

Gratiot County

2014–2015 ANNUAL REPORT



MESSAGE FROM THE DISTRICT COORDINATOR

In September we announced that Jeff Dwyer will become interim director of MSU Extension, effective Jan. 1, 2016. Dwyer replaces Ray Hammerschmidt, who will resume his research and teaching roles in the MSU Department of Plant, Soil and Microbial Sciences.

We are excited to welcome Dr. Dwyer to this difficult position that has undergone much transition in the last 18 months. Though our leadership will be changing, our long-range plan of working diligently to serve Michigan residents has not. Our staff members continue to follow their work plans that they, along with Extension leadership and their colleagues, have developed to meet the ever-changing needs of District 8 and Gratiot County. MSU Extension staff are committed to serving their communities.

Our overall plan for our leadership team is the same as it has been since Tom Coon resigned in June of 2014 to take a position as vice president and dean at Oklahoma State University. We will have an interim Extension director until a new dean is named for the MSU College of Agriculture and Natural Resources in early 2016. Once that dean has settled in, he or she will have an opportunity to help choose a permanent MSU Extension director whose goals, style and vision complement those of the dean. Until then, we continue to move forward with a strong leadership team.

In this report you will find examples of programs that support youth, encourage better health and nutrition, inspire entrepreneurs, keep farmers up-to-date, protect natural resources, stimulate business, develop communities and help to prepare government leaders. In each of these areas, MSU Extension is committed to utilizing information which is current to research and relevant to communities.

As we transition through these changes, I look forward to our continued partnership in moving Michigan forward.



Don Lehman
District Coordinator, District 8



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MEASURING IMPACT

CONNECTING WITH RESIDENTS

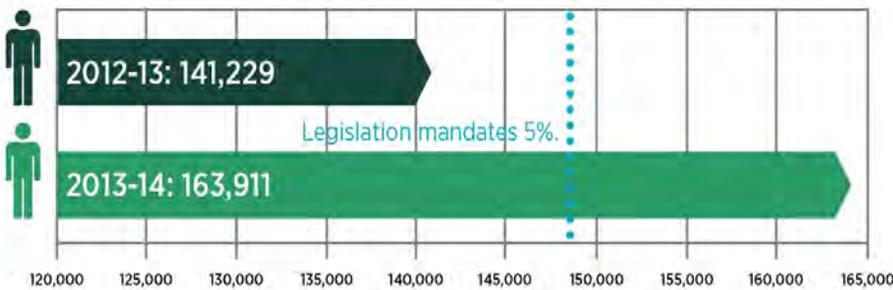
SNAP-ED Participants.....	495
4-H Program.....	1,667
- 4-H Club members.....	700
- Special interest participants.....	967
Gardening Hotline.....	25
Residential soil test.....	10
IMPACTS.....	2,197

DISTRICT 8 DIGITAL REACH

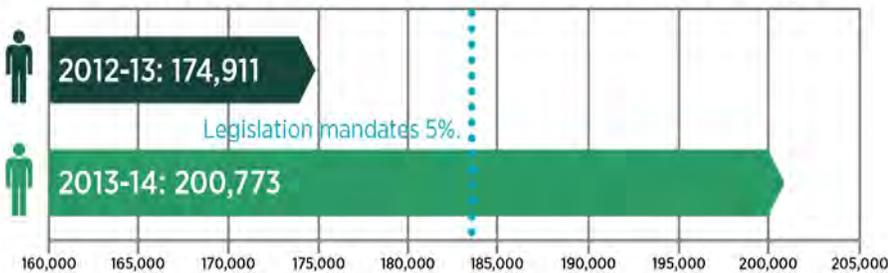
From July 1, 2014, to June 30, 2015, 118,744 visitors from our 7-county district viewed more than 349,343 pages of rich, science-based content on the MSU Extension website (msue.msu.edu).

Search engine rankings make msue.msu.edu one of the most visited Cooperative Extension Systems education sites in the country.

15% Growth in Adults Participating in MSU Extension Programs



16% Growth in Youth Participating in MSU Extension Programs



MSU Extension’s Expanded Digital Reach



2 million visitors viewed more than 4 million pages



560,000 topic newsletters distributed to more than 8,500 email addresses



Nearly 2,000 Facebook and more than 1,700 Twitter followers

DEVELOPING YOUTH AND COMMUNITIES

When you support MSU Extension 4-H programs, you are helping youth participants acquire life skills that are necessary for success in today's competitive economy. One way Extension works to accomplish this is by helping children develop early literacy skills that support school readiness. Children who participate are also learning leadership and decision-making skills that increase their likelihood of becoming civically active. Active 4-H participation has also been associated with a reduced risk for negative behaviors such as drug use. This helps ensure that more of our young people succeed in school, attend college and contribute to their communities. Successful young people in communities results in greater tax revenues, consumer spending and increases the likelihood that they will stay in, or return to, their home communities.

Preparing children for academic success

Youth who are not proficient readers by fourth grade are 68 percent more likely to drop out of high school. Research shows that young children who develop literacy skills prior to entering kindergarten are better prepared for school reading curriculum.

Children's school readiness improves when parents and caregivers are taught methods that increase early childhood science and reading literacy, and ways to prepare children socially and emotionally. Programming provided through MSU Extension and other organizations prepare children for academic success by giving parents and caregivers the tools they need to help their children succeed in school. MSU Extension is also making learning to read more accessible by putting books into the hands of thousands of children from low-income households.

- » To date, 250,000 books have been distributed to more than 2,500 children, including youth in Gratiot county, through programs sponsored by MSU Extension and its partnership with the Molina Foundation.
- » As a result of MSU Extension trainings and workshops, adults indicated an increase in knowledge of concepts of early childhood development and techniques that promote school readiness and academic success.

2015 Gratiot County 4-H statistics:

- 700 Youth 4-H club members
- 967 Youth participants in special interest programs



MSU Extension provides resources aligned with Michigan science education standards to teach confidence, leadership and responsibility related to STEM.

Developing Youth and Communities, continued

STEM Programming

On August 7th, 2014, a 4-H youth member held a science exhibition he organized. Gratiot County MSU Extension 4-H Program Coordinator, Matthew Newman, assisted him in coordinating the event that drew over 400 participants! The event educated youth of the various opportunities available through STEM (Science, Technology, Engineering, and Mathematics) and showed the community that youth can be the solution. This successful event was primarily organized by a 4-H youth member. The goal was also for 4-H youth members to reach out to other youth and adults with demonstration booths set up during the annual kids' day at the Gratiot County Fair for Youth. Booths included a 3-D printer, a sound visualizer, the science of bubbles and Michigan fossils. Youth were able to participate in hands on learning activities, most of which were instructed by 4-H youth.

Life skills are a basic foundation that prepare youth for success in life. The goal of Michigan 4-H Youth Development is that every youth possess the necessary life skills to be successful.

Results and impacts on Gratiot youth

- » 4-H youth gained valuable leadership skills while working with youth. The 400+ youth who attended the science exhibition gained not only a greater understanding of STEM programming available to them in Gratiot County, but also a greater understanding of the various opportunities available thru their 4-H county program. In 2015, 700 youth were enrolled as 4-H club members.
- » Gratiot County 4-H youth participated in 4-H workshops at the Kettunen Center, including but not limited to 4-H Winterfest, 4-H Teen Leadership and Community Change Conference, and the 4-H Arts and Visual Crafts workshops.
- » 87 youth and adults participated in 4-H Exploration Days on the Michigan State University campus.
- » 16 youth from Gratiot County's 4-H Teen Exchange Club visited Stillwater, TX for an exchange trip.

MSU Extension programs such as the Michigan 4-H Youth Conservation Council (M4-HYCC) allow Michigan's youth to get involved and become community leaders, but also shows them how to be engaged in the legislative process.



ENSURING SAFE, SECURE AND ACCESSIBLE FOOD

When you support MSU Extension, you are also supporting our food safety programs. Our food safety educators are working to ensure that all have access to an adequate supply of safe, affordable food. Programming focuses on food safety measures in the field from planting to harvest. Participants also have the opportunity to learn proper food preparation and food preservation techniques. MSU Extension offers a variety of programs that bring community partners together to enhance access to healthy food supplies, leading to more viable and healthy communities with lower health care costs.

Teaching residents about food safety

From the field to the table, food safety is an important issue. Foodborne illness affects all socioeconomic categories and costs the U.S. economy billions of dollars each year in lost productivity, hospitalization, long-term disability and even death. The Cottage Food Law took effect in July 2010, allowing home-processed foods to be sold to the public, emphasizing the need for food safety education.

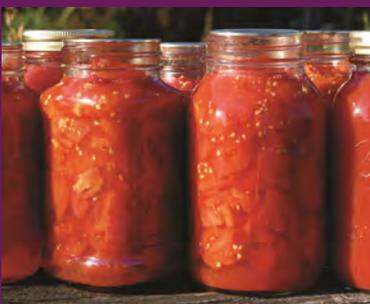
MSU Extension Cottage Food Law workshops supply Michigan residents with up-to-date, scientifically backed information on food safety. In 2013, nearly 4,000 Michigan residents learned about preserving and preparing food safely for public consumption. Participants who successfully complete the training are given an MSU Extension food safety certificate. This increases consumer confidence when buying locally grown and produced food products.

Another program offered by MSU Extension is the ServSafe course offered through MSU Extension. This is a national certification program for food service workers, taught by certified Extension educators. ServSafe topics include:

- » Providing safe food
- » Forms of contamination
- » The safe food handler
- » The flow of food
- » Food safety management systems
- » Safe facilities, cleaning and sanitizing

Participants who complete the course, will earn their ServSafe Certificate.

The growing local food movement has renewed consumer interest in safe food preservation techniques. MSU Extension offers online courses to learn how to safely preserve food from the comfort of your own home. Through the [Food Preservation Online Course](#).



When doing home based food preservation, it's important to not use just any recipe. MSU Extension can provide you with research based recipes for delicious and safe food!

KEEPING BUSINESSES STRONG

MSU Extension and the MSU Product Center help Michigan entrepreneurs develop and commercialize high-value, consumer-responsive products and businesses in the food, agriculture, natural resources and bio economy sectors. When you support MSU Extension, you help participants understand the economic, environmental and social benefits of purchasing local and regional foods. You also help young people develop business skills that will help them succeed as adults and help communities capitalize on their ecological, social and cultural assets. This fuels the economy by creating and retaining jobs, and helps ensure a healthy tax base.

Providing valuable work experience to young professionals

MSU Extension encourages Michigan's young people to envision a future career path that can help them positively impact their communities and build valuable professional skills. A new internship program creates a link between campus life and future career success. Due to its success, the program, which started in 2013 with seven interns, has been expanded in 2014 to thirteen interns.

The internship program has been popular with communities, MSU Extension educators and, most importantly, with the students, who have shown growing interest. In 2013, the program was piloted in regions in Michigan with a focus on agriculture. It provided students with a valuable networking opportunity with farms and within the agriculture industry, and allowed them to gain important skills in vital areas of agriculture.

In the internship program's first year, interns worked on:

- » Improvement of air quality around swine production facilities through an investigation of various plant species for use as vegetative environmental buffers.
- » Basic equine health and body condition as well as safe handling of horses.
- » Pork quality assurance and site assessment.
- » Forage management for sheep and goat production.



Michigan 4-H offers many opportunities in career exploration and workforce preparation to help youth look at internships as well.



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KEEPING PEOPLE HEALTHY

When you support MSU Extension, you are helping participants to increase their physical activity and improve the quality of their diets. Extension also provides programs that work to decrease incidents of violence, bullying and to improve the social and emotional health of Michigan residents. Encouraging these healthy behaviors helps reduce health care costs by helping prevent chronic health conditions and providing safe environments throughout a person's life span.

Working to improve social and emotional health

Many negative factors affect social and emotional health, including ongoing and toxic stress that may result from situations including abusive relationships, bias, damaging coping behaviors and relationship violence. Across the lifespan, people faced with these situations and settings are at risk for a wide range of physical, psychological, social, emotional, cognitive, financial and spiritual health challenges. The United States spends an estimated \$425 billion in direct and indirect costs of violence each year.

RELAX: Alternatives to Anger is designed to actively engage adult learners to increase knowledge and skills around anger management and give them constructive ways to deal with anger. In 2013, MSU Extension collected 712 RELAX evaluations from participants.

Consistently, more than half of program participants leave RELAX with improved knowledge or new skills designed to promote social and emotional well-being with other in their lives and immediate environments.

Fighting obesity through education

Michigan has the 11th highest adult obesity rate in the United States, according to the CDC. More than 30 percent of adults are obese, and an additional 35 percent are considered overweight.

Extension programs reached more than 87,000 adults and youth and worked to equip them with skills needed to buy and prepare nutritious, budget-friendly foods; increase their physical activity; breastfeed their babies and stretch their food dollars. MSU Extension reached more than 87,000 adults and young people across the state through programming. Through the program outreach:

Encouraging healthy behaviors reduces health care costs by helping to prevent chronic health conditions and providing safe environments throughout a person's life span.



MSU Extension reached more than 87,000 adults and young people across the state through programming. Nearly one-third of youth increased their level of physical activity and more than two-thirds of adults increased time spent being physically active, including three-quarters of older adults.



Programs focus on helping participants gain the skills needed to buy and prepare nutritious, budget-friendly foods; increase their physical activity; breastfeed their babies and stretch their food dollars.

Keeping People Healthy, continued

- » More than one-third of youth decreased their intake of sugary drinks.
- » Nearly one-third of youth increased their level of physical activity.
- » Nearly half of adults increased their daily vegetable and fruit consumption.
- » More than two-thirds of adults increased time spent being physically active, including three-quarters of older adults.
- » More than two-thirds of adults reported improved ability to make their food dollars go further.

Teaching valuable healthy-eating skills

More than 1.7 million Michigan residents receive Supplemental Nutrition Assistance Program (SNAP) benefits.

MSU Extension's Supplemental Nutrition Assistance Program Education (SNAP-Ed) programs including Cooking Matters for Adults, Project Fresh, Healthy Harvest and Show Me Nutrition teach adults how to make the most of their food dollars, by developing skills such as menu planning, understanding recipes and keeping food safe. Participants learned about the nutrition and health benefits of foods to feed their families in healthy ways.

Across the state MSU Extension nutrition education programs have:

- » Reached 80,366 SNAP-Ed participants from 82 of Michigan's 83 counties in 2013.
- » Targeted program recipients will receive more than 72,000 nutrition education reinforcement items, including measuring cups, cutting boards, strainers and more.
- » Items are expected to have a direct and indirect impact on more than 12,000 individuals and families in Michigan.
- » Reached 2,400 residents in the Disease Prevention and Management classes in 2013.

Through the National Diabetes Prevention Program, MSU Extension helps participants to learn ways to change their lifestyles and improve their health.



MAKING THE MOST OF OUR NATURAL ASSETS

Better land stewardship benefits communities by protecting and enhancing Michigan's natural resource assets.

When you support MSU Extension's natural resources education programs, you are helping participants learn about income-generating opportunities, ecological principles, natural resource issues and the role of natural resource professionals. They also explore public policy issues related to environmental stewardship. Our programs can lead to increased income for families that retain their natural resource assets, help landowners become better stewards of their land, and protect land management opportunities for future generations. Better land stewardship benefits communities by protecting and enhancing Michigan's natural resource assets.

Helping Michigan residents become better stewards of our inland lakes

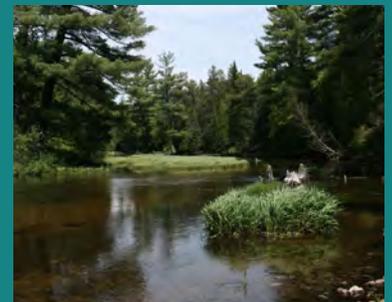
Michigan has more than 11,000 inland lakes, which are among our most beautiful and precious resources. To marshal all of the passion and energy so many people and organizations have regarding Michigan's lakes, MSU Extension helped organize the first Michigan Inland Lakes Convention. The convention hosted 372 lake enthusiasts, professionals, government officials and others for an intensive three-day convention.

The convention helped participants learn how to become better stewards and to better protect Michigan's inland lakes. It boasted more than 25 educational opportunities, including sessions regarding youth and volunteer education, aquatic invasive species, plant identification, algae blooms and water quality.

The convention was a partnership between MSU Extension, the Michigan Department of Natural Resources, the Michigan Department of Environmental Quality, the Michigan Lake and Stream Associations, the Michigan Natural Shoreline Partnership, the MSU Institute of Water Research and the Michigan Chapter of the North American Lake Management Society.

- » 372 people attended the Michigan Inland Lakes Convention.
- » More than 66% represented nonprofit agencies or were riparian landowners.
- » More than 75% reported increased leadership, confidence and stewardship.
- » More than 90% reported gaining information that will assist them as professionals or volunteers.

To marshal all of the passion and energy so many people and organizations have regarding Michigan's lakes, MSU Extension helped organize the first Michigan Inland Lakes Convention.



SUPPORTING FOOD AND AGRICULTURE

Michigan agriculture continues to be a growing segment of the state's economy. The production of commercial food and nonfood agricultural operations is growing rapidly. The number of households raising a portion of their own food and raising livestock or gardening for pleasure or relaxation continues to increase. When you support MSU Extension, you help participants learn profitable and efficient business and production practices. Participants also learn how to optimize and reduce the use of pesticides and fertilizers, and how to conserve and protect water resources. This education leads to better use of time, money and human capital, and helps retain and create agricultural jobs. These measures strengthen Michigan's economy while connecting farmers to local food opportunities and global markets. In this way you help MSU Extension encourage growth in a sustainable and prosperous Michigan food and agriculture system.

When you support MSU Extension, you help participants learn profitable and efficient business and production practices.

Bridging the gap between farm to fork

On August 15th, 2015, Wheeler Dairy of Gratiot County was the proud host of a Breakfast on the Farm (BOTF). These free events help bridge the gap between Michigan's farmers and consumers who often have little idea where the food on their plates comes from. BOTF invites the public to enjoy a delicious farm-fresh breakfast on a working farm and educates them on the farm-to-fork process. BOTF is an open door for the community to learn about modern food production and build trust with and appreciation for local farmers. Wheeler Dairy used this opportunity to show consumers how technology has advanced the agriculture industry and the changes that it has made to operations over the years.

Livestock health

January 16 (Coldwater, MI) and January 30 (Mt. Pleasant, MI) the MSUE Pork Work Group presented its regional program "Back to Basics—the Importance of Pig Health". Jerry May's contribution to the program was presenting on reducing energy requirements in hog barns. The presentation included basic approaches to reducing the energy requirement while maintaining or increasing animal comfort. A portion of the presentation included a review of the Reduced Nighttime Temperature (RNT) in Pig Nurseries presented in 2013.



Breakfast on the Farm (BOTF) bridges the gap between Michigan's farmers and consumers who often have little idea where the food on their plates comes from.

Supporting Food and Agriculture, continued

Referencing the presentation from the 2013 Pork Work Group regional meeting on reduced nighttime temperature, one producer requested more information on implementing the practice. The producer was provided phone consultation and directed to a 2013 Pork Quarterly article. He has reported implementing RNT in a newly remodeled nursery. Based on the success in the remodeled nursery, the producer reports he is currently considering updating the ventilation controller in a second nursery to allow for implementing RNT in that facility also.

Community support and relations

Two meetings of Gratiot County large livestock producers were jointly convened by the Gratiot MSUE office and the Gratiot County Farm Bureau. These meetings were being facilitated to offer the farmers the opportunity to collectively respond to some articles in the local newspaper this fall. The farmers developed a proactive plan that will be carried out throughout 2015 to respond to media reports.

Another example of how Gratiot County MSU Extension Educators are contributing to our Agriculture industry, is by supporting entrepreneurs. A young man currently running a part-time custom manure application business requested assistance from MSU Extension with developing a business plan to expand his business. With assistance from Roger Betz, a business plan was written and an estimated cash flow developed that he could then use to compare an expanded business to his current situation. The young entrepreneur intended to use the business plan/cash flow to borrow additional funds to expand his business.

What's new with Poo

On August 18, 2015, Michigan Innovations in Agriculture 2015 Tour was held. MSU Extension and several other agencies partnered to bring the event to the community. *What's new with Poo*, was designed to provide information on several manure management practices. In the morning, Amber Radatz, co-director of Wisconsin Discovery Farms, spoke and assisted farmers with issues related to manure management, water quality and nitrogen use efficiency. In the afternoon, four farms in the Montcalm, Gratiot and Clinton county areas were visited to view manure separation, manure treatment and handling, harvestable buffers and cover crops as feed. Approximately 175 people attended this educational event sponsored by several agricultural agencies.

The brown marmorated stink bug has a host range of more than 300 known plants, including fruits grown in Michigan.

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MI SPARTAN IMPACT

REGION 8



ENROLLED MICHIGAN STUDENTS
5,131



VETERINARY MEDICINE STUDENTS
132



ENROLLED MEDICAL STUDENTS
334



ALUMNI RESIDING IN REGION
47,383



SPENDING WITH LOCAL BUSINESSES
\$204,331,952



TOTAL ECONOMIC IMPACT
\$2,931,036,531*



STAFF/FACULTY RESIDING IN REGION
9,233



FINANCIAL AID DISBURSED
\$50,243,100



4H YOUTH PARTICIPANTS
8,977



PROPERTY OWNED BY MSU (ACRES)
9,329



**MEDICAL INTERNS/RESIDENTS/
FELLOWS**
472

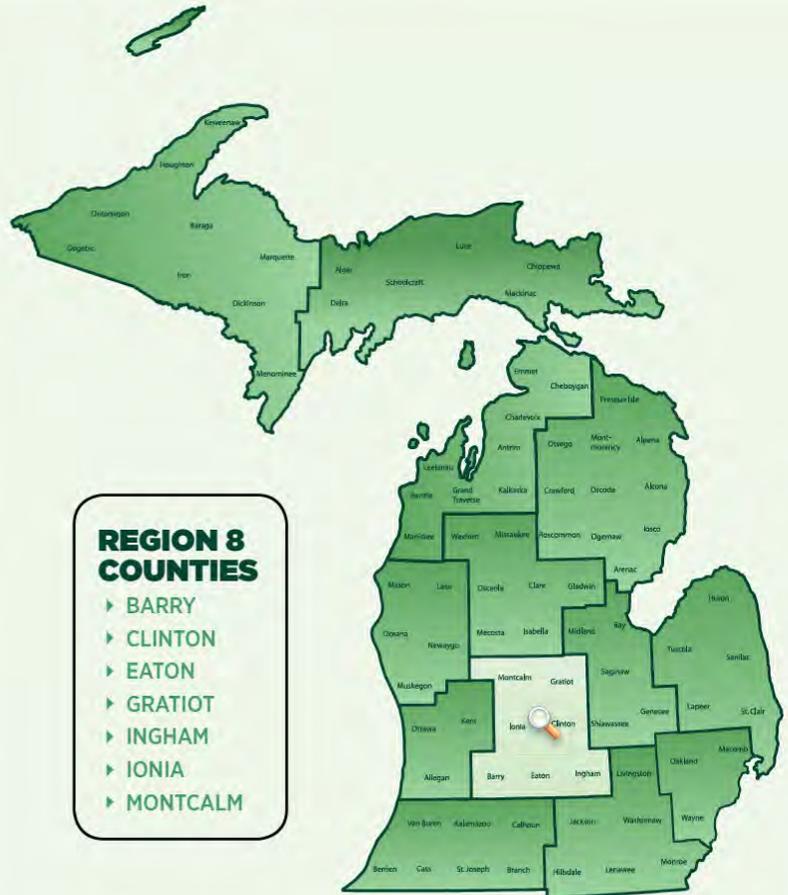


MSU PARTNER HOSPITALS
4

Michigan State University is making a difference—everywhere—in Michigan.

Every day, Michigan State University—the nation’s pioneer land-grant university—works to advance prosperity for the people of Michigan. MSU makes a positive impact on the state’s economy in the areas of technology, agriculture, manufacturing, health care, education, energy, environment, and the arts.

MSU’s talent and expertise help position Michigan as an uncompromising competitor in a global market. A vital contributor to the state’s economy, the university attracted more than \$477 million in external funding in fiscal year 2013 and plays a key role in the state’s annual \$91 billion-plus agribusiness industry through partnerships, research, and educational programs in all 83 counties.



*Data from an independent study by the Anderson Economic Group

Extension Educators Serving Gratiot County

Staff Located in Gratiot County Office:

Name	Role	Phone	Email
Lori Mikek	Office Manager	989-875-5234	mikekl@anr.msu.edu
Matthew Newman	4-H Program Coordinator	989-875-5295	newman39@anr.msu.edu
Lindsay Padgett	SNAP-ED Program Instructor	989-875-4234	padgett19@anr.msu.edu
Kami Paksi	County Support	989-875-5233	paksi@msu.edu

Additional MSU Extension Staff Serving Gratiot County:

Name	Role	Phone	Email
Laura Anderson	Disease Prevention Educator	269-945-1388	ander359@anr.msu.edu
Randy Bell	Community Food Systems Educator	517-676-7298	bellr@anr.msu.edu
Diane Brown-Rytlewski	Horticulture Educator	517-676-7292	rytlews1@anr.msu.edu
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George Silva	Field Crops Senior Educator	517-543-4467	silvag@anr.msu.edu
Sheila Urban Smith	4-H Youth Development Educator	517-432-7612	smiths20@anr.msu.edu
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