

2023 ANNUAL REPORT





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,

Chal Argo

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

Who we are

Faculty and Staff



Denice Ferguson Field Specialist in Agricultural Business

Wayne Flanary Field Specialist in Agronomy

Brenda King 4-H Youth Program Associate

Charissa Dodge County Office Support Staff

Danielle Ferguson County Office Support Staff

Jim Crawford Field Specialist in Agricultural Engineering

Randa Doty Extension Engagement Specialist

Laura Evans Field Specialist in 4-H Youth Development

Todd Higgins Field Specialist in Horticulture

Jim Humphrey Field Specialist in Livestock

Rachel Livesay Field Specialist in Nutrition and Health

Katie Pemberton Field Specialist in Human Development

Stacey Steffens Northwest Missouri Regional Director

Council Members

Devin Ferguson, Chairman Maureen Cornelius, Vice-chairman Jim Lower, Secretary David Jordan, Co-Treasurer Rhanda Shreve, Co-Treasurer **Bill Bangerter** Jim Barnett Susan Barton **DeWayne Budine** Brenda Cazel Mike Cazel Chris Grable Karen Hauser **Ron Hitchings** Ron Hook Joannie Jordan Mark Jordan Debbie Krumme Lanny Krumme Emily Lindsay Libby Owens Kate Viestenz Larry Werthmuller Carter Shreve, Youth Representative



County Commissioners

Scott Nelson, Presiding Commissioner Ron Hook, Western District Commissioner Scott Burnham, Eastern District Commissioner

Appropriations budget

Income	
County Appropriations	91,200.00
Total Income	\$91,200.00
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Expenses	
Wages/Benefits	60,014.58
Programming	3,890.00
Travel	4,195.00
Postage	887.22
Telephone	2,404.80
Advertising	1,169.63
Recognition/Memorials	163.08
Rent/Lease Space	200.00
Reproduction/Copy Services	2,400.00
Supplies/Services	2,899.28
Hospitality	361.94
Professional Services	54.07
Utilities	2400.00
Other Contract Services	456.00
Insurance	763.00
Extension Council Election	469.90
Dues & Subscriptions	647.86
Repairs/Maintenance	5,400.00
Furniture/Equipment	2,147.59
Total Expenses	\$90,923.95

Key outcomes and numbers



Above: Newly Elected Council Members are sworn in by Presiding Commissioner Scott Nelson.

Below: Maria Jose Ramirez Braiz receives her Good Neighbor Award for being an excellent and engaged neighbor in Buchanan County.



MU Extension is a unique funding partnership.

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

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



Local Support

Did you know you can donate directly to Buchanan 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.



Missouri 4-H Positive Youth Development

Buchanan County 4-H Highlights

- ✓ Buchanan County enrollment increased to 805 from 245 for the 2022-23 year.
- ✓ Established partnership and 4-H Clubs with InterServ.
- ✓ 4-H Discovery Day--13 youth market vendors, 9 adult volunteers to lead sessions, 25 youth participants
- ✓ Teachers at East Buchanan Middle School implemented 4-H "Mindful Teen: From Surviving to THRIVING" curriculum to 150 students.
- ✓ Implemented a 4-H SNAC program at East Buchanan Middle School, 8th grade.
- ✓ 68 4-H Volunteers
- ✓ Laura Evans facilitated the Missouri 4-H/Bangladesh Work Together program.
- ✓ Twenty youth participated in Garden 'n Grow, a youth gardening program for children ages 8 to 13. This program was a partnership with 4-H, Extension Master Gardeners and InterServ.



Youth leaders hosting a hands-on activity at Santa's Workshop at Agency Community Center.





Buchanan County Participants at 4-H Camp at Crowder State Park



MU Extension Field Specialist in 4-H Youth Development, Laura Evans, presented at the Epsilon Sigma Phi National Conference in Billings, MT. She presented over the Missouri 4-H/Bangladesh Working Together program that she piloted with Field Specialists across the state.



Youth learned about dog obedience at Discovery Day



Youth gained experience showing cattle.



Missouri 4-H Positive Youth Development

4-H Embryology

Connecting embryology with Missouri Learning Standards is a win win for educators in Buchanan County. 4-H Embryology Program gives students the opportunity to learn the life cycle of chicks by hatching eggs in the classroom. Students care for pre-incubated eggs by monitoring an incubator, maintaining optimal incubation stages and caring for the chicks after incubation— all during a twoweek period. During the Spring 2023 program, majority of the participants identified core subject area were the most used was science, communication arts and math. This program reached over 720 youth in Buchanan County with 20 teachers.



(Above) Youth observing chicks in their brooder box after hatching.

(Right) Brenda King providing a tutorial regarding embryology program to teachers.





Youth participating in 4-H SNAC lesson



Buchanan County Youth Program Associate, Brenda King, teaching Garden 'n Grow

Garden 'n Grow

In the heat of the summer garden season, 20 youth participated in Garden 'n Grow, a youth gardening program for children ages 8 to 13. This program promotes hands on learning experience through discovery of science and nature through gardening. The participants had a garden plot where they grow their own vegetables. They learned about seeds, soil, how plants grow, insects, diseases, weeds, cooking with vegetables, nutrition and many other topics. "This is so cool, I didn't know I would like that squash until I was able to try it! Wow, look at that orange bug." Said one of the youth participants. The vegetables that the children grow were consumed by them and donated to area food pantries. This program was a partnership with 4-H, Extension Master Gardeners and InterServ. The program took place at the MU Extension, Buchanan County office.

A special thank you to the Extension Master Gardeners volunteers, Brenda Cazel and Larry Werthmuller. Their knowledge, skills and dedication of empowering youth gardeners is greatly appreciated.



On Site Septic Systems

- ✓ The most common question this year was septic lagoons going dry from the drought and what should they do. Each is slightly different, but the general recommendation is to add water to maintain its function and to keep the bottom seal from cracking and causing leaks in the future.
- ✓ The average cost to replace a septic system is approx. \$20,000. By taking some simple preventative steps, a current system can be maintained, safely processing wastewater from the home and saving the owner the replacement costs.

A diagram of how an on-site septic system works when incorporating a lagoon in place of a leach field

Tar Spot in Corn

Estimated losses to this corn disease between 2018 and 202 are approximately 242.6 US million bushels, which is approximately \$900 million. Yield losses are due to reduced grain fill, kernel abortion and reduced test weight. MU requested field specialists in agronomy monitor Tar Spot spread and severity. It is now in my assigned counties and growers should be prepared for a plan of action next year. More than 65 producer phone calls and conversations were had regarding this new corn disease.



AG Updates and Private Pesticide Applicator Training

This training educated crop producers for safe handling and application of restricted use pesticides. Participants learned about pest identification, economic thresholds and injury levels, emergency planning procedure and the environmental ramification of improper pesticide application. More than 270 participants initiated or renewed a license. Ag staff then followed Private Applicator Training with "hot topics" in fields of ag in Horticulture, Ag Engineering, Agronomy, Livestock and Ag Business. Further regional Private pesticide applicator training was held monthly in Buchanan County reaching an additional 33 producers.





Impact of using Production Records in a Commercial Cow/Calf Operation

Missouri ranks number three in number of beef cows in the United States with close to 1.9 million beef cows. A pilot project is designed to demonstrate the positive impact using production records can have on commercial cow/calf operations in northwest Missouri with a special emphasis on calf weight at weaning as a percent of cow weight. Information generated during this project is being used to create deliverables for a statewide program educating cow/calf producers on the importance of individual cow and calf weights, especially when management decisions need to occur in a timely fashion. Specifically, cows that are larger with higher maintenance requirements (Lalman et al., 2018), do not necessarily wean calves that are heavier. To investigate this, we collected data over a threeyear period from three spring calving beef operations located in northwest Missouri representing over 400 breeding age beef females. Cow weights, body condition scores, docility scores, and pregnancy status, were recorded each time, cows went through the chute. Calf weights were recorded in late spring and at weaning time. Additionally, calf weight as percent of cow weight was calculated for each cow/calf pair. Over the three-year period cow weights ranged from 750 lbs. to 1865 lbs., calf weights ranged from 228 lbs. to 758 lbs., and calf weight as percent of cow weight ranged from 15.9% to 71.3%. With the continued conversion of grazing and forage ground to cropland, optimizing cow efficiency is important for commercial cow/calf operations and we suggest cow/calf producers consider percentage of cow weight weaned when making management decisions. Adoption, of these practices will increase productivity contributing to the overall goal of doubling the economic impact of agriculture in Missouri by 2030.





Beef Cow Size and Record Keeping Project weigh day.



Heifers grazing stockpile in December 2023





Agricultural Business & Policy Program in Northwest Missouri



Succession Planning Workshops in Gentry & Buchanan Counties

Farm Family Succession Planning Workshops, were held in March 2023 as a partnership between FCS Financial and MU Extension. The importance of assisting Missouri families in planning how to transition the farm business from one generation to the next is imperative to the agricultural industry in our state and across the nation. We as an agricultural community are at risk of losing major agricultural assets if this transition fails, so in response to this need Ag Business & Policy Field Specialist, Denice Ferguson hosted workshops in Buchanan County and Gentry County serving a combined 146 individuals in Northwest Missouri.

Missourians Support Local Food at Taste of Northwest Missouri Market

The Taste of Northwest Agriculture Market gives local producers an opportunity to form relationships with potential buyers and receive feedback as they fine-tune their products and recipes. Denice Ferguson, Ag Business & Policy Specialist participated in this open forum as an avenue for product development, one of the program areas of focus for value-added agriculture.

We are working to add value to Missouri agricultural products and grow the state's top economic driver, events like the Taste of Northwest Agriculture Market create regional connections," said Ferguson. "Guiding product development and marketing through consumer interaction helps producers understand their potential customers' needs." A survey for attendees was held in hopes of gathering valuable input for each vendor as a way to

guide future business decisions. The event was a collaboration between The Missouri Agriculture, Food and Forestry Innovation Center (MAFFIC) and the School of Agricultural Sciences at Northwest Missouri State University. Ag Business & Policy Specialist covering Northwest Missouri assisted with the event by reaching out to local grower entrepreneurs and encourage them to take advantage of this opportunity. 30+ vendors registered and 150+ residents attended the event.









University of Missouri Extension ag economics department and ag business specialists worked together to coordinate one summer and three fall tax schools.

The summer school was in person and live online. Fall schools were in Columbia and Springfield and in addition a was online. The schools were designed for those who prepare taxes including enrolled agents, tax preparers, CPAs, individuals, and attorneys.

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

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

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

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

The 2023 school attendance totaled three hundred twenty-seven people. The participants were from throughout Missouri. Thirteen participants were from Buchanan County.

Farm Tax Workshops

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

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

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

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

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



100 Miles, 100 Days

This year's 100 Miles, 100 Days Extension initiative made a significant impact statewide, attracting over 1,300 participants in Missouri, including 2 from Buchanan County and more than 240 in our Northwest Region. Throughout the 100 days of summer, participants were urged to discover their own enjoyable ways to cover the equivalent of 100 miles. The diverse activities reported ranged from hikes and bike rides to navigating wheelchairs through MO State Parks. Individuals embraced the initiative by strolling through their neighborhoods, fostering active connections with friends and family, and making the most of local parks and pools.

Our weekly motivational emails provided valuable education and fueled a friendly county competition, adding a bit of excitement into the challenge. Whether participants reached the coveted 100 miles or not, the ultimate goal of our initiative was to instill a lasting enjoyment of movement through a blend of encouragement, accountability, and motivation. Our hope is that the impact of this program will extend far beyond the 100 days, inspiring a continued commitment to a healthy and active lifestyle.



Focus on Kids

Parents who are divorcing or separating face unique challenges in parenting their children while living apart. The purpose of the Focus on Kids (FOK) program is to help parents learn how to nurture and support their children through the divorce/separation process, and to help parents develop ways to effectively work together as coparents This class was taught once a month in Buchanan County and in Nodaway County. The classes combined had 66 participants from the counties Buchanan, Gentry, Cass, Nodaway, Holt, Gentry, and Atchison

> "Thank you for opening my eyes on separation in a child's eyes."

Focus on Kids Participant

Stay Strong, Stay Healthy

This program was offered at Joyce Raye Patterson 50+ Activity Center and was the first program Rachel offered. Participants learned and completed evidence-based strength training exercises which helped to improve strength, balance, and flexibility.

There were 10 participants, with 4 being new to the program. Participants said the program "helped with balance; easier to get out of chair," as well as saying, "it has helped me feel stronger and letting me know that I need to be moving and exercising more!!"



SSSH participants performing the toe stand exercise during class.



Senior Farmers Market Nutrition Program

MU Extension Field Specialist in Nutrition & Health, Rachel Livesay, assisted in signing up 152 Buchanan County seniors in the Senior Farmers Market Nutrition Program. These benefits totaled \$7,600 in benefits going directly to seniors to purchase food. This program is designed to provide low-income seniors with access to locally grown fruits, vegetables, honey, and herbs. The seniors are issued \$50 in benefits to use at local farmers markets, including vendors at the Pony Express Farmer's Market at the East Hills Shopping Center.





Trualta

Rachel Livesay, MU Extension Field Specialist, partnered with Trualta, an online caregiving platform offered to Buchanan County residents. Trualta is a hub for resources, education and support for anybody in a caregiving role. It is not a replacement for care but is an extension of care when there is not a professional, paid caregiver available.

She utilized Trualta to advertised an online Chronic Disease Self-Management course through the Trualta portal that will take place in January-February 2024



EFNEP

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

Thirty-two of these youth participants reside in Buchanan County.

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

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



SNAP-Education

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 479 participants were from Buchanan 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.

Success Story

Recently Family Nutrition Education Program cooking classes at Pickett Elementary in Buchanan County were taught in collaboration with Mosaic Life Care. Students learned about what the five food groups do for your body, and they also learned some of the foods found in each of these groups from MyPlate. Skills such as how to read a recipe and kitchen safety were included as a part of the lessons. Students then took what they learned and cooked a meal. Students enjoyed cutting and chopping vegetables, fruits, different meats, and learning to use a zucchini noodle maker. After students finished all the cutting and chopping, they



Northwest Region Nutrition Program Associates worked together to teach Kids in the Kitchen Cooking class in collaboration with Mosaic Life Care at Pickett Elementary

Participating schools and agencies include:

- ✓ Caden Park Elementary
- ✓ Pickett Elementary
- ✓ East Buchanan Elementary
- ✓ Mid-Buchanan Elementary
- ✓ Hyde Elementary
- ✓ Pershing Elementary
- ✓ Oak Grove Elementary
- ✓ St. Joseph Health Department
- ✓ Gower Community Food Pantry
- ✓ Y-Kids World
- ✓ YWCA of St. Joseph
- ✓ Noyes Home for Children
- ✓ Bartlett Center
- ✓ Mitchell Woods Preschool & Childcare
- ✓ Interserv
- ✓ Midtown Head Start
- ✓ Hosea Head Start
- ✓ Northside Head Start
- ✓ South 9th Head Start

added olive oil to a preheated skillet and cooked the meat, vegetables, and fruit. When it was done cooking students served themselves a plate and tried it. Students said they enjoyed the food preparation and cooking, but the best part was the eating! Students now know they need to eat from all the food groups every day for a healthy body and can fix meals with chopped fruits and vegetables for extra added vitamins and minerals. Students also know when cooking to practice kitchen safety and to use olive oil as a healthier oil. Students took the recipes they had cooked in class home with them and plan to prepare them for family members to help them eat healthier!

County highlights



Representatives of the Spencer Family received their century farm declaration. The farm had been in their family since 1894. Pictured with members of the Buchanan County Extension Council.



Representatives of the Guinn Family received their century farm declaration. The farm has been in their family since 1922. Pictured with members of the Buchanan County Extension Council.



Roger, Rhanda, Carter & Hadlee Shreve represented Buchanan County at the Missouri State Fair during the 66th annual Missouri Farm Family Day on August 14th.



Members of the Buchanan County Extension Council & Extension Specialists participated in Good Neighbor Week. volunteered their time to assist organizations throughout Buchanan County. Pictured here are Mike and Brenda Cazel.

Participants

County highlights

Pony Express Therapy Dogs

The Pony Express Therapy Dogs are a group who bring a calming comfort to residents of all ages across Buchanan County. The teams consisting of canines and their handlers visit care centers, schools, libraries and other places in the community to bring a little extra joy. The dogs are trained by their owners and then evaluated by the program to make sure they are a good fit. The group makes about 350 visits throughout the year.

In 2023, Program Director Bill Luce, was recognized by The St. Joseph News-Press for his efforts with the organization.



Pony Express Therapy Dog, Cipher



Members of the Northwest Missouri Master Gardeners

Northwest Missouri Master Gardeners

The Northwest Missouri Master Gardeners, pictured here preparing seeds, held many successful events this year. New to the lineup this year included the inaugural Garden Tour during the Spring. Returning favorites included TomatoFest and of course the plant sale held each Spring, featuring a wide variety of tomatoes, peppers and other garden must haves. Master Gardener training classes were held in the Spring and Fall and the group was able to provide some scholarships to enrollees. Looking ahead, the group is excitedly working on preparations for the Missouri Master Gardener Association (MOMGA) Conference to be held here in St. Joseph September 27-29th, 2024.

EXTENSION WORKER'S CREED

I believe in people and their hopes, their aspirations, and their faith; in their right to make their own plans and arrive at their own decisions; in their ability and power to enlarge their lives and plan for the happiness of those they love.

I believe that education, of which Extension is an essential part, is basic in stimulating individual initiative, self-determination, and leadership; that these are the keys to democracy and that people when given facts they understand, will act not only in their self-interest, but also in the interest of society.

I believe that education is a lifelong process and the greatest university is the home; that my success as a teacher is proportional to those qualities of mind and spirit that give me welcome entrance to the homes of the families I serve.

I believe in intellectual freedom to search for and present the truth without bias and with courteous tolerance toward the views of others.

I believe that Extension is a link between the people and the ever-changing discoveries in the laboratories.

I believe in the public institutions of which I am a part.

I believe in my own work and in the opportunity I have to make my life useful to humanity.

Because I believe these things, I am an Extension professional