

MSUE Ottawa County

ANNUAL REPORT

Message from the District Coordinator

MSU Extension (MSUE) staff strive to provide programming that has a positive impact on the citizens of Ottawa County while making the best use of the local, state, and federal funds that have been generously provided for the completion of this work. I wish I could effectively share in this report the smiles on faces as light bulbs go off with youth and adults who participate in MSUE programs.

Extension educators and program staff continue to look for ways to streamline program delivery systems to make our programs accessible for all county residents. Advancements in technology have enabled MSUE to provide access to programs and resources in a more timely and efficient manner. Still, our presence in county offices across the state allows us to remain connected to the communities we serve, which gives us a better understanding of local programmatic needs.

This report is intended to provide an overview of the wide array of programming opportunities that have been provided to the residents of Ottawa County over the last year. Thank you for your continued support of MSU Extension programs in Ottawa County.

Betty Blase

District 7 Coordinator

Mission

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

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Food Safety Modernization Act

With the Food Safety Modernization Act (FSMA) signed into law in 2011, the Food and Drug Administration (FDA) began regulating fresh produce production for the first time. Most inspectors have never been on a farm, and don't understand that a farm is different from a manufacturing facility. Most inspectors, therefore, evaluate farms based on Good Manufacturing Practices (GMPs) instead of Good Agricultural Practices (GAPs). Farm sensitivity" training for FDA's Consumer Safety Officers (CSOs) is the only way to really prepare them for their role as enforcers of the Food Safety Modernization Act.

In early 2013 Michigan State University Extension was contacted by the Western Institute for Food Safety and Security to collaborate on a training for FDA CSOs who work in outbreak investigation. The objective was to prepare them to conduct farm investigations during food borne disease outbreaks related to fresh produce. Since our GAP Program for food safety in blueberry production is recognized nationwide, we were selected to conduct this training. Mock audits and farm investigations took place with the assistance of Ottawa county blueberry growers and packers. Willingness to participate in these on-farm mock audits demonstrated the trust that local blueberry growers have in MSU Extension staff, including Dr. Carlos Garcia-Salazar.

MSUE staff worked as part of the training cadre to facilitate CSOs as they worked through exercises. Though training focus was outbreak inspection, the CSOs involved will also be responsible for enforcement of the Food Safety Modernization Act.

Results: In all, 25 CSOs and Department of Agriculture officials from various states participated. Though it is too soon to report long-term impact, anecdotally only five participants had been on farms at the start of the training and only one had worked on a farm. After the training, all participants had visited a farm, spoken with several farmers and had a much clearer understanding of the risks of farming to food safety.

For more information, contact MSU Extension educators Carlos Garcia-Salazar or Phil Tocco.



Apples

Tree fruit educators from MSU Extension in West Michigan hold meetings during the year for producers. One type is the weekly Integrated Pest Management (IPM) update for producers and industry support people such as pesticide and fertilizer retailers and pest scouts.



Amy Irish-Brown, MSUE Tree Fruit Senior Educator and Phil Schwallier, MSUE District Tree Fruit Educator, coordinate meetings from early April through mid-July, 20 to 25 meetings per growing season. Meetings are held on the Ridge and in the Belding area, beginning at 7 AM and ending by 8:30 AM. Attendance ranges from 80 to just over 100 per week.

Information is packed into these meetings to prepare industry people with information for decision-making the next week. Little time is spent talking about what happened the previous week; focus is on potential issues to address in the near future. This helps growers preempt major issues rather than reacting, helping them produce a higher value fresh market crop. The focus crop is apples which account for over 95% of tree fruit acreage in the greater Grand Rapids production region, but management aspects for cherries, peaches, plums and other tree fruit crops are covered as necessary.

PowerPoint presentations are created each week with handouts covering topics like:

- Weather outlooks and degree day summary; relative season correlation (are we ahead or behind a “normal” average growing season)
- Rainfall totals and needs for irrigation
- Various tree fruit insect development models and management guidelines
- Various disease development models and management suggestions
- Horticultural tasks related to crop stage - pruning, crop load management, fertilization

These have been held for over 30 years, with content changing to meet each season’s unique challenges. Their value is shown by participant survey responses:

- 92% of participants said these meetings save them money in their farming business. Average estimated savings was \$6,838 per farm. Using the average number of 60 growers who attend each week, this per-year savings is \$410,250 due to proper timing of spray applications covered in the IPM meetings.
- 95% feel their yield and quality is better as a result of the information received
- 85% said that the information presented by MSU Extension at these meetings is unique and available nowhere else
- 95% of growers indicated that monitoring of apple scab spore development by MSU Extension is very important to their pest management decision making.



Spotted Wing Drosophila

The Spotted Wing Drosophila (SWD) is becoming the most damaging pest for Michigan's small fruit crops like blueberries, raspberries, blackberries and strawberries. Evaluation by MSUE staff on the impact of this pest on all small fruits conducted at the end of 2012 indicated that losses reached 29 million dollars due to fruit losses and downgrading of fruit loads. The main reason for this economic impact was lack of awareness of the presence of the pest on the grower's field, or difficulties identifying it in time to control the pest before it caused extensive damage.

In response to the extensive damage caused by the Spotted Wing Drosophila (SWD) to berry crops during the 2012 season, MSU Extension provided three in-depth workshops in 2013. Topics covered included SWD biology, monitoring and identification to prepare growers and Integrated Pest Management (IPM) practitioners to manage this pest during the 2013 fruit-growing season. The purpose of the training was to provide knowledge and skills to growers so that they could make informed IPM decisions on when to control the insect. Workshops included classroom and hands-on training sessions conducted around the main small fruit growing area in West Michigan.

The first workshop was on March 7 at the MSU Trevor Nichols Research Center in Fennville, Michigan. The second was on April 11 at the Ottawa County Fillmore Complex in West Olive, Michigan, and the third workshop was on May 2, 2013 at the Lake Michigan Collage, South Haven Campus in South Haven, Michigan.

In total, the number of growers trained under this program was 82 including 17 growers from Ottawa.



Michigan leads the nation in growing blueberries, producing over one-third of all of the blueberries eaten in the U.S.

In 2009, the state produced 99 million pounds and over 20 varieties of the sweet, round, cultivated berries.

Michigan Department of Agriculture



Dairy Production in Ottawa County



Dairy production is an important component of agriculture in Ottawa County. In 2007, Ottawa County ranked 9th in the state in the sales value of milk and other dairy products from cows—just under \$48.5 million.

MSUE educator Kathy Lee works with dairy producers in Ottawa to manage healthy, productive herds. Areas of focus for Lee in 2013 included working with younger dairy producers and dairy farm employees, and working across state lines with other Extension colleagues to provide educational webinars on dairy production.

A group was formed for **younger dairy producers and employees** in west central Michigan to discuss herd and business management topics, bringing new ideas to their farms. Meetings were jointly facilitated by Paul Windemuller (Dairy Farmers of America), Kendra Kissane, (Michigan Milk Producers Assn.), and MSUE dairy educators Kathy Lee and Faith Cullens. Meetings highlight a specific management system or practice used on the host farm with opportunities to ask questions, share experiences and offer suggestions.

Three meetings were held in 2013 at host farms in Ottawa and Ionia Counties. Producers share what has worked well and challenges encountered along the way. Hosts for the June 18 meeting were Nate and Jenny Elzinga, Daybreak Dairy LLC at Zeeland. Nate and Jenny shared information about early heifer nutrition and development on the family farm, including use of an automatic calf feeding system. Topics in 2013 also included manure management and goal setting. Participants were from Ottawa, Allegan, Ionia, Newaygo, Muskegon, and Van Buren.

Webinars are a convenient, effective way to share information about herd management. Audiences can view presentations at a time and location that best fits their schedule. Webinars for dairy producers, dairy farm employees, Extension educators, allied industry professionals, and veterinarians are now offered online through DAIReXNET, part of the eXtension system that incorporates resources from universities across the U.S.

In 2013, MSUE dairy educator Kathy Lee served on the DAIReXNET webinar planning committee, recruited speakers, and moderated 3 webinars. Webinar topics include business management and farm labor, calf and heifer management, forages, genetics, and many others. Archived and upcoming webinars can be accessed at: www.extension.org/dairy+cattle

**For more information
on this project contact
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Soybean Research and Education Activities in Ottawa County

Soybean yield increases have not kept pace with those of corn, wheat and sugar beets. USDA projections for the remainder of this decade indicate that net income from corn will be \$50 - \$60 per acre higher than the net income from soybeans. This will cause a shift in production from a corn/soybean rotation to more continuous corn. This exposes corn to the increased risks associated with a monoculture and reduces production of the leading source of plant-based protein in the world. Reducing soybean harvest losses was an easy and effective way to increase soybean income by \$11 to \$22 per acre in 2013.

MSU Extension educator Mike Staton conducted a Soybean Harvest Equipment Field Day in September at Schipper Farms in Martin. Goals of the program were to teach participants where and why losses occur and demonstrate new equipment and management practices for reducing soybean harvest losses. This educational event was made possible by support from Schipper Farms, Burnips Equipment Company, Crary Industries Inc., Fillmore Equipment Inc., RPM Machinery, and the Michigan Soybean Checkoff.

Nearly 100 soybean producers and agribusiness agronomists participated in the field day. Eleven of the producers were from Ottawa County. The results of a follow-up survey are presented below:

- 31% (28) of the participants returned surveys
- All respondents gained new knowledge by participating in the field day.
- 85% said that they utilized the information they learned about measuring and preventing harvest losses on their farms during the 2013 harvest.
- 73% said they *actually* earned additional money by implementing the new information they learned at the field day.
- Average amount of additional income was \$9.98 per acre applied to 4,683 acres, producing an *actual* financial impact of \$46,763 in 2013 alone.
- Participants also provided specific changes they made and listed soybean topics they wanted to learn more about.



In Ottawa County, more than 21,000 acres of soybeans were grown in 2013

National Agricultural Statistics Service (NASS)

For more information on this project contact Extension Educator Mike Staton

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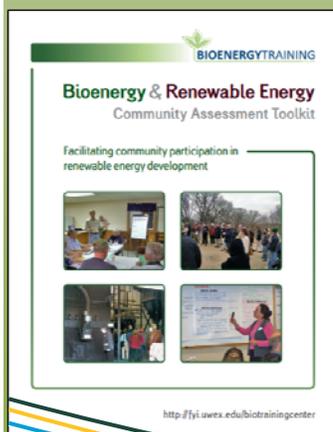


Bio-energy, Bioproducts and Environmental Quality

Michigan agriculture has a significant opportunity to expand production beyond food and fiber to include renewable energy and bioproducts. MSU Extension educator Charles Gould worked in 2013 to move this forward. Key areas for research include sustainable production, supply chain development, economics of production, and training for farmers.

Highlights for 2013:

- ◆ **Growing Switchgrass:** A field day held in August; Hanenburg Farm near Coopersville.
 - ◆ Data was summarized from test plots across the state and at the Hanenburg Farm. Gould talked about growing the Michigan economy with biomass depots.
 - ◆ One farmer said that getting \$70/ton for switchgrass is breakeven at best with the price of local farmland. However, he has 36 acres of buffer strips. It would make sense to plant switchgrass on buffer strips if he could get \$70/ton for it. He is interested in making money from land that is not generating income.
- ◆ **Increased adoption of bio-energy technologies**
 - ◆ The Michigan On-Farm Anaerobic Digester Operator Handbook written by Gould was published. Anaerobic digestion offers energy capture and generation options for dairy farms. This manual gives background information on science behind manure composting and anaerobic digestion, and technology.
 - ◆ Gould wrote two case studies on farm anaerobic digestion systems including in-depth description of the system, economics, parameters tested, time commitment, revenue received from digester, reported problems in specific areas, lessons learned. http://ncrcrd.msu.edu/ncrcrd/chronological_archive
- ◆ **Improve understanding of need for and benefit of greater energy use efficiency:**
 - ◆ **Michigan Farm Energy Program** Gould officially completed the anaerobic digestion curriculum which can be found at the Bioenergy Training Center <http://fyi.uwex.edu/biotrainingcenter/>
 - ◆ As part of a team, he developed three research-based online modular courses including a bioenergy and renewable energy community assessment toolkit.
 - ◆ **Increase the number of on-farm energy audits in Michigan**—An energy audit brochure was written to help farmers understand what an audit is and its importance for their farm. Three workshops were held around the state to help dairy farmers understand the need for and benefits of an energy audit. As a result, five dairy farmers signed up to have an energy audit on their farm with certified MMPA energy auditors. Workshops were co-sponsored by Michigan Milk Producers Association (MMPA), Consumer's Energy and Detroit Edison.



Nursery Growers Stay Up-to-Date with New Techniques for Plant Production

MSU Extension Senior Educator, Thomas Dudek, develops timely educational programs for nursery growers across West Michigan. Ottawa County ranks #1 in Michigan in value of nursery, greenhouse, floriculture, and sod with over 129 million dollars in sales according to the USDA Census of Agriculture in 2007.

During 2013, Dudek partnered with Dr. Hannah Mathers of Ohio State University to offer an in-depth one-day weed control workshop at the Ottawa County Fillmore Complex. Twenty-nine Ottawa County nursery growers attended and learned about newly labeled herbicides that would solve stubborn weed problems in nursery crops. In addition, information on avoiding herbicide resistance was discussed. This helps nurserymen reduce risk of having problem weeds develop tolerances to herbicides thus increasing labor costs for hand hoeing. Also, workshop attendees learned how to improve their weed sprayer's coverage by proper calibration techniques and using some relatively new nozzle types that give better coverage.

Ottawa County nursery growers also routinely attend Summer Nursery Discussions held by Dudek in West Olive. These hour and a half programs highlight the latest Michigan State University research targeted to the industry. In 2013, Dr. Bert Cregg and Dr. Tom Fernandez (MSU Department of Horticulture) both shared some new unbiased research activities.

New to the industry, Radio Frequency Identification technology assists in plant inventory management and traceability in the nursery and throughout the supply chain. "This is very new cutting edge technology for nurseries we hope to adopt here in Michigan", states Dr. Fernandez.

Dr. Cregg provided participants new information on:

- ◆ eliminating cones on Fraser fir which could help reduce costs associated with hand removal
- ◆ data on the Blue Spruce decline issue facing the industry, and
- ◆ some new fir species hybridization research.

Along with this, Mr. Dudek regularly updates attendees with the latest disease and insect management information they need at their nursery, all in a one and half hour time frame!

Ottawa County ranks #1 in Michigan in value of nursery, greenhouse, floriculture and sod, over \$129 million annually
— USDA Census of Agriculture, 2007



Affordable Care Act and Fruit Crop Insurance Workshops

Dr. Adam Kantrovich, MSU Extension educator, gave a presentation at an October 24th workshop at the Ottawa County Fillmore Complex that provided a glimpse into what requirements the Affordable Care Act (ACA) may have for farms, small businesses and the self-employed. Although a major portion of the ACA's employer requirements will not take effect until Jan. 1, 2015, employers should not wait until just before the deadline to learn about the Act. Many employers may make managerial and administrative changes for a more smooth transition towards compliance with the ACA.

It is important for each farm and business to begin to understand the basics of this law and determine:

- ◆ What data they will need to develop and report.
- ◆ If they have to provide health insurance.
- ◆ Assess the most cost-effective manner to meet what ACA's requirements are.

Dr. Carlos Garcia-Salazar also hosted this evening workshop which combined the ACA session with an educational session on the Fruit Crop Insurance program. Blueberry crop insurance was discussed at the Ottawa County meeting by Chris Shellenbarger of Spartan Insurance.

Information on USDA's Risk Management Agency website http://www.rma.usda.gov/fields/il_rso/2013/miscd.pdf reminded Michigan fruit growers interested in buying a new federal crop insurance policy, or making changes to an existing policy, to do so by the November 20 closing date. Crop insurance protects growers from many different types of risk. Apples, blueberries and peaches are three of the fruit crops in Ottawa County that can be covered with crop insurance.

“Ag in the Classroom”— teaching young people about the importance of agriculture in Ottawa County

In 2013, 3,369 students in 28 Ottawa County elementary schools learned about a variety of topics related to farming and food including seeds, dairy farming, fruits, the environment and business management. Thank you to our supporters including Ottawa County, Ottawa County Farm Bureau, Farmers' Cooperative Elevator Company, Mark Hop Farm Bureau Insurance, Land O' Lakes, Inc. and Zeeland Farm Services, Inc..



Consumer Horticulture

Science-based gardening, environmental awareness and sustainability are hallmarks of MSUE consumer horticulture programs yet these messages were not getting through to the home gardener, according to Dr. David Smitley, MSU Professor of Entomology. This prompted MSU faculty and staff to develop simple messages supported by years of research at Michigan State University centered on smart lawns, soils and plants: “Smart Gardening.”

A crucial part of the Smart Gardening campaign was “taking it to the street”—employing electronic means, appearing at public venues and using print media. During 2013, MSUE consumer horticulture educators and trained volunteers actively engaged clients at three home and garden shows, interfacing with tens of thousands of people representing more than half of the state’s counties. Professional displays where over 36,000 fact sheets were distributed allowed volunteers to dialogue with clients about how to “green” up their lawn and landscape while protecting Michigan’s water and environment.

Educators ramped up the www.migarden.msu.edu website to reflect these messages, adding tip sheets, dozens of “smart” news articles and Smart Gardening videos. This website is now the first choice when using a search engine for gardening in Michigan. In 2013, more than 35,000 people visited the website making over 136,000 page views.

Smart Gardening was taken to a higher level during two Smart Gardening conferences held in both the upper and lower peninsulas. Participants got a good look behind-the-scenes at research that drives and reinforces these simple messages.



**Be a Smart Gardener!
Visit the
Gardening in Michigan
website at:
www.migarden.msu.edu**



Growing Great Gardens Fall Series

Michigan State University Extension offered the class series “Growing Great Gardens” in October at the Fillmore Main Conference Room in the Ottawa County Fillmore Complex.

The weekly classes ran from October 9 through October 30 and included:

- Oct. 9, Shade plants-instructor-Rebecca Finneran, MSU Extension Horticulture Educator
- Oct. 16, Sun plants-instructor-Pam Cater, gardener lecturer and consultant
- Oct. 23, Tropicals and container plants-instructor- Ian Warnock, lead horticulturist, Lena Meijer Children's Garden's, Frederik Meijer Gardens
- Oct. 30, Design session, instructor-Janet Macunovich, owner of Perennial Favorites, gardener and landscape designer and author

Twenty-seven Ottawa County residents were joined by eight from Kent, seven from Muskegon, and one each from Allegan, Ionia and Oceana for this popular and informative series.





The MSU Extension Master Naturalist program is similar to the Master Gardener program, but with a focus on conservation and the environment. This program is open to anyone who has an interest in the great outdoors! Participants gain a greater understanding of the natural environment and conservation techniques while learning the flora native to West Michigan. Throughout the program and subsequent volunteer opportunities, participants can take an active role in implementing what they have learned throughout their neighborhoods and in their own backyards.

To receive certification as a Master Naturalist, participants must attend 25 hours of education which includes a mix of indoor and outdoor classrooms, pass a take-home final exam, and complete 30 hours of volunteering in an approved conservation setting.

In 2013, the series was offered once a month from April through September. Twenty-seven Ottawa County residents completed this intensive program. Class locations included Hemlock Crossing in West Olive, Conner Bayou in Grand Haven, Hager Park in Jenison, Grand River Ravines in Allendale, and Rosy Mound in Grand Haven. 86% of participants stated that the knowledge they gained empowered them to become active in their community. All participants said they felt better equipped to volunteer in a conservation setting. Ottawa County organizations that are on the Master Naturalist Volunteer Opportunities list are Aman Park, DeGraaf Nature Center, Grand Haven Township Friends of Park, City of Ferrysburg, Kitchel-Lindquist Dunes Preserve, Ottawa Conservation District, Ottawa County Parks and Recreation Commission, Outdoor Discovery Center Macatawa Greenway, Spring Lake Parks and Recreation Department and Wetland Watch. In 2014, the titles of the six classes in Ottawa County are as follows:

- * Overview to Conservation Theory and Practice,
- * Native Plants & Woodland Wildflowers,
- * Native Trees and Shrubs,
- * Lakes & Rivers,
- * Invasive Plant Species, and
- * Dune Ecology

Class locations will vary, but are in either Ottawa County Parks or Open Space properties. For more information, please contact Ginny Wanty at (616) 336-3108 or wanty@anr.msu.edu.



MSU Extension at the Downtown Market

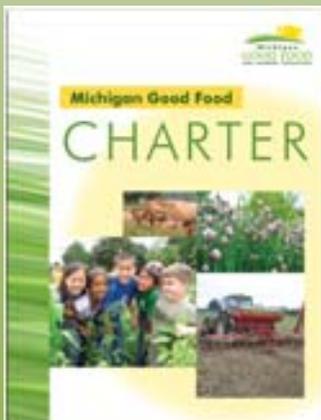
Michigan
Fresh

The focus of work in the Greening Michigan Institute is leveraging natural and human assets for prosperity. One area of that work is in community food systems. MSU Extension educators Kendra Wills and Garrett Ziegler connect local food producers to local markets to increase the amount of Michigan grown and processed foods consumed by Michigan residents. In 2013, this work was enhanced by their move into office space at the Downtown Market in Grand Rapids. Diane Smith, innovation counselor from the [MSU Product Center Food-Ag-Bio](#), joins them one to two days a week.



Their presence at the market is a great opportunity to educate the public and establish relationships with people who produce local food as well as those who buy it. Although market shoppers may not expect to see MSU Extension at the market, when they do see us, they immediately “get it”—we can help them whether it’s in providing nutrition, cooking, food safety or gardening information and education.

Some of the Ottawa County vendors at the Downtown Market in 2013 (either as day vendors or seasonal vendors) included Albright Centennial Lavendar Farm (Jamestown), Bearboy Gourmet (Holland), Bowerman Blueberries (Holland), Country Winds Creamery (Zeeland), Crisp Country Acres (Holland), Visser Farms (Zeeland), Diemers Winter Gardens (Holland), Gammy’s Artisan Pies (Holland), Goen’s Produce (Allendale), Ham Family Farm (Allendale), Homestead Iron Works (Holland), JW Greenhouses (Holland), Mud Lake Farm (Hudsonville), Potter Orchards (Allendale), TerAvest Farm (Hudsonville), The Great American Bagel (Holland), The Great Bread Company (Allendale), Trillium Haven Farm (Jenison), Visser Farms (Zeeland).



Wills and Ziegler were active in the outdoor market from its opening May 4 through the season, promoting the [Michigan Fresh](#) campaign and educating about healthy eating, and safe food preparation and preservation.

In addition, MSU Extension staff used the indoor facilities for educational sessions. Health and nutrition educators Jeannie Nichols and Rita Klavinski facilitated a ServSafe class to 23 participants. Nichols also offered a [Cooking for Crowds](#) session on Oct. 9 and “[Starting a Successful Cottage Food Business in Michigan](#)” on Nov. 7. Cooking for Crowds is an educational program focusing on food safety for nonprofit groups who prepare food for their members or for the public as fundraisers.



Celebrating Michigan Apples!

Encouraging children to enjoy nutritious foods is a vital step to a lifetime of making healthy choices. Working within school food systems is a great place to start as schools increase efforts to seek out, prepare, and serve more nutritious food. Many schools are establishing farm to school programs to boost student consumption of fresh fruits and vegetables, purchase products grown by local farmers, and connect schools to the farmers in their communities.

By connecting the three C's (Classroom, Cafeteria, and Community), taste testing can help students change their food choices. If students learn where the food comes from, how it is grown, have hands-on experiences with it, and use their senses to understand it, they are more likely to taste and accept it.

Over 500 students at Coopersville's South Elementary taste tested three varieties of Michigan apples in September 2013. Kendra Wills, MSU Extension community food systems educator focusing on farm-to-school initiatives, partnered with Mike Gavin of Gavin Orchards in Coopersville to offer this educational experience. South Elementary uses Chartwells as their school food service provider. Chartwells works in partnership with Cherry Capital Foods and several farms including Gavin Orchards to provide locally grown fruit for school meals in 144 districts across the state.

Students tasted Ginger Gold, Paula Red and Gala apples from Gavin Orchards. Wills told students that these apples were picked from an orchard not far from their school. She also told them that Paula Red apples originated in Sparta, named after the wife of the farmer who discovered the variety. Students tried each variety of apple and decided which one was most crunchy, sweet, or best tasting. At the end of all the lunch periods, Ginger Gold, a green apple, won as the school favorite.

Jessica Endres, Food Service Director for Coopersville Schools, said that often when she puts out green apples, students don't take them because they think they taste sour like Granny Smiths. She asked the students if they would take Ginger Gold apples if she put up a sign to label them—they said they would.

This school created a healthier food environment by encouraging children to try new and different foods, many of which are grown locally. Other schools can do it, too!



Photo: Students at Coopersville's South Elementary raise their hands to indicate they liked Ginger Gold apples the best over Paula Red and Gala varieties.

Lowest Recorded Great Lakes Water Levels Basis for Great Lakes Levels 101 Program



Visitors to the shoreline of Lakes Michigan and Huron have noticed significantly low levels of water and vast amount of exposed bottomland formerly covered by water. Since the late 1800s, lake levels have been recorded for Lakes Michigan and Huron; since 1918, the US Army Corps of Engineers has maintained lake level records on a number of gaging stations. Because wind and pressure set up daily movements of the water, gage records are averaged to even out for fluctuations. Each month has a “lake level average”. The level of 576.02 (January 2013) was the lowest monthly average ever recorded on Lake Michigan—beating the previous monthly record low in March 1964 of 576.05. February 2013 levels were higher than the January levels, indicating the system may have bottomed-out and may not go lower as earlier models predicted.



To explain lake level variations, hydrologic system inputs and outputs, and historical lake level records, [Michigan Sea Grant Extension](#) and [MSU Extension](#) hosted a free public seminar on *Great Lakes Levels 101*, at the Ottawa Co. Fillmore St. Complex on April 8, 2013. This program was scheduled due to strong demand following the first Great Lake Levels 101 program held in Traverse City in February.

At Traverse City, more than 150 citizens from a multi-county region attended with questions on hydrology, coastal processes and permitting issues on bottomlands of the Great Lakes. The Ottawa County program included ample time for moderated questions on similar issues and answers from state and federal representatives.



The *Levels 101* program was co-sponsored by the Macatawa Area Coordinating Council, Michigan Sea Grant Extension, Michigan State University Extension, the US Army Corps of Engineers, and the Michigan Department of Environmental Quality. Facilitators and speakers for the event included:

- Dan O’Keefe, Michigan Sea Grant /MSU Extension, Grand Haven
- Mark Breederland, Michigan Sea Grant /MSU Extension, Traverse City
- Keith Kompoltowicz, Chief of Watershed Hydrology, US Army Corps of Engineers, Detroit
- Luis Saldivia, MDEQ Water Resources Division, Grand Rapids
- Jeff Fritsma, US Army Corps of Engineers Regulatory, Grand Haven

Speakers discussed observations from the long-term data set for lake levels on the Great Lakes. For instance, just four years after the lowest monthly record low in March 1964 and the lowest yearly low in 1964, the Lake Michigan-Huron levels bounced above the long-term yearly average in 1968. Currently, however, the yearly average of Michigan-Huron has not been above the long-term average since 1998, making this a string of 14 consecutive years below average.

Entrepreneurs Provided Guidance in Business and Product Development

The MSU Product Center Food-Ag-Bio assists county residents in developing products and businesses in the areas of food, agriculture, natural resources and the bio economy. Select MSUE educators around the state have special training as innovation counselors to deliver these services. Business counseling is conducted on a one-on-one basis and may take place at the MSUE office or the client's home or business location.

The assistance provided is tailored to meet the needs of the client and may include things like:

- ◆ developing a business plan,
- ◆ navigating the regulatory maze,
- ◆ accessing the supply chain, or
- ◆ seeking funding options.

The educator also assists clients in accessing specialized services they may need that are offered through Michigan State University like feasibility studies, nutritional labeling and packaging assistance.

Impact Data for Ottawa County:

During 2013, one hundred seventy-nine counseling sessions took place to assist 23 local entrepreneurs in starting new businesses and expanding existing businesses. Two new ventures were launched during the year.

There is increasing interest in hops production and processing to meet growing demands of the Michigan craft beer industry. The partnership between MSUE and the MSU Product Center Food-Ag-Bio is providing support for entrepreneurs in supporting economic development across the state.

Joanne Davidhizar is an MSU Extension Educator and Product Center Innovation Counselor. For more information, call 269-944-4126 or email davidhiz@anr.msu.edu.

Or visit the Product Center website at: <http://productcenter.msu.edu/>



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4-H club activity in Ottawa for 2013:

- 1023 club members
- 498 adults volunteering with youth
- 5546 youth served
- 70 4-H Clubs & committees



4-H Clubs have been a tradition in Ottawa County for decades! This past year the Ottawa County Bell 4-H Club celebrated 65 years as a 4-H club! To celebrate the occasion they created a display to be showcased at all three of the county fairs.

4-H Programs



In 2013, Ottawa youth participating in the 4-H swine project became certified through the Youth Pork Quality Assurance Program (PQA+). The two main elements of PQA+ are food safety and animal well-being. Over 200 Ottawa County 4-H members received this training and certification.

The Ottawa County 4-H Teen Club hosted a Super Showmanship Clinic in June. With the help of their club leader, Teen Club members secured a workshop location, hired judges to teach about the different species, and raised money by selling concessions—all of which helped to build and improve their leadership skills. Youth who attended the workshop learned about different species of animals, their characteristics and how to show them. Over 70 youth participated in the workshop.



Ottawa County 4-H member Mattea Antrup raised over \$6600 for the Helen DeVos Children's Hospital when she sold her 4-H swine project at the Ottawa County Fair 4-H Livestock Auction. Great job, Mattea, of putting 4-H (head, heart, hands and health) into action!

Journey 4-H Youth Mentoring

The 4-H Youth Development program includes many components that work together to create positive youth development opportunities. These components include 4-H clubs, in-school and after-school activities, camps, and mentoring programs.

The Journey 4-H Youth Mentoring program in Ottawa County matches youth with caring adults who serve as role models to help young people build skills, develop character, and increase self-esteem. This is a collaborative effort between Michigan State University Extension and the Twentieth Judicial Circuit Court Family Division/Juvenile Services.

In 2013, Journey 4-H Youth Mentoring engaged 18 youth in one-on-one mentoring, 10 students in group mentoring, and 70 youth in special interest groups held at the Boys and Girls Club of Holland, and Ottawa County DHS. At the end of the year, 78% of our court-involved youth participants committed no offenses while matched in 2013, and 60% of those who began the program with an open court case are now off probation.

In addition to regular weekly visits, mentors and youth can participate in a variety of opportunities including outdoor activities, the STEM (Science, Technology, Engineering, and Mathematics) curriculum, and other projects that facilitate relationship building and give structure to their time together. In 2013, 4-H Journey staff planned more than 20 hours of skill-building activities for mentoring matches including hiking, kayaking, hayrides, rock climbing, and other events. Mentoring matches also had the opportunity to participate in statewide activities like 4-H Mentoring Weekend and Capital Days.

The Ottawa County Mentoring Collaborative (OCMC) is another initiative of MSU Extension that brings together mentoring organizations from across the county to support mentors and mentored youth. Together they recruit mentors, promote mentoring and enrichment opportunities, and host activities for matches. By housing and giving leadership to the Mentoring Collaborative, MSU Extension continues its investment in partnerships and community across the county.



Participants in the group-mentoring program at Boys and Girls Club of Greater Holland innovate and engineer new inventions.



Mentor Craig Melland and his mentee Travis. Craig was the recipient of the Premier Mentoring Award given by Rep. Joe Haveman in November 2013.



Number of low-income adults in Ottawa in 2013 reached through:

- **A series of nutrition lessons: 177**
- **One-time presentations: 119**

Number of low-income youth in Ottawa in 2013 reached through a series of nutrition lessons: 214.

Of these, 14 were age 5, and 200 were ages 6-17.

Nutrition and Physical Activity for Adults:

During 2013 in Ottawa County, the MSUE adult nutrition education programs continued their work with agencies that routinely serve individuals who receive Supplemental Nutrition Assistance Program (SNAP) benefits. We work with agency partners including City on a Hill Ministries, Mid Town Apartments, MOKA, Kandu and OAR (Ottagan Addictions Recovery) to ensure that their participants have the opportunity to receive nutrition education that can help them and their families eat healthier on a budget.

MSU Extension also reaches pregnant women and parents of small children annually by providing the education component for Project Fresh. Project Fresh is a WIC program that puts fresh fruits and vegetables from local farmers into the hands of low income parents with small children and pregnant women. In 2013, our programming added a partnership with MOKA, a non-profit organization that serves individuals with disabilities in West Michigan.

Nutrition and Physical Activity for Youth:

Nutritious meals and snacks are important for everyone, but especially for children and youth. Children need nourishment and energy in order to learn and grow and be healthy. Research has shown that there are crucial relationships between nutrition and health, and nutrition and learning. Showing children what it means to eat for good health, including how important it is to eat a variety of foods is an important part of the nutrition education programs from Michigan State University Extension.

In 2013, MSU Extension provided nutrition education to neighborhood youth participating in the Heights of Hope summer program in the Holland Heights area.

Also, a new partnership began in 2013 with Woodside Elementary School (West Ottawa Public Schools). MSU Extension was able to provide a classroom nutrition education series to approximately 170 4th and 5th graders.



Social and Emotional Health

Holly Tiret, M.A. is an MSU Extension educator and trainer of The Incredible Years Teacher Classroom Management program. She received her training in Seattle with Dr. Carolyn Webster-Stratton in 2007. Becoming a certified Incredible Years trainer includes group facilitation, feedback and coaching from Incredible Years staff. In 2010 Tiret became one of the first Incredible Years certified trainers in Michigan

In 2013, Tiret conducted 30 hours (11 sessions) of professional development on The Incredible Years Teacher Classroom Management program at the Allendale Public Library. This was offered through the Great Start to Quality Western Regional Resource Center, targeting licensed and unlicensed childcare providers throughout Ottawa County. A total of 36 childcare providers participated in some or all of the sessions.

This is an evidence-based curriculum that is time and labor intensive. In order to maintain implementation fidelity of the program it must be delivered in 6 all-day or 12 half-day sessions, totaling 24-36 hours of instruction. Participants must complete homework which includes implementation of strategies and required readings prior to the next session.

The teacher training intervention is focused on:

- ◆ strengthening teacher classroom management strategies,
- ◆ promoting children's pro-social behavior and school readiness (reading skills), and
- ◆ reducing classroom aggression and non-cooperation with peers and teachers.

Workshop topics include building positive relationships with students, being a proactive teacher, the importance of teacher attention, coaching and praise, motivating children through incentives, ignoring and redirecting negative behaviors, following through with negative consequences and teaching children social and emotional problem solving skills.

The focus of the first lesson is to build positive relationships with all students. Discussion in this lesson focuses on why teachers have a difficult time building positive relationships with students who demonstrate challenging behaviors. Some of the key concepts in this lesson include: understanding ways to show students you care, fostering their sense of responsibility, and giving choices when appropriate.

As a result of this series, teachers reported an increase in frequency of positive interactions with children by noticing positive behaviors more often, sending positive notes home to parents, and ignoring and redirecting negative behaviors.

Young children with high rates of aggressive behavioral problems have been shown to be at great risk for:

- developing substance abuse problems,
- becoming involved with deviant peer groups,
- dropping out of school, and
- engaging in delinquency and violence.

Participant quotes from this training:

"I have learned how to handle one of my two year old's behavior problems with hitting and pushing by using more praise and incentives during this class. I have noticed a considerable change in him. He is hugging and more affectionate towards everyone, where he used to be too physical in a bad way with other children."

"A three year old saw a five year old who was losing his temper. The three year old told the five year old 'You need to turtle' (one of the teaching strategies to promote self-regulation)."



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MI SPARTAN IMPACT

REGION 7

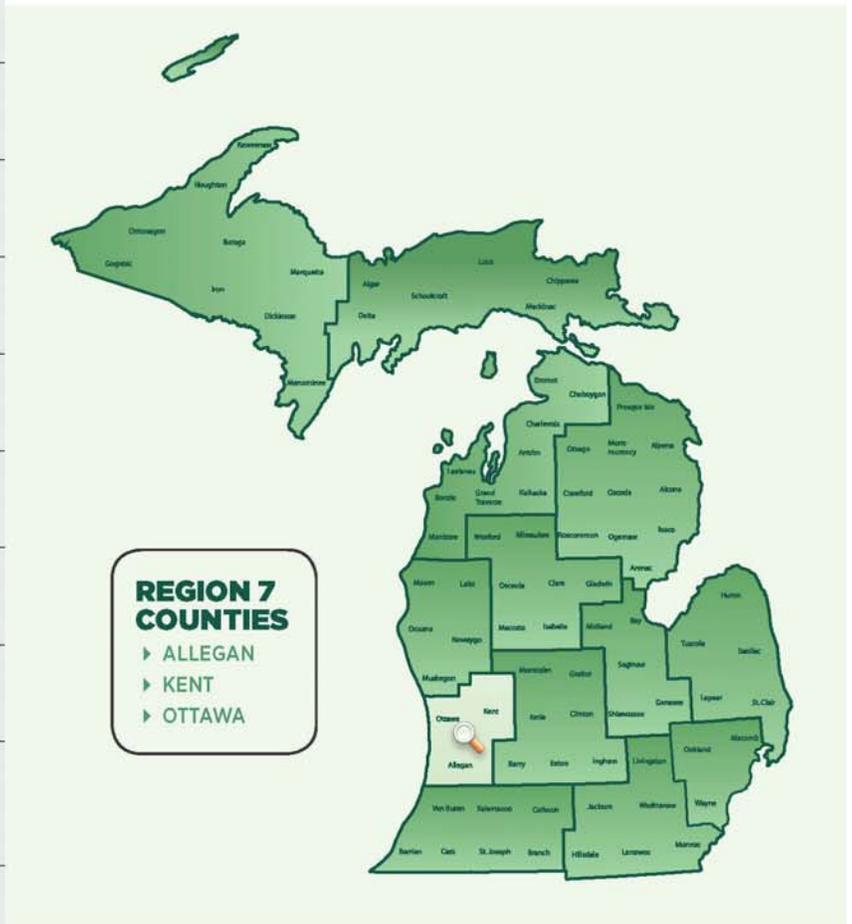
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	VETERINARY MEDICINE STUDENTS 30
	ENROLLED MEDICAL STUDENTS 238
	ALUMNI RESIDING IN REGION 22,008
	SPENDING WITH LOCAL BUSINESSES \$46,300,508
	TOTAL ECONOMIC IMPACT \$336,331,813*
	STAFF/FACULTY RESIDING IN REGION 263
	FINANCIAL AID DISBURSED \$28,470,466
	4H YOUTH PARTICIPANTS 17,421
	PROPERTY OWNED BY MSU (ACRES) 174
	MEDICAL INTERNS/RESIDENTS/ FELLOWS 283
	MSU PARTNER HOSPITALS 3

*Data from an independent study by the Anderson Economic Group

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 \$91.4 billion agribusiness industry through partnerships, research, and educational programs in all 83 counties.





*Thank you to the Ottawa County Board of Commissioners
for their continued support of the educational and
outreach programs of Ottawa County MSU Extension.*

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