Gasconade County



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.



\$3.1
billion

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)



311,749 youth and 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

27,256

students receiving financial aid

\$536.0M

financial aid awarded

UMKC

11,859

students receiving financial aid

\$217.3M

financial aid awarded

Missouri S&T

6,748

students receiving financial aid

\$117.7M

financial aid awarded

UMSL

8,489

students receiving financial aid

\$102.8M

financial aid awarded



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.



County Highlights

2023 Century Farm Recognition

One Gasconade County farm was recognized at the Annual Extension dinner on November 2, 2023, at the White Mule.



Gerschefske Farms: Owned by Alan Gerschefske, this 84-acre farm located in Rosebud, MO was originally purchased in 1917 by Julius Gerschefske.

2023 State Fair Farm Family



Cody and Cindy Pries and their two children, Harper and Deegan of Hermann were selected as the Gasconade County Missouri Farm Family by University of Missouri Extension in Gasconade County and the local Farm Bureau. The Pries family were among the families honored during the 66th annual Missouri Farm Family Day, Aug 14 at the Missouri State Fair.

2023 Leaders Honor Roll Recipients

The Leaders Honor Roll is a traditional award that takes place each fall to honor two volunteer leaders (individuals or couples) who deserve recognition for being champions of extension in each county. This year Extension would like to congratulate Gary and Ricky Hacker of Owensville. Gary and Ricky are both participants and volunteer supporters of the Stay Strong Stay Healthy program at the Owensville Senior Center. They have gone above and beyond to facilitate a speaker system for the instructor allowing music to be played during the session and for the class to be taught virtually when needed. Gary and Ricky have been dedicated to bringing Extension resources to their older adult community, sharing their talents to make it happen. We appreciate them greatly.

2023 Gasconade County Fair

Gasconade County MU Extension participated in the 2023 Fair Parade despite the heat. Truman the Tiger, Extension Council members and staff along with their families, walked along and handed out candy and beef jerky again this year! Extension also had a booth in the Agri-Tot tent where the children of the community got to partake in BUG BINGO to win prizes! Several 4-H members presented to the children about their 4-H projects. Great way to connect with Gasconade County.





County Highlights

2023 Office Community Engagement

Gasconade County Extension office was engaged in several community events in 2023.



Missouri Day at Gerald Elementary: Extension staff enjoyed a great day playing Missouri Jeopardy with the children at Gerald Elementary School.

Monthly Facts and Snacks: Extension office has begun a monthly Facts & Snacks to entice the community to come in for a healthy snack and some facts about what programs Extension has that can benefit our community.



Missouri Good Neighbor Week: Gasconade County Extension office collected hats and gloves during the 2023 Good Neighbor week and donated them to area Nursing Homes and preschools.



Santa's Parade of Lights: GC Extension enjoyed handing out samples and recipes for a healthy winter snack and a take-away DIY ornament for the kids.



Office Embryology Project: Extension staff housed an incubator in office and observed and charted our own embryology project, and shared it Facebook live!



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs

Missouri 4-H for ages 8 – 18

A community of 702 4-H Youth in Gasconade County learned life skills, contributed to their community, and participated in college and career readiness programs. Findings from a 2022 evaluation study reveals that Missouri 4-H do the following.

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 from 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% 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.



Career Readiness

- 75% said 4-H Helped me decide what I will do after high school.
- 96% said 4-H has given me skills that will be helpful after high school.
- 86% said I know what I want to do after high school.

4-H 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 not yet been invented to solve problems that have yet to be identified. 4-H is the only youth development program with direct access to technological advances in agriculture, life sciences, engineering, learning technologies and social sciences from the university system. This brings relevant science content and hands-on learning that helps youth thrive (Arnold, Bourdeau, & Nott, 2013).

Legend



Agricultural Growth
& Stewardship



Economic
Opportunity



Educational
Access &
Excellence



Health
& Well-Being

Gasconade County

Missouri 4-H

Local Impact

A total of 228 youth participated in Gasconade County 4-H clubs. Gasconade 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 computers science and arts to animal science and healthy living. Clubs also involve youth in community service, camping and educational trips.

4-H members are supported by 82 youth and adult volunteers. Volunteers are the core of the 4-H Program. They help to create, support and deliver educational programs and experiences. Missouri 4-H volunteers report contributing on average 100 hours per year to the program. Valuing their time at \$31.80 per hour (Independent Sector, 2023), the contribution of Gasconade County 4-H volunteers was worth more than \$260,760 in 2023. More importantly, these individuals serve as role models and mentors for youth.



Gasconade County 4-H Community Club members were able to attend 4-H camp in 2023 for the first time since 2019. The hiatus was due to the pandemic and renovations at Camp Derricotte at Curivre River State Park. Youth campers ages 8-13 and teen counselors ages 14-18 participated in a variety of activities at camp including archery, naturalist programming, pool time, arts and crafts, physical education and camp wide dance nights! 4-H camp builds independence in members who attend so they can develop the skills to be stewards of themselves and those peers around them.



Gasconade County

Missouri 4-H

Local Profiles and Stories



High Quality Production

A corner stone of 4-H is agriculture and livestock production. 2023 saw 4-H members developing their livestock judging skills at the annual Gasconade County Fair through swine, beef, sheep, and goat classes for youth to develop skills to select and maintain a productive heard or flock. Gasconade County 4-H has implemented a county-wide project to help develop members skills in livestock judging year round.

School Partnerships

4-H In-School Partnerships bring 4-H staff to local schools during daytime hours to supplement existing school and learning programs. Students learn through hands-on activities with 4-H staff. The 4-H Student Nutrition Advisory Council (SNAC) Program helps youth become more knowledgeable about nutrition and fitness. Youth are encouraged to become ambassadors of Healthy Living in their community and design and implement a leadership project that will improve nutrition education or fitness of others. Current curriculums offered include Kids in the Kitchen, Eating from the Garden, iCook 4-H, Illinois Jr. Chef & Soccer for Success.

4-H Teen Conference

4-H members from across the state come together at the beginning of summer each year for State 4-H Teen Conference for ages 11-13. This motivation and spark finding conference is designed to get younger 4-H members motivated and directed for their future goals within and outside of 4-H. This year, Gasconade County had two members attend



Pictured: Gasconade County RI Middle School invited Nancy Stephan, YPA, to present the Kids in the Kitchen curriculum as part of their health lessons. Students not only learned about germ safety but also prepared healthy snacks and how to make healthy food choices.”

Community and Professional Health Education

Physical Activity

With **Stay Strong, Stay Healthy** courses in Owensville & Hermann (February, April, August, October) 48 unique participants remained physically active through improved strength, balance and flexibility and activities-of-daily-living, resulting in reduced risk for falls, better overall health and greater independence.

This program offered 1,440 educational contacts to participants. The listed health benefits decrease the likelihood of a participant losing independence and entering a care facility, which costs on average \$58,000 per year in Missouri. The money saved benefits a community by keeping more discretionary income in circulation locally. It also keeps people actively and independently contributing to society and their communities longer.



Participants say.
With this class I

- 'I feel stronger going up stairs.'
- 'I feel more flexible.'
- 'I've had more confidence to try day to day physical activities. So, like this weekend, I started kicking the soccer ball around with my grand kids.'

With the **Home Food Preservation** courses, 19 Gasconade residents took part in pressure canning, jerky dehydration, or fruit dehydration workshops. Safe home food preservation protects communities from food borne illness and maintains family traditions while connecting with locally grown foods.

Food Literacy

With the **Freeze It!** course in Hermann (May-June) 9 participants learned meal planning, food preservation, and food waste reduction skills.

From the course, participants reported:

- An increased awareness of their food waste production and how to reduce it.
- A reduction in the number of total trash bags their households produced each week, decreasing by 30%.
- Higher confidence in using leftovers in creative ways.
- Higher confidence in food preparation skills which reduce food waste including writing a meal plan, minimizing food spoilage, cooking tasty food, and freezing bulk meals.



Photo'd: Participants preparing Honey Sesame Chicken Tacos with Stir-fry
This recipe features lean protein, red and green vegetables, and whole grains.



All about the nutritional facts

Rachel O'Halloran, a nutrition and health specialist for University Extension, is highlighted by a projection of a nutrition label during a presentation in March at the Owensville Senior Center. O'Halloran has been meeting regularly with center visitors on helping them follow the diabetic plate method of proportioning their food intake.

For National Nutrition Month a presentation 'Eating Healthy with the Diabetes Plate Method' was offered at the Owensville Senior Center.

6/8 participants improved their understanding of foods containing carbohydrates.

7/8 participants plan to use the Diabetes Plate Method in their future meal planning.

*Photo from Owensville Newspaper.

Following the presentation participants shared they plan to:

- Balance their food better by category,
- Pay more attention to nutrition facts,
- Plan meals better,
- Use more stir fry and steaming recipes,
- Eat more non-starchy vegetables,
- Pay more attention to carbohydrate foods.

Community and Professional Health Education

Disease Management

In 2023 as part of the **Community Reads** project, six healthful eating courses were offered. Courses provided include **'Eating by the Mediterranean Diet'** and **'Low Salt, High Flavor'**. Courses took place in Owensville, Pacific, St. Clair, Hermann, Union, New Haven (March-April). 67 unique participants attended the 6 course regional course offerings.

Following the presentations participants reported improved understanding of:

- salts effect on the body & salt sources in the diet,
- the impact of salt on what we taste & tips to reduce salt,
- diet approaches to stop hypertension & low-salt seasoning options.



Photo'd: The Pacific Missouri Library, Low Salt, High Flavor presentation. Participants are preparing no-salt seasoning mixes to enjoy at home.

With **Healthy Shelves**, the Helping Hands food pantry adopted a new food procurement policy prioritizes the purchase of foods that meet the 'Green Light' rating. These foods are lower in sodium and saturated fat, higher in fiber and dairy. Helping Hands director, Carolyn Hefley shared they've given out more frozen vegetables and milk since adopting the policy.

Healthy Homes and Families

With **Dine in December**, strategies to prepare more meals at home were promoted at the Owensville 'Santa's Parade of Lights' street fair.

The Gasconade Extension Center offered recipes and food samples of fresh fruit with spiced yogurt dip to 50+ booth visitors.



With **Home Food Preservation**, 250 rural Missouri women collected MU Extension Food Preservation Guide sheets following a workshop about home food dehydration and freezing. Presented by invitation of the **Women in Agriculture Conference- Owensville (September)**.

Gasconade County

Community and Professional Health Education

East Central Family Nutrition Education Program

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.

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.

A total of 734 Direct Education participants were from Gasconade County.

Our Nutrition Program Associates (NPAs) are also continuing to provide information about the SNAP benefits program and offer assistance with SNAP benefits applications.

The Expanded Food and Nutrition Education Program (EFNEP) brought \$1,626,730 federal funds to Missouri. These funds were used to enroll 526 limited-resource families in nutrition education and meal preparation classes, representing 1,926 family members. Additionally, 1,980 youth were enrolled in EFNEP classes.

53 of these youth and adult participants reside in Gasconade County.

Participants in EFNEP learn the importance of making healthier meals and snack choices, eating breakfast more often, trying new foods, increasing their physical activity, and making 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.

We look forward to more programming opportunities in Gasconade County and continued progress in helping to improve the lives of Missouri families.

Here is a photo Heather Warren shared of the 4th Grade Field Day event at the White Mule Winery





MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**

through credible programs

Community and Professional Health Education

Emily Poncher, Community Health Field Specialist for the East Central Region

B.A. in Health Promotion from The University of Iowa

Covering Dent, Crawford, Franklin, Gasconade, Maries, Montgomery, and Phelps counties

My evolving role as a Community Health Specialist was created with improving Missouri's health outcomes in mind. As it is a new role, I have been working through the Missouri Research-Extension Program, described below, to conduct a comprehensive community health needs assessment. This needs assessment allows me to conduct county-focused research and collect data that I will use to better understand the region as a whole. Additionally, I have become acquainted with the programs Community Health Engagement and Outreach (CHEO) has to offer. I have recently become trained as a WeCanPROSPER Resilience Training facilitator, and plan to begin delivering this training to my communities.



The **Missouri Research-Extension** (MO-RE) Protocol program focuses on strengthening the bridge between leading scientific research and community-based practice by creating a dissemination and implementation protocol that will facilitate acceleration of relevant knowledge into the most vulnerable Missouri communities through Community Health Engagement and Outreach.



Resilience is the capacity to adapt when faced with adversity. **WeCanPROSPER Resilience Training** is a 2.5-hour statewide training in which participants evaluate their personal resilience, tap into resources and create an action plan to enhance their resilience.

100% of participants indicate that the skills and techniques they learned will help them become MORE RESILIENT.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**
 through credible statewide programs
Agriculture and Environment



MU Extension specialists

play an important role in addressing emergencies and disasters. MU Extension specialists swiftly distribute information so farmers and ranchers can make timely decisions that safeguard their enterprises.



The Missouri Master Gardener program

enables people of all ages to get in-depth horticultural training and then apply what they've learned to improve their communities and educate others about gardening.



In 2022, almost 4,000 Missouri Master Gardeners completed over 133,000 VOLUNTEER HOURS throughout the state.



The Missouri Show-Me-Select Replacement Heifer Program

strives to enhance beef herd reproductive efficiency, boost farm income and establish dependable sources of quality replacement cows in Missouri.



Since its inception more than 900 FARMS have enrolled, with an estimated statewide impact of \$200 MILLION.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Local Programs

Private Pesticide Applicator Training

Number of Gasconade County Learners

Thirty-nine Gasconade County citizens participated in the Private Pesticide Applicator training facilitated by Rusty Lee, Field Specialist in Agronomy. This 2.5-hour program gave a collective learning total of 97.5 education hours.

What Did They Learn?

Upon completion of the training, participants were able to:

1. Recognize the need to correctly identify pest organism prior to choosing a pest management strategy.
2. Understand the concept of economic thresholds and economic injury levels when making pest management decisions.
3. Possess a basic understanding of biological control and other non-chemical methods of pest management.
4. Better understand the format and information provided on each pesticide label.
5. Recognize the importance of using label information in all phases of application.
6. Understand the importance of having a Material Safety Data Sheet, and other materials available when applying pesticides.
7. Understand the need for proper selection and use of protective clothing and safety equipment.
8. Understand the importance of the "Restricted Use Pesticide (RUP) designation for certain pesticides
9. Consider environmental impacts when selecting a pesticide for use.
10. Consider impact of pesticides on water sources when applying a pesticide.
11. Understand the need and procedure to develop an emergency plan (fire, storm, flood, other) with local emergency officials.

How Does This Work Make Gasconade County and Missouri Better?

Enables farmers to meet the legal requirements mandated by the Environmental Protection Agency and the Missouri Department of Agriculture's Bureau for Pesticide Control on the safe and proper use of agricultural pesticides on their farmlands, including restricted-use pesticides (RUPs).

This enables farmers to meet society's demands for lessening agriculture's environmental impact.



Gasconade County Forage Loss Assessment 2023

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).

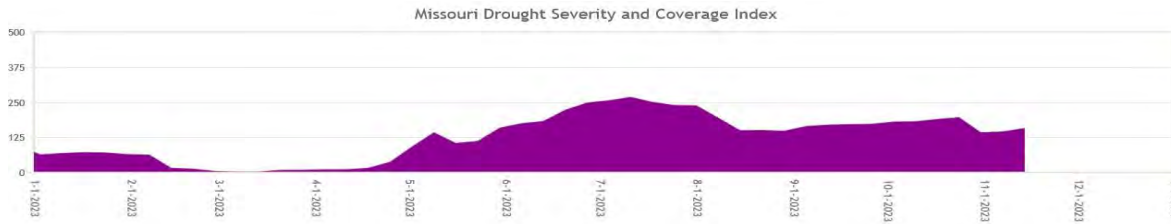


Figure 1. Missouri Drought Severity and Coverage Index (DSCI) from January 1, 2023 to November 14, 2023. DSCI values quantify the combined spatial extent and severity of drought conditions. Data provided by the National Drought Mitigation Center (<https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx>).

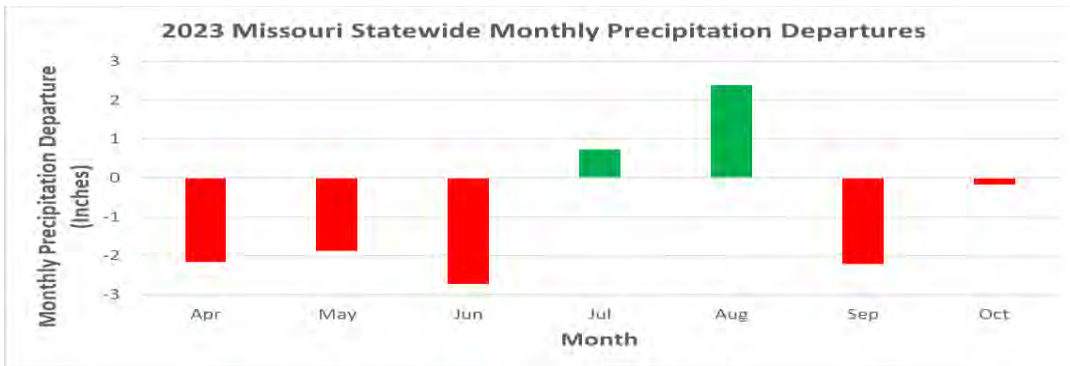


Figure 2. Statewide monthly precipitation departures from normal during April to October 2023. Precipitation normals based on 1901 – 2000. Data provided by the National Center for Environmental Information (<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/>).

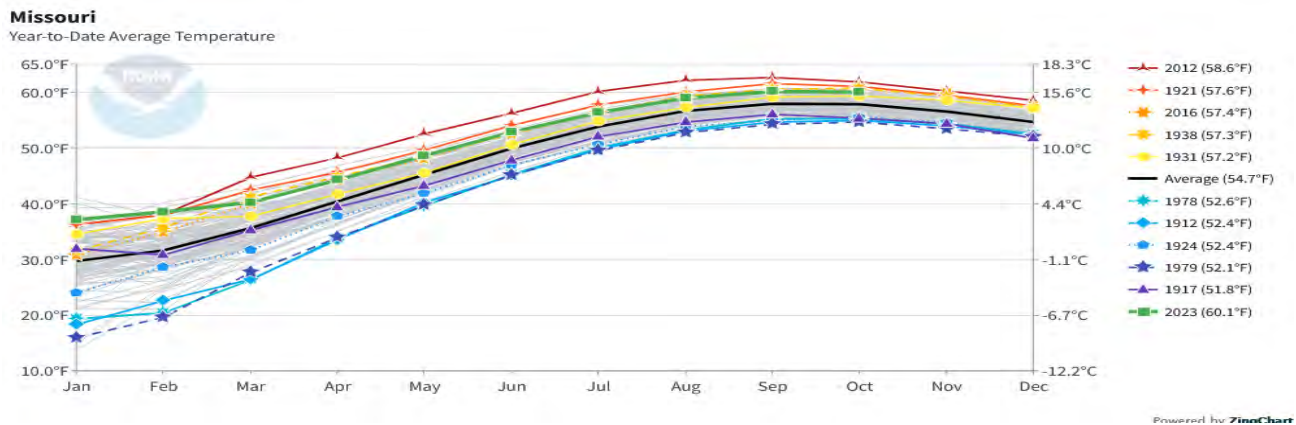


Figure 3. Missouri 2023 average temperatures (green) compared to other years. Data provided by the National Center for Environmental Information (<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/>).

Gasconade County Forage Loss Assessment 2023

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).

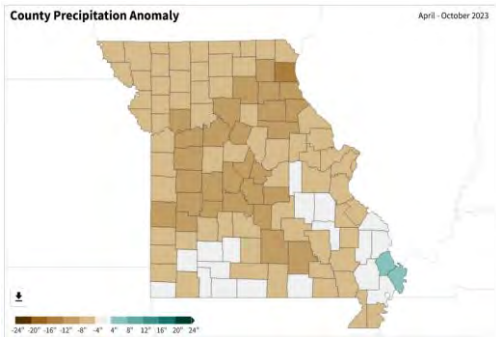


Figure 4. County-averaged precipitation departures from normal during April to October 2023. Precipitation normals based on 1901 – 2000. Data provided by the National Center for Environmental Information (<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/>).

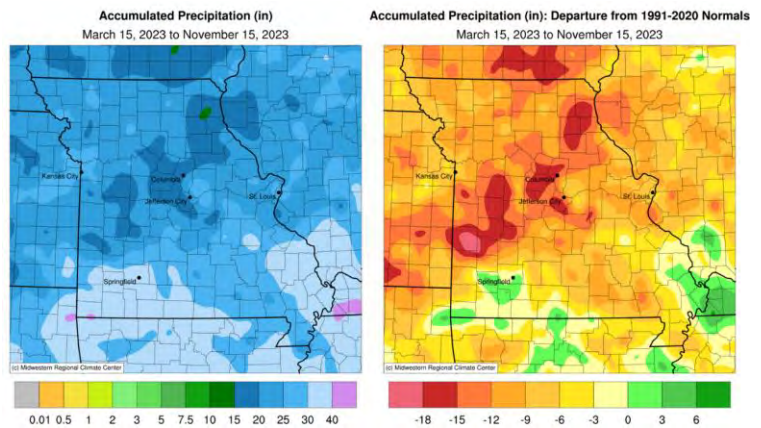


Figure 5. Precipitation accumulation (left) and departures from normal (right) from March 15 to November 15, 2023. Data provided by the Midwestern Regional Climate Center (<https://mrcc.purdue.edu>).

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).

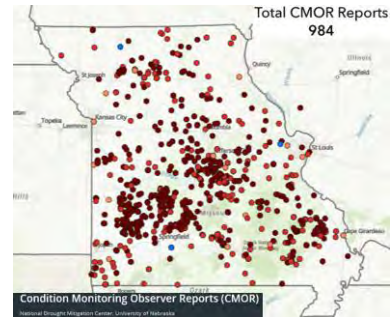
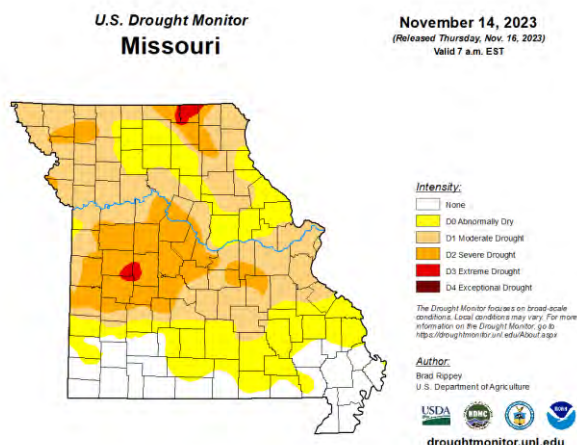


Figure 6. Missouri drought impact reports submitted by the community to the National Drought Mitigation Center's Condition Monitoring Observer Reports (CMOR); <https://droughtimpacts.unl.edu/Tools/ConditionMonitoringObservations.aspx> system from January 1 to November 19, 2023.



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).

Gasconade County Forage Loss Assessment 2023

County Specific Data - Gasconade

Cool-season grasses are the predominate forage species in Gasconade 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 Gasconade County was 8.76 inches below the 1901-2000 average amounts. This represents a 67 % 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 3 % 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 Gasconade County experienced a 67 % reduction in forage growth for the 2023 growing/grazing season.

Rusty Lee
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Rusty nitrate testing milo to ensure safe for livestock



Local Impact

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.

Horticulture



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.



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**
 through credible statewide programs
Health and Human Sciences



Divorcing or separating parents encounter distinct challenges when living apart. **Focus on Kids** guides parents in fostering effective co-parenting strategies to support their children through this process.

“Understanding that divorce doesn’t ruin children, but parents can significantly influence positive outcomes through good communication, was invaluable.”



Mental Health First Aid equips people to recognize and respond to signs of mental illness and substance use disorders.

The youth version of the program is designed to support adolescents ages 12-17 facing mental health or addiction challenges, while the adult version focuses on adults age 18 and older. Participants learn how to offer initial assistance and guide individuals toward the care they need.

In Missouri, approximately 1 MILLION ADULTS and 72,000 ADOLESCENTS suffer from MENTAL HEALTH ISSUES.*

*Missouri Department of Mental Health 2020 Status Report

OCO H

Our Community. Our Health.



In 2023, MU Extension Human Development and Family Sciences Specialist, Brianna Anderson, collaborated with the Our Community Our Health Project (OCOH) and Drs. Everett and McElroy of the Family and Community Medicine Department. The OCOH project is a multistate initiative, funded by CDC, to improve COVID-19 vaccination rates. One component of this initiative is asking community members about their perception of COVID-19 and getting vaccinated. From April through July, 12 extension faculty collected 1086 surveys and engaged in conversations about COVID-19 among our constituents. Brianna collected 148 surveys at 21 events from April to July 2023 and interacted with 211 community members (70.14% response rate). 38 residents of Gasconade County shared their opinions by completing the survey.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

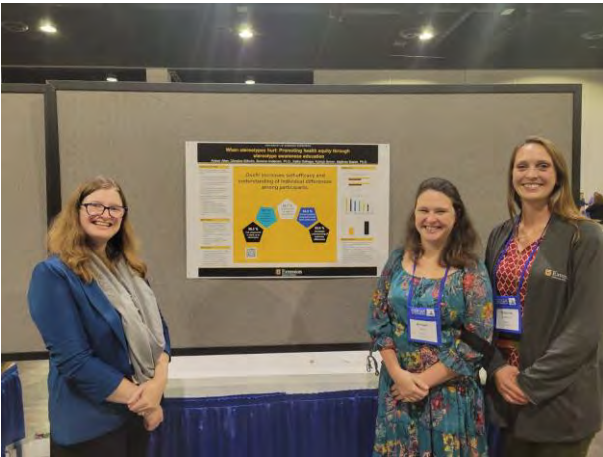
Gasconade County

Health and Human Sciences

Local Impact

Focus on Kids

According to the CDC, the 2021 **Missouri divorce rate was 2.9 per 1,000 inhabitants**, which **exceeds the national average** of 2.5 per 1,000. In Missouri, divorcing or separating parents of minor-aged children are required to participate in a parent education program. The local statute in the 20th Circuit (Franklin, Gasconade, and Osage Counties) stipulates participation in MU Extension's Focus on Kids program. MU Extension Specialist in Human Development and Family Science Kathy Dothage facilitated six Focus on Kids programs, serving a total of 25 participants. Eleven of these participants were residents of Gasconade County. Additionally, 33 Gasconade County residents completed Focus on Kids in other counties and three completed the program online.



Other Major Accomplishments

- Co-authored **six research-based posters** on HDFS topics at state and national conferences
- Recognized **with regional and national team awards** from the National Extension Association of Family & Consumer Sciences:
 - 1st place: Excellence in Diversity Programming (National)
 - 2nd place: Excellence in Human Development Programming (Central Region)
 - 3rd place: Excellence in Human Development Programming (National)
- Appointed to a 3-year term on **the University of Missouri Family Friendly Campus Committee**
- Reviewed seven curricula for National 4-H, proposals for three national conferences, and awards for two national conferences
- Delivered a **guest lecture** to upper-level undergraduates at Central Michigan University, **promoting Extension careers**
- Revised program material and developed supplemental content including:
 - **Communication strategies** for different developmental stages and **parenting from afar** in the Building Strong Families series
 - **Supporting grieving children** in an approved Child Care Provider training
- Selected for the **2023-2024 National Extension Association of Family & Consumer Sciences Leadership Experience** for new professionals

Emerging Family and Home Education: Mental Health and Stress Management

The national age-adjusted rate of deaths of despair (i.e., deaths due to intentional self-harm/suicide, alcohol-related disease, and drug overdose) per 100,000 people was 47.0 for 2016-2020 and the Missouri rate was 54.1 deaths. *Gasconade County exceeds both of these, at a rate of 85.1 deaths per 100,000 inhabitants.* Additionally, Gasconade County exceeds the state average for teen deaths, with a rate of 46.5 deaths per 100,000 inhabitants, compared to 35.4 deaths. Although this number also encompasses accidental deaths, the impact of traumatic loss of a young life on a community may have additional mental health implications.

Supporting mental health needs in the community is a crucial to reversing these trends. In 2023, 40 Gasconade adults and 22 youth in Gasconade County received mental health and stress management resources from MU Extension Human Development Specialist, Brianna Anderson at the Gasconade Summer Safety Day. Additionally, one Gasconade county resident participated in virtual Mental Health First Aid training.



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Business and Community**



The annual **Connecting Entrepreneurial Communities** conference is designed for stakeholders, economic developers, businesses, local government, educators and nonprofits interested in increasing their communities' potential for entrepreneurship. In 2023, the conference offered breakout sessions in Benton County's shops and businesses, providing firsthand insight into the world of entrepreneurial communities.

The 2023 conference drew **104 ATTENDEES**, generating an estimated initial economic impact of around **\$33,000 FOR BENTON COUNTY**.



Missourians from all walks of life celebrated the **2023 Missouri Good Neighbor Week**, Sept. 28 to Oct. 4, by completing and reporting neighboring acts and nominating others as the most engaged neighbors in their counties.

In 2023, the goal was to document **15,000 acts of neighboring**. That goal was surpassed with **19,752 Missourians** being positively affected during **MISSOURI GOOD NEIGHBOR WEEK**.



The **Neighborhood Leadership Academy** provides in-depth leadership training that emphasizes community-building principles, project planning, organizational leadership and personal leadership skills.

"The overall knowledge that I have gained through this course has been amazing. From how to engage stakeholders in the community, to planning events and hosting meetings, these are all tools that I will fully utilize going forward."

2022 NLA graduate

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Gasconade County

Business and Community

Local Impact

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.

Farm Tax Workshops

MU Extension hosted and taught Farm Tax Workshops for farm businesses and farm and ranch families. The content included farming: hobby vs. business, employee vs. independent contractor, weather related sales, sale or trade of business property, legislative update, 1099s, expiration of key income tax provisions, tax issues arising from the death of a farmer, and depreciating and expensing farm assets.

The workshops were designed to convey information in a concise manner using information from the IRS and the Land Grant University Tax Education Foundation. The purpose of the classes is to get relevant and helpful information to farmers so they can make decisions and be better prepared to work with their professional tax preparer.

The workshops were a combination of in person classrooms and online via Zoom, with a total of seventy-seven participants. Gasconade County had 2 participants.

Most participants completed an optional post survey. Seventy-five percent reported they had a better understanding of drought issues. Seventy-five percent said they understand the difference between 1099-MISC and 1099-NEC, Eighty-one percent are aware of depreciation methods, Ninety-four percent understand legislation is scheduled to expire. Ninety-four percent recognize year end planning is important.

Many participants planned to take some action before the end of the year. Some of the planned actions included: reviewing farm records (88%), meeting with tax preparer and communicate with family members (31%). Plan to communicate with family members about tax issues (69%) and sixty-nine percent plan to review resources before purchasing begins in 2024.

Farm tax education workshops benefit individuals by increasing their understanding and knowledge, leading to more informed decisions and management of taxes. Better knowledge also leads to improved communications with their tax preparers and accountants. The result is researched and timely purchases of farm expenses, optimizing income tax scenarios and improved profitability over time. Money saved in income taxes stays local and is spent in local businesses up and down main street, making a more vibrant and sustainable rural economy.



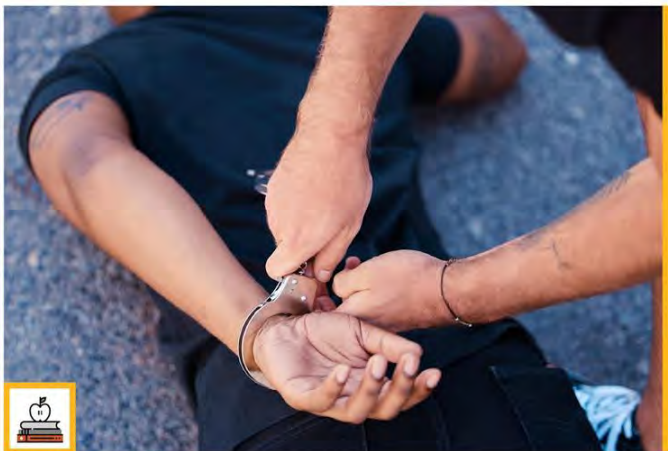
MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**
 through credible statewide programs
First Responder Education



Established in 2002, the **Fire Officer Certificate Program** is designed for those who wish to further their professional development without the time and expense of traditional college classes. This program has been developed and evaluated to ensure it provides structured curriculum delivery and academic rigor. The program requires completion of 288 hours of instruction within three years.



The programming from the **MU Fire and Rescue Training Institute** (FRTI) is available to all qualified fire and emergency first responders. Seventy percent of courses are held at the local departments or agencies. With most of the state's fire service personnel considered volunteer or part-time, this local access and flexibility assures training opportunities for all firefighters and emergency responders.



The **Law Enforcement Training Institute** (LETI) offers advanced training on a wide variety of topics, including defensive tactics, firearms, use of force and de-escalation. LETI offers customized programs for all required continuing education areas of concentration.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Missouri Grand Challenges: Local Solutions



GASCONADE 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

For each grand challenge, MU Extension and Engagement targets a specific gain by 2023:



Economic opportunity

Increase MU Extension and Engagement's economic impact to the State of Missouri from \$1 billion to \$1.5 billion overall, and from \$88 billion to \$100 billion in agriculture, the top economic sector



Educational access and excellence

Increase participation in postsecondary education from 66% to 70%



Health and well-being

Improve Missouri's health ranking from 40th to 35th in the nation

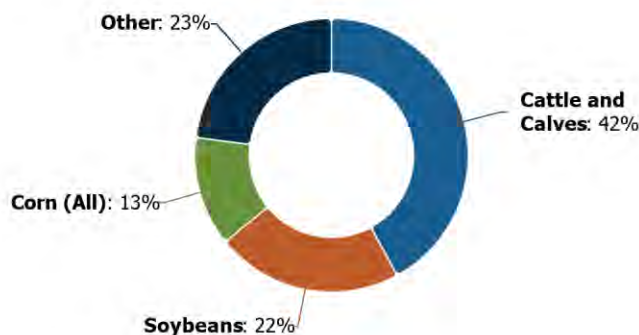
Knowing Local Challenges



CHALLENGE 1: Economic Opportunity: *Agricultural Economics*

Leading Agricultural Products

Total Commodity Sales: \$32,322,000



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 farm-related 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 \$9,397,000 in 2017, an average of \$11,418 per farm. This is below the statewide average farm income of \$29,485.

Report Area	Total Farms	Average Farm Income
Gasconade	823	\$11,418
Missouri	95,320	\$29,485

Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2017.



CHALLENGE 2: Educational Access and Excellence: *Early Childhood Education*

Access to Early Childhood Education

Head Start is an early childhood education program for at-risk children through age 5. Families utilizing Head Start have better success meeting developmental goals and achieving economic stability. In 2018, there were 1 Head Start programs in the report area, or 11.98 per 10,000 population. Access to head start is higher in this area than in the state.

Head Start Programs, Rate (Per 10,000 Children Under Age 5)

11.98

Missouri

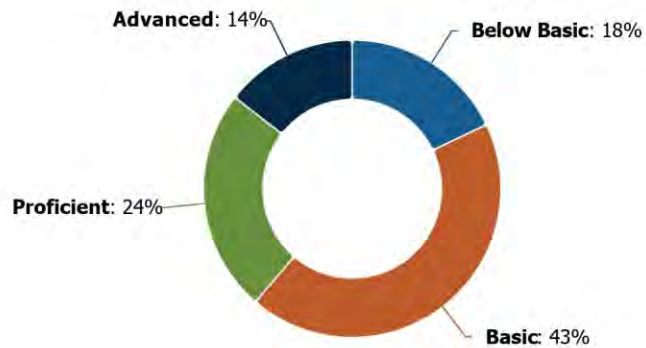
11.76

Gasconade

Data Source: US Department of Health & Human Services, [HRSA - Administration for Children and Families](#). 2022.

English Language Arts Proficiency

Starting in the 4th grade, public schools emphasize proficiency in reading and reading comprehension. The ability to comprehend becomes the foundation to find and process information in later years and it is important to prevent children from falling behind. Of the 173.00 fourth graders tested in 2018, the known total number of students who had a basic level of English Language Arts was 75.00. The number tested as below basic was 31.00, basic was 75.00, proficient was 42.00, and advanced was 25.00.



Data Source: [Missouri Department of Elementary & Secondary Education](#). 2022.



CHALLENGE 3: Healthy Futures: *Access to Care*

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 2 credentialed professionals providing mental health care to serve the area's 14,794 residents. The patient-provider ratio in the report area is 7,397 to 1, which means there is 1 provider for every 7,397 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.

Ratio (Population to Providers)

7,397:1

Missouri

855:1

Gasconade

Data Source: Centers for Medicare and Medicaid Services, [CMS - National Plan 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 7 primary care physicians (MDs and DOs) to serve the area's 3,344 residents over the age of 65. The patient-provider ratio in the report area is 478:1, which means there is 1 provider for every 478 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)

478:1

Missouri

242:1

Gasconade

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [HRSA - Area Health Resource File](#). December 2023.