

UNIVERSITY OF MISSOURI EXTENSION

Ralls County

2024

Annual Report

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**SERVE
MISSOURI.**

**DELIVER
MIZZOU.**



Extension

University of Missouri

an equal opportunity/ADA institution



Office of Extension
and Engagement
University of Missouri

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December 2024

Dear county commissioners, elected leaders and friends of MU Extension and Engagement,

As we reflect on the past year, I want to express my deep gratitude for your support of MU Extension and for your partnership in enhancing the lives of Missourians.

Your support for MU Extension fuels Missouri's agriculture, strengthens families, prepares our youth and promotes the health, well-being and vitality of our communities. Over the past year, our programs have focused on addressing key needs throughout the state:

- **Expanding access to 4-H:** To make 4-H more accessible, we've introduced more in-school and after-school clubs, reducing barriers and creating opportunities for young Missourians to develop essential skills and leadership abilities.
- **Supporting agriculture and land stewardship:** We're addressing critical issues such as succession planning for family farms, rural mental health, agricultural business management and land stewardship. These initiatives are helping Missouri's farmers plan for the future and preserve the health of our land for future generations.
- **Advancing health initiatives:** Our team of community health field specialists, covering every region of the state, works directly with local leaders to assess health needs and bring UM System resources and expertise to these communities, supporting healthier lives and stronger communities.
- **Promoting economic development:** MU Extension is helping to create economic opportunities by working with individuals, supporting businesses in their growth and collaborating with communities to enhance local vibrancy. Through these efforts, we help bring new jobs, skills and possibilities to Missourians across the state.
- **Providing essential training:** Our continuing education programs prepare Missouri's firefighters and health care workers to meet the demands of their roles with the latest skills and knowledge, ensuring they are well-prepared to serve our communities.

As you read through this annual report, I hope you feel as proud as I do of the accomplishments we've achieved together. The dedication and professionalism of MU Extension's faculty and staff are inspiring, and I am grateful to work alongside them—and each of you—as we make Missouri a stronger, healthier and more vibrant place. Thank you for your continued support and partnership. Together, we are serving Missouri by delivering the University *for* Missouri.

Warm regards,

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

Who we are

Faculty and staff



Jim Meyer
Extension Engagement Specialist



Daniel Mallory
Field Specialist in Livestock



Laura Shulse
Administrative Assistant



Alyssa Fountain
Youth Program Assistant

Council members

Ben Luetkemeyer
Chairman

Mike Myers
Treasurer

Jeanne Shuck
Secretary

Terry Hoyt
Vice Chairman

Lynsie Boling

Jane Bramblett

Helen Bunn

Gary Fowler

Sarah Hayes

Laurie Means

Dawn Miller

Junior Muehring

Jill Palmer

Jake Sattler

Leota Shoemyer

Brad Tutor

Dustin Wasson

Shannon Bartley



County executives

John Lake
Presiding Commissioner

Brian Hodges
Western District Commissioner

Junior Muehring
Eastern District Commissioner

Budget and more

Appropriations budget

Income

| | |
|-----------------------|---------------|
| County Appropriations | 70,000 |
| Total Income | 70,000 |

Expenses

| | |
|-------------------------|---------------|
| Salaries/Benefits | 45,764 |
| Travel | 2,256 |
| Telephone | 990 |
| Office Supplies/Service | 3,022 |
| Copier | 1,121 |
| Insurance | 435 |
| Capital Repairs | 428 |
| Postage | 3,776 |
| Total Expenses | 57,792 |

Ralls County partners

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

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.



Extension
Ralls County
University of Missouri

Local Support

Did you know you can donate directly to Ralls 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.

Ralls County



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

UM System Footprint in the county in 2024



FY24 county students

50 students

- 39 Undergraduates
- 11 Graduate and professional students
- 43 Full-time students
- 7 Part-time students



County employees and retirees

19 people employed by UM

- 7 Campuses
- 12 MU Health Care (includes additional employees gained via the recent integration of Capital Region Medical Center)

4 UM retirees and beneficiaries

UM salary and retirement income:

\$995,135

UM state tax revenue: \$26,561

UM federal tax revenue: \$163,641



County alumni

Selected school alumni

- 7 Medicine
- 17 Nursing
- 38 Health Professions
- 2 Dentistry
- 6 Veterinary Medicine
- 71 Agriculture
- 43 Engineering
- 8 Law

Alumni teaching K-12

- 5 teachers
- 7.7% of all district teachers



County breakdown

MU

- 37 students
- 231 alumni
- 7 employees

UMKC

- 4 students
- 20 alumni
- 0 employees

Missouri S&T

- 7 students
- 25 alumni
- 0 employees

UMSL

- 2 students
- 27 alumni
- 0 employees



County properties and offices

MU Extension in: Ralls County



County population: 10,394



County services provided

Health care (FY24)

- 809 in-state patients seen at MU Health Care, with \$558,151 of uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 485 visits to 293 patients having ZIP codes associated with the county

Extension (2023)

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

Ralls County



University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

UM System Statewide Footprint

Economic and Community Development Highlights

- In FY23, Business Development Specialists worked with small businesses and entrepreneurs statewide to create or retain 98,527 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 FY18 and FY23, UM System brought Missouri more than \$1.58 billion in federal and private research funds, funded primarily from outside the state, but spent within the state.



In FY24, UM System was issued 29 patents and filed 69 new U.S. patent applications.

- In FY24, the UM System awarded 707 design and construction project contracts throughout Missouri, for a total investment of \$287.3 million in the state.



In FY24, to improve access to medical and health related services, MU Health Care's Missouri Telehealth Network's Show-Me ECHO program provided 16,687 hrs of case-based instruction to 3,113 learners located in 105 of 114 Missouri counties and the city of St. Louis.

Education and Training Provided



40,542 police, fire fighters, and medical professionals attending continuing education (2023)



Agriculture and natural resource programs served 369,077 farmers and related businesses (2023)

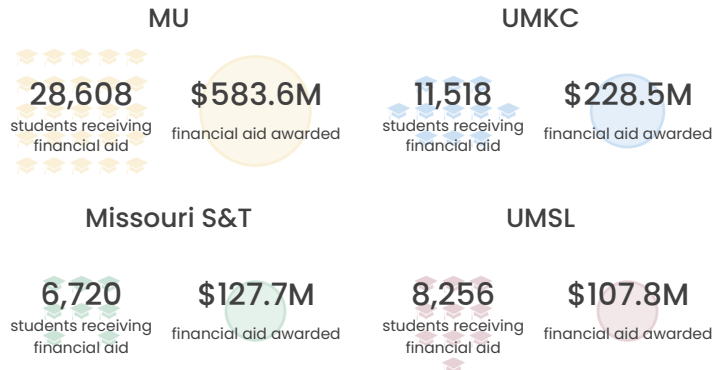


210,577 youth and stakeholder educational contacts in 4-H clubs, schools, camps and other programs (2023)

Education Highlights

FY24 Financial Aid Awards

In FY24, 69.7% of the UM System's 79,014 students received financial aid totaling \$1.048 billion



UM System's MOREnet (Missouri Research and Education Network) provides internet connectivity, access, support and training to 58 higher education institutions (230,000 students), 484 K-12 school districts (830,000 students) and 134 public libraries (serving nearly 3 million Missourians) in 2023.

- UM System awarded 50.5% of the 31,689 Bachelor's or higher degrees awarded by Missouri four-year public institutions in 2023-24.
- UM System awarded 35.0% of the 1,776 research doctorates and 26.8% of the 3,796 professional doctorates awarded by Missouri public and not-for-profit private institutions in 2023-24.
- In FY24, UM System's \$30.7 million in National Science Foundation (NSF) grants represented 96.9% of all NSF grants made to Missouri public colleges and universities.
- In 2024, over 12,400 Missourians accessed mobroadband.org, part of the UM System Broadband Initiative which helped the statewide build-out of high-speed internet infrastructure.

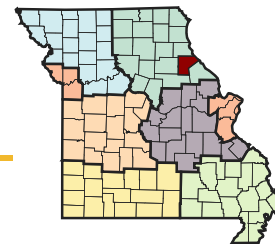
Supporting the University of Missouri is an investment in the future of Missouri.

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 2024, 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



Missouri Grand Challenges: Local Solutions



RALLS 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

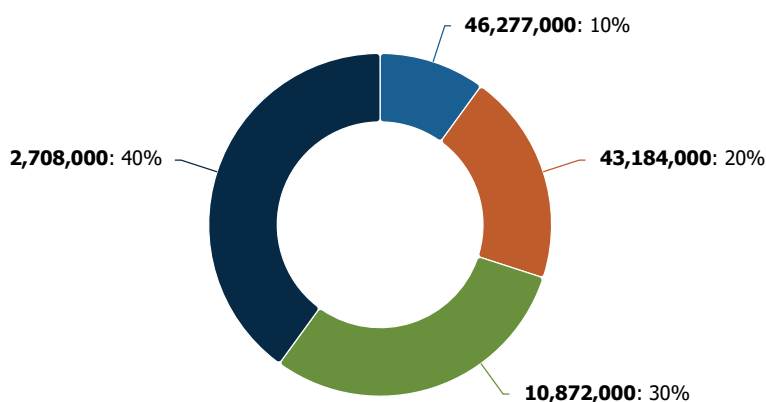
Knowing Local Challenges



CHALLENGE 1: Economic Opportunity: Agricultural Economics

Leading Agricultural Products

Total Rank (Sales): \$10



Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2022.

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 \$32,136,000 in 2017, an average of \$54,746 per farm. This is below the statewide average farm income of \$56,606.

| Report Area | Total Farms | Average Farm Income |
|-------------|-------------|---------------------|
| Ralls | 587 | \$54,746 |
| Missouri | 87,887 | \$56,606 |

Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2022.

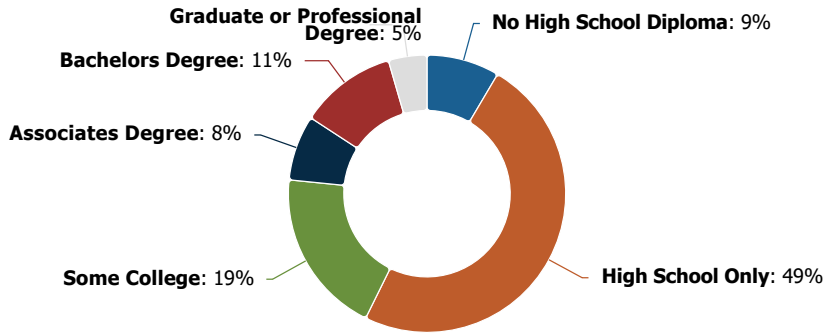


CHALLENGE 2: Educational Access and Excellence: *Educational Attainment*

Adult Educational Attainment

Educational attainment shows the distribution of the highest level of education achieved in the report area, and helps schools and businesses understand the needs of adults, whether it be workforce training or the ability to develop science, technology, engineering, and mathematics opportunities. Educational attainment is calculated for persons over 25 and is an estimated average for the period from 2017 to 2021.

In the report area, 19.3% of adults have at least some college education and 18.9% of adults have an associate's level degree or higher. However, 48.8% stopped their formal educational attainment after completing high school, and 8.5% of adults did not complete high school.



No High School Diploma

8.51%

Missouri 8.69%

Ralls

Data Source: US Census Bureau, [American Community Survey](#). 2018-22.

Data Source: US Census Bureau, [American Community Survey](#). 2018-22.



CHALLENGE 3: Healthy Futures: *Healthy Aging*

Fall Injuries

Falls are the leading cause of injury-related fatality and hospitalization among older adults in the United States. Between 2013 and 2015, adults over age 65 in the report area had 230 hospital or emergency room admissions for fall and jump-related injuries. The rate of these injuries was 3,293 per 100,000 population, which is lower than the state rate of 5,396. Falls hospitalizations have increased since the 2001-03 time period when the rate was 2,776.

Rate per 100,000, 2019-2021

3,293

Missouri 5,396 😞

Ralls



Data Source: US Department of Health & Human Services, [Missouri Department of Health & Senior Services](#). 2019-2021.

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 1 primary care physicians (MDs and DOs) to serve the area's 2,351 residents over the age of 65. The patient-provider ratio in the report area is 2,351:1, which means there is 1 provider for every 2,351 older adults. The ratio of adults to providers in the report area is higher than the state average of 250:1, which means there are fewer providers per person in this area.

Rate per 100,000 Seniors

42.50

Missouri 399.40

Ralls

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [HRSA - Area Health Resource File](#). 2021.



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 |
|-------------|-------------|-----------------|-----------------|----------|--------|
| Ralls | 27 | 10 | 2 | 0 | 39 |
| Missouri | 13,742 | 4,773 | 421 | 6,406 | 25,342 |

Data Source: [University of Missouri Extension Soil and Plant Testing Laboratory Annual Summary](#). 2022.



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

Missouri 4-H for ages 8 – 18



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.



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.



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 social-emotional health, 4-H fitness, health, nutrition and safety programs cultivate confident, caring young leaders who prioritize mental and physical well-being.



Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



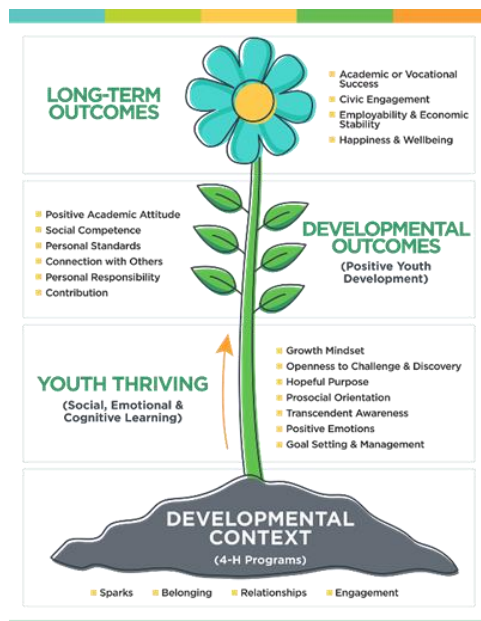
Health & Well-Being

Local Impact

4-H is a community of youth building life skills, contributing to their community and becoming college and career ready.

1 in every 10 youth in Ralls County under the age of eighteen participated in an MU Extension 4-H Youth Development program in 2024.

4-H Youth Development programs are guided by the 4-H Thriving Model, which is a framework to illustrate the connection between high quality 4-H programs and indicators of youth thriving with developmental outcomes which ultimately leads to the long-term outcomes of youth who experience academic or vocational success, are civically engaged, are employable and economically stable, and experience happiness and wellbeing.



This chart illustrates the 4-H Thriving Model which shows how 4-H programs help youth to flourish socially, emotionally, and cognitively. This in turn results in positive developmental outcomes, which results in young adults who are successful academically and vocationally, show an interest in civic activities within their community, are more likely to be employed and economically stable, and have a greater sense of happiness and overall wellbeing.

4-H Members

4-H programs are also 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. Ralls County served youth through 6 community clubs, 1 SPIN Club, and 2 In-school 4-H Clubs offering long-term educational experiences in which members learn life skills such as decision-making, public speaking, and working with others.

- There were 360 youth reached through community clubs, SPIN clubs, in-school, and afterschool 4-H clubs in Ralls County during the 2023-2024 4-H Year.
- Over 76 4-H members were engaged in science related projects and experiences.
- Youth participated in many hours of community club work in Ralls County.
- Many hours of community service projects were completed by 4-H members and volunteers during the 2023-2024 4-H year.

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

- 11 youth participated in a total of 11 different events during the 2024 Ralls County 4-H Achievement (Major Events Day) event
- 8 members participated in the Northeast Region Energizer held in the spring of 2024 in Palmyra and 2 members and attended the Northeast Region 4-H Round Up which was held in Macon in the fall of 2024.
- 421 exhibits at the 2024 Ralls County Fair from 84 4-H and FFA members, who are all supported through youth programming.

Local Impact

- Ralls County youth exhibited many exhibits in the 4-H Building and livestock shows of the Missouri State Fair.
- 3 state level recognition forms were completed by members. These forms provide members with a vital step in the Experiential Learning Model. Members reflect on the things they have done and learned throughout the 4-H year and how they can apply what they have learned in the upcoming year.
- 1 member participated in the State 4-H Teen Conference, which offered youth a fantastic opportunity to experience being developing leaders in 4-H. This event provides a safe and enjoyable campus experience where youth can enhance their skills and forge new friendships.
- 1 youth from Ralls County Participated in skill development contests on the State level. This contest was our State Public Speaking. Participation in this event helps youth to develop confidence and practice their decision making and public speaking skills through competitions tied to project areas they are passionate about.
- 1 youth from Ralls County participated in the State Shoot events and 1 youth from Ralls County represented Missouri on the state teams at the National 4-H Shoot.
- 2 youth participated in MOVE Across Missouri, where youth and adults are encouraged to track their physical activity and fitness in their daily life, learning about healthy lifestyles.

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 the 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.

Ralls County members enrolled in a combined total of 345 projects in 2024. The top project areas included:

- Country Cured Bacon
- Photography
- Arts and Crafts
- Cake Decorating
- Wood Working
- Shooting Sports
- Poultry
- Rabbits
- Welding
- Foods
- Beef
- 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).

Local Impact

4-H Volunteers

- Ralls County 4-H members were supported by 35 enrolled, screened and oriented adult volunteers supporting the development of youth in 2024.
- Volunteers contributed many hours to the Ralls County 4-H program.

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.

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.

4-H School Enrichment- Embryology

- There were 213 students from 10 classrooms who participated in the Hatching Chicks in the Classroom program in 2024.
- Students participated in over 85 hours of learning with the “Chick It Out” program.

During the Embryology program, students learn about the 21-day development occurring within a fertilized, incubated egg that results in the hatching of a chick.

Students identify the parts of an egg and discover what each part provides for the developing chick.

Students learn how to tell if an egg is raw or boiled and explore the strength of the egg’s shell providing protection to the developing chicks. Students review the necessity of hand washing due to potential contamination caused by salmonella in poultry and poultry products. In addition, students often gain experience with death and disabilities.

Throughout the experience, students are charged with rotating the eggs three times a day and are responsible for checking to make sure the incubator has water and is maintaining the correct temperature. Once the chicks hatch, the students care for them, providing feed, water, warmth, and a calm environment.

Impacts of Programming

Students practice life skills including decision making and responsibility, helping them to develop qualities that will shape their development into adults. Students are provided with the opportunity for a practical experience that connects with the core subjects of communication arts, math, science, and health. Youth with hands-on experience with science are more likely to pursue science-related careers, which are critical to our county, state, national, and global economy.

Students are conscious of the need to practice proper hand washing techniques to prevent the spread of illness and disease. Students also learn compassion and develop an understanding of how to accept individuals with disabilities, as well as how disabilities can be compensated for.

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 2024, Missouri saw the establishment of 121 SNAC Clubs, engaging 2,543 youth and reaching over 7,330 others through their leadership initiatives. In Ralls County, SNAC

efforts reached 48 youth and leadership projects completed included each classroom setting goals for their nutrition.

In 2024, the Missouri 4-H Foundation collaborated with Healthy Blue to offer mini grants of up to \$500 per county to help support 4-H SNAC Clubs across the State of Missouri to implement their leadership projects. A total of 37 counties received funding, amounting to \$18,500 in mini grants. In Ralls County, mini grant funds were applied for and used to supply each member of the SNAC Club with a completion T-shirt as well as the resources to make posters with their nutritional goals on them.

Local Impact

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).

Arnold, M. E. (2018). From Context to Outcomes: A Thriving Model for 4-H Youth Development Programs. *Journal of Human Sciences and Extension*, 6(1), 11.
<https://doi.org/10.54718/NBNL5438>

Independent Sector. (2023). *Value of Volunteer Time Report | Independent Sector Resources*. Independent Sector. <https://independentsector.org/resource/value-of-volunteer-time/>

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 <http://www.4-h.org/about/youth-development-research/>.

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

Ralls County

Missouri 4-H

Profiles and Stories



Ralls County 4-H members enjoyed bowling at Baum Family Fun Center in Hannibal, Missouri during a SPIN club activity. 4-H members also went bowling at Vandalia Lanes in Vandalia, MO during the 7-week SPIN bowling club.



48 Ralls County students participated in 4-H's Student Nutrition Advisory Council (SNAC) club during 2023-2024. The students learned about nutrition and fitness. Each participating classroom completed a leadership project where students set goals for eating healthier to improve their nutrition, such as eating more fruits and vegetables.





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



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 2024, over 3,600 Missouri Extension Master Gardeners completed 98,200 VOLUNTEER HOURS – giving back over \$3 million to their communities.



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. The program brings in the power of animal genomics through an enhanced DNA-option, Show-Me-PLUS.



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



The Missouri Integrated Pest Management Program (IPM), funded by USDA grants, has been an important extension program for more than 30 years. Mizzou IPM distributes articles, pest monitoring data and publications on how to improve the application of integrated pest management strategies and systems in crops. In addition, the new Soybean Growth Monitoring Report is released through IPM every two weeks during the growing season.

The MU Soil Testing Program delivers research-based nutrient and lime recommendations to more than 32,500 customers annually.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Ralls County

Agriculture and Environment

Local Impact

The focus of the Show-Me-Select Replacement Heifer Program (SMS) is two-fold. First, increasing the rate at which Missouri farmers implement management practices that not only lead to a potential improvement in long-term reproductive efficiency within their herds and second, focusing on increased marketing opportunities for Missouri raised heifers as well as adding value to them by creating dependable, consistent, and trustworthy sources of quality replacement heifers from the standpoint of genetics and management. Show-Me-Select heifers are sold annually by producers at authorized Show-Me-Select heifer sales in

Kirksville, Missouri at Kirksville Livestock, LLC and in Palmyra, Missouri at F&T Livestock. Show-Me-Select producers also sell at other public auctions as well as through private treaties.

Data from the sale of Show-Me-Select replacement heifers in 2024 showed that heifers which had the trademarked Show-Me-Select tag sold for \$284 dollars more when compared with sales of heifers which did not have the Show-Me-Select tag. Thus, resulting in an added value of \$227,484 returned to Northeast Missouri farmers participating in the Show-Me-Select Replacement Heifer program.



A group of Show Me Select heifers. Currently in Missouri there are about 1 million heifers produced annually with 15% of these being kept for breeding purposes and the rest sold for slaughter. This leads to more opportunities for breeders to maintain a larger number of their heifers in order to develop and market them for breeding purposes, not only within Missouri and the surrounding area, but also globally.

Ralls County

Agriculture and Environment

Profiles and Stories



The Salt River Master Gardeners participated in a variety of activities during 2024 such as garden tours, the annual plant sale, maintaining a planter on 3rd Street in downtown Hannibal, and volunteering at various locations such as Luther Manor Cottages and the Mark Twain Boyhood Home Gardens. Members also served on the Downtown Hannibal Beautification Committee and planted flowers in downtown Hannibal.

Master Naturalists participated in a variety of activities in 2024 including the Clarksville and Hannibal Eagle Days, Mark Twain Lake clean up, stream bank revitalization on the Mississippi River with the Missouri Department of Conservation, the annual bird and wildflower hike at Steyermark Nature Preserve, and nature programs for daycare and summer school students.

Marion County Ag Safety Day educated 320 participants on how to stay safe when engaged in dangerous farm related activities. Topics covered included grain bin safety, grain bin rescue practices and safety, pesticide safety, livestock safety, tractor rollover safety, high voltage safety, and real-life grain bin entrapment and high voltage collision survival.



Ralls County

Agriculture and Environment

Profiles and Stories

In 2024, the private pesticide applicator training (PPAT) course led by Agronomy Field Specialist, Nick Wesslak, trained 250 applicants in the Northeast Missouri region allowing them to obtain their private pesticide applicator license. The number of participants by county were as follows: Marion-20, Ralls-31, Lewis-29, Scotland-18, Clark-52, Monroe-56, Knox-6, and Shelby-38.

In addition, Nick Wesslak participated in several events that pertained to MU Integrated Pest Management (IMP) efforts in the field. During these events, several photos and videos were taken to be used for educational purposes during future field activities. Marion, Ralls, Lewis, and Shelby Counties hosted several of these events including corn and soybean disease scouting. Ralls County also was the location for several Integrated Pest Management Network migratory insect trapping stations. The IMP Pest Management Network serves as an alert system for the entire Northeast Missouri region and gives producers an indication of what migratory pest species they should watch for when in their fields. Those attending these events gained valuable knowledge on a weekly basis of the levels of various migratory pest levels in the area allowing them to be better informed on scouting decision thresholds.

Nick also served as the host and presenter for the MU Extension IPM Scouting School (MU Extension in the Field Crop and Forage Chat) held in Marion County. This was the 3rd year for the event which had an attendance of 17 individuals from the Northeast region counties of Marion, Ralls, Scotland, Monroe, Pike, Knox, Clark, Lewis, and Shelby. In addition, circulation numbers provided by the Quincy Herald Whig newspaper showed the event generated 12,000 media views. Those attending in person or reading the Quincy Herald Whig article gained a better understanding of current plant disease issues affecting corn and soybeans. Specifically red crown rot and tar spot as well as ways to manage these issues. Strip trial program results, cost reducing grazing management practices, and grain storage management practices were other topics that were covered. Nick also conducted an in-field interview with WGEM-TV in which he discussed preharvest crop conditions as well as the 2024 harvest outlook.



Private Pesticide Applicator Training Class 2024



Nick Wesslak leads a group during the third annual Field Crop and Forage Chat.



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



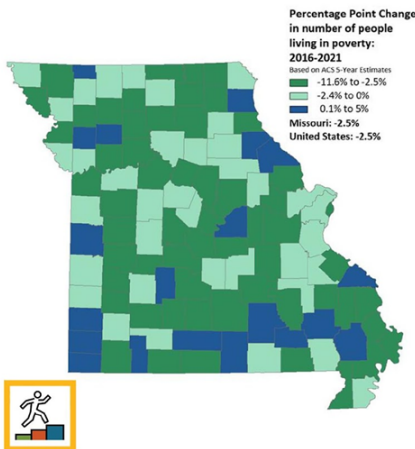
Missourians from all walks of life celebrated the **2023 Missouri Good Neighbor Week**, Sept. 28 to Oct. 4, by completing and reporting neighboring acts and nominating others as the most engaged neighbors in their counties.

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 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.



The **Missouri Economy Indicators (MEI)** series explores business, industry and workforce topics that affect Missouri's economy. The data is shared through newsletters and on social media. MU Extension faculty and staff receive talking points and collateral to share with local stakeholders.

In 2022, MEI published 15 issues, and MEI online resources were accessed MORE THAN 5,000 TIMES. Two out of five MEI newsletter recipients reported using the information to help guide policy or decision-making in their work.



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Health & Well-Being

Ralls County

Business and Community

Local Impact

University of Missouri Extension ag economics coordinated with University of Missouri Extension ag business specialists to hold one summer and three fall tax schools with a total of 350 people from across Missouri attending either in person or online. In person classes were held in Columbia and Springfield, Missouri. There was one in person summer class held in Columbia as well as two in person fall classes, one in Columbia and the other in Springfield.

The number of participants by county in Northeast Missouri was Marion-4, Ralls-4, Clark-2, Knox-0, Monroe-1, Pike-5, Scotland-3, Shelby-3, and Lewis-0

These tax schools were designed for those involved with tax preparation such as enrolled agents, tax preparers, CPAs, individuals, and attorneys.

Participants in the tax schools gained knowledge of updates applicable to 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, related party issues, real estate rental activity issues, limited liability company issues, and international tax issues.

The tax schools were approved for 8 and 16 hours of continuing education credits by the IRS, Missouri Bar as well as for CFP continuing education, with a total number of 3,776 continuing education credit hours reported to the IRS for the three schools.

Plans are already underway for 2025 tax schools which are coordinated by University of Missouri Agriculture Business Specialist, Mary Sobba, with the help of a statewide team of agriculture business specialists.



Those attending the University of Missouri tax school gained valuable tax related knowledge from members of the teaching teams which included CPAs, a former IRS stakeholder liaison, an IRS certified retired ag economics professor, an attorney, a certified financial planner, Missouri Department of Revenue and extension ag business specialists.



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 through credible statewide programs
Community and Professional Health Education



The **Diabetes Prevention Program** is recognized as "Full Plus," the highest status given by the CDC and is provided by licensed lifestyle coaches to prevent type 2 diabetes. Through lifestyle changes participants can achieve sustainable weight loss, increase in physical activity and learn coping skills to manage stress.

More than 1 IN 3 PARTICIPANTS
 have reached the
5 - 7% WEIGHT LOSS GOAL.



Strengthening Families Program: for Parents and Youth 10-14, is a seven-session series for parents or caregivers and their young teens to attend together to improve family communication, resolve conflict and improve parental skills.

A research study conducted by the Partnerships in Prevention Science Institute found a RETURN OF \$9.60 for every dollar spent implementing the Strengthening Families Program.



MU **Continuing Education for Health Professions** (CEHP) provides evidenced-based, relevant and responsive learning activities designed to narrow professional practice gaps with respect to knowledge, competence, and performance of the healthcare team. A commitment to lifelong learning, in partnership with those we serve, contributes to excellence in practice and improved health outcomes.

CEHP provided 169 LEARNING ACTIVITIES which reached over
53,000 PROFESSIONALS across all Missouri counties.

Legend



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Local Impact

Genetic lockboxes are a state-of-the-art and interactive way in which people can learn about the genetics or the science of genes and how, through these genes, traits are passed from generation to generation. The genetic lockboxes were developed in partnership with Ellis Fischel Cancer Center on the University of Missouri Medical Center campus. The genetic lockboxes require the use of communication techniques as individuals work together to solve the puzzles presented by the genetic lockboxes. The puzzles require thinking through and applying problem solving skills as well as word recognition and vocabulary skills and visual understanding and application to solve genetic concepts. The puzzles can be challenging, and participants will struggle and make mistakes. They also will find that they need to work together with their teammates to solve the puzzles, however once all the puzzles have been solved and the lock is opened, they will find the “prize” that the group leader or teacher placed inside the box before the start of the activity.

The 64 lockboxes are located at Extension offices around Missouri and may be checked out by families as well as groups such as Girl and Boy Scout leaders, teachers, 4-H leaders and volunteers, as well as FFA advisors. There is no cost to reserve a lock box, or boxes and each box comes with a complete set of puzzles, hint cards, answer sheets, and a 25-page Facilitator’s Guide.



Can you solve the challenging Genetic Lockbox puzzles to discover what is inside the box?



Students apply problem solving, vocabulary, and teamwork skills to solve the Genetic Lockbox puzzles and see what is in the box.

Ralls County

Community and Professional Health Education

Local Impact

The Supplemental Nutrition Assistance Program Education (SNAP-Education or SNAP-Ed) educates SNAP (Supplemental Nutrition Assistance Program) recipients eating healthy and staying active while on a budget. In 2024, through newsletters, health fairs, food pantries, and the Show Me Nutrition Helpline. Ralls County Nutrition Program Associates made 1,164,143 indirect educational contacts and 200 direct and indirect contacts were made in Ralls County. In 2024, Ralls County served a total of 74,864 individuals who receive SNAP benefits as well as other eligible residents.

Through SNAP-Ed individuals learn why it is important to make healthier choices when planning meals or choosing snacks as well as eating a nutritious breakfast. Participants in SNAP-Ed are also more willing to try new foods, be more physically active, and make healthier choices regarding the foods that they eat. As a result, they are more likely to contribute to a healthy labor force and enjoy a higher quality of life during their lifetime. By practicing healthier eating habits and making increased physical activity a regular part of their lifestyle individuals will see a reduction in healthcare costs over their lifetime and this in turn results in saving taxpayer money due to a reduction in public healthcare benefits and insurance premiums.

Nutrition Program Associates serving in Ralls County are:



Laurie Kurre



Amanda Lehenbauer



Kayla Scobee



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Health and Human Sciences



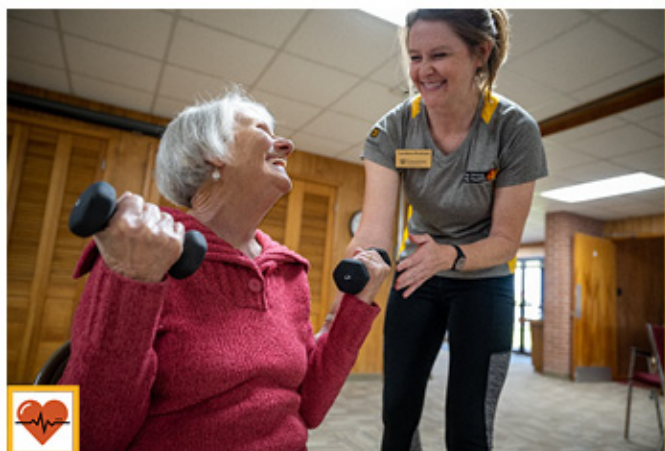
Home Food Preservation

Preserve the season's bounty - deliciously and safely.

Learn safe techniques for pressure canning, boiling water bath canning, steam canning, dehydration and freezing.

Understand the importance of using safe preservation and storage methods to avoid cross-contamination and foodborne illnesses.

“This course made me more self-sufficient and improved my family’s access to quality food.”



Stay Strong, Stay Healthy

teaches older adults basic exercises to boost strength, balance and overall daily functionality. Participants also gain insights into nutrition and wellness for healthy aging and active living.

After eight weeks, Stay Strong, Stay Healthy participants significantly IMPROVED their STRENGTH, BALANCE and SLEEP QUALITY.



Building Strong Families

Studies show that people with strong family bonds tend to have lower stress levels. Building Strong Families helps families deal with disagreements, manage stress and show their love for one another.

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Health and Human Sciences

Local Impact

When shopping at a grocery store or local farmer's market as well as eating out at a restaurant or purchasing food at a fair or amusement park consumers want to be sure that the fruits, vegetables, and other foods they purchase are fresh and have been stored and prepared in a safe manner to ensure that consuming them will not result in food born illnesses. Justin Keay, Field Specialist in Horticulture teaches workshops, such as the Selling Local Workshop in Hannibal, Missouri, to help ensure that those selling foods at area farmer's markets and other local events know how to keep their items safe as well comply with federal, state, and local health regulations and licensing requirements.



Participants at the Selling Local Workshop learn about food safety practices and regulations.



Justin also provides training in Food Safety and Modernization Act Produce Safety Rule regulatory requirements that produce growers must follow to ensure that consumers receive produce that is free of disease-causing pathogens. Justin conducts on farm safety tours where participants learned how to implement the federal regulatory requirements on their farms to ensure that consumers are provided with safe produce.

Justin Keay educates producers about the Food Safety and Modernization Act Produce Safety Rule regulatory requirements during an on-farm produce safety tour in Audrain County Missouri



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