Ottawa County

2015 ANNUAL REPORT

msue.msu.edu
This page intentionally left blank.
MESSAGE FROM THE DISTRICT COORDINATOR

A mission statement communicates the purpose of an organization. Our mission statement is: “Michigan State University Extension helps people improve their lives by bringing the vast knowledge resources of MSU directly to individuals, communities and businesses.”

Over the past year, our staff have worked with citizens throughout Ottawa County to address local needs by connecting people to the resources of the university.

In this annual report, there is not enough space to give a complete accounting of all of the important work done by MSU Extension staff across Ottawa County. I will try to capture some of the most significant highlights of our work in 2015 and give a sense of the direction of our work in the future.

And though I express my appreciation to you for your continuing and strong support every year, it remains true that without you, we would not be here doing this important work with your constituents. Once again, thank you.

Betty Blase
District Coordinator, District 7

CONNECTING WITH RESIDENTS

4-H Children and Youth programs ................................................................. 4,968
4-H members (traditional club enrollment) .............................................. 966
Special Interest program participation ..................................................... 1,174
Youth in school enrichment programs ...................................................... 2,945
Youth volunteers ......................................................................................... 39
Adult volunteers ......................................................................................... 219
More than 60 4-H clubs and committees based in Ottawa County

Master Gardeners recertified .................................................................... 50

DISTRICT 7 DIGITAL REACH

From July 1, 2014, to June 30, 2015, 112,812 visitors from our 3-county district viewed 299,071 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.

Table of Contents:

<table>
<thead>
<tr>
<th>Supporting Food and Agriculture</th>
<th>Pages 4-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing Youth and Communities</td>
<td>Pages 19-22</td>
</tr>
<tr>
<td>Ensuring Safe and Secure Food</td>
<td>Page 23</td>
</tr>
<tr>
<td>Keeping People Healthy</td>
<td>Pages 24-25</td>
</tr>
<tr>
<td>Making the Most of our Natural Assets</td>
<td>Pages 26-27</td>
</tr>
<tr>
<td>Michigan Spartan Impact</td>
<td>Page 28</td>
</tr>
<tr>
<td>District Extension Council</td>
<td>Page 29</td>
</tr>
<tr>
<td>Staff Listing</td>
<td>Page 30-31</td>
</tr>
</tbody>
</table>
Farm Business Management

Michigan agricultural businesses are competing for market share and profits domestically and in a world economy. Food safety concerns, highly volatile energy prices, an aging population of active farmers, tax law changes, weather-related disasters, credit availability and cost are challenges producers face.

The 2014 Farm Bill introduced major changes in risk management programs for corn, wheat, soybean, fruit, vegetable and dairy producers in Michigan. These new programs, combined with an anticipated decrease in commodity prices, created major risk management decisions that will affect the financial success of Michigan producers during 2014-2018 (the life of the 2014 Farm Bill).

Because the bill required a one-time irrevocable decision by producers, educational programming in this area required the combined farm management, financial analysis, and marketing subject matter expertise of many MSU agriculture educators and faculty. The irrevocable decision, combined with the complexity of these new programs and uncertainty of the long-term commodity price outlook, created a unique urgency for this programming.

In collaboration with the USDA Farm Service Agency and commodity organizations in Michigan, the MSUE FIRM team (Farm Information Resources Management) developed a one-stop source of information for producers and landlords that included:

1. a set of publications for Michigan producers and landlords,
2. decision-making software to analyze the financial consequences of alternative program decisions,
3. integration of the FIRM software with advanced risk management tools developed at the University of Illinois and Texas A&M University, and
4. 110 local and regional educational meetings that reached a total audience of 8,000 producers throughout the state.
Supporting Food and Agriculture

Farm Business Management—Ag labor

Understanding and complying with Farm Labor Laws has become increasingly more difficult due to the changes in the laws and the numbers of issues facing farm employers. The 2015 West Michigan Ag Labor meeting, held on 2-26-15 in the Ottawa County Fillmore Complex, assisted ag employers to understand issues impacting them and their employees. It also included an update on labor regulations that impact farms. The agenda included the following:

Accounting system and records that meet U.S. Department of Labor rules; passing a DOL audit—From Mary O’Rourke, U.S. Department of Labor

- Tips from an ag labor attorney on proper accounting records—Kim Clarke, Varnum LLC
- Correct steps for farmers to follow when working with a farm labor contractor. Legal pitfalls to avoid—Tom Thornburg, Farm Worker Legal Services
- What farmers need to know if you are hiring H2-A workers. New housing upgrades that Michigan Department of Agriculture and Rural Development is focusing on. —Robert Bausick, MDARD
- Update from US Homeland Security Investigations; the IMAGE and E-Verify process; deferred action for childhood arrivals (DACA) process; worksite enforcements in West Michigan—Cory Howe, U.S. Department of Homeland Security
- Results of the 2014 Pilot H-2A Programs in Michigan
- What was learned during the 2014 growing season...thoughts for 2015 Sarah Pion, Michigan Farm Bureau and Amy Irish-Brown, MSU Extension
- What smaller employers need to consider when looking at health insurance plans for their workers—Dr. Adam Kantrovich, MSU Extension.

Through the Ag in the Classroom partnership between Ottawa County and Ottawa County Farm Bureau, more than 2,860 local elementary students learned about agriculture and where their food comes from during the 2014-15 school year. Instructor Brenda Raterink, an Ottawa County dairy farmer, has been teaching students and teachers about the importance of agriculture for 15 years. Other partners in this program include the Farmers’ Cooperative Elevator Company, Mark Hop Farm Bureau Insurance, Land O’ Lakes, Inc. and Zeeland Farm Services, Inc.
Controlling Avian Influenza Outbreak

A poultry farm in Ottawa County was diagnosed to have low pathogenic avian influenza (LPAI) in 2015. This necessitated depopulating the flock and killing the virus through composting and sanitization. A team made up of scientists from USDA Animal and Plant Health Inspection Service, Michigan Department of Agriculture and Rural Development, and MSU Extension was assembled to work with the grower to develop a plan for the biological treatment of material potentially infected with LPAI to prevent the spread of the virus. Dr. Dale Rozeboom from the MSU Department of Animal Science and Charles Gould, MSU Extension educator in Ottawa County, represented MSU Extension on the team.

Both have extensive composting expertise. Dr. Rozeboom’s primary role was to provide the framework for composting the litter (feces, wasted feed, water, dust, feathers, bedding). He developed the compost recipe used to destroy the virus in manure. Gould’s role was to work with the farm manager to manage the compost windrows and verify that temperatures reached were sufficiently high to achieve pathogen kill.

What difference did it make? By finishing the composting process within the five week period of time the grower was able to maintain his normal production cycle, so his losses were minimized. Using proper sanitization and biosecurity procedures and thorough composting of the manure, the virus was contained to the farm and was not spread to surrounding poultry operations. The economic loss from LPAI over a six month time span (from the time LPAI was detected until the farm was cleared to sell birds) was estimated by the farm at $510,000 or $1,400 per day.

The significance of Extension’s role in minimizing the farm’s loss is captured in the farmer’s words: “You have to remember in a co-op system like ours, one member’s deficiency of delivery actually costs ALL its members in lost opportunity. The co-op processing is only as productive as its membership delivering all the birds they are committed to. Any shortage costs in lost sales and potentially lost customers.

“You can take this one step further and share the neighboring corn growers losses, as every bird uses a bushel of corn, thus 17,000 bushel of corn wasn’t needed every month for the 6 month we were down…. Did that create another 10 or 20 cent corn basis for all the area corn growers...That’s a huge issue”
Dairy Industry

Dairy producers, their employees, and industry professionals received updates from the MSU Extension Dairy Team on topics important to managing today’s dairy farms at the Focus on Dairy Production meeting in Grand Rapids in February, 2015. This meeting focused on enhancing the competitive advantage of Michigan dairy producers and the industry. Relevant, science-based information and tools are provided through trainings and online by MSU Extension on dairy production.

Establishing Reproductive Management Strategies That Work

A dairy producer from Ottawa County and his herd veterinarian participated in an informal discussion on March 24, 2015 to highlight the reproductive management programs used on the dairy farm. The program was designed to encourage discussion about successful approaches to getting dairy cows pregnant in a timely manner. This is one key characteristic of profitable dairy farms.

Dr. Richard Pursley, MSU Extension Dairy Specialist, was actively involved in the informal question and answer period providing research-based information to support the successful management practices used by the producer panel members. Dr. Pete Hansen, University of Florida researcher, made a presentation about the impact of heat stress on dairy cattle reproduction. In addition, MSU Extension educator Kathy Lee made a presentation about genetic selection for fertility traits in dairy cattle.

Calf Care School

MSU Extension calf care schools were held in 2015 in Hamilton, Ionia and Bad Axe. This was an excellent opportunity to develop and refine any calf manager’s or care giver’s skills. Emphasis was on practical application of science-based knowledge on topics like newborn calf care, milk/milk replacer, calf housing, and monitoring performance. Participants learned concepts and skills related to profitable calf management from birth to weaning, which can be implemented on any dairy farm.

At the “Dairy Nutrition Roundtable Discussion” in Comstock Park, Dr. Mike Allen and Dr. Adam Lock from the MSU Department of Animal Science led the discussion on dairy cow nutrition. Participants (dairy nutritionists, veterinarians and other dairy agribusiness professionals) presented questions and shared information about current issues facing dairy producers in managing their nutrition and feeding programs.

In the 2012 USDA Census of Agriculture, Ottawa County milk production was valued at over $58 million.
Supporting Food and Agriculture

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. This fuels the economy by creating and retaining jobs, and helps ensure a healthy tax base.

Meeting the needs of Michigan meat producers

For the fifth consecutive year, MSU Extension meat quality educator Jeannine Schweihofer provided education at the Byron Center Meats’ annual producer appreciation and education day. The 100 people in attendance are livestock producers from Ottawa, Kent, or Allegan that have livestock processed at Byron Center Meats. Many of these producers direct market meat. This year Schweihofer revisited the topic of pricing direct marketed meat, specifically pricing beef carcasses, and introduced an Excel worksheet co-developed with the University of Wisconsin Extension.

Producers who direct market beef need resources to help establish and change their pricing. Changing prices can be a daunting task for some producers who do not know what to charge to cover their costs or deal with recent fluctuating and rising beef prices.

To address this issue, a Freezer beef pricing worksheet was created in Excel and demonstrated at the workshop to help producers determine what price to charge per pound of hanging weight. This tool can make a significant difference for beef producers by helping them properly calculate cost of production and price needed when direct marketing meat. This can improve their business model, profitability, and ability to help customers compare the price of purchasing freezer beef with retail average pricing.

Many favorable comments were received from producers about the pricing worksheet. Of those who completed evaluations, 63% indicated they plan to implement change, primarily on how they were pricing their product.

Comments from participants show the value they place on this annual training: “I basically gain more confidence in what I’m raising and in selling it. That is huge. And each event gives me a more rounded education in the whole arena. Thanks.”

Changes that participants planned to implement include:

- “Figuring costs to price needed for profitability; I will use the MSU calculator more to figure cost.”
- “To try to figure out how to use more of the waste products- fat and bone.” and
- “Use programs available through MSU.”
For the 12th consecutive year, Michigan State University Extension collaborated with 5 leading Michigan-based young plant producers to host the 2015 Michigan Garden Plant Tour, July 27 through August 7. The objective of the tour was to educate growers and industry professionals about new and existing plant selections and how they perform in different settings.

Host sites included Pell Greenhouses Inc. in Hudsonville, Walters Gardens, Inc. in Zeeland, Mast Young Plants in Grand Rapids, C. Raker and Sons in Litchfield, Four Star Greenhouse, Inc. in Carleton, and the Michigan State University Horticultural Demonstration Gardens.

Attendees could see the latest in new annuals and perennial plant introductions, and compare existing cultivars across numerous offerings from multiple propagators. Participants were able to see plant performance at different locations in order to make educated decisions for their usage and production.

More than 2,100 visits occurred at the five commercial sites plus the MSU Trial Gardens throughout the two weeks. Participants were retail and wholesale greenhouse growers, landscapers, grounds managers, horticultural supplier sales reps and Master Gardeners. They came from 24 different states and four countries.

As a result of seeing these plants on the 2015 tour, 90% of attendees responding to a post event evaluation indicated they would be adding anywhere from 1-20 new plants in 2016 that their customers could purchase. This represents over $100,000 in new plant sales for these retail and wholesale growers. Also, 90% of respondents indicated they would be attending 13th annual Michigan Garden Plant Tour in 2016.

During a presentation at the Michigan Greenhouse Growers Expo in Grand Rapids in December, MSU Extension senior educator Tom Dudek and Daedre Craig, Botanical Technologist at the Horticulture Department, Michigan State University, shared the top five plants from the 2015 Michigan Garden Plant Tour and highlighted the best of the best from all the host sites.
Michigan fruit producers are in competition with more than 30 fruit pests that threaten to damage their crops. The Trevor Nichols Research Center (TNRC) in Fennville, established in 1967, is one of 13 MSU AgBio Research centers and several on-campus research facilities that provide growers, natural resource managers and commodity groups with critical information they need to remain viable and competitive in the global economy. Dr. John Wise, Professor of Entomology at Michigan State University, is the Research and Extension Coordinator at TNRC.

The primary objective of the 156-acre center is to find the best ways to keep fruit pest-free in Michigan while preserving the environment and ensuring economic viability for the state’s fruit growers. Research topics include studying performance attributes of reduced-risk pesticides, optimizing delivery systems for crop protection materials, monitoring and controlling invasive and emerging pests, and developing novel pest management tactics. The center also supports IR-4, a United States Department of Agriculture project that works with specialty crop growers, registrants and the United States Environmental Protection Agency to register products for use on specialty crops, including reduced-risk pesticides.

In 2015, the TNRC hosted fruit crop research on topics of:

- invasive species,
- protecting pollinators, and
- novel delivery systems such as trunk injection, attract N kill, and solid set delivery systems.

They conducted GLP (Good Laboratory Practices) field residue trials in association with the USDA IR-4 Project to help register new reduced-risk pesticides for fruit growers.

The Research Center also hosted several MSU Extension events targeting pollinator safety, controlling Spotted Wing Drosophila and the annual pesticide performance field day.

Trevor Nichols Research Center will be the recipient of several generous donations from the Michigan Tree Fruit Commission, including a new research sprayer and laboratory renovations.
The spotted wing drosophila (SWD) and the brown marmorated stink bug are two invasive pests that pose big threats to Michigan’s fruit production. In Michigan, the first SWD were found in late 2010. In 2011 first captures were in early July, in 2012 first captures were in late May. Across Michigan, SWD is now found throughout the fruit production regions in fields of blueberry, blackberry, raspberry, cherry, and grape, also in many wild habitats where the flies infest wild fruiting plants.

The SWD has an optimal developing temperature of 65 to 70°F, normal conditions during a Michigan growing season. This makes early detection information vital to activate pest management programs that prevent rapid population increases and potential infestations.

At Michigan State University Extension, our goal is to support blueberry growers and small fruit industry efforts to increase productivity while maintaining high standards in food safety, protection to workers, consumers and our environment. To achieve this, the MSUE small fruit team prepared workshops and twilight meetings beginning in March. Activities were directed to meet the needs of our clientele as expressed during end of season evaluation sessions, as well as priorities established by the blueberry industry. Topics covered during the March meeting included updates on the industry, insect management, winter and frost protection, disease management, plant nutrition, weed control, EnviroWeather, and the 2015 blueberry export program.

Farm visits were done in 2015 for weekly monitoring about SWD activity. On-farm research was done to evaluate different baits for monitoring, comparison of new and existing insecticide sprays, studies to improve timing of SWD control practices, and measurement of pesticide residues to support blueberry exports and marketing. Monitoring and on-farm research sites included farms of disadvantaged and underserved small fruit growers.

Also in 2015, advanced integrated pest management for Hispanics at Trevor Nichols Research Center and Michigan Works! included hands-on training on use & management of insecticides for SWD control under different weather conditions. Materials were available in both English and Spanish.
Supporting Food and Agriculture

Apple Production in Ottawa County—4,000 acres

The West Michigan counties comprising The Ridge (Kent, Ottawa, and Muskegon) lead the state in apple production. Topographically, the soil, elevation, air drainage and microclimates on the Ridge make it the perfect place to grow apples and other fruit.

MSU has located key resources close to this fruit production region to provide research and educational support to this industry.

- Trevor Nichols Research Center near Fennville focuses on finding the best ways to keep fruit pest-free in Michigan while preserving the environment and ensuring economic viability for the state’s fruit growers.

- Clarksville Research Center near Clarksville hosts research on small fruits and tree fruits and a variety of other crops in areas such as variety development, fruit thinning and growth regulators, dwarf rootstocks for fruit trees, integrated pest management, organic production systems and new pruning practices to help make production more profitable, efficient and environmentally friendly.

In 2015, MSU Extension educators Amy Irish-Brown and Phil Schwallier were successful in securing funding from the Michigan Tree Fruit Commission, the Michigan Apple Committee, and the Michigan State Horticultural Society to create an apple lab on the Ridge near Sparta to measure apple maturity indices. The goal for the work done at this lab is to improve Michigan apple maturity and storage awareness for two important varieties, Honeycrisp and Fuji.

This funding was used to outfit an existing lab space for apple testing, hire staff to assist with sample and data collection, and to pay for mileage to collect samples. In addition to the above donors, Storage Control Systems, AgroFresh, River Ridge Produce Marketing, Dr. Randy Beaudry—MSU Department of Horticulture, and local growers provided space, equipment, and fruit needed for the start up of this lab.

Information analyzed at the new Sparta lab included fruit weight, fruit red and green color, internal and external defects, fruit length and diameter, fruit firmness, reduction in fruit chlorophyll to determine optimum maturity, starch index, and brix (ratio of sugar to liquid in the fruit as it ripens).

Fruit samples were collected at 71 sites over a 10-week period beginning in late summer. Samples were collected at orchards primarily in Kent and Ottawa, but also in Ionia, Oceana and Mason. Several detailed, written reports were created as the harvest season progressed and sent to a total of 600 producers in the larger area. Fruit will continue to be analyzed throughout the storage season to determine effects that type of storage—cold storage or controlled atmosphere storage—may have on these varieties.
Choosing smart plants to support pollinators

Smart Gardening for Pollinators Conference

New in 2015 was the development of a Pollinator Habitat Garden in the Grand Ideas Garden at the Kent/MSU Extension office. The purpose of this garden is to encourage “smart” gardening behaviors to enhance survival of native pollinators. Pollinators are essential to our food supply and many terrestrial ecosystems linked to the food web.

The garden design allowed for maximum number of plant species (annuals, perennials, herbs, woody plants) for evaluation and demonstration and for weather-proof signage. Signs focused on plants, habitat, importance of pollinators to humans, and simple activities gardeners can do to encourage pollinators.

On August 8, nearly 60 people attended a pollinator conference held in the Grand Ideas Garden. Eight of the participants were from Ottawa County. The conference was developed to address growing concerns about pollinator declines—especially bees and butterflies—due to habitat loss and other issues. The agenda focused more on preserving native bees than on managed honeybee hives. It linked educational messaging to home gardening activities.

Choosing the right plants, offering an inviting habitat and decreasing use of pesticides contribute to the enhancement of bee and butterfly survival. As a side-note, beneficial insects that keep garden pests at bay and thrive on the same garden conditions were also highlighted during the course of the day-long conference.

MSU instructors included Dr. Rufus Isaacs, Dr. Jason Gibbs, Dr. David Smitley and Rebecca Finneran. The lab was also supported by Advanced Extension Master Gardener, Amy Heilman. Different participant learning styles were addressed by providing lecture as well as several opportunities for hands-on learning, both with identifying insects and during the outdoor lab in the Grand Ideas Garden.

Finneran taught the Smart Plants for Pollinators session which focused on making intentional plant choices to provide nectar and pollen throughout the season. She and MSU Extension staffer Virginia Wanty are a part of the Michigan Pollinator Initiative (MPI) which includes MSU campus specialists, educators and staff from the Agriculture and Agri-business Institute, and many others.

“Bees of the Great Lakes region and wildflowers to support them—A guide for farmers, gardeners and landscapers” is a new, pocket-size publication from MSU. Photos and descriptions in this spiral-bound book will help farmers and gardeners identify many species of bees inhabiting Michigan and surrounding states, and native plants that can be grown to provide pollen and nectar. Order this publication for $10 from www.shop.msu.edu by entering E3282 in the search box.
Enviroweather

Enviroweather Weather Data and Pest Modeling aims to help users make pest, plant production and natural resource management decisions in Michigan by providing a sustainable weather-based information system. This online resource provides 'local' weather information and weather-based tools. There are currently 78 weather stations throughout Michigan (each yellow dot on the map).

Six of these Enviroweather stations are located in or near Ottawa County, including West Olive, Hudsonville, Standale/Walker, Fennville, Sparta, and Kent City. Each station provides readings every 30 minutes on air temperature, soil temperature, soil moisture, relative humidity, solar radiation, wind speed and direction, precipitation, leaf wetness. There are different components of Enviroweather that deal specifically with field crops, fruit, vegetables, trees, turfgrass, and landscape/nursery.

Weather influences crop and pest development and management decisions. For example, wind speed and direction for drift management, temperature to prevent phytotoxicity that may result from applications on hot days, insect and pathogen development are all influenced by weather.

Model predictions allow growers to prepare to take management action if necessary. Enviroweather tools are intended to assist, not dictate, management decisions. The decision to take management action should be influenced by several factors including: a history of problematic pests, the current season pest pressure, susceptible crops, and past and predicted weather events.

Enviroweather is a collaborative project of: Michigan Climatological Resources Program & the MSU Integrated Pest Management Program. It is supported by: Project GREEEN, MSU AgBio Research, MSU Extension, private donors, and the MSU departments of Crop and Soil Sciences, Entomology, Forestry, Geography, Horticulture, and Plant Pathology.

Information in this article was taken from “Using Enviro-weather to assist pest management decisions”, a presentation at the 2014 Integrated Pest Management Academy by Emily Pochubay, Fruit Integrated Pest Management educator for MSU Extension,
Supporting Food and Agriculture

**MSU Product Center**

The MSU Product Center helps people develop and commercialize high value products and businesses in the food, agricultural and natural resource sectors. The MSU Product Center is the front door to Michigan State University's vast and varied technical expertise, research, outreach and educational services, whether working with a budding entrepreneur or an established business.

When Tom and Chris Van Dokkumburg from Ottawa County were raising their three boys, they tried a variety of ways to entice them to eat their vegetables. Roasted zucchini didn’t appeal to the kids, so they put their heads together and came up with their own recipe for zucchini relish, which they simply called “Z-Relish.” “The kids ate it with zeal”, said Chris.

The bigger test for Z-Relish came at the fire house in Holland where Tom was employed as a fire fighter on duty on for long shifts. Known as fussy food critics, Tom’s fellow firefighters gave “Z-Relish” two thumbs up and soon made it a staple in the kitchen. Friends and relatives also enjoyed this unusual relish and encouraged Tom to produce it for sale.

In his retirement Tom started a hot dog cart business, Dokk’s Firehouse Dogs, which is a staple at the Holland Farmer’s Market. The call for Z-Relish become even louder. After five years, Tom contacted the Michigan State University Product Center for help in developing Z-Relish under the Dokk’s Firehouse Dogs brand.

Undeterred by set-backs, such as open-heart surgery, Tom pushed on toward his goal of bringing the original and spicy Z-Relish to the commercial market. Joanne Davidhizar, Michigan State University Extension educator, guided Tom through food safety reviews, label development, licensing, finance and marketing decisions in her role with the MSU Product Center. At the annual Making it in Michigan Conference, Tom and Chris were further encouraged by the educational program, trade show marketplace, and informal visits with like-minded entrepreneurs.

A people person, Tom decided to spend his time selling Z-Relish and having Natural Northern Foods produce it to his specifications. The positive working relationship with Lori LaClair at Natural Northern Foods, led to the development of Tom’s back burner product, Dokk’s Firehouse Mustard. Dokk’s Firehouse Z-Relish and Mustard can be found in more than 25 West Michigan markets.

"Bringing my products to market has been a dream of mine for many, many years. It wasn't until I retired from the fire department that I could spend any serious time on the business side of this. None of it would have been possible without outstanding partners in my corner. Like Natural Northern Foods and MSU Product Center. They guided me through every step of the long process and made it an enjoyable and educational experience,"

Tom Van Dokkumburg.

---

**MSU Product Center counselor serving Ottawa County:**
Joanne Davidhizar
269-944-4126
davidhiz@anr.msu.edu
Work continued in 2015 on development of a Community Supported Agriculture (CSA) marketing project for Grand Rapids and the West Michigan region. The project began in 2014 as a collaboration between Local First of West Michigan, the West Michigan Growers Group and MSU Extension with a grant from the USDA Farmers Market Promotion Program. Work on objectives of the grant included:

- hosting the “2015 Growers Fare CSA Open House” at the Downtown Market
- strategic planning for the West Michigan Growers Group (WMGG), and
- building stronger partnerships with food assistance organizations across the county to increase supply of local produce to food pantries.

The Growers Fare Open House was held on March 21, 2015 at the Grand Rapids Downtown Market. The event attracted more than 400 people to the market and 18 local farmers who staffed displays to market and sell their 2015 CSA shares. Three of the farms represented are in Ottawa County. Over 40 shares were sold at the event. Farmers attributed many more sales to people that they met at the event or through other project marketing materials.

Michigan Food and Farming Systems served as a consultant for strategic planning of the West Michigan Growers Group during November and December, 2015. More than 40 farmers participated in the planning that resulted in a new mission statement for the organization: “The West Michigan Growers Group exists to bring farmers together so they and their farms flourish within a sustainable local food system.”

The group was also able to develop goals, metrics, and strategies around four categories:

- social community,
- education,
- farm viability, and
- structure.

Continued development of the WMGG will ensure that small farmers in Ottawa and Kent will have a strong voice in the future of “Good Food” work in West Michigan.
Community Supported Agriculture Promotion and Development

Community food system work done in West Michigan by MSUE educator Garrett Ziegler focuses on assisting farmers with access to new markets, building local food supply chain infrastructure and ensuring all residents have access to healthy, local food.

South East Community Ministries (SECOM) operates a pantry in southeast Grand Rapids. Throughout the summer and fall of 2015 SECOM purchased 25 CSA shares from a local farmer they met at the Growers Fare CSA Open House in March (previous page). SECOM then purchased a winter share from another local farm and plans to purchase more than 50 CSA shares in 2016—more than $25,000 in local farm purchases.

This “CSA to food pantry” project was developed into a successful grant proposal by the Kent County Health Department and Access of West Michigan with support from MSU Extension. This Michigan Health and Wellness 4x4 grant of $50,000 for obesity and chronic disease prevention was awarded in 2015. The grant supports purchase of over 50 CSA shares from local farmers to be distributed at five food pantries in the county. It also supports creation of a Good Food education curriculum for food pantry managers and staff, which MSU Extension and Access of West Michigan will develop. This grant can both decrease health disparities and increase marketing opportunities of small and medium-sized urban and rural growers.

SECOM will also begin piloting a program where they will accept SNAP benefits and Double-Up food bucks and actually provide a pick up location for CSA’s. This ensures that local food is able to get into the hands of customers who aren’t traditionally able to afford a CSA or wouldn’t normally have access. Plans include development of a cooking curriculum to prepare SECOM clients for the abundance of fresh produce they will receive in their CSA share.

All of this momentum for innovative ways to increase access through CSA’s has come out of partnerships catalyzed by the initial USDA Farmers Market Promotion Program grant (see previous page). It has empowered local farmers and local organizations to work together to solve complex issues, and find benefits for all partners involved.
Supporting Food and Agriculture

Grow Your Business with Proper Food Safety Practices

Michigan’s produce farmers take seriously their commitment to providing safe food to Michigan’s citizens. To honor this commitment, they turn to MSU Extension for guidance on improving practices that further enhance the safety of the produce citizens of our state have come to expect.

The FDA Food Safety Modernization Act (FSMA), the most sweeping reform of our food safety laws in more than 70 years, was signed into law by President Obama on January 4, 2011. It aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it. The produce rule of FSMA became final in 2015, and has implications for any farm selling more than $25,000 in produce, which includes most growers who are running their farm as a business.

On February 16, 2015, Michigan State University educators held an interactive food safety workshop for 18 local produce farmers, including 9 from Ottawa County, at the Grand Rapids Downtown Market.

Topics covered at the workshop included produce handling, wash stations, on-farm and at the farmers’ market food safety, and how to increase shelf-life. Extension Educator Phil Tocco also covered digital record keeping in order to track production and sales. This information helps participants to determine how they can work to grow and sell their products more efficiently.

Tocco is very familiar with requirements of the Food Safety Modernization Act and shared best practices for dealing with requirements farmers face and how to meet them in the context of a small farm. He answered questions throughout the presentation so participants could learn specifics applicable to their operation.

This program was offered at no cost to participants through grant funding from Project GREEEN (Generating Research and Extension to meet Economic and Environmental Needs), and with support from Michigan State University Extension.
Supporting STEM careers through youth programming

Animal science is an important area of STEM (Science, technology, engineering, math) in which many Ottawa 4-H’ers excel. Raising an animal provides a wide range of valuable learning experiences, including:

- Disease prevention, control, and treatment (biology, chemistry)
- Anatomy and physiology
- Training—behavioral science
- Food safety—preparing food for human consumption
- Environmental stewardship
- Life skills—responsibility, planning, problem solving, ethics, money management.

2015 was a very busy year for Ottawa 4-H youth in animal science areas.

Avian Influenza – In June, the Ottawa County 4-H Program was the first 4-H program in the state to successfully host a 4-H Poultry Show without any live birds due to state guidelines around the issue of avian influenza. Our 4-H poultry coordinators created a skill-a-thon and held a showmanship class using stuffed artificial birds for all of the youth enrolled in the poultry project at the Berlin Fair. They had just one week to prepare for this show due to the statewide ban of live birds at the fairs. Following the success of our show, many counties followed Ottawa’s example.

Ottawa County 4-H competed successfully in statewide competitions in 2015, including:

4-H Equine Educational Expo—The Ottawa County Horse Judging Team attended the 4-H Equine Educational Expo. They were awarded 1st place for Senior Novice Teams Reason & Overall. The Ottawa 4-H Hippology Team also participated in the Expo.

State 4-H Goat Expo—The Ottawa 4-H Goat Judging Team attended the State 4-H Goat Expo. They earned a 1st place finish in Judging for the Senior Team.

State 4-H and FFA Livestock Judging—The Ottawa County 4-H Livestock Judging Team attended the State 4-H and FFA Livestock Judging Competition.

When you support MSU Extension 4-H programs, youth participants learn life skills that prepare them for the workforce—especially for highly sought after jobs in science, technology, engineering and mathematics (STEM).
DEVELOPING YOUTH AND COMMUNITIES

The 2015 Michigan 4-H/FFA Meat Judging Contest on Friday, July 24, 2015 brought two full weeks of youth livestock, dairy and meats judging competitions to a close.

This competition is a collaborative effort between the Michigan State University Meat Lab, MSU Extension, Michigan 4-H and Michigan FFA. Forty-three contestants competed. Participants evaluated three beef classes, three pork classes, identified retail cuts, analyzed three beef carcasses for yield and quality grades, and answered questions. Additionally, 4-H members gave one sets of oral reasons to defend their placing. By participating, contestants illustrated their ability to evaluate carcasses and identify meats through individual and team competition, and developed important life skills in communication and decision-making.

Jolyn Timmer, Jaycee Wise and Jessica Timmer took first place in the State 4-H Meat Judging contest, senior division. They qualified for and went on to compete at the National Competition in Manhattan Kansas.

The 2015 Michigan 4-H/FFA Meat Judging Contest was hosted by the MSU Meat Laboratory. Carcasses for the classes were provided by the Michigan Livestock Expo.

4-H youth from Ottawa County were very successful in club and individual activities in 2015, demonstrating their skill at the three Ottawa County fairs, at the state level, and at the national level. This success is due in no small measure to our dedicated volunteers, both youth and adult, who make our club programs possible.

In November, the Ottawa 4-H Council recognized 39 4-H volunteers with a combined total of 660 years of service at our annual Awards banquet. 4-H volunteers in Ottawa County have a long tradition of volunteering, working with our youth to make the best better. Thank you to our volunteers!
Developing Youth and Communities

4-H Innovative Programs—Special Interest (SPIN) Clubs

HOLLAND RESCUE MISSION SPIN CLUBS

In 2015, 4-H formed a new partnership with the Holland Rescue Mission’s ROCK Urban Youth Ministry. Young people living at the Rescue Mission over the summer attend daily activities while their parents work or receive job training. Twice a week, 4-H staff and volunteers met with the youth to provide lessons and hands-on activities.

On Mondays they learned about writing and journaling. The youth made their own comic strips, fairy tales, and super heroes while learning about the importance of self reflection and creativity. Fris Office Outfitters donated notebooks and pens for every participant.

Every Thursday the youth were led through the Junior Master Gardener curriculum as they planted and cared for their own raised-bed gardens. With donations from Sieger Seed Company, they grew tomatoes, peppers, squash, and beans. After a little seedling mix up, the bravest kids got to test which peppers were spicy and which were sweet!

To celebrate their fun and busy time together, the youth closed down their summer with an urban art project. Two local graffiti artists facilitated a full day workshop about how to create aerosol art. A generous donation from Fellowship Reformed Church in Holland provided the paint, individual canvases, and mural. Together, the youth created their own pieces to take home and collaborated on a large piece that is proudly displayed at the Rescue Mission.

HANDS-ON LEARNING AT THE LIBRARY

Once a month, families with elementary-age children can visit Herrick District Library to learn STEM (science, technology, engineering, and mathematics) through hands-on projects and learning labs with 4-H. Each session is different- from playing with new tech toys, learning how to take and analyze fingerprints, making ‘jellyfish in a bottle’, or planting their own edible mini-gardens, youth are introduced to 4-H while learning about the wild world around them. Each project encourages creativity, innovation, and trying something new. This strong partnership with the library ensures that all youth have access to our programs.
Developing Youth and Communities

4-H Tech Wizards at Hope College

With a growing number of jobs in the areas of science, technology, engineering, arts and mathematics (STEAM), it is increasingly important to prepare Michigan’s youth for careers in these promising fields. Equally as important is the need to cultivate youth with the creative prowess and critical thinking skills that will help them to address future issues with ingenuity and determination.

In 2015, the Ottawa 4-H Tech Wizards program, part of the Michigan 4-H Tech Wizards initiative, established and grew STEAM mentoring programs in Holland in collaboration with Hope College and its Step Up program. Each week youth meet at Hope College with their mentor, typically a college student, and explore the exciting world of STEAM. Through these projects, youth develop important life skills and an interest in STEAM. Having youth attend weekly mentoring sessions on a college campus helps them to become very comfortable being on campus while experiencing the positive developmental outcomes of mentoring. Hopefully that familiarity will make the vision of college less intimidating to the student.

Across the state, Michigan 4-H Tech Wizards was active in 10 different counties during 2015, serving 430 youth and engaging 120 adult mentors in 23 communities. When surveyed, youth mentees reported important outcomes from participating in the program including planning to go to college and a more positive life outlook.

Michigan 4-H received the funds to support the initial cost of establishing this program as part of a 4-H National Mentoring Program grant that was funded by the Office of Juvenile Justice and Delinquency Prevention. In order to continue and expand this beneficial program in the face of limited grant dollars, local community support is critical to ensure that great STEAM experiences as well as caring adult mentors remain available to youth in Ottawa County.
ENSURING SAFE AND SECURE FOOD

Teaching food pantry staff about food safety

Local food pantries exist out of compassion and a desire to help others. The last thing they want is for someone to become sick from food they receive. Feeding America West Michigan held agency conferences throughout West Michigan in 2015 for local food pantry staff. An important topic at the conferences was on how to implement proper food handling measures to ensure that the product being distributed is safe.

MSU Extension educator Jane Hart was the featured speaker on food safety at several of these conferences. In Ottawa County, 11 local pantry staffers learned about safe food handling for susceptible audiences, sanitation, date marking, storage/rotation, and pest control. Hart was also the featured food safety speaker at similar agency conferences in Kent, Cass, Muskegon and Allegan counties.

Safe Food Preservation

Food preservation is both a popular hobby and a small business opportunity, but people who preserve food without following scientifically proven food preservation techniques increase the risk of foodborne illness. A survey conducted by the National Center for Home Food Preservation in 2005 found that many food preservers still follow the out-of-date practice of open kettle canning. Because of the risk of foodborne illness, including botulism from failure to use safe home-canning techniques, it is important to continue to provide up-to-date guidelines for safe home food preservation.

Michigan State University Extension food preservation workshops cover a variety of topics customized to each workshop audience. On September 10, MSU Extension educator Jane Hart taught a canning workshop to 9 participants at the Loutit Library in Grand Haven.

Food preservation topics at these workshops can include freezing, boiling water bath canning, pressure canning or dehydrating. MSU Extension food safety educators teach food preservation skills and techniques that will provide participants with safe, high-quality canned products. Using up to date research methods, participants learn how to successfully and safely preserve food.
Working to improve social emotional health

More than 32,400 Michigan children were documented as victims of child abuse and neglect during 2010.¹ Neurological research shows that abuse and neglect can alter early brain development, resulting in developmental delays, poor physical health, depression, lower academic achievement, social difficulties and aggression,² as well as longer-term health problems such as alcoholism, chronic disease, depression and substance abuse.³

In addition to the substantial impacts on the children themselves, there are quantifiable financial costs to our broader society. Nationally, the direct costs related to child abuse and neglect, such as the child welfare system, are estimated at $33 billion annually, while annual indirect costs such as special education systems are estimated at over $70 billion.⁴

MSUE educator Holly Tiret provides a series of lessons for parents from the Nurturing Parenting community-based education curriculum. Many parents are referred to the class by local social service agencies. In 2015, Tiret and instructor Georgina Perry provided 3 Nurturing Parenting series to 24 participants in Ottawa County at Pathways in Holland and at Christ Memorial Church, also in Holland.

In 2015, more than 230 Ottawa residents participated in Michigan State University Extension workshops on topics of stress, anger management and parenting, including:

- Child Care Provider training:
  - Great Start to Quality Regional Resource Center. Trainings in 2015 included:
    ♦ Positive Discipline
    ♦ ABCs of Early Literacy
    ♦ RELAX—Alternatives to Anger
    ♦ Stress Less with Mindfulness
    ♦ School Readiness
    ♦ Science for Kids
    ♦ Math for Kids
    ♦ Building Strong Adolescents
  - Imagination Station Child Care in Holland
  - Telamon Migrant Head Start
  - “Challenge of Children” Conference

- Parenting and RELAX classes:
  - Loutit Library, Grand Haven—with the Encounter Project
  - Pathways in Holland
  - Christ Memorial Church in Holland
  - Love Inc.—Hillcrest Church in Hudsonville

¹U.S. Dept. of Health and Human Services, 2011
²U.S. Dept. of Health and Human Services, 2008
³Middlebrooks & Audage, 2008
⁴Wang & Holton, 2007

The evidence-based Nurturing Parenting program by Stephen Bavolek is specifically designed to reduce child abuse and neglect.

Evaluations from Nurturing Parenting participants showed improvements in:

- Family functioning & resiliency
- Social and emotional support
- Concrete support
- Nurturing & attachment
Keeping People Healthy

Teaching valuable healthy-eating skills

Improving health and nutrition for Michigan residents is the goal of MSU Extension staff in the Health and Nutrition Institute.

In 2015, the continued focus for Michigan State University Extension health and nutrition programs in Ottawa County was on building and maintaining strong community partnerships to assist us with outreach throughout the community.

MSU Extension maintained ongoing partnerships with Ottagan Addictions Recovery, His Harvest Stand, Boys and Girls Clubs of Holland, MOKA and First Reformed Church of Zeeland.

A focus this year was in providing education that helped participants build skills to feed themselves and their family healthier foods. “Cooking Matters” is a program that incorporates meal planning, food preparation, and cooking skills into a traditional nutrition education class. Participants walk away from each class with the ingredients to make a recipe at home for their family after practicing with a trained chef in class. By leveraging grant dollars for take-home groceries and the volunteer chef’s time, MSU Extension is able to provide a comprehensive program that helps participants build the necessary skills to live a healthier life. These classes were provided to both adults and teens at various Ottawa County sites, in coordination with our partners.

Pictured at right: Participants from Amy Prins’ nutrition class in Holland, using the Fender Blender to make pedal powered smoothies!
Sampling on board the D.J. Angus provides an up close look at local waters

Harbor Island is a popular spot in Grand Haven. Soccer fields, bank fishing spots, and the popular boat launch on Coho Drive bring a steady stream of people past the dock where the D. J. Angus is moored for much of the year. Thousands of people have been on board the D. J. Angus since it began operating in 1986, but many more who pass by each day do not realize that this fantastic resource is available so close to downtown Grand Haven.

This 45-foot research vessel is owned and operated by Grand Valley State University and serves as a “floating classroom” that offers educational programs on the Grand River, Spring Lake, and Lake Michigan. The dock at Harbor Island provides easy access to all three water bodies, and a typical 2½ hour excursion offers participants a chance to compare water quality at different sites.

The D. J. Angus often hosts school groups of fourth grade and above, accommodating up to 26 passengers in addition to the crew. Adult programs are also offered, and even people who have lived on local waters for years will almost certainly come away with a greater understanding of what lies beneath the waves.

On September 16, 2015, Michigan State University Extension’s District 7 Council took a trip on board the Angus. High waves prevented sampling in Lake Michigan, but comparisons between the Grand River and Spring Lake were made and a variety of topics were covered by educators with GVSU and Michigan Sea Grant.

Council members learned about invasive species, even finding some quagga mussel shells in the Grand River. Although Michigan has taken steps to prevent the spread of invasives by requiring that boaters remove plants and drain water from boats, a recent study found that boaters are not always clear on what the laws require. Participants also heard about two emerging invaders, New Zealand mudsnail and Didymo, that can even hitchhike on the soles of boots or waders.
Watershed connections were another theme of the trip. What happens on the land invariably affects the quality of water in rivers and lakes. One example was provided by a Shoreline Assessment of Spring Lake, which found that 62.2% of the shoreline has been artificially hardened. “Rein in the Runoff,” a project undertaken by collaborators with GVSU and Sea Grant, found that re-vegetating buffer strips would be one of the most cost effective ways to improve water quality in Spring Lake.

Hands-on sampling was the highlight of the trip. Participants assessed water clarity, sediments, bottom-dwelling invertebrates, plankton, temperature, oxygen, and other water quality parameters. One key point was that high nutrient loads from runoff result in low oxygen levels, particularly in deep areas of Spring Lake. Sensitive species cannot tolerate low oxygen levels, so only a few types of invertebrates are found here.

All in all it was an enjoyable and enlightening day on the water. In summing things up, presenters noted that environmental quality in the Grand River and other local waters have improved in many respects over the past several decades. However, several challenges remain and new threats (including Asian carp) may loom on the horizon.

To book your own group trip on the D. J. Angus or its sister ship in Muskegon, the W.G. Jackson, follow instructions given on the Annis Water Resources Institute website. Participants in the MSUE Master Naturalist program as well as the general public will have the opportunity to attend a supplemental class titled: “Great Lakes Issues and Ecology” taught by Dr. Dan O’Keefe onboard the D.J. Angus on August 20th, 2016. For more information, please contact Ginny Wanty wanty@msu.edu or 616-632-7873.

Michigan Sea Grant helps to foster economic growth and protect Michigan’s coastal, Great Lakes resources through education, research and outreach. A collaborative effort of the University of Michigan and Michigan State University, Michigan Sea Grant is part of the NOAA-National Sea Grant network of 33 university-based programs.

Dan O’Keefe; Michigan Sea Grant; okeefed@msu.edu
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 $528 million in external funding in fiscal year 2014 and plays a key role in the state’s annual $91.4 billion agribusiness industry through partnerships, research, and educational programs in all 83 counties.

<table>
<thead>
<tr>
<th>ENROLLED MICHIGAN STUDENTS</th>
<th>3,001</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETERINARY MEDICINE STUDENTS</td>
<td>15</td>
</tr>
<tr>
<td>ENROLLED MEDICAL STUDENTS</td>
<td>221</td>
</tr>
<tr>
<td>ALUMNI RESIDING IN REGION</td>
<td>23,076</td>
</tr>
<tr>
<td>SPENDING WITH LOCAL BUSINESSES</td>
<td>$54,338,092</td>
</tr>
<tr>
<td>TOTAL ECONOMIC IMPACT</td>
<td>$336,331,813*</td>
</tr>
<tr>
<td>STAFF/FACULTY RESIDING IN REGION</td>
<td>284</td>
</tr>
<tr>
<td>FINANCIAL AID DISBURSED</td>
<td>$43,535,695</td>
</tr>
<tr>
<td>4H YOUTH PARTICIPANTS</td>
<td>17,421</td>
</tr>
<tr>
<td>PROPERTY OWNED BY MSU (ACRES)</td>
<td>174</td>
</tr>
<tr>
<td>MEDICAL INTERNS/RESIDENTS/FELLOWS</td>
<td>283</td>
</tr>
<tr>
<td>MSU PARTNER HOSPITALS</td>
<td>3</td>
</tr>
</tbody>
</table>

*Data from an independent study by the Anderson Economic Group
Each district of MSU Extension has an advisory council to assist the District Coordinator in a variety of ways. The Council’s composition is a balance among various sectors that Extension educational programming serves.

Members are nominated and selected due to their experience with Extension and proven leadership. They network with others who share similar interests and concerns, help shape Extension programming efforts important to citizens in the district, gather support for establishing or extending educational efforts around issues of concern in the district, and participate in leadership and issue focused educational events.

Members of the District 7 Council in 2015 include:

- Nora Balgoyen-Williams (Allegan)
- Max Thiele (Allegan)
- Reuben Roberts (Kent/Allegan)
- Dick Bethel (Kent)
- Gary Lemke (Kent)
- Harold Mast (Kent)
- Carrie Jo Roy (Kent)
- Jim Steketee (Kent)
- Mary Jane Belter (Ottawa)
- Mike Bronkema (Ottawa)
- Greg DeJong (Ottawa)
- Matt Fenske (Ottawa)
- Yumiko Jakobcic (Ottawa)
- Matt Schmid (Ottawa)
Extension Staff Serving Ottawa County

**MSU Extension Staff Located in Ottawa County Office**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betty Blase</td>
<td>District 7 Coordinator</td>
<td>616-994-4573</td>
<td><a href="mailto:blase@msu.edu">blase@msu.edu</a></td>
</tr>
<tr>
<td>Thomas Dudek</td>
<td>Senior District Hort. &amp; Marketing Educator</td>
<td>616-994-4542</td>
<td><a href="mailto:dudek@msu.edu">dudek@msu.edu</a></td>
</tr>
<tr>
<td>Susan Fenton</td>
<td>4-H Program Coordinator</td>
<td>616-994-4545</td>
<td><a href="mailto:fentons@msu.edu">fentons@msu.edu</a></td>
</tr>
<tr>
<td>Carlos Garcia-Salazar</td>
<td>Small Fruit (Blueberries) Educator</td>
<td>616-994-4547</td>
<td><a href="mailto:garcias4@msu.edu">garcias4@msu.edu</a></td>
</tr>
<tr>
<td>Charles Gould</td>
<td>Bioenergy Crops Educator</td>
<td>616-994-4547</td>
<td><a href="mailto:goulddm@msu.edu">goulddm@msu.edu</a></td>
</tr>
<tr>
<td>Melissa Haug</td>
<td>4-H Program Coordinator</td>
<td>616-994-4582</td>
<td><a href="mailto:haugmeli@msu.edu">haugmeli@msu.edu</a></td>
</tr>
<tr>
<td>Adam Kantrovich</td>
<td>Farm Management/Financial Educator</td>
<td>616-994-4570</td>
<td><a href="mailto:akantrov@msu.edu">akantrov@msu.edu</a></td>
</tr>
<tr>
<td>Dan O'Keefe</td>
<td>Michigan Sea Grant Educator</td>
<td>616-994-4572</td>
<td><a href="mailto:okeefed@msu.edu">okeefed@msu.edu</a></td>
</tr>
<tr>
<td>Amy Prins</td>
<td>Health and Nutrition Program Instructor</td>
<td>616-994-4541</td>
<td><a href="mailto:prinsamy@msu.edu">prinsamy@msu.edu</a></td>
</tr>
<tr>
<td>William Shemer</td>
<td>4-H Program Coordinator</td>
<td>616-994-4578</td>
<td><a href="mailto:shemerw@msu.edu">shemerw@msu.edu</a></td>
</tr>
</tbody>
</table>

**County Support Staff**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Frein</td>
<td>Senior Extension Clerk</td>
<td>616-994-4544</td>
<td><a href="mailto:frein@msu.edu">frein@msu.edu</a></td>
</tr>
<tr>
<td>Jane Gould</td>
<td>Extension Clerk</td>
<td>616-994-4548</td>
<td><a href="mailto:jagould@msu.edu">jagould@msu.edu</a></td>
</tr>
</tbody>
</table>
### Additional MSU Extension Staff Serving Ottawa County

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan Brinn</td>
<td>Extension Educator, Children and Youth</td>
<td>269-673-0370</td>
<td><a href="mailto:brinn@msu.edu">brinn@msu.edu</a></td>
</tr>
<tr>
<td>Christina Curell</td>
<td>Water Quality Educator</td>
<td>231-745-2732</td>
<td><a href="mailto:curellc@msu.edu">curellc@msu.edu</a></td>
</tr>
<tr>
<td>Joanne Davidhizar</td>
<td>MSU Product Center Innovation Counselor</td>
<td>269-944-4126</td>
<td><a href="mailto:davidhiz@msu.edu">davidhiz@msu.edu</a></td>
</tr>
<tr>
<td>Christi Demitz</td>
<td>Health and Nutrition Educator</td>
<td>616-632-7881</td>
<td><a href="mailto:demitzch@msu.edu">demitzch@msu.edu</a></td>
</tr>
<tr>
<td>Elizabeth Ferry</td>
<td>Swine Educator</td>
<td>269-445-4438</td>
<td><a href="mailto:franzeli@msu.edu">franzeli@msu.edu</a></td>
</tr>
<tr>
<td>Rebecca Finneran</td>
<td>Consumer Horticulture Senior Educator</td>
<td>616-632-7886</td>
<td><a href="mailto:finneran@msu.edu">finneran@msu.edu</a></td>
</tr>
<tr>
<td>Kevin Gould</td>
<td>Beef/Livestock Educator</td>
<td>616-527-5357</td>
<td><a href="mailto:gouldk@msu.edu">gouldk@msu.edu</a></td>
</tr>
<tr>
<td>Tom Guthrie</td>
<td>Equine Educator</td>
<td>517-788-4292</td>
<td><a href="mailto:guthri19@msu.edu">guthri19@msu.edu</a></td>
</tr>
<tr>
<td>Jane Hart</td>
<td>Food Safety Educator</td>
<td>231-724-6694</td>
<td><a href="mailto:hartjan@msu.edu">hartjan@msu.edu</a></td>
</tr>
<tr>
<td>Amy Irish-Brown</td>
<td>Senior District Fruit Educator</td>
<td>616-632-7891</td>
<td><a href="mailto:irisha@msu.edu">irisha@msu.edu</a></td>
</tr>
<tr>
<td>Darrin Karcher</td>
<td>Poultry Extension Specialist</td>
<td>517-775-0485</td>
<td><a href="mailto:dkarcher@msu.edu">dkarcher@msu.edu</a></td>
</tr>
<tr>
<td>Glenda Kilpatrick</td>
<td>4-H Extension Educator</td>
<td>616-632-7879</td>
<td><a href="mailto:kilpatr@msu.edu">kilpatr@msu.edu</a></td>
</tr>
<tr>
<td>Kathy Lee</td>
<td>Dairy Educator</td>
<td>231-839-5850</td>
<td><a href="mailto:leeka@msu.edu">leeka@msu.edu</a></td>
</tr>
<tr>
<td>Mark Longstroth</td>
<td>Small Fruit (Blueberries) Educator</td>
<td>269-657-8213</td>
<td><a href="mailto:longstr7@msu.edu">longstr7@msu.edu</a></td>
</tr>
<tr>
<td>Bruce MacKellar</td>
<td>Field Crops Educator</td>
<td>269-657-8213</td>
<td><a href="mailto:mackelllar@msu.edu">mackelllar@msu.edu</a></td>
</tr>
<tr>
<td>Stephanie Marino</td>
<td>Health and Nutrition Educator</td>
<td>616-632-7889</td>
<td><a href="mailto:marinos1@msu.edu">marinos1@msu.edu</a></td>
</tr>
<tr>
<td>Jill O’Donnell</td>
<td>Christmas Trees Educator</td>
<td>231-779-9480</td>
<td><a href="mailto:odonne10@msu.edu">odonne10@msu.edu</a></td>
</tr>
<tr>
<td>Jennifer Ortquist</td>
<td>Money Management Extension Educator</td>
<td>616-632-7874</td>
<td><a href="mailto:ortquisj@msu.edu">ortquisj@msu.edu</a></td>
</tr>
<tr>
<td>Georgina Perry</td>
<td>Family/Parenting Program Instructor</td>
<td>616-632-7884</td>
<td><a href="mailto:perrygeo@msu.edu">perrygeo@msu.edu</a></td>
</tr>
<tr>
<td>Phil Schwaller</td>
<td>Specialty Crop Production Educator</td>
<td>616-490-7917</td>
<td><a href="mailto:schwali@msu.edu">schwali@msu.edu</a></td>
</tr>
<tr>
<td>Jeannine Schweihof</td>
<td>Meat Quality Educator</td>
<td>810-989-6935</td>
<td><a href="mailto:grobbelj@msu.edu">grobbelj@msu.edu</a></td>
</tr>
<tr>
<td>Mike Staton</td>
<td>Extension Soybean Educator</td>
<td>269-673-0370</td>
<td><a href="mailto:staton@msu.edu">staton@msu.edu</a></td>
</tr>
<tr>
<td>Holly Tiret</td>
<td>Senior Extension Educator/Better Kid Care</td>
<td>616-632-7893</td>
<td><a href="mailto:tiret@msu.edu">tiret@msu.edu</a></td>
</tr>
<tr>
<td>Ginny Wanty</td>
<td>Master Naturalist Coordinator</td>
<td>616-632-7873</td>
<td><a href="mailto:wanty@msu.edu">wanty@msu.edu</a></td>
</tr>
<tr>
<td>Ben Werling</td>
<td>Vegetable Extension Educator</td>
<td>231-873-2129</td>
<td><a href="mailto:werlingb@msu.edu">werlingb@msu.edu</a></td>
</tr>
<tr>
<td>Kendra Wills</td>
<td>Local Foods Extension Educator</td>
<td>616-608-7424</td>
<td><a href="mailto:willsk@msu.edu">willsk@msu.edu</a></td>
</tr>
<tr>
<td>Garrett Ziegler</td>
<td>Local Foods Extension Educator</td>
<td>616-608-7436</td>
<td><a href="mailto:zieglerg@msu.edu">zieglerg@msu.edu</a></td>
</tr>
</tbody>
</table>

### MISSION:
Michigan State University Extension helps people improve their lives through an educational process that applies knowledge to critical issues, needs and opportunities.

MSU is an affirmative-action, equal-opportunity employer, committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Jeff Dwyer, Interim Director, MSU Extension, East Lansing, MI 48824. This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by MSU Extension or bias against those not mentioned.
Thank you to the Ottawa County Board of Commissioners for their continued support of the educational and outreach programs of Ottawa County MSU Extension.

Stu P. Visser, District 1
Joe Baumann, District 2
Donald G. Disselkoen, District 3
Allen Dannenberg, District 4
Mike Haverdink, District 5
Dennis Van Dam, District 6
James Holtvluwer, District 7
Greg J. DeJong, District 8
Philip D. Kuyers, District 9
Roger A. Bergman, District 10
Matthew Fenske, District 11