



# MSU TOLLGATE FARM

ANNUAL REPORT *for* 2019



## STRATEGIC DIRECTION | 2020 TO 2025

Michigan State University (MSU) Tollgate Farm and Education Center, located in Novi, Michigan, has a long history of providing unique extension programming for local audiences. As a part of MSU Extension, we are proud of this legacy, but we also look to the future. The MSU Tollgate Farm team has been challenged by the leadership of MSU Extension to transform MSU Tollgate Farm into a national leader for place-based

education. A first step in this process was engaging in strategic planning during 2019. Feedback was gathered from stakeholder groups to assess current audiences, needs, challenges, desires, and context. Research about local, regional, and national context was also completed. Based on this information, a revised mission, a 5-year vision statement, and 5-year strategic goals were created for the site.

### MSU EXTENSION MISSION

MSU Extension helps people improve their lives through an educational process that applies knowledge to critical issues, needs, and opportunities.

### MSU TOLLGATE FARM AND EDUCATION CENTER MISSION

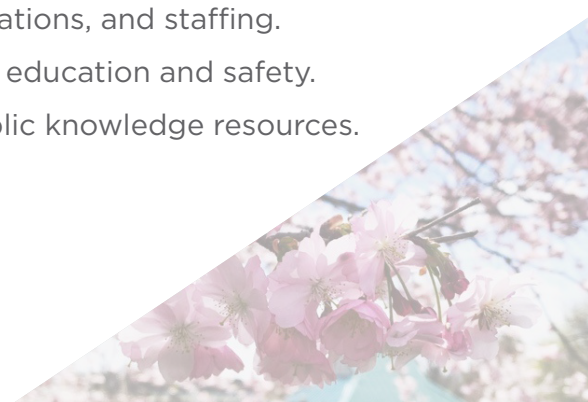
MSU Tollgate Farm provides nonformal learning for children, families, and adults, offering the unique opportunity to experience agriculture hands-on in an urban environment.

### MSU TOLLGATE FARM AND EDUCATION CENTER VISION STATEMENT

In 2025, MSU Tollgate Farm and Education Center is no longer considered a local “hidden gem” and is recognized as a leader in Michigan for its ability to blend heritage and innovation into experiences for all ages. To accomplish this, MSU Tollgate Farm has increased access to agriculture and natural resources education by placing a priority on diversity, equity, and inclusion. Additionally, MSU Tollgate Farm will have the operational systems in place to achieve the long-term goal of being a national leader beyond 2025. The farm continues to be a trusted provider of evidence-based agriculture, natural resources, and youth development content for the public, practitioners, and academics to make informed decisions.

## 5-YEAR STRATEGIC GOALS

- Make a positive impact on our community through high-quality place-based education and as a leader in Michigan 4-H.
- Prepare MSU Tollgate Farm to participate in the next university capital campaign.
- Improve long-term sustainability of site finances, operations, and staffing.
- Implement capital improvement projects that support education and safety.
- Contribute to relevant academic, practitioner, and public knowledge resources.



# SUCCESS BY THE NUMBERS



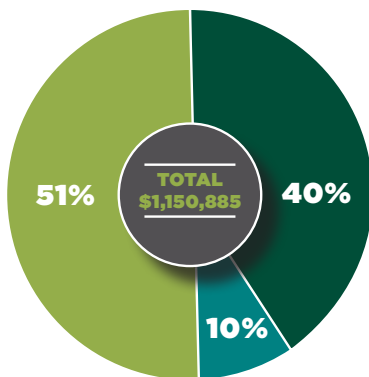
## VISITATION FOR 2019

INITIATIVE	CONTACTS
School Field Trips	5,500
Conference Center Rental	4,733
Off-Site Community Events	2,000
Pumkinfest	6,000
Spring and Fall Plant Sale & Garden Open House	350
Early Childhood Education	1,003
Day Camps	746
Stewards Leadership Program	72
Pancake Feast	533
Garden Volunteer Educational Meetings	520
Sustainable Agriculture Programs	350
Community Programs (nonschool programs)	300
Hanami Spring Picnic	400
Starry Night	58
Public Maple Tapping Day	45
4-H Educational Workshops	200
<b>TOTAL</b>	<b>22,810</b>

## VOLUNTEERS OF 2019

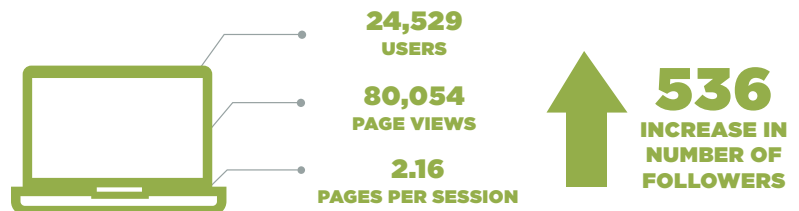
PROGRAM	NUMBER OF VOLUNTEERS	HOURS	VALUE
Stewards & SIT's	72	9,100	\$231,413
Gardens & Grounds	240	3,700	\$94,091
Maple Sugaring	30	300	\$7,629
4-H Club	30	3,000	\$76,290
Pumkinfest	216	1,510	\$38,399
Maple Tapping & Pancake Feast	12	48	\$1,221
Early Childhood	2	20	\$502
<b>TOTAL</b>	<b>602</b>	<b>17,678</b>	<b>\$449,552</b>

## 2019 MSU TOLLGATE FUNDING



INITIATIVE	VALUE
MSU Extension	\$454,856
Americana Foundation	\$114,100
MSU Tollgate	\$581,929
<b>CONTRIBUTIONS</b>	<b>\$1,150,885</b>

## SOCIAL MEDIA AND WEBSITE STATISTICS



## FACEBOOK

JANUARY 1, 2019



2,674

DECEMBER 31, 2019



3,210



## BRIDGING FORMAL AND NONFORMAL LEARNING AT MSU TOLLGATE FARM

Schools and community groups visited Tollgate Farm in 2019 to experience specially designed agriculture and natural resources programs, which investigate big ideas and are aligned to Common Core and Next Generation Science Standards. The farm offers a unique setting with opportunities to observe phenomena

and apply science and engineering practices in the real world. Programs are interdisciplinary and use crosscutting concepts to allow students to connect their farm experience with classroom learning and to deepen their understanding of principles found at the farm.

### 2019 Quick Facts:

SCHOOL DISTRICTS WHO VISITED:



Dearborn, Detroit, Farmington, Hamtramck, Hazel Park, Huron Valley, Northville, Novi, Oak Park, Southfield, Swartz Creek, Walled Lake, Warren, Wixom

55

SCHOOLS AND COMMUNITY GROUPS

5,576

SCHOOL AND COMMUNITY PROGRAM PARTICIPANTS

25%

SCHOOLS RECEIVING FINANCIAL AID

\$6,547

FINANCIAL AID RECEIVED BY SCHOOLS

## LEARNING WITH LANIGAN ELEMENTARY: A PLACE-BASED JOURNEY

During 2019, MSU Tollgate Farm partnered with Lanigan Elementary of Farmington Public Schools to bring all kindergarten through fifth grade students to the farm. The fifth grade engaged in an expanded place-based investigation related to the health of the Rouge River watershed.

In this collaboration between students, teachers, and MSU Tollgate Farm, experiences included a visit to the farm, a trip to the Rouge River for sampling, and

classroom visits. The MSU Tollgate Farm team also provided regular communication and support for the teachers. Additional partners who supported the effort included the Cranbrook Institute of Science, Water on the Go, and Friends of the Rouge. Through these experiences, the students learned that human activities directly affect the health of our water and that it is important to protect this resource. By connecting learning to place, students are empowered to know and care more deeply about their own community.



*“ Thank you for a great learning experience for our students. It was so nice to be at our local community learning about water that is right in their backyards! We loved the erosion and pollution studies, but the kids loved looking for the bugs. ”*

*-Fifth grade teacher, Lanigan Elementary*

## COMMUNITY-SUPPORTED AGRICULTURE: A PLATFORM FOR TRAINING FARMERS

The Community-Supported Agriculture program (CSA) continues to grow in its seventh year. One hundred sixty members joined for the 20-week main season with an additional 107 members sticking around for our 6-week fall session. Members get a share of the seasonal production, interact with their farmers, ask questions, share stories, and connect to their food each week. This is in addition to the weekly newsletter filled with recipes, facts about agriculture, and season updates along with three annual tours and potlucks for members to explore the production more deeply.

The production and CSA serve as the classroom for the apprenticeship program, now having completed its fourth season. Novice farmers work on the production in a 22-week intensive experience that

equips them with the knowledge and skills necessary to begin a career in agriculture. Apprentices tour other operations throughout the season and engage in weekly textual study and discussion all while working with experienced farmer-educators on a seasoned operation.

The Sustainable Agriculture program includes the farm business incubator, which has provided affordable access to land and infrastructure for the nascent Root to Rise farm the past two years. The program hosted a study from Dan Brainard, MSU associate professor, on mechanical weed control in beets. Our team continues to innovate and improve its practices in organic weed management, pest and disease control, and soil conservation.



**“ This was my first year participating in a CSA, and it was above and beyond my expectations. You guys are amazing, the food is amazing, and my life and eating habits have totally changed. Thank you so much! Can’t wait for next year.” ”**

*-CSA Participant*

*“ I love this CSA program! I am fortunate to be retired so I had time to try the recipes and cook a lot to use all the veggies every week. It was a real treat to have such fresh, yummy produce and we ate a lot of things that I normally would not buy at the store (eggplant, fennel, fresh dill, kohlrabi, chard, leeks). I think we ate a lot healthier this summer than we ever have. Thanks for all the hard work! ”*

*-CSA Participant*



**190**

CSA MEMBERS  
(SUMMER AND FALL)

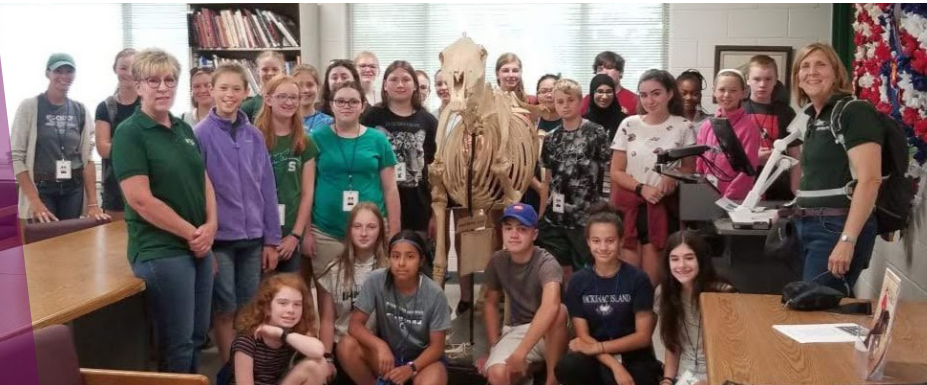
**\$78,000**

OF PRODUCE SOLD

*“ This is our first time participating in a CSA and I’m in love! My family and I get so excited about going to farm and picking up fresh, healthy produce. Our son has fallen in love with kale this summer due to us coming every week. Before I would have been lucky for him to try it and now after loving kale, he tries everything we bring home! ”*

*-CSA Participant*

## DELVING DEEPER: SPECIALTY CAMPS



MSU Tollgate Farm specialty camps provide an opportunity for the slightly older camper to delve deeper into animal and veterinary science, life sciences, agriculture, and environmental education.

2019 saw an increase in specialty camps for the 12- to 14-year-old. In addition to four weeks of horse camp and our third year of Winged Wonders, youth were able to choose from Outdoor Adventure, Eco Challenge, and Vet Science Camp.

New in 2019, Vet Science Camp provided experiential learning in the fields of animal science and veterinary medicine. Veterinarians and veterinary students visited the farm to support instruction for campers. A day-long bus trip to MSU's campus allowed campers to visit the horse farm, dairy barns, and feedlot to learn about livestock from a top-tier agricultural college. Dissection and forensics labs, the Five Freedoms, injections, and animal care filled the pilot MSU Tollgate Farm Vet Science Camp with science, fun, and learning.



**24**

CAMPERS

**4**

TEEN STEWARDS

**12**

MSU AND VOLUNTEER  
INSTRUCTORS

“Seeing their faces light up when they got to try the really cool things at Vet Science Camp was a highlight. Examples include taking a field trip to MSU's main campus, dissecting a cow eye, and learning from the different vets and vet students.”

-Vet Science Camp steward



## MSU TOLLGATE FARM 4-H CAMP ENTERS ITS 9<sup>TH</sup> YEAR

MSU Tollgate Farm 4-H Camps provide an enriching opportunity for children and teens, ages 5 to 14, to develop a deeper understanding of the natural world through hands-on experiences. Our school break camps include a 2-day and 5-day winter break camp, a weeklong spring break camp, and 8 weeks of weeklong summer camps. All our camps have different themes but at the heart of each are the concepts of sustainability, conservation, and agricultural education. A typical day at the farm includes making delicious garden-fresh snacks in Garden Kitchen, caring for our farm animals, sowing seeds in the garden, participating in STEM (science, technology, engineering, and math) projects, and investigating the natural world and diverse habitats found on the property.

In 2019, we saw an increase in summer camp participation, with registration jumping from 527 in 2018 to 668 in 2019. Due to the increase in interest and high demand of the community to attend our farm-based summer camps, we were able to add an additional camp group to all 8 weeks of camp. Additionally, we opened select camp weeks to 5-year-olds in addition to our usual 6- to 12-year-olds.

# 54

SPRING BREAK  
REGISTRANTS

# 668

SUMMER CAMP  
REGISTRANTS

# 24

WINTER BREAK  
REGISTRANTS





## MSU TOLLGATE FARM MAPLE SYRUP PROJECT

A major difference between the maple syrup programs at MSU Tollgate Farm and efforts at other facilities are our great demonstration facilities. Visitors not only tap a tree, but also see what a real production syrup operation looks like. The MSU Tollgate Farm sugarbush contains hundreds of trees, an advanced tubing sap collection system, a working evaporator, and a reverse osmosis machine. Our system boils thousands of gallons of sap to produce over 100 gallons of syrup each year. Visitors get to see the entire process as it happens.

The maple syrup project is a shared effort between a dedicated group of volunteers and our educational staff. Volunteers spend the entire year repairing lines, tapping trees, collecting sap, and running the evaporator. The production effort of the volunteers frees educational staff to do what they do best: teach. Most of MSU Tollgate Farm's instructors have been helping visitors understand the wonder of making maple syrup for several years. These individuals excel at introducing visitors to the process and rich history of maple syrup. Close to the people of southeastern Michigan, MSU Tollgate Farm is a great place to experience maple syrup making at its best!

## MSU TOLLGATE FARM GARDEN VOLUNTEERS

The ornamental gardens at MSU Tollgate Farm are an excellent opportunity for horticulture education. The farm has 20 separate gardens, each featuring a unique educational theme such as roses, hostas, plants tolerant to dry conditions, a waterside garden, and many others. All of MSU Tollgate Farm's gardens are maintained and financially supported by a dedicated group of over 200 volunteers. The MSU Extension Master Gardener program is an essential support component of the MSU Tollgate Farm garden volunteers. Although it is not required that MSU Tollgate Farm garden volunteers be graduates of the MSU Extension Master Gardener program, most of MSU Tollgate Farm's garden volunteers have received excellent training through this educational class series.

During 2019, MSU Tollgate Farm garden volunteers contributed a total of 3,579 hours toward the maintenance of the grounds. At the current rate for volunteering, that equates to a value to MSU of \$91,041. MSU Tollgate Farm would not be the special place that it is without the hard work and dedication of its many garden volunteers.



## MSU TOLLGATE FARM 4-H CLUB

The accomplishments of the youth members of MSU Tollgate Farm 4-H Club reflect the hands-on opportunities available at MSU Tollgate Farm and through Michigan 4-H Youth Development. The 45 club members participate in educational activities related to plant science, animal science, business, and more. They continue to sell vegetables, goat milk soap, granola, eggs, and fruit leather to raise funds to support the club. Participants learn life skills, teamwork, problem solving, goal setting, and many other important life skills.

Some notable 2019 achievements:

- 4-H members completed 3,000 volunteer hours gardening, caring for livestock, and supporting events.
- 4-H members gathered and distributed 2,400 donated seed packets to over 47 school and community gardens.
- One member received the Reserve Grand Champion Dairy Goat ribbon from the county fair.
- MSU Tollgate Farm dairy goats placed first, second, and third in the county fair Best Udder competition.
- MSU Tollgate Farm sheep received a trophy for the first time: Reserve Champion Ewe.

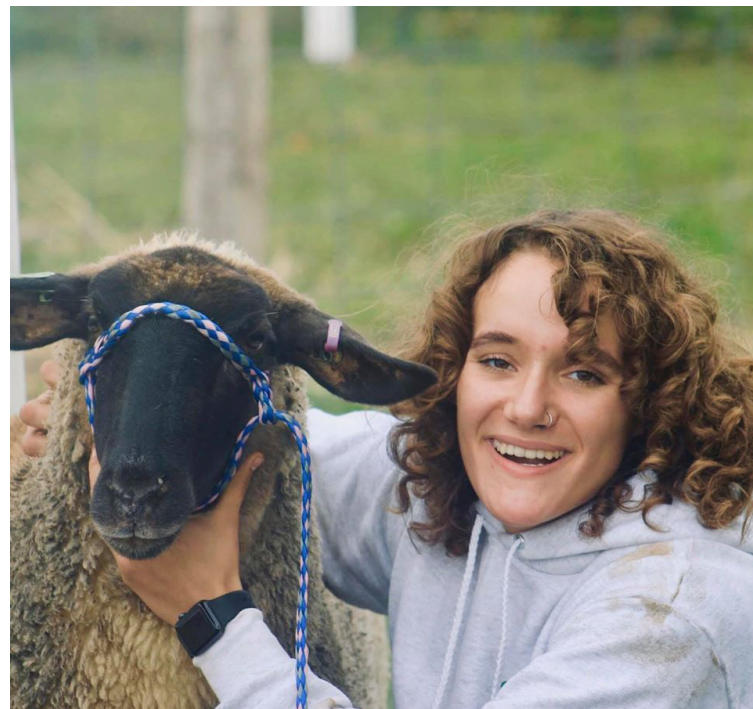
- Thirteen youth took livestock (sheep and goats) projects to the county fair.
- Eleven youth took livestock (sheep and goats) to the Michigan State Fair.
- Eight youth received Urban Farming Scholarships through the Michigan State Fair totaling \$4,600.
- Educational opportunities for youth interested in livestock included:
  - Ruminant Road Trip
  - Cooks Dairy Trip
  - Fecal Testing Workshop
  - Sheep Ultrasound
  - Goat Ultrasound
  - Goat and Sheep Showmanship Workshops



## 4-H STEAM CORPS PROGRAMMING

This year, MSU Tollgate Farm had the opportunity to host one of Oakland County 4-H's STEAM (science, technology, engineering, arts, and mathematics) AmeriCorps volunteers. A 4-H alumnus herself, Sam Stokes spent her time at the farm, working to broaden the reach of Oakland County 4-H programming and to engage a diverse audience in SPIN (special interest) clubs. These clubs combined tours of the farm with off-site instruction designed to engage youth in experiential learning about agriculture and the environment. Sam's experience raising livestock, studying environmental science, and her interest in teaching under-served audiences was a valuable addition to the farm.

Throughout the spring semester, Sam designed and led SPIN clubs at Wilkinson Middle School in Madison Heights during a class which discussed topics from food to animal physiology and the importance of recycling. Additionally, partnerships with both the Jewish Community Center Special Needs Department and Friendship Circle supported these organizations in their missions to enrich the lives of special needs individuals and their families by providing social, recreational, educational, and vocational opportunities. Through these and other 4-H STEAM AmeriCorps programs, over 300 youth got to get a taste of what it means to be a 4-H'er.



## SCAFFOLDED LEADERSHIP TRAINING: STEWARDS AND STEWARDS-IN-TRAINING PROGRAM

A steward is a person whose responsibility it is to take care of something. That's exactly what the MSU Tollgate Stewards Teen Leadership program offers—a chance for stewards to enrich, mentor, and lead campers while gaining valuable leadership and life skills. Each year, MSU Tollgate Farm Camp is supported by a scaffolded training program for youth with approximately 60 to 80 teens.

The MSU Tollgate Farm steward and steward-in-training roles are for those interested in gaining experience working outdoors with campers in agriculture and natural sciences. The progressive leadership training program begins with stewards-in-training who are 13 to 14 years of age followed by stewards who are 15 to 19. Both experience the responsibilities associated with potential career paths while serving as youth leaders at camp. All benefit from serving as positive mentors to young campers in the outdoor farm setting.

Susanna Khanuk, a youth leader in the MSU Tollgate Farm 4-H Club, served as a steward at camp for several weeks in 2019. Susanna assisted in Garden Kitchen as well as worked alongside our adult staff to lead activities and animal chores. Susanna shares, "I not only gained more knowledge about various animals and foods, but also gained a better understanding of people's feelings and how to make kids feel comfortable and have fun, while also teaching them valuable life skills." Susanna is one among the many strong young leaders who make MSU Tollgate Farm Camp possible.



# 71

STEWARDS AND  
STEWARDS-IN-TRAINING

# 9,100

HOURS SERVED

# \$231,000

VALUE OF VOLUNTEER HOURS



## PUMPKINFEST: A HARVEST CELEBRATION OF LEARNING

The scientific name for pumpkins is *Cucurbita pepo*. “Pepo” means “to ripen in the sun.” Nearly 6,000 visitors gathered at MSU Tollgate Farm on a sunny, crisp October weekend to celebrate the pumpkin, the fall harvest, and the importance of agriculture in our daily lives.

Adults and children clambered aboard the Vibe Pumpkin Express for a ride to the patch to pick the perfect pumpkin. Nearby, a trebuchet launched pumpkins across the golden hayfields. Reenactors of an early Native American and French camp cooked traditional fall crops.

MSU Extension, MSU Bug House, Ann Arbor Hands-on Museum, Friends of the Rouge, and the Detroit Institute of Arts were just a few of the many educational exhibitors to enrich the event. Visitors enjoyed fishing, target practice, a straw maze, music, cider and donuts, pumpkin-painting, pond dipping, and cider pressing. Tollgate Farm’s 4-H Club members highlighted the important role livestock play on the farm while demonstrating sheep shearing and goat milking.

Proceeds from Pumpkinfest support MSU Tollgate Farm’s educational programming and our financial aid process. Sponsors Vibe Credit Union and Barton Malow, our many in-kind donors, and over 200 dedicated volunteers helped to make our largest community event of 2019 a happy success.

**5,850**

ATTENDANTS

**OVER 200**

VOLUNTEERS OVER TWO DAYS

**\$16,912.65**

VALUE OF VOLUNTEER HOURS



**\$6,000**

SPONSORSHIP



**Barton Malow**  
FOUNDATION

**\$5,000**

SPONSORSHIP

**\$1,500**

IN-KIND FOOD DONATIONS FOR VOLUNTEER NEEDS



“Congratulations to your team on a WONDERFUL event. I can’t tell you how many wonderful comments I received on Saturday. There were so many smiling faces.”

- Jennifer Sulak-Brown, sponsor, camper parent, volunteer

## HANAMI SPRING PICNIC

*Hanami* is the centuries-old Japanese practice of picnicking under a blooming Sakura cherry tree. In May 2019, MSU Tollgate Farm celebrated its first Hanami Spring Picnic in the new Sakura Garden. Over 400 attendees spent the afternoon picnicking and enjoying various forms of Japanese cultural entertainment. The event was executed in partnership with the Novi Educational Foundation and proceeds covered the cost of all Novi kindergarteners in attending a fall MSU Tollgate Farm field trip. Other important partners providing educational activities included the Japan Center for Michigan Universities, the Michigan-Shiga Sister State Partnership, the Grassroots Exchange Network-Japan, and the Japan Outreach Initiative. We are also very appreciative of One World Market-Novis for sponsoring lunches for all our volunteers. MSU Tollgate Farm looks forward to many future celebrations of the spring cherry blossom season.



## MSU EXTENSION STAFF LOCATED AT MSU TOLLGATE FARMS

NAME	ROLE	PHONE	EMAIL
Bill Eisenman	Educational Leader	248-347-3860	eisenm11@msu.edu
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Carmen Hamilton	Educational Leader	248-347-3860 ext. 220	hamil466@msu.edu
Darby Anderson	Production Manager	248-347-3860 ext. 229	ande2010@msu.edu
Deanna Wagner	Agricultural Laborer	248-347-3860 ext. 211	wagne288@msu.edu
Debbie Morgan	4-H Program Coordinator	248-347-3860 ext. 279	morgal94@msu.edu
Deirdre Hope	Program Instructor	248-347-3860 ext. 218	hopedeir@msu.edu
Ed Scott	Director - District 11	248-347-3860 ext. 233	escott3@msu.edu
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Jennifer Cherry	Educational Leader	248-347-3860	dunlapj6@msu.edu
Jenny Speyer	Educational Leader	248-347-3860	speyerje@msu.edu
Kari Heughens	Support Coordinator	248-347-3860 ext. 205	heughen3@msu.edu
Katie Gallagher	Educational Leader	248-347-3860 ext. 221	galla301@msu.edu
Mary Wilson	State Coordinator, Master Gardener Program	248-347-3860 ext. 219	wilsonm1@msu.edu
Mike Mathis	MSU Tollgate Farm Director	248-347-3860 ext. 235	mathismi@msu.edu
Norb Leppanen	Operations Technician	248-347-3860 ext. 211	leppane3@msu.edu
Pat Dalter	Educational Leader	248-347-3860	dalterpa@msu.edu
Rachael Moran	Place-based Livestock Instructor	248-347-3860 ext. 209	moranra1@msu.edu
Roy Novara	Educational Leader	248-347-3860	novararo@msu.edu
Roy Prentice	Farm Manager	248-347-3860 ext. 251	prentic1@msu.edu
Ruth Dorando Marcy	Horticulture Program Aide	248-347-3860 ext. 218	marcyrut@msu.edu
Sara Mund	Day Camp Coordinator	248-347-3860 ext. 228	mundsara@msu.edu
Will Jaquinde	Sustainable Agriculture Instructor	248-347-3860 ext. 208	jaquinde@msu.edu

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