UNIVERSITY OF MISSOURI EXTENSION Pike County

2023 ANNUAL REPORT



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Pike County University of Missouri Extension

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January 22, 2024

Pike County Commission Courthouse 115 W. Main Bowling Green, MO 63334

Dear Commissioners:

Thank you for all you do for the people of Pike County and for MU Extension of Pike County. When you support University of Missouri Extension, Pike County benefits!

- •The 4-H program offers long-term, educational experiences in which members learn leadership and build initiative while building connections for a bright future.
- •The Family Nutrition Program provided kid-friendly, hands-on lessons, which included taste-testing healthy foods and practicing skills that lead to good health.
- •The Livestock Education Program provided training in beef improvement, artificial insemination, heifer development and educational programs for youth with livestock.
- •The Agronomy Education Program provided private pesticide applicator training and had one-on-one consultations with producers to create awareness of the science and technology available to reduce expenses and improve profitability of their grazing livestock operations.
- •The Agriculture Business Program provided training which brings results for our agricultural economy.
- Focus on Kids benefits the community by teaching parents that co-parenting their children after divorce is not only important for the success of their children, it is important to reduce education, special services, juvenile and adult legal system costs for Pike County.

Sincerely,

Bridgette Reuther

Extension Council Secretary

Budgette Reuth

Jim Meyer

Extension Engagement Specialist

James E. Meyer



OFFICE OF THE VICE CHANCELLOR FOR EXTENSION AND ENGAGEMENT

108 Whitten Hall Columbia, MO 65211 PHONE 573-882-2394

EMAIL: cchiggins@missouri.edu

December 2023

Dear county commissioners and friends of MU Extension and Engagement,

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

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

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

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

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

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

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

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

Sincerely,

Chad Higgins, PhD

Interim Vice Chancellor, MU Extension and Engagement

Chief Engagement Officer, UM System

Pike County Extension Council

Chris Nation Chairman

Brian Kraft

Vice Chairman

Bridgette Reuther Secretary

Kyle Scherder Treasurer

Jim Allen

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Youth Representative on Council

Abigail Haas

Youth Representative

Pike County Commissioners

Bill Allen

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Brock Bailey

Western District

Tom Wallace

Eastern District

Pike County Faculty and Staff

Justin Keav

Field Specialist in Horticulture

Caitlyn Gloe

Youth Program Associate

Stephanie Shinn Office Support

Fay Miller

Office Support

About us

Location:

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Bowling Green, MO 63334

Hours:

8:00 a.m. - Noon

1:00 - 4:30 p.m.

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Faculty Serving Pike County, (based in other counties)

Mike Krauch

Regional Director

Jim Meyer

Extension Engagement Specialist Ralls County

Daniel Mallory

Field Specialist in Livestock Ralls County

Lauren Richardson

Nutrition Program Associate

Rusty Lee

Field Specialist in Agronomy Montgomery County

Mary Sobba

Field Specialist in Agri-Business **Audrain County**

Jeremiah Terrell

Field Specialist in Human Development Shelby County

2023 Pike County University of Missouri Extension **Council Operating Budget** Revenue

Beginning Balance \$ 8,205

County Appropriations

18,000

Total Revenue \$26,205

Expenses

Non-Payroll Salaries

(Temporary Help) \$ 4,589

Travel 2,369

Postage 1,929

Telephone 1.260

Supplies and Services 1,282

703 Insurance

Advertising/Election 150

Repair and Maintenance 865

600

Miscellaneous

0 Working Capital

Total Expenses \$ 13,747

Net Revenue \$ 12,458

Livestock Education in Pike County

Daniel Mallory, Field Specialist in Livestock





Show-Me-Select heifer lots awaiting sale.

SHOW-ME-SELECT HEIFER PROGRAM

MU Extension's Show-Me-Select Replacement Heifer Program teaches beef cattle producers to successfully adopt research-proven reproductive and genetic technologies developed at the University of Missouri which add value to heifers in beef herds across the state. This leads to improved profitability and sustainability of family-owned operations, positively benefitting Missouri's economy by over \$150 million since its inception in 1997.

On December 9, 2023, the Northeast Region held its 27th annual sale. Selling 342 heifers for an average price of \$2,705.

PERFORMANCE TESTED BULL SALE

The Missouri Beef Cattle Testing program is designed to help improve Missouri beef cattle in both quality and growth through breeding and selection. The northeast region is one of three remaining programs in the state to hold performance tested sales. The first sale was held in 1973, while the most current sale was held in March of 2023 and sold 47 bulls for an average price of \$3,467.



Agricultural Engineering

Charles Ellis, Field Specialist in Agricultural Engineering



Missouri Strip Trial Program



The Missouri Strip Trial program began in 2016 with a limited number of producers around the state participating. Since then, the program has continued to grow with additional producers and expanded trials being applied to cooperator fields. East Central Missouri producers are prominent in this program with many trials being conducted in East Central Missouri in 2023. In 2023, 16 trials were conducted in East Central Missouri in six different counties. The strip trial program uses producer fields, equipment, and management to compare different crop management practices. For 2023 these trials included:

- Nitrogen management in corn production. (3)
- Fungicide application in soybeans. (6)
- Comparing cereal rye, winter wheat and no cover crop in a corn/soybean rotation. (2)
- Crop response to sulfur applications. (3)
- The two-year effect of planting soybeans into growing winter cereal rye and the following years corn yield. (2)

Data collection during the growing season included:

- Crop stand establishment.
- Weed control.
- Crop response to treatments using drone flights during the growing season.
- Yield monitor data and mapping during harvest to measure treatment affects.
- Targeted soil sampling after crop harvest for nutrient levels and soybean cyst nematode levels.
- Drone imagery to monitor plant growth, residue levels and pest pressure.



After results are compiled, meetings are arranged with the participating producers to evaluate the results and get feedback on the program from participating producers. Results from East Central Missouri producers are combined with other producers around the state and summarized on the strip trial web site https://extension.missouri.edu/programs/strip-trial-program.

Horticulture Education

Justin Keay, Field Specialist in Horticulture



- Two hundred and eleven Pike County residents attended a variety of horticulture classes including classes on: Growing Great Tomatoes, Composting, Container & Raised Bed Gardening, and Careers in Horticulture (hosted by NECAC at Bowling Green and Frankford Elementary Schools). Students learned; how to test and improve their soil, how to fertilize, irrigate and trellis tomatoes, how to identify and manage tomato disease and pests, how to choose what tomato varieties to grow, building and growing in raised beds, how to make great compost, and career options in the horticulture industry. Students received research-based information from MU Extension to help their gardens, landscapes and lawns thrive, while protecting pollinators by reducing insecticide use and protecting the environment from nutrient pollution caused by fertilizer runoff.
- One Pike County farm business owner received a grant of \$218,000 to increase value-added production on their farm and agritourism operation. This grant was received with the guidance and technical grant writing support from Justin Keay and the Missouri Agriculture, Food and Forestry Innovation Center team. This grant will allow the producer to process beef for direct sale to farm customers/visitors and provide ready to eat food products in a commercial kitchen.
- Fifteen Pike County residents subscribed to MU Horticulture Newsletters (Garden Spade Newsletter, Missouri Produce Growers Bulletin, and the MU Commercial Horticulture Video Newsletter) or attended the Live Garden Hour weekly town hall. Subscribers receive research-based information to help their gardens thrive, while protecting the environment.
- Six Pike County gardeners and produce growers had their soil tested and received detailed fertility recommendations, guidance, and support to help their gardens thrive, while protecting our state's waterways from nutrient pollution.
- Thirty-three Pike County homeowners and fruit/vegetable farmers received one-on-one support to help them solve problems in their crops and landscape such as; how to take a soil sample and how to fertilize a vegetable garden, how to deal with pests on flowers and vegetables, weed control in lawns, pricing at the farmers market, how to increase vegetable yields, how to connect with USDA farm programs, herbicide drift diagnosis, and use of cover crops.



Justin Keay Teaching Growing Great Tomatoes Class



Teaching Youth About Careers in Horticulture at the NECAC Youth Career Day

Agronomy Education

Rusty William Lee III, Field Specialist in Agronomy



Private Pesticide Applicator Training

Number of Pike County Learners

Twelve Pike County citizens participated in the Private Pesticide Applicator training facilitated by Rusty Lee, Field Specialist in Agronomy. This 2.5-hour program gave a collective learning total of 30 education hours.

What Did They Learn?

Upon completion of the training, participants were able to:

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

How Does This Work Make Pike County and Missouri Better?

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

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

Pike County Forage Loss Assessment 2023

State-Wide Overview

The 2023 forage production season featured a prominent drought event that continues to impact the State. Drought conditions first emerged in April when the state recorded its 4th driest April (- 2.17") dating back to 1895. Precipitation totals remained below average in May (-1.87") and June (-2.72") with average monthly temperatures running 1 to 2 °F above normal. Several rounds of heavy rainfall in late July and early August helped to bring temporary drought relief, but dry conditions returned in September and October. Overall, the seven-month period from April to October has been the 14th driest (-6.02") for Missouri and 2023 is currently the 7th warmest year on record through October. The largest precipitation deficits and areas most impacted by drought are approximately located along an axis from southwest to northeast Missouri (Figure 1).

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

The transition from October to November in Missouri was marked by beneficial rainfall and colder temperatures but conditions were short lived. As of November 20, Missouri is on track for another month featuring both above normal temperatures and below normal precipitation, extending the 2023 drought through the end of the fall season. This has resulted in a continuation of drought impacts including agricultural concerns, enhanced fire risk and low water levels on streams, rivers and ponds. As of November 14, approximately 55% of the state remains in drought with 19% of the state being characterized as either severe or extreme drought (Figure 2).

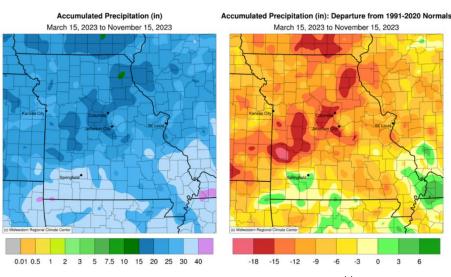


Figure 1. Precipitation accumulation (left) and departures from normal (right) from March 15 to November 15, 2023. Data provided by the Midwestern Regional Climate Center (https://mrcc.purdue.edu).

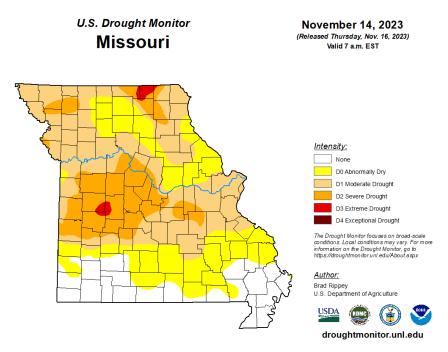


Figure 2. Most recent U.S. Drought Monitor depiction (retrieved 11/20/23).

County Specific Data - Pike

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

Assuming soil fertility is adequate, soil moisture is the largest determining factor of forage production. This direct plant response makes tracking rainfall, and its contribution to soil moisture, an excellent barometer of forage production. During the April - June period, rainfall for Pike County was 4.83 inches below the 1901-2000 average amounts. This represents a 40 % decline in precipitation during this critical period of forage production. My observations of pastures and hayfields in the county, including conversations with area producers, provided a verification of this expected reduced forage productivity claim.

While there was some short-term relief from a few July and August rains, our cool-season grasses saw April - June temperatures for the county being 3 % above the 100-year average, and more importantly, a lower-than-normal soil moisture level to start the growing season due to our drought actually beginning in the fall of the previous year.

These measurements, observations and conversations shape my opinion to be that Pike County experienced a 40 % reduction in forage growth for the 2023 growing/grazing season.

Agricultural Business

Mary Sobba, Field Specialist in Agri-Business



Farm Succession Planning Workshops

This past summer MU Extension partnered with Missouri Department of Agriculture (MDA) to offer succession planning for Missouri farm families. MDA received federal funding to perform mediation services for agricultural producers. Farm succession disputes were listed as an eligible category for mediation services. To increase awareness of mediation services and provide families with tools needed to navigate family conflict, MDA partnered with the University of Missouri Extension to host basic farm succession planning workshops for Missouri farm families. The workshops were designed to share tools and resources and to educate participants on the importance of the following four core concepts:

- Navigating family roles and business roles to prevent conflict
- Improving communication within the family farm business
- Sharing farm management decision-making with family during short-term crises
- Organizing a plan to transition farm ownership and management responsibilities to the next generation

A series of five workshops across Missouri reached a total of 177 attendees. There were four in-person workshops (Hannibal, Marshfield, Nevada, and St. Joseph) and the fifth class was held online via Zoom. The total number of participants was 177. There were three participants from Pike County.

Participant Feedback

A total of 92 evaluations were returned. Participants were satisfied with the program. All respondents said they would recommend the training workshop to others. On a scale of one to four, with four being very satisfied, the workshops were ranked 3.6 or higher across five satisfaction categories. No participant said they were "not satisfied" with any part of the training.

Participants reported gaining new knowledge

The workshops were successful at helping participants gain new knowledge in the four key subjects. Survey respondents were asked at the end of each session to rate their knowledge on four concepts before the training (pre-test) and after the training (post-test). Participants were offered a 1 to 5 scale and asked to rate their knowledge from 1 (very low) to 5 (very high). After the training, participants offered an assessment of a 3.9 or higher indicating they felt their knowledge on the concept was "high". This assessment was higher than their perceived level of knowledge before the training began in all four categories.

One of the most discrete learning topics in the workshop was centered on using the Short-Term Operating Plan to begin a conversation around farm succession planning. Knowledge of this tool increased the most.

More than half of all respondents indicated the intention to act

The workshops focused on providing tools to assist farm families in preparing to start farm succession planning. Practical handouts were created for each of the four core concepts and were provided in print to attendees, or electronically to Zoom registrants. In addition, the presentation named a series of suggested next steps to again encourage farm families to act. Through the evaluation summaries, more than half of all respondents indicated they intend to start addressing farm succession planning by taking one of four next steps (1) start a plan to

adjust roles on the farm in the next five years, (2) schedule a family council meeting, (3) use a short-term operating plan, (4) tell someone about MDA's ag mediation services.

Farm succession planning benefits individuals and families by increasing the understanding and knowledge, leading to improved communication, and eventually leading to transitioning farm businesses. Succession planning builds stronger families. Farm businesses that successfully transition to the next generation contribute to the local tax base and contribute to vibrant and strong rural economies.



Mary Sobba Teaching at Farm Succession Planning Workshop

Extension Tax Schools

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

The training included updates on legislation, rulings and cases, individual taxpayer issues, agricultural and natural resources topics, ethics, trusts and estates, agriculture and natural resource tax issues, business tax issues, business entity tax issues, IRS issues, penalties and defenses, form 4797 sales of property, retirement tax issues, and like-kind exchange issues. The schools were approved for 8 and 16 hours of continuing education credit by the IRS, Missouri Bar and for CFP continuing education. Total continuing education hours reported to IRS for the schools was 3,336 hours.

The teaching teams included a CPA and former IRS stakeholder liaison, an IRS certified retired ag economics professor, an attorney, Missouri Department of Revenue, and extension ag business specialists.

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

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

The 2023 school attendance totaled 327 people. The participants were from throughout Missouri and included three participants from Pike County.

Agriculture Lender Seminars

Darla Campbell and Mary Sobba

Eighty-three lenders from 25 Missouri counties and Illinois attended this year's seminars in Mexico and Brookfield. There were three Pike County lenders in attendance. Lenders learned about crop and livestock outlook, agriculture policy, rental rates and land values, MU budgets, input costs, USDA Farm Service Agency, and Missouri Agricultural and Small Business Development Authority (MASBDA) programs. Lenders in attendance manage 6,007 farm loans totaling \$115,500,000.

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 ag-businesses through enhanced understanding of enterprise budgets, market expectations, and other decision influencing factors affecting families' and businesses' financial health.



Family Nutrition Education Programs (FNEP)

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

A total of 129 participants were from Pike 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.

Nutrition Program Associates serving Pike County



Lauren Richardson



Amanda Lehenbauer

Schools	Agencies	
Bowling Green Elementary	Louisiana Community Food Pantry	
Learning Center	Pike County Health Department	
	Hope Center of Pike County	

Success stories from direct programming efforts:



Pictured left: Lauren Ready to "Fight BAC" in the classroom.

The Learning Center students enjoyed learning about germs and grains and were eager to share their improved handwashing practices with me.

Pictured right: Lauren helping students build a garden salad from their container gardens.





Pictured left: Amanda and Lauren team teaching at Bowling Green Elementary.

Pictured below: Family Nutrition Education Program staff: Beth Thordsen, Amanda Lehenbauer and Deann Turner, helping Mrs. Woodall's class prep their tub gardens at Bowling Green Elementary.



Success from Amanda:

This fall, another NPA and I completed an Eating from the Garden program with 3rd grade students at a Pike County School. The students grew radishes and two different types of lettuce in mineral tubs at their school. For the last lesson the students brought in different ingredients to make their own salad. They were able to harvest some of the lettuce that they grew to add to their salads. While eating the students talked about how excited they were to be eating what they had grown and couldn't wait to start another garden in the spring and possibly add more vegetables. We brought turnips and radishes for the students to practice peeling and cutting. None of the students had eaten turnips before and many tried for the first time, a few did like the turnips.





Human Development Education

Jeremiah Terrell, M.Ed, Field Specialist in Human Development and Family Science



FOCUS ON KIDS

A 2.5-hour class, ordered by state statute, for all divorcing parents with kids still at home. The program reviews the five predictors of positive outcomes for children when their parents divorce. Through class discussion and viewing video vignettes, parents are reminded of the importance of keeping their children out of the conflict. This program was provided on the second Tuesday of each month in 2023. This program had 65 contacts in Pike County and was done in partnership with the 45th Circuit Court.

Participants learn that:

- Avoiding conflict in front of the child improves the child's outcomes.
- Open and frequent communication between parents **must** be maintained.
- Children need to know both parents love them and will remain in their lives and that the divorce isn't the child's fault.
- Importance of listening to their children.

Pike County 4-H

Caitlyn Gloe, Youth Program Associate

A community of 206 youth building life skills, contributing to their community, and becoming college and career ready.

One in every ten Pike County youth under the age of eighteen participated in a MU Extension 4-H Youth Development program in 2023.

4-H Members

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

- There were 206 members in the community 4-H clubs in Pike County during the 2022-2023 4-H Year.
- Over 175 4-H members were engaged in science related projects and experiences.
- Collectively youth participated in 2,266 hours of community club work in Pike County.
- Over 6,660 hours of community service projects were completed by 4-H members and volunteers during the 2022-2023 4-H Year.

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

- Twenty-one youth participated in a total of seven different events during the 2023 Pike County 4-H Achievement event.
- Three members attended the Northeast Region 4-H Round Up, held in Macon in the fall.
- There were 1,155 exhibits at the 2023 Pike County Fair, 184 were 4-H members and 31 were FFA members who are also supported through youth programming.
- Pike County youth exhibited over 140 exhibits in the 4-H Building and livestock shows of the Missouri State Fair.
- Four youth from Pike County participated in the State Shoot events and one youth from Pike County represented Missouri on the state teams at the National 4-H Shoot.
- Three 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.
- As responsible citizens, we promote generosity and community strengthening through service. Ninety meals were donated in Pike County through the 4-H Feeding Missouri Initiative in 2023.

4-H Clubs offer in-depth educational experiences in which members learn life skills such as decision making, public speaking, and working with others. Members learn by doing under this guidance of adult volunteers, who lead a wide variety of projects that support 4-H members in finding their SPARK. Club and project leaders also involve youth and teens in community service, leadership opportunities, and educational trips. 4-H project work and related educational experiences help youth explore interests in citizenship, communication, and leadership.

Pike County members enrolled in a combined total of 822 projects in 2023. The top project areas included:

- Arts & Crafts
- Cake Decorating
- Photography
- 4-H Clover Kids
- Gardening
- Foods
- Sewing
- Woodworking
- Poultry
- Country Cured Bacon
- Scrapbooking
- Beef

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).

4-H Volunteers

- Pike County 4-H members were supported by forty-six enrolled, screened, and oriented adult volunteers supporting the development of youth in 2023.
- Volunteers contributed 4,600 hours to the Pike County 4-H program valued at \$146,281.

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.

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
 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. 	 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. 	 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. 	 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.

Pike County 4-H Members: Their Story and Things They Have Learned Through 4-H

- "The things I like most and look forward to about 4-H is getting to help my community year-round and learning more about the projects I have chosen."- 14-year-old from Pleasant Workers 4-H Club
- "I love EVERYTHING about 4-H! Even when what we are doing seems not fun like cleaning up the park or the fairgrounds after the fair, they still turn out to be fun because you are doing them with your new friends." 10-year-old from Pleasant Workers 4-H Club
- "The one big accomplishment I have every year is always learning new life skills." 18-year-old from Busy Bee Hustlers 4-H Club

Resources

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

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

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

4-H Highlights









