# UNIVERSITY OF MISSOURI EXTENSION Pettis County 2018 ANNUAL REPORT



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Equal opportunity is and shall be provided to all participants in Extension programs and activities, and for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, sexual orientation, national origin, age, disability, or status as a protected veteran.

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### Thank you from the Extension Council:

On behalf of the Extension Council, we express our gratitude and appreciation to the many volunteers, organizations, county government, businesses and community leaders for their continued support of the extension education program! With your help, we have been able to offer programs that matter to many families, farms, businesses and the communities of Pettis County.

We look forward to building on past successes as we continue to develop and implement programs that make a difference.

### **Transitions**

Pettis County Extension welcomed several new people this year and said so long to others who have served the local program.

- Brent Carpenter, Ag Business Specialist and CPD, moved to the University in May.
- Melissa Cotton, Nutrition and Health Education, joined the Cass County team in July.
- Kate Hanlon, Nutrition Program Associate, moved to the Pettis County Office in July to replace Brenda (Carter) Johnson, who moved to Johnson County in June.
- Gene Schmitz, Livestock Specialist, is currently spending Monday's with us in the Pettis County Office.

### **Honorees**

The Stacey and Heather Luttrell family of Smithton were named the Pettis County State Fair Farm Family of 2018.

In 2018, two were added to the Pettis County *Extension Leaders Honor Roll* for there dedicated leadership to the county extension program: Dana Gillig, DVM and Judy Kuhns.

The *Mergen Spirit Award* is awarded in memory of John Mergen, former Council member and Extension leader, for outstanding service to the local extension program. Our recipient this year is Kevin Daniels.

Three farm families were recognized as Century Farms in 2018. New century farms and their years of establishment are: Keith Dale & Pam Thompson – 1870; Mark R. & Catherine L. Teter – 1905; John "J.R." Greer – 1910.

### **Annual meeting**

The Extension Council held its annual meeting on February 22nd with 70 in attendance. Dr. Marshall Stewart, University of Missouri, Vice Chancellor for Extension and Engagement was the keynote speaker for the evening. Dr. Stewart, a native of N. Carolina, spoke on his family move to the Midwest. They have found out that Missouri is "just like home." He has been busy the last 18 months conducting Community Assessments in Missouri Counties asking what the University can do for you. Concluding that there is a need to bring higher learning to the people, Dr. Stewart is envisioning a University for Missouri versus University of Missouri. He is here for the long haul.



Dr. Marshall Stewart

### **Fundraiser**

The Council hosted the sixth annual dinner and auction in March. Through the generous efforts of many workers, donors, and bidders, over \$5500 was raised to help fund the extension programs in Pettis County.

### 2018-19 Pettis County Extension Council

Fred Binder **Kevin Bond Brad Elwell** Jim Cave Jonathan Curtis, ECYL Dana Gillig Brent Hampy Billie Long Rose McMullin Shelbi Miller, ECYL Deanna Nelson, Vice-Chair Megan Page Georgia A. Reid, Secretary Kevin Shireman Tim Sims L. "Kay" Sparks, Treasurer Marcie Teter Patty Wood, Chair Jan Yeager

### **Pettis County Commission**

David Dick, Presiding Commissioner Jim Marcum, Western Commissioner Israel Baeza, Eastern Commissioner



### **VICE CHANCELLOR'S OFFICE**

108 Whitten Hall Columbia, MO 65211

PHONE: (573) 882-7477 FAX: (573) 882-1955

Dear county commissioners and friends of MU Extension,

The past year has been extremely productive for University of Missouri Extension and Engagement. With the launch of our county engagement specialist model, which is the centerpiece of a long-overdue restructuring, we are better positioned to serve Missourians.

Most county engagement specialists are now in place and the formal training for this new positionrolled out this fall. By January 2019, we expect our CESs to be well on their way to success. I see a great future for them and the communities they serve.

At the MU campus, we have been busy putting in place online resources that will benefit Missouri communities. In particular, the All Things Missouri web portal is an exciting tool that can help community leaders search for valuable data. I encourage you to check it out at <a href="https://allthingsmissouri.org/">https://allthingsmissouri.org/</a>.

When 2018 began, we set out to meet with every county's administrative body. This effort provided valuable insight and helped strengthen relationships; and as a result, we will engage in a similar effort in 2019. Meeting stakeholders and deepening county relationships is something we truly enjoy.

As you read your county's annual MU Extension report, I am confident that you will be pleased with the results accomplished through county-based University of Missouri faculty. Our faculty take pride in their efforts to respond to local extension council input.

At the state level, we have committed to a goal of doubling the economic impact of MU Extension over the next decade. This goal of \$2 billion in public value is ambitious — but, by meeting this challenge, we will help a great many Missourians.

Your support of MU Extension and our efforts in your community are greatly appreciated. As always, I welcome your input on how the University of Missouri can better serve your community and its people.

Sincerely,

Marshall Stewart

Jarshall Hevast

# Agriculture and Environment Resources (ANR)

**Todd Lorenz**, Horticulture & Agronomy Specialist **Gene Schmitz**, Livestock Specialist

The effect of 2018 weather extremes have not been more evident in some time for our producers. Both livestock and row crop production sustained significant weather related challenges for the entire year. The plight of central Missouri production agriculture this year was preceded by consecutive years of different but still challenging weather patterns.

Following a dry 2017 with limited fall forage growth, April was the second coldest and May turned out to be the hottest on record since 1895. The resulting physiological effect was reduced growth in April due to the cold followed by a hot may, which triggered early reproductive growth. This double hit on our foraged resulted in 50 – 75% reduction in forage production for 2018. The previous years of below average moisture coupled with these temperature extremes led to lack of water and many livestock producers were hauling water for the first time in decades. Limited forage growth resulted in early use of limited winter reserves. Livestock producers were scrambling to find forage options. While hay prices soared, many opted to include cover crop options of fall seeded wheat and rye to help cover the spread. A "million dollar" fall rain provided some pasture ground rebound for a little relief.

When combining the heat of May with the eighth hottest June, we recorded the hottest May-June on record. While the impact affected North West Missouri first, Central Missouri counties were pushed into a D4 (Exceptional Drought) by the August 14 report of the US Drought Monitor. University of Missouri Extension specialist rallied, around the state, to get producers drought meetings delivered. Managing forages through the drought was the topic of particular interest.

Early planted corn and soybeans emerged late followed by droughty conditions that hastened maturity for early corn harvest. However, November was the fourth coldest on record with snow accumulation we have not seen in decades. Moisture accumulations limited soybean harvest efficiency and in some fields, snow was gripping the pods.

With all of those challenges, the impression of 2018 was that it turned out better than our May-June production predictions. We do live in a transitional climate in Missouri where we are constantly fluctuating with similar weather patterns of Michigan winters and Georgia summers. This transitional climate is likely how the phrase, "in Missouri, you are never more than 7 days away from a drought and 7 days away from a flood" came about.

It is in years like these that I reflect on the Paul Harvey speech "So God made a Famer" at the 1978 Future Farmers of America Convention. It truly takes a great caretaker to survive the everchanging complexities that production agriculture provides to these stewards of the land. ~ Todd Lorenz



**Qualitative Nitrate Testing** 

### **AgExpo Seminars**

Regional MU Extension specialists delivered popular sessions at the annual AgExpo Feb 3 and 4, sponsored by the Central Missouri Ag Club. Todd Lorenz taught the Private Pesticide Applicator training for about 30 earning or updating licenses to safely apply pesticides.

### **Lab Testing Services**

In 2018, 267 samples flowed through the Pettis County office testing the fertility and nutrient composition of soils, poultry litter, compost, and liquid manures. Additionally, several forage samples for nitrate and nutrient testing originated in the Extension Center. The Pettis County Extension Center staff also preformed 7 qualitative nitrate tests.

Testing services are offered through the MU Soil and Plant Testing Lab to assist farmers, gardeners/homeowners and the public sector identify chemical composition and receive expert recommendations for applying amendments. Proper testing of soils and manure nutrients helps operators improve soil health, make effective use of fertilizer to improve plant performance and reduce potential environmental impacts.

### **Pesticide Handling**

The Private Pesticide Applicator Program reaches into each of Missouri's 114 counties to train farmers and landowners who produce an agricultural commodity on the safe and proper use of pesticides. Private applicator training is available through local extension offices. In 2018 about 30 participants received private pesticide formal training through the Pettis County Extension Center to become certified or re-certified as a pesticide applicator for private use only.

### **Beef Production Systems**

A total of 55 direct contacts via phone calls, office visits, or farm visits were made with Pettis County producers in 2018. Many of these were a result of drought conditions experienced in the area. Reduced pasture growth, low hay supplies and nitrate testing of feeds were the major issues addressed. Additional contacts were made via pasture walks, drought meetings, winter feeding meetings, fescue renovation schools, vet update, bus tour, ReproGene meeting, and media efforts including news releases to area newspapers, radio spots on KSIS in Sedalia, and articles in the Ag In Focus newsletter.



### **Grazing Schools**

Grazing schools are a popular way to teach the basics of management intensive grazing in a classroom and field setting. Several schools were offered in the area and drew participants from Pettis County. A sample picture from a grazing system taken in October 2018 is shown.

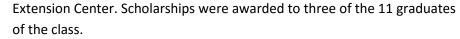
## Show-Me Master Gardener Chapter



The Show-Me Master Gardener chapter is a very active, self-

governing group operating within the guidelines set by the MU Extension program. By the end of 2018 the Show-Me Master Gardeners membership was 33 (22 regulars and 11 interns). Eight (8) Master Gardeners taught 47 classes. They took 133 calls and committed 2,898.25 hours of volunteer work beautifying and educating Pettis County.

In the fall of 2018 the Show-Me Master Gardeners hosted the fall Master Gardener Class held at the





The ability to care for and enjoy living spaces has both physical and psychological benefits for people who garden. We provided two scholarships (\$300 each) for horticulture students attending the spring and fall semesters at State Fair Community College.

Programs provided by Master Gardeners share the extension message to the broader public. By promoting research based gardening and pesticide information, Master Gardeners help enrich the lives of their audiences while

also encouraging more sustainable environmental practices.

### **Activity Summary of the Award Winning Show-Me Master Gardener Chapter**

- Maintained the Liberty Center and Maple Leaf gardens. In 2018, 2 new gardens were added. The Rose Nolan Library and the Bothwell Lodge Gardens.
- Set up and ran a question and answer booth at the AgExpo in February.
- Set up and ran a question and answer booth at the Sutherlands Spring Sale Events. Six (6) sale dates from 7:00 a.m. to 1:00 p.m.
- Information booths at the Missouri State Fair. Hours worked 10:00 a.m. to 4:00 p.m. for 11 days. During that time 7,350 sheets of information were handed out. Several classes were taught in the Floriculture Building and 500 samples of compost were given.
- Held our fundraiser plant sale in May.
- Gave one \$300 scholarship to a Horticulture student at State Fair Community College.
- Funds and products were donated to CASA (products), University of Missouri Extension fundraiser and the 4-H Foundation Fundraiser.
- Ten (10) Pettis County Master Gardeners judged several of the surrounding County Fairs, other shows and events and the Missouri State Fair.
- Other activities that were attended by the Show-Me Master Gardeners: Spring Gardening Seminar by MG's of KC: Powell Gardens annual plant sale; Master Pollinator Steward Program at MU; MO-

DOT (Stop the Invasion Program) at State Fair Community College; Bradford Research Center Tomato Festival and the MG Multi-County Fall Dinner.

### Human Environmental Sciences

Melissa Cotton, Nutrition and Health Education Specialist
Sarah Traub, Human Development Specialist

### Stay Strong, Stay Healthy: Level 1

Stay Strong, Stay Healthy (SSSH) is an 8-week strengthtraining program for older adults. At each session a prescribed set of eight upper and lower-body strengthening exercises are done. SSSH is modeled after the evidenced-

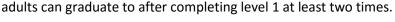


based StrongWomen program developed by researchers at the Friedman School of Nutrition Science at Tufts University. While the original Tufts program includes only women, University of Missouri Extension has adapted the curriculum to include men. Missouri's Stay Strong, Stay Healthy instructors strive to individualize the training for each participant, regardless of their current fitness level, so they can safely participate and gradually build strength beneficial to health.

Three Stay Strong, Stay Healthy Programs took place in Sedalia in 2018. There were a total of 48 sessions and 14 county participants.

### Stay Strong, Stay Healthy: Level 2

Stay Strong, Stay Healthy – Level 2 is a more advanced 8-week strength training program that older





Two sessions of Stay Strong, Stay Healthy Programs were conducted in Sedalia in 2018. There were a total of 36 sessions and 9 participants.

When you support MU Extension's Stay Strong, Stay Healthy program, participants will increase their physical activity and may improve strength, balance and flexibility, resulting in reduced risk

for falls, better overall health and greater independence. These health benefits decrease the likelihood of a participant entering a nursing home. It also keeps people actively, independently contributing to society longer.

### **Cooking Matters and Cooking Matters at the Store**

Cooking Matters is a six week, two hour class that empowers families with the skills, knowledge, and confidence to prepare healthy and affordable meals. Recognized by the USDA as a top nutrition education program, Cooking Matters teaches participants how to



shop and prepare healthy, affordable, and delicious meals. With five distinct curricula focused on different ages of the population, Cooking Matters engages individuals in hands-on nutrition and culinary activities.



Based upon the Cooking Matters program described above, Cooking Matters at the Store engages participants in an interactive grocery store tour teaching them how to include more fruits, vegetables, whole grains, and lean proteins into their carts. Cooking Matters is a national program wholly owned by Share Our Strength.

Three Cooking Matters at the Store events took place in Pettis County in 2018. There were 23 total county participants.

### **Taking Care of You**

"Taking Care of You" is a multi-session program offering practical strategies and experiences to help you deal with the stress in your life. Managing life's challenges in a healthy way allows you to take better care of yourself and your overall health.

Each week you will explore topics through small group discussion, self-reflection and activities.

You will consider ways to:

- Take better care of all aspects of your health body, mind and spirit
- Become more aware of your mind-body connection and how to use this awareness for better
  health
- Respond versus react to the stress in your life
- Discover opportunities in life's challenges
- Develop habits that can lead to a healthier you
- Find ways to bring more joy into your life
- Simplify your life
- Live more in the moment

Taking Care of You was taught one time in Pettis County during 2018 for a total of 15 participants.

### **Chronic Disease Self-Management**

The Chronic Disease Self-Management Program (CDSMP) is a community-based program that assists participants in maintaining quality of life when faced with chronic medical conditions. The CDSMP is provided in 2.5-hour sessions once a week for six weeks in community. People with different chronic health problems attend together. Subjects covered include: 1) techniques to deal with problems such as frustration, fatigue, pain and isolation, 2) appropriate exercise for maintaining and improving strength, flexibility and endurance, 3) appropriate use of medications, 4) communicating effectively with family, friends and health professionals, 5) nutrition, and 6) how to evaluate new treatments.

One Chronic Disease Self-Management Programs were taught in Pettis County in 2018 with a total of 66 participants.

### **Performance Nutrition**

Performance Nutrition is a multifaceted program that covers pre-competition and post-competition nutrition and other high-profile sports nutrition issues that we can tailor to your school, business or activity group. Specific topics include:

- **Hydration:** Drink smart for athletic performance
- Pre-competition nutrition: Eat smart before you compete
- Post-competition nutrition: Recover quickly after you compete
- Protein guidelines: The truth about protein
- **Supplements:** To supplement—or not
- The female athlete triad: Build a stronger female athlete

Three sessions were taught in Pettis County for a total of 64 contacts.

### Focus on Kids (FOK)

FOK helped 18 participants from Pettis County learn how to better support their children through the divorce and separation process in face-to-face classes. Several more Pettis residents competed the course online.

Taught by Sarah Traub, the Focus on Kids program has powerful impacts, as parents are better able to meet the social and emotional demands of their children. A healthy home environment nurtures children who are more successful in school and are less likely to engage in risky behaviors.



Participants in this program provided the following responses.

- More than 90% of FOK participants perceive the program as beneficial to them with regard to both their parent-child and ex-partner relationships.
- One-year follow-up surveys indicate that nearly 75% of former FOK participants report the program as being helpful and worthwhile.

• Credit the program with increasing their knowledge and use of positive co-parenting behaviors and report significant reductions in co-parenting conflict

After attending Focus on Kids, "I will work more on communication with my wife and talk more with my daughter about her feelings."

The most helpful part was learning "communication with the other parent is a must have. I honestly felt that everything was really helpful. I am really glad I got to attend this class."

### **Grand Families**

On October 13, 2018 a community committee co-chaired by Blake Gazaway and Sarah Traub implemented the first GrandFamily Informational Gathering: Addressing Issues Facing Relatives Acting as Parents Event. Thanks to partnerships and grants from MPower, AARP, Break Time, Valley of Hope Grandparents Raising Grandchildren Support Group and MU Extension the event included free lunch, childcare, youth activities and resources for all of the families. 11 grandparents and 11 grandchildren were in attendance, along with 17 local organizations providing information, resources and give-aways for the participants. Led by a local attorney, the topics the grandparents heard were parenting with Love and Logic, parenting adolescents and taking care of self/stress management.

# Family Nutrition Education Program (FNEP)

Maria 'Monse' Montoya De Rivera, Nutrition Program Associate

Katharine Hanlon, Nutrition Program Associate

The Family Nutrition Program (FNP) brought \$9,449,699.00 federal funds to the state of Missouri. These funds were used to provide nutrition education to 735,541 Supplemental Nutrition Assistance Program recipients and eligible citizens of Missouri. There were 2,932,390 educational contacts. This year we had 2,242,249 indirect educational contacts. Indirect contacts are reached through newsletters, health fairs, food pantries and the Show Me Nutrition help line.

Participants in FNP become more aware of nutrition, make healthier meal and snack choices, eat breakfast more often, are more willing to try new foods, increase their physical activity and in general make healthier food choices. Those who practice healthy eating and activity behaviors are more likely to enjoy a high quality of life as an adult and into old age. A healthy labor force is critical to attracting and keeping jobs in Missouri. In addition, this important programming effort serves to reduce healthcare costs over the participant's

lifetime, saving taxpayers money in reduced public healthcare benefits and insurance premiums.





In Pettis County, 1,400 Youth and 3,581 Adults contacts were made for a total of 4,981 contacts.

The following is a list of the locations where participants were served in Pettis County:

<u>Schools</u> <u>Agencies</u>

Horace Mann Elementary	Sedalia Area Farmer's Market
La Monte Elementary	Boys and Girls Club of WC MO
Pettis Co. Elementary	Katy Trail Children's Center
Green Ridge Elementary	Open Door Benevolent Services
Heber Hunt Elementary	Sacred Heart Catholic Church
Skyline Elementary	Sedalia/Pettis Co Branch Library
Smithton Elementary	Sedalia Housing Authority
Washington Elementary	Woods Supermarket 470
Thompson Early Learning Center	Pettis Co Food Stamp Office
Parkview Elementary	Salvation Army

In addition to the numbers, NPA's have shared these success stories demonstrating local impact:

My success story is how I obtain my clients, most of the time I go to the WIC office to introduce myself and the program with new people and I continue doing that. However, a new way of obtaining clients is from my current clients, because they invite other people as family, friends or neighbors to participate in the classes. I really like them adding to my classes. People show interest in being in the program, so I start to schedule their first appointment, then I visit them. I feel very happy that my clients like the program, because that is the key to success. **\*Monse** 

At one of my schools I had decided to bring vanilla soy milk as several of the students had lactose intolerance. Due to sensory issues, one student chose to never participate but after seeing how much his peers were enjoying the tasting, he decided to take the plunge and try it. Turns out, he loved it and had asked for more! After class, I informed his para of this new discovery and she was excited to pass this information on to his mom. It made me feel good that I helped a very picky child expand his palate and that I possibly made his mom's job of finding healthy foods for her son to eat a little easier! ~ Kate



### Blake Gazaway, 4-H Youth Development Specialist Nan Hutcheson, Youth Program Associate

### 4-H in Pettis County 2018

A community of 252 youth building life skills, contributing to their community and becoming college and career ready.

Findings from a 2018 evaluation study reveals that Missouri 4-H:

### **Develops Leadership**

81% of the Missouri 4-H'ers surveyed said they find it easy to speak up in a group.

89% reported feeling comfortable being a leader.

95% said 4-H is a place where they get to help make group decisions.

95% said 4-H is a place where you have a chance to be a leader.

97% said 4-H is a place where you learn about ways to help your community

### **Builds Initiative**

92% of Missouri 4-H'ers surveyed said they are willing to try something they might get wrong.

93% said they keep trying until they reach their goals.

97% said they try to learn from their mistakes.

98% said they are willing to work hard on something difficult.

99% reported that they like to learn new things.

### **Builds Connections for a Bright Future**

92% said they like to learn about people who are different from them, and get along.

93% said they think about others feelings before they say something.

93% say they think about how their choices affect others.

97% said they treat others the way they want to be treated.

98% said they show respect for others ideas.

4-H'ers 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). In 2018 Missouri 4-H connected 4,818 young people to University of Missouri campuses. Being on campus is a predictor of youth going onto higher education (Dalton & St. John, 2016).

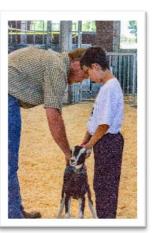
Youth who earn a earn bachelor's degree increase annual earnings by \$2 million over their lifetime (U.S. News and World Report, 2011). If 50% of the Pettis County youth participating in 4-H events on a college campus receive a Bachelor's degree, 4-H would help young people acquire \$24 million more in lifetime earnings.

4-H also prepares youth for the work place. Youth must be prepared to live and work in a world we cannot completely envision – competing for jobs that do not yet exist, using technologies that have not yet been invented to solve problems that have yet to be identified. 4-H is the only youth development program with direct access to technological advances in agriculture, life sciences, engineering, learning technologies and social sciences from the university system. This brings relevant science content and hands-on learning that helps youth thrive (Arnold, Bourdeau, & Nott, 2013).

In Pettis County, 187 were engaged in science related projects and experiences.







Liberty Tree Planting

Clover Kid Day Camp

Jr. Livestock Show







Eagle 4-H Club Bake Sale

**Pettis County Horse Show** 

Easter Photography Shoot







Lock-In at Convention Hall



Operation Windsor SPIN Club

### 4-H clubs

4-H participants = 252\*

Pettis County 4-H clubs offer long-term educational experiences in which members learn life skills such as decision making, public speaking and working with others. Members learn by doing under the guidance of adult volunteers, who teach projects ranging from computers science and arts to animal science and healthy living. Clubs also involve youth in community service, camping and educational trips

### 4-H SPIN and special-interest programs

4-H participants = 25\*

Pettis County 4-H SPIN and special-interest clubs and programs include community partnerships and events, day camps and other educational activities.



International Food SPIN Club

### 4-H school programs

4-H participants = 1,768\*

Pettis County 4-H school programs are educational experiences that supplement learning in the classroom. Teachers, 4-H volunteers or 4-H staff lead these activities. The most popular 4-H school program in Pettis County is Embryology.

\* Duplicates not removed.

### 4-H members are supported by 172 youth and adult volunteers

Time valued at \$416,000.00

Volunteers are the core of the 4-H Program. They help to create, support and deliver educational programs and experiences. Missouri 4-H volunteers report contributing on average 100 hours per year to the program. Valuing their time at \$24.14 per hour (Independent Sector, 2017), the contribution of Pettis County 4-H volunteers was worth more than \$416,000.00 in 2018. More importantly, these individuals serve as role models and mentors for youth.

### **Embryology Program**

Participants = 1,363

The 4-H embryology program is a popular classroom supplement designed to provide youth with a hands-on science learning experience by observing pre-incubated eggs hatch over the course of a few days under their care. During 2018, 1,363 students from 20 schools, preschools, daycares, and home schools participated in embryology resulting in 8,178 hours of learning. Students learn about where their food comes from while gaining knowledge of life cycles and embryo and reproductive development. By



using experimental learning and hands on activities in the classroom, teachers are able to build classrooms geared towards developing student's scientific and observational learning skills. Participants developed the social skills necessary to care for and nurture a living being by helping turn and care for the chicks both before and after they hatch alongside their teacher.

4-H science programming seeks to cultivate an appreciation of the sciences and life early on in Missouri youth. Aligned with state standards, embryology reaches hundreds of students yearly who are able to pass on their knowledge of nutrition and science to their parents thus encouraging a more educated community. A more educated and science literate populace in turn benefits the demands of today's technological and science driven economy.

### **Living History Farm Tour**

Participants = 373

The University of Missouri Extension 4-H program partnered with the Central Missouri Agriculture Club and Cole Camp Antique Tractor Club to educate 373 area youths and adults about the important role that agriculture plays in their lives. Young people from area schools and several home schools came together over the two-day event to learn and observe how agriculture has shaped Missouri communities and has evolved over time.



Horse and Buggy Rides

The students spent the days viewing demonstrations on farm tool history and seeing firsthand how to bale straw, shell corn, make apple cider, churn butter and boil lye for soap making. This year's tour also featured a blacksmith, llamas and donkeys. By experiencing the farm tour, students learn about historic farming practices and gain an understanding of how much farming has changed with modern technology and how that change has impacted the development of the surrounding region.

### **References:**

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).

Dalton, R., & St. John, E. (2016). *College for every student: A practitioner's guide to building college and career readiness.* New York, NY: Routledge.

Independent Sector (2017). Independent sector releases new value of volunteer time of \$24.14 per hour. Retrieved from http://independentsector.org/news-post/value-volunteer-time/

Lerner, R.M., Lerner, J.V. (2011). The positive development of youth: Report of the findings from the first seven years of the *4-H Study of Positive Youth Development*. Retrieved from http://www.4-horg/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

# Business Development Program (BDP)

Kelly Asbury, Director SBDTC, Sedalia

As entrepreneurs and innovators, Missouri's small businesses are becoming a more diverse group that continues to make the state's economy productive. There are approximately 500,000 small businesses in Missouri. Nearly 98 percent of all businesses with employees categorized as small businesses. In assisting the owners and managers of those businesses, MU Extension contributes to a county's economic development through growth in jobs, sales, innovation, technology development and commercialization.

During 2018, Pettis County, business counselors provided business start-up and management counseling, training, and other assistance to 187 people and their companies. In addition, entrepreneurs and business owners in Pettis County reported the following economic impact and activity as a result of the services provided by the MU Extension Business

### **Development Program:**

•	New businesses	4
•	Created or retained jobs	29
•	Sales increases	\$142,100
•	Investments (loans or owners' equity)	\$1,083,330
•	Clients/companies receiving business counseling	67
•	Business training attendees and conference participants	187

### **Continuing Education**

### Fire and Rescue Training Institute (MU FRTI) — 47 local participants

In FY 2017, MU FRTI celebrated its 85<sup>th</sup> anniversary of providing continuing professional education and training to Missouri's fire service and emergency response personnel.

### Missouri Training Institute – five local participants

The Missouri Training Institute provides continuing education programs in business. In FY 2017, 10,630 people enrolled in the institute's programs that cover diverse business practices, such as human resource management, team building, decision-making, strategic planning and leadership.

### **MU Nursing Outreach** — 21 local participants

Nursing Outreach serves mainly rural health-care workers with high quality, affordable continuing education programs using face-to-face and online delivery methods. In FY 2017, nurses from 77 Missouri counties and the city of St. Louis attended continuing education programs

### **Labor Education** – 0 local participants

The Labor Education Program works with workplace-based organizations to help them develop skills, act effectively in the workplace and be informed and active participants in their communities. In FY 2017, the program offered 35 courses and conferences to 952 participants.

**Law Enforcement Training Institute (LETI)** — one local participant this year LETI provides training and education for Missouri's 17,000 personnel and police recruits. In FY 2017, LETI reached nearly 2,000 police and emergency responders.

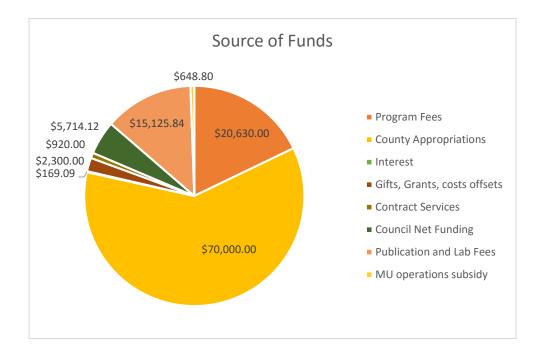
**Center for Continuing Medical Ed. and Physician Lifelong Learning (CME/PLL)** – 6 local participants CME/PLL serves MU Extension and the MU School of Medicine by educating physicians and other health care providers to improve the standard of care in Missouri.

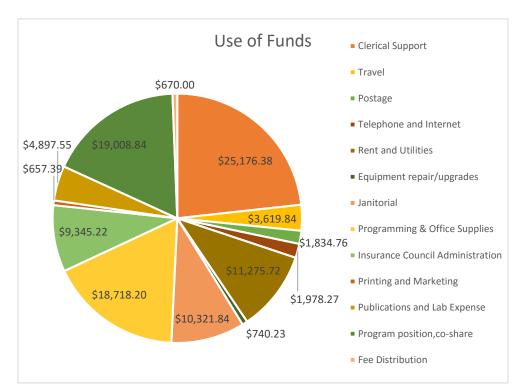
### Indicators of University of Missouri System Impact within Pettis County

The university advances Missouri citizens and communities through its mission of teaching, research, public service, and economic development across the four campuses and University of Missouri Extension. The following statistics are estimated UM connections to Pettis County for 2018.

- Alumni residing in the county: 837
- UM students from Pettis County: 155
- UM employees residing in the county: 56
- Alumni teaching K-12 in the county: 34 teachers
- Pettis county patients seen at UM Health Care: 6,993

### Pettis County Extension Program Funding, CY2018





### Faculty and Staff Serving Pettis County

### **Headquartered in Pettis**

### **Blake Gazaway**

County Engagement Specialist in 4-H Youth Development

### Nan Hutcheson

Youth Program Associate

### Maria "Monsee" Montoya De Rivera

Nutrition Program Associate
Pettis County Community Partnership

### **Katharine Hanlon**

**Nutrition Program Associate** 

### **Sherol Bose**

Office Administrative Assistant

### Additional faculty with assignments in Pettis

### **Brent Carpenter**

Field Specialist in Agricultural Business

### Susan Jones-Hard

County Engagement Specialist in Nutrition and Health Education

### **Todd Lorenz**

Regional Horticulture and Agronomy Specialist

### **Gene Schmitz**

**Livestock Specialist** 

### **Kent Shannon**

**Natural Resource Engineering Specialist** 

### **Dedra Thomas**

Family Financial Education Specialist

### Sarah Traub

**Human Development Specialist** 

### Small Business and Technology Development Center at State Fair Community College

**Kelly Asbury** 

Director

