



UNIVERSITY OF MISSOURI EXTENSION

Scotland County

2024

Annual Report



117 S Market, Suite 105
Memphis MO 63555
660-465-7255

 **Extension**
University of Missouri
an equal opportunity/ADA institution



Office of Extension
and Engagement
University of Missouri

Vice Chancellor's Office
108 Whitten Hall
Columbia, MO 65211
PHONE 573-882-2394
EMAIL cchiggins@missouri.edu

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

Faculty and staff



Michael Krauch
Regional Director



Lisa Doster
Extension Engagement Specialist



Kristy Eggleston-Wood
Youth Program Associate



Wendy Atterberg
Nutrition Program Associate



Brenda Schreck
Field Specialist in Livestock



Jennifer Schutter
Field Specialist in Horticulture



Robert (Nick) Wesslak
Field Specialist in Agronomy



Mary Sobba
Field Specialist in Agricultural Business



Julie Shaw Brown
Office Support Staff

Council members

Officers:

Taylor Townsend
Chair

Tara Shultz
Vice-Chair

Tasha Fadiga
Secretary

Dawn Triplett
Treasurer

Members:

Alexis Kittle
Beverly Shelley

Michael Billings
Holly Harris

Denny Ward
Kim Ludwick

Deidra Musgrove
Judy Musgrove

Greg Probst
David Wiggins



County Commissioners

Duane Ebeling
Presiding Commissioner

Brent Rockhold
Eastern District Commissioner

David Wiggins
Western District Commissioner

Budget and more

Appropriations budget

Income

County Appropriations 27,500.00

Total Income 27,500.00

Expenses

Salaries/Expenses 25,005.65

Travel 1,116.00

Postage 100.00

Telephone 525.00

Advertising 60.00

Publishing/Printing 50.00

Office Supplies/Service 200.00

Insurance 343.35

Miscellaneous 100.00

Total Expenses 27,500.00

Local Support

Did you know you can donate directly to Scotland 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.



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

SERVE MISSOURI.

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Scotland County



University of Missouri System

UM System Footprint in the county in 2024



FY24 county students

22 students

- 18 Undergraduates
- 4 Graduate and professional students
- 20 Full-time students
- 2 Part-time students



County employees and retirees

8 people employed by UM

- 6 Campuses
- 2 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: \$485,503
 UM state tax revenue: \$17,270
 UM federal tax revenue: \$75,287



County alumni

Selected school alumni

- 7 Nursing
- 7 Health Professions
- 2 Dentistry
- 1 Pharmacy
- 1 Veterinary Medicine
- 37 Agriculture
- 3 Engineering
- 3 Law

Alumni teaching K-12

- 6 teachers
- 10.5% of all district teachers



County breakdown

MU

- 22 students
- 76 alumni
- 6 employees

UMKC

- 0 students
- 7 alumni
- 0 employees

Missouri S&T

- 0 students
- 4 alumni
- 0 employees

UMSL

- 0 students
- 8 alumni
- 0 employees



Construction projects

- \$24,155 remitted to 1 county vendor, for 3 projects



County properties and offices

MU Extension in: Scotland County



County population: 4,698



County services provided

Health care (FY24)

- 388 in-state patients seen at MU Health Care, with \$171,677 of uncompensated care
- 1 in-state patient seen at UMKC School of Dentistry with a statewide average of \$52.57 per patient in uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 164 visits to 98 patients having ZIP codes associated with the county

Extension (2023)

- 2,111 Total educational contacts from MU Extension to residents of the county, including:
- 22 contacts related to productive farming, better gardening, and managing natural resources
- 2,072 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
- 9 contacts related to starting businesses, developing community leaders, or renewing the local economy

Scotland County



University of Missouri System

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.

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.

\$3.1
billion

- 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)

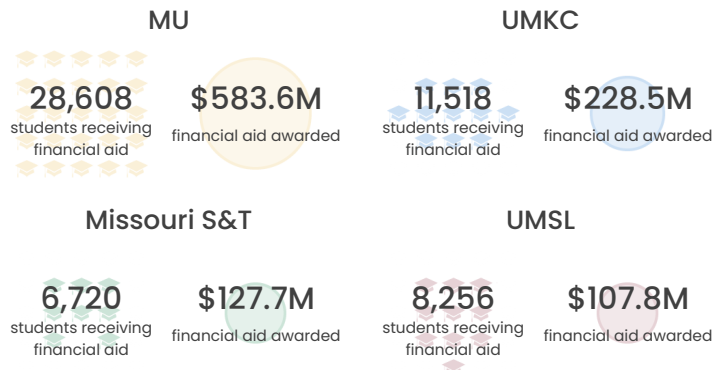


210,577 youth and stakeholder educational contacts in 4-H clubs, schools, camps and other programs (2023)

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.

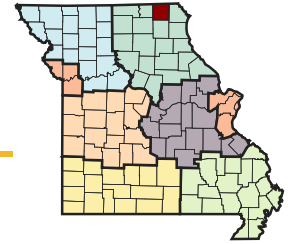
Supporting the University of Missouri is an investment in the future of Missouri.

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



SCOTLAND 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

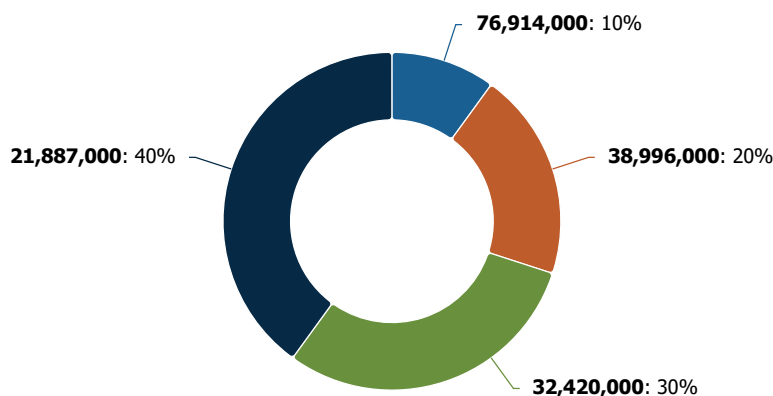
Knowing Local Challenges



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 \$69,596,000 in 2017, an average of \$106,417 per farm. This compares favorably to the statewide average farm income of \$56,606.

Report Area	Total Farms	Average Farm Income
Scotland	654	\$106,417
Missouri	87,887	\$56,606

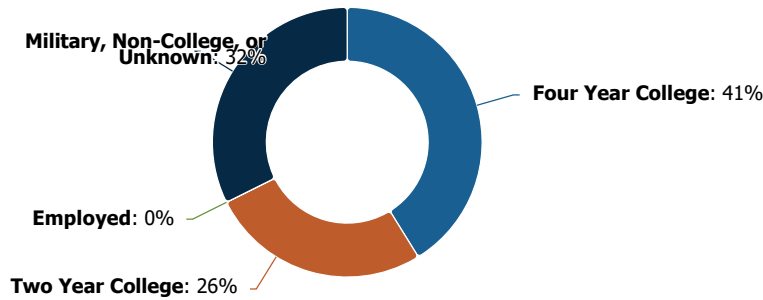
Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2022.



CHALLENGE 2: Educational Access and Excellence: *College and Career Readiness*

Post High School Report

The 12-month post-graduation activity of recent high school graduates can inform communities about postsecondary education, career readiness, and characteristics of the future workforce. In 2022, of 34 graduates surveyed in the report area, 14 went to a four-year college, 9 to a two-year college, 0 directly entered the job market. The remaining 11 are reported as in the military, not in college, or unknown.



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



CHALLENGE 3: Healthy Futures: *Healthy Weight*

Obesity (Adult)

This indicator reports the number and percentage of adults aged 20 and older self-report having a Body Mass Index (BMI) greater than 30.0 (obese). Respondents were considered obese if their Body Mass Index (BMI) was 30 or greater. Body mass index (weight [kg]/height [m]²) was derived from self-report of height and weight. Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Note: In 2021, the CDC updated the methodology used to produce estimates for this indicator. Estimated values for prior years (2004 - 2017) have been updated in this platform to allow comparison across years. Use caution when comparing with saved assessments generated prior to November 10, 2021.

Percentage of Adults Obese, 2016

29.4%

Missouri

33% 😞

Scotland



Physical Inactivity

Within the report area, 729 or 20.9% of adults aged 20 and older self-report no active leisure time, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

Note: In 2021, the CDC updated the methodology used to produce estimates for this indicator. Estimated values for prior years (2004 - 2017) have been updated in this platform to allow comparison across years. Use caution when comparing with saved assessments generated prior to November 10, 2021.

Adults Age 20+ with No Leisure Time Physical Activity, Percent

20.9%

Missouri

21.4%

Scotland

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#). 2021.

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#). 2021.



CHALLENGE 4: Agricultural Growth & Stewardship: *Agricultural Economy*

Jobs Derived

Missouri has a diverse agriculture industry, strong in crops and livestock, as well as food and forestry processing industries. These industries remain a significant part of Missouri's economy, supporting more than 1 in every 10 jobs, on average. In 2021, agriculture, forestry, and related industries in Missouri were estimated to contribute: 456,618 jobs, \$93.7 billion in output and \$31.8 billion in household income. [Learn more about Missouri Agriculture's Economic Impact.](#)

Percent of Jobs Derived from Agriculture

32.6%

Scotland

Missouri

23.55%

Data Source: Missouri Department of Agriculture, [Missouri Agricultural and Small Business Development Authority](#). 2021.

Value Added

Value-added agriculture refers to production, manufacturing, marketing or other services that increase the value of primary agricultural commodities. In 2021, the total value-added derived from agriculture, forestry and related economic activity was an estimated \$34.9 billion. Meat processing, food processing, animal and pet food manufacturing, and crop production and related industries are Missouri's top value-added products: \$9.5 billion and 155,425 jobs from livestock production and related industries alone. [Learn more about Missouri Agriculture's Economic Impact.](#)

Percent of Total Value Added from Agriculture

37.8%

Scotland

Missouri

21.98%

Data Source: Missouri Department of Agriculture, [Missouri Agricultural and Small Business Development Authority](#). 2021.

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

Missouri 4-H for ages 8 – 18



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



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



Missouri 4-H Agriculture and STEM programs employ hands-on activities that foster problem-solving, creativity, critical thinking and exploration in engineering and technology. Agriculture programming emphasizes biology, environmental science, agri-science, veterinary science and engaging activities such as animal care and agronomy. STEM programs delve into computer science, robotics, aerospace, physics, chemistry and veterinary science.



Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Scotland County

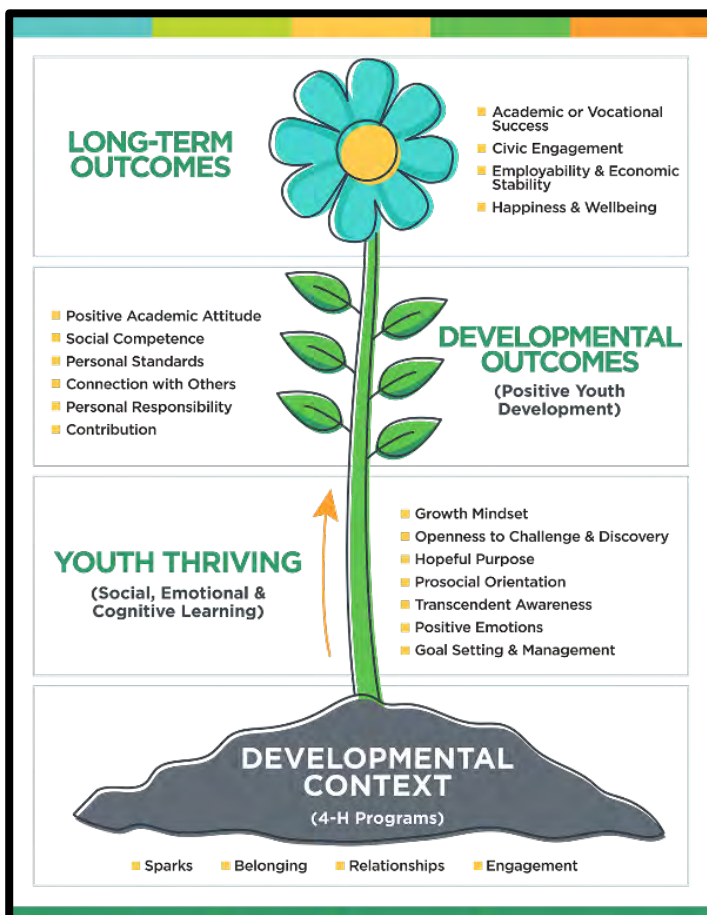
Missouri 4-H

Local Impact

- ❖ A community of 250 youth building life skills, contributing to their community, and becoming college and career ready.
- ❖ 1 in every 8 Scotland County youth under the age of eighteen participated in a MU Extension 4-H Youth Development program in 2024.

4-H Members

4-H programs are grounded in the belief that youth learn best by doing. Through hands-on projects like science, health, agriculture, and civic engagement in a positive environment, youth receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Youth have the opportunity to concentrate on one focus area, or they can try a variety of programs throughout their 4-H experience. Scotland County served youth through three community clubs and one SNAC club offering long-term educational experiences in which members learn life skills such as decision making, public speaking, and working with others.



- ❖ There were 123 members in the community clubs and 28 members in SNAC club in Scotland County during the 2023-2024 4-H Year.
- ❖ Over 100 4-H members were engaged in science related projects and experiences.
- ❖ Collectively youth participated in 1261 hours of community club work in Scotland County.
- ❖ Over 2000 hours of community service projects were completed by 4-H members and volunteers during the 2023-2024 4-H Year.

Scotland County

Missouri 4-H

Local Impact

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

- ❖ 36 youth participated in a total of 4 different events during the 2024 Scotland County 4-H Achievement event
- ❖ 26 members and 4 adults participated in the Northeast Region Energizer held in the spring of 2024 in Palmyra
- ❖ Six hundred ninety-nine exhibits at the 2024 Scotland County Fair from 116 4-H members and 41 FFA members, who are also supported through youth programming.
- ❖ Scotland County youth exhibited over 50 exhibits in the 4-H Building and livestock shows of the Missouri State Fair.
- ❖ Seven 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.
- ❖ 3 members participated in the State 4-H Teen Conference, which offered youth a fantastic opportunity to experience being a teen in 4-H. This event provides a safe and enjoyable campus experience where youth can enhance their skills and forge new friendships.
- ❖ Scotland County was represented at State 4-H Congress by one delegate. Delegates attended workshops covering diverse areas from science to leadership development that were complemented by experiences at the MU Student Center, social activities, and inspirational speakers. State Congress plays a vital role in helping these teens develop essential life skills, exploring potential career paths, nurturing leadership abilities, and fostering new friendships with peers from across the state.
- ❖ Three youth from Scotland County participated in skill development contests on the State level including State Meats Contest, State Livestock Judging, State Fashion Revue, State Poultry Day and State Public Speaking. Participation in these events helps youth to develop confidence and practice their decision making and public speaking skills through competitions tied to project areas they are passionate about.
- ❖ Eight youth from Scotland County participated in the State Shoot events
- ❖ Scotland County has one 4-H State Shooting Ambassador
- ❖ Scotland County has one youth on State 4-H Council

Scotland County members enrolled in a combined total of 514 projects in 2024.

The top project areas included:

**Beef
Woodworking
Photography
Swine
Dog
Foods
Shotgun
Rifle
Archery
Arts & Crafts**

Scotland County

Missouri 4-H

Local Impact

Impacts of 4-H Programming

- ❖ 4-H members are twice as likely to go college compared to their non 4-H peers and they tend to pursue careers in STEM fields (Lerner & Lerner, 2011).
- ❖ 4-H also prepares youth for the workplace. Youth must be prepared to live and work in a world we cannot completely envision- competing for jobs that do not yet exist, using technologies that have yet to be identified. 4-H is the only youth development program with direct access to technological advances in agriculture, life sciences, and social sciences from the university system. This brings relevant science content and hands-on learning that helps youth thrive (Arnold, Bourdeau, & Nott, 2013).
- ❖ Youth who earn a bachelor's degree increase their annual earnings by \$2 million over their lifetime. (U.S. News and World report, 2011) If 50% of the Scotland County youth participating in 4-H events on a college campus receive a Bachelor's degree, 4-H would help young people acquire \$7,000,000 more in lifetime earnings.

4-H Volunteers

- ❖ **Volunteers contributed 3000 hours to the Scotland County 4-H program valued at \$95,400.00.**
- ❖ **Scotland County 4-H members were supported by thirty-two enrolled, screened and oriented adult volunteers supporting the development of youth in 2024.**

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



Scotland County

Missouri 4-H

Local Impact

4-H School Enrichment- Embryology

- ❖ There were 141 students from six classrooms who participated in the Hatching Chicks in the Classroom program in 2024.

During the Embryology program, students learn about the 21-day development occurring within a fertilized, incubated egg that can result 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. 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.

- ❖ Students participated in over 30 hours of learning with the "Chick It Out" program.

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.



Scotland County

Missouri 4-H

Local Impact

4-H SNAC Clubs

4-H Student Nutrition Advisory Council (SNAC) clubs are offered in a variety of settings including before school, during school, afterschool, and in other community settings helping youth build knowledge about nutrition and fitness. Youth participate in a leadership project where they are encouraged to become an ambassador of Healthy Living in their communities by designing and implementing a leadership project that will improve education and the fitness of others. Across the state, youth have developed creative ways to advocate for healthy living. In 2024, there were 91 SNAC Clubs across Missouri with 2,577 youth participating and reaching 4,300+ youth through the leadership projects.

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. 36 counties were awarded a total of \$18,000 through this mini grant.

In Scotland County, SNAC efforts reached 28 youth and leadership projects completed included preparing meals for Ronald McDonald House in Columbia.

Findings from a 2021-2022 evaluation study shows that Missouri 4-H:

Missouri 4-H Inspires Kids to Do	Missouri 4-H Grows True Leaders	4-H Builds Leadership and Communication Skills	4-H Builds Social and Emotional Skills
<ul style="list-style-type: none">❖ 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.	<ul style="list-style-type: none">❖ 97% said they like to learn about people who are different than them.❖ 93% said they think about others' feelings before they say something.❖ 75% reported feeling comfortable being a leader.	<ul style="list-style-type: none">❖ 95% help others reach their goals.❖ 86% are comfortable speaking in a group.❖ 99% said they show respect for other's ideas.❖ 85% can work with someone who made them upset.❖ 95% Look for ways to involve all members of a group.	<ul style="list-style-type: none">❖ 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.

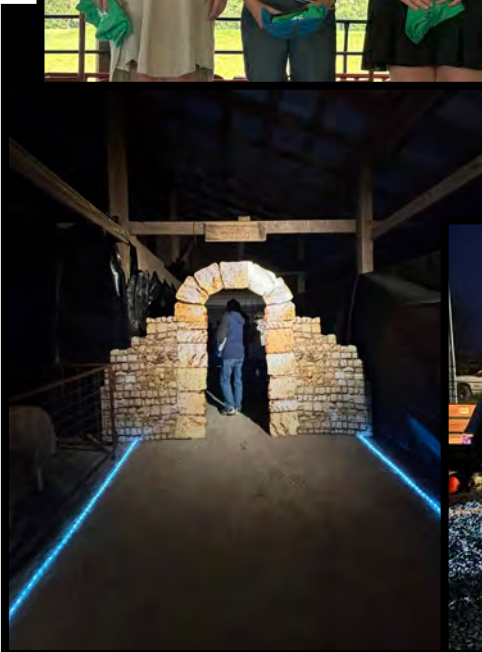
Scotland County

Missouri 4-H

Profiles and Stories



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 through credible statewide programs
Agriculture and Environment



Missouri Grazing Schools teach management-intensive grazing by dividing large fields into smaller paddocks and systematically rotating livestock among them. Producers who attend the grazing schools learn how to reduce costs through improved livestock grazing and pasture management while getting insights into fencing, watering systems and grazing system design.

The annual impact of management-intensive grazing is estimated to be **\$125 MILLION** per year in Missouri.



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 AgrAbility Project provides practical education, on-the-farm assistance and agency referrals to farmers and ranchers with disabilities and their families to promote agricultural and rural independence. National Institute of Food and Agriculture (NIFA) an agency of the U.S. Department of Agriculture (USDA), administers the AgrAbility Project.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Scotland County

Agriculture and Environment

Local Impact

Beef Quality Assurance (BQA) Certification

by Brenda Schreck

BQA is a national program that provides guidelines for beef cattle production. The program helps producers identify management processes that can lead to increased herd profitability and a commitment to quality within every segment of the beef industry.

Three Scotland County participants learned about animal biosecurity, feeds and feed additives, antibiotics and residue avoidance, non-ambulatory cattle and euthanasia, vaccine administration and principles of cattle handling. As part of the certification process, a short assessment was given to the group to evaluate their understanding of raising and managing quality beef.



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The beef cattle industry has seen a 15% reduction in costs due to BQA education and the recognition of quality defects in cattle.



Scotland County

Agriculture and Environment

Local Impact

Private Pesticide Applicator Training (PPAT)

by Nick Wesslak

Nick Wesslak taught 20 participants for private pesticide applicator training (PPAT) in Marion County, 31 participants in Ralls County, 6 participants in Knox County, 38 participants in Shelby County, 29 participants in Lewis County, 52 participants in Clark County, 18 participants in Scotland County, and 56 participants in Monroe County. 250 total applicants were trained for PPAT licensing by Nick Wesslak in the Northeast Region.

Nick presented at the 2024 Pesticide Safety Education ISE on the MU Extension Pesticide Safety Education Program's youth programming initiative. There was a total of 40 participants at this event, which was held in Columbia. Nick also presented about the 2025 Pesticide Use Act changes to the Missouri Department of Conservation (MDC) at a resource management conference held at Margaritaville at Lake of the Ozarks to 520 participants and also presented the same material to MDC administrators.

Nick Wesslak and Valerie Tate taught youth pesticide safety programming to high school age children so they could learn safe usage of pesticides and other chemicals. The program aimed to help youth better understand why pesticides and other chemicals are important to human safety and food production, while also helping them to a better understanding of the risks involved with the use of these products. The ultimate goal was equipping the next generation with the knowledge necessary to reduce easily avoidable pesticide and other chemical exposures caused by misuse, improper storage, lack of

personal protective equipment (PPE), and improper disposal. 266 students participated in this programming. Individual county attendance is as follows: Shelby: 125, Scotland: 110, Knox: 31.

Nick also put on 3 adult pesticide safety education programs. 2 programs were held for the Mississippi Hills Master Naturalists with 75 participants and one program was held for the Salt River Master Gardeners with 10 participants. Other pesticide related projects Nick was involved in included coauthoring the 2025 pesticide safety training action plan for the state of Missouri and aiding in establishing 3 floating treatment island experiment locations throughout central and northeast Missouri to determine the efficacy of aqua bioremediation for water bodies affected by runoff from agricultural production fields.



Scotland County

Agriculture and Environment

Local Impact

Horticulture Information

by Jennifer Schutter

Women in Agriculture

A Women in Agriculture program was held November 8, at Wildflower Grove in Green Castle. Thirty women attended the workshop, with one in attendance from Scotland County. Various sessions agriculture topics were taught throughout the day.



Radio

Each month during KMEM Coffee Break from 8:30-9:00 am with Corey Stott, horticulture specialist, Jennifer Schutter, discussed timely gardening topics, tips and upcoming events reaching hundreds of listeners each time. Horticulture podcasts on timely topics can be found weekly on the KMEM website.

Consultations

Throughout the year, citizens of Scotland County receive information and advice for various gardening questions and soil testing, to help them make more informed choices about their vegetable gardens, flower gardens, fruit trees, lawns and landscapes.



Garden Talk Newsletter

Thirty-three people from Scotland County receive the Garden Talk newsletter each month. The newsletter provides them with timely gardening tips and information on a variety of horticulture topics. It also includes upcoming horticulture programs and activities. Some residents receive it electronically.

Scotland County

Agriculture and Environment

Local Impact

Agriculture Lender Seminar

by Mary Sobba

❖ **Seventy-two lenders from 20 Missouri counties and Illinois attended an ag lender seminar in Mexico.**

Lenders learned about crop and livestock outlook, agriculture policy, rental rates & land values, MU budgets, wind and solar leasing, input costs and enterprise budgets, Missouri farm business management summary and Missouri Agricultural and Small Business Development Authority (MASBDA) programs.

❖ **There were 3 lenders from Scotland County in attendance.**

By attending University of Missouri's Agricultural Lenders' seminars, lenders gain knowledge to help their clients make better decisions based on objective education and resources. More information and better decisions benefit their portfolio of producers, landowners, and agribusinesses through enhanced understanding of enterprise budgets, market expectations, and other decision influencing factors affecting families' and businesses' financial health. Lenders in attendance manage farm loans totaling \$155,250,000.



Scotland County

Agriculture and Environment

Local Impact

Missouri Farm Lease Workshop

by Mary Sobba

Area participants participated in workshops offered in Kirksville and Bowling Green during the Fall of 2024. The classes reinforced the importance of good, clear communication and how it can lead to good lease agreements for both parties and encourage a healthy landlord-tenant relationship. Topics covered were current farmland rental rates, specific items to include in a farm lease, how to legally terminate a farm lease in Missouri, and lease scenarios.

Each class used a unique evaluation tool. The class in Kirksville was asked to rate their farm lease knowledge both before the class and after the class. The average before the class was 5.83 on a 10-point scale. The average after the class was 8.0, on the same scale, for an increase of 2.17.

Both classes were asked what they gained from the class: 78% understood that a farm lease is a

legal, binding contract; 89% have a better idea of fair rental rates; 89% understand the correct way to terminate leases and where to find resources. Participants were asked what actions they planned to take in the next year because of taking the class. The responses included: 78% plan to make changes to the next lease; 67% plan to use a written lease instead of a verbal lease and 55% plan to review current leases.

By taking the class, participants gain insight from both the landowner and tenant perspective, which encourages leases that are fair for both parties. This promotes optimal land use leading to more sustainable profitability.

The class encourages better landlord-tenant communication, which lowers conflict and avoids costly litigation.



Scotland County

Agriculture and Environment

Local Impact

Extension Tax Schools

by Mary Sobba

❖ **The 2024 school attendance totaled three hundred fifty people.**

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 one online school. 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, related party issues, real estate rental activity issues, limited liability company issues, and international tax 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 3,776 hours.

The teaching teams 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.

The evaluations had many positive comments and helpful suggestions. Planning is underway to offer trainings in 2025. Local county residents benefit when local tax preparers have the opportunity to gain knowledge, which benefits

❖ **The participants were from throughout Missouri including 3 participants from Scotland County.**

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 2024 school attendance totaled three hundred fifty people. The participants were from throughout Missouri including 3 participants from Scotland County.





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**.

AMERICA'S
SBDC
MISSOURI

CLIENT HIGHLIGHT







The **Missouri Small Business Development Centers** (SBDC) provide professional training and customized one-on-one counseling to small businesses across the state. Working with the Missouri SBDC helps business owners make confident decisions.

FY2020-2022, Missouri SBDC ASSISTED 878 STARTUPS and helped Missouri small businesses earn more than **\$440 MILLION**.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Scotland County

Business and Community

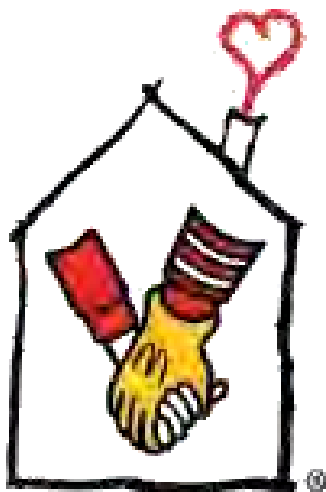
Local Impact

Good Neighbor Week

by Scotland County Extension Council

Signed into law in 2022, Missouri Good Neighbor Week encourages citizens of Missouri to “participate in events and activities to establish connections with their neighbors.”

- ❖ The Scotland County Extension Council collected pull tabs for the Ronald McDonald House Charities Mid-Missouri (Columbia).
- ❖ There were approximately 40 pounds of tabs collected and donated.



RMHC[®]
Mid-Missouri

Since 1983, Ronald McDonald House Charities® of Mid-Missouri has been keeping families close while their child receives medical care in the Columbia area.

The Ronald McDonald House gives:

- ❖ Children a place to play after a long day at the hospital
- ❖ Parents a home near the hospital for a warm meal and a good night's sleep
- ❖ Families relief from the financial and emotional burdens of traveling for their child's medical care.



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**
 through credible statewide programs
Community and Professional Health Education



The **Missouri Research-Extension** (MO-RE) Protocol emphasizes the role of Community Health Field Specialists in transforming health and well-being across the state. Following a comprehensive county health needs assessment, each specialist is sharing their findings with partners, stakeholders and organizations in their regions to address the identified priorities.



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.**

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being



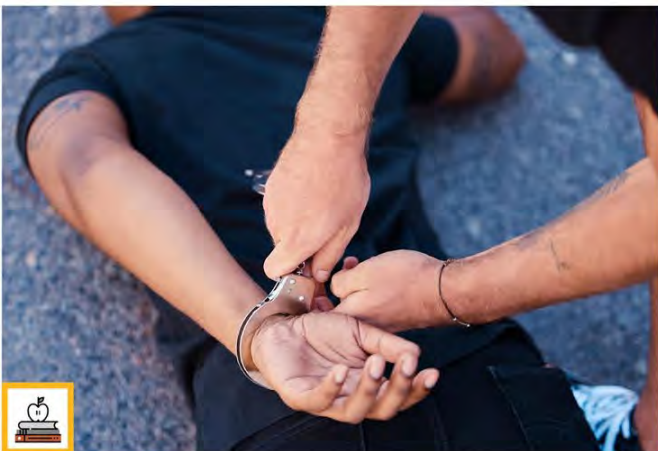
MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Continuing Education**



The **Missouri Extension Disaster Education Network** provides education and technical assistance to individuals and families, local governments, schools and organizations so they can prepare for and respond to natural and man-made disasters. Because of the unique relationship it maintains with each community, MU Extension is a key resource for the public, emergency services and public officials.



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



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



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.



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.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Scotland County

Health and Human Sciences

Local Impact

SNAP-Ed

by Wendy Atterberg

The Supplemental Nutrition Assistance Program Education (SNAP-Education or SNAP-Ed) brought \$11,145,237 in federal funds to Missouri. The funds support engagement with 74,864 Supplemental Nutrition Assistance Program (SNAP) recipients and eligible citizens of Missouri who learned about being active and healthy eating on a budget. This year we had 1,164,143 indirect educational contacts through newsletters, health fairs, food pantries, and the Show Me Nutrition helpline.

910 direct and indirect contacts were made in Scotland County.

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

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

Schools	Agencies
Memphis Head Start	Memphis Housing
Scotland County Elementary	





Extension
Scotland County

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