



Genesee County 2015–2016 ANNUAL REPORT

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MESSAGE FROM THE DISTRICT COORDINATOR

We hope you enjoy reading this 2016 annual report outlining the services of MSU Extension in Genesee County. Our services were tailored to immediately respond to the Flint water crisis this year. We have been in this community for over 100 years and will continue to be as long as the community views us as a valuable resource.

MSU Extension faculty and staff translate the scientific information gleaned from MSU AgBio Research and other Campus Units into real world applications.

Throughout the history of the Cooperative Extension Service, founded by the Smith-Lever Act of 1914, MSU Extension has worked hard to support an environment of collaboration where innovation and creativity can flourish.

This report provides an overview of the variety of MSU Extension programming that residents of Genesee County participated in over the last year. Thank you for your continued support of MSU Extension programs in Genesee County.

Diane Smith
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Michigan State University Extension



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MSU EXTENSION DISTRICT 9 DIGITAL REACH

From July 1, 2015, to June 30, 2016, MSU Extension’s website (*msue.msu.edu*) had 205,131 page views from District 9 residents. The Genesee County MSU Extension page had more than 2,304 page views. Search engine rankings make *msue.msu.edu* one of the most visited Cooperative Extension Systems education sites in the country.

MSU EXTENSION’S EXPANDED DIGITAL REACH THROUGHOUT THE STATE

Through combined face-to-face trainings, online webinars, social media, website interaction and electronic newsletters, MSU Extension has made more than 8.8 million connections. More than 149,000 adults* and 203,000 youth† participated in MSU Extension programming in the 2015-16 programming year.

More than 3.7 million people viewed more than 7.2 million pages on the MSU Extension website.‡ Of those, more than 760,000 were Michigan residents. MSU Extension remains one of the most visited Cooperative Extension System education websites in the country.

MSU Extension also distributes a series of electronic newsletters that cater to residents’ unique interests. Last year, nearly 1.3 million newsletters covering 90 topic areas were distributed to

about 16,900 email addresses.‡ You can sign up for these informative newsletters by visiting <http://msue.msu.edu> and clicking on “Newsletter Sign Up” texting MSUE to 22828.

MSU Extension uses social media channels to reach people with educational content. Currently, Extension reaches more than 3,500 Facebook followers and more than 2,800 Twitter followers.‡ In addition, Michigan 4-H families and volunteers stay informed about activities through social MSU Extension than 4,000 likes and on Twitter with more than 1,300 followers. Genesee County MSU Extension Facebook has 500 likes

*From ES237 Federal Report – Oct. 1, 2014, to Sept. 30, 2015

†From Michigan Extension Planning and Reporting System – Jan. 1, 2015, to Dec. 31, 2015

‡From July 1, 2015, to June 30, 2016

USDA Abraham Lincoln Award

MSU Extension Gets USDA Recognition for Response to the Flint Water Emergency



In the photograph, left to right, are Deanna East, Associate State Leader for Health and Nutrition; Dr. Jeff Dwyer, MSU Extension Director; Erin Powell, MSU Extension Health and Nutrition Educator; Lynette Kaiser, MSU Extension Health and Nutrition Program Instructor; and Dr. Sonny Ramaswamy, director of the National Institute of Food and Agriculture. Courtesy of USDA NIFA.

Earlier this year, the U.S. Department of Agriculture (USDA) awarded Michigan State University (MSU) Extension the Abraham Lincoln Award for External Partnership for our response to the Flint water emergency. The Abraham Lincoln Award is the most prestigious award presented by the secretary of agriculture. The Abraham Lincoln Award for External Partnership recognizes the exceptional contributions of USDA's external partners for their innovation, productivity and efficiency in their program delivery as well as ability to leverage federal funding to the benefit of USDA's customers, the external partner and USDA.

MSU Extension received this honor for "successfully responding to stakeholder needs for information about combating the effects of lead exposure to Michigan communities by developing exceptional emergency response with limited staff, time, and budget."

Our MSU Extension Director Jeff Dwyer, along with Deanna East, Lynette Kaiser, Erin Powell, flew out to Washington DC to accept the award on behalf of our organization and everyone involved in the emergency response. The USDA Abraham Lincoln Honor Award ceremony and reception took place at the USDA Headquarters in Washington, D.C.

Although only three local staff members traveled to D.C. to receive the award on Extension's behalf, our efforts in Flint were carried out by a large group of committed and passionate staff members. Health and nutrition staff developed programming materials and efforts to address healthy eating to mitigate lead absorption. Children and youth development staff worked closely with community partners to develop resources and programs to help parents promote activities that support cognitive development. Greening Michigan staff and the agriculture and agribusiness staff provided gardening and accessing healthy food education and soil tests. Both MSU Extension Communications and ANR Creative helped produce the resources necessary to carry out their endeavors.

In November, Jeff Dwyer, our MSU Extension Director, came to Flint to personally recognize Dr. Mona Hanna-Attisha and all of our staff members that were part of this vital team. Congratulations to the MSU Extension team on your 2016 USDA Abraham Lincoln Award for External Partnership.

MSU Extension Responds To Flint Lead Crisis

Programming and Webpages Devoted to Lead Crisis

MSU Extension is committed to addressing the current challenges facing residents in Flint related to elevated exposure to lead. MSU Extension developed the below set of pages on their website to specifically to address the new needs of Flint residents and those around the country facing this issue. The pages point to a range of programming, resources and information that can help residents understand the issue of lead exposure as well as programs that focus on healthy eating and early childhood education. Visit <http://msue.anr.msu.edu/program/info/lead> for more information.

The screenshot shows a Chrome browser window displaying the MSU Extension website. The browser's address bar shows the URL msue.anr.msu.edu/program/info/lead. The website header features the Michigan State University logo and the word "EXTENSION" in large green letters. Below the header, the main content area is titled "Fight Lead Exposure" and includes a photograph of a family in a kitchen. The text on the page states: "MSU Extension is committed to addressing the current challenges facing the residents in Flint and throughout Michigan related to elevated exposure to lead. Here you can find a range of resources and information that can help you and your family understand the issue of lead exposure as well as programs that focus on healthy eating and early childhood education." Below the text, there are social media sharing buttons for Facebook (144 likes), Google+, LinkedIn, and Twitter. A sidebar on the left contains links for "Events" and "News". The bottom of the browser window shows a dock with various application icons.

Developing Youth and Communities



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).



MSU Extension 4-H programs have demonstrated that they help youth reduce high-risk behaviors such as drug use, helping participants avoid or reduce involvement with the court system. Michigan 4-H teaches youth to complete tasks, solve problems and seek help they might need from peers and adults. This helps to prepare current and future leaders by offering numerous opportunities for leadership and skill development. With innovative ideas, renewed energy and the ability to look beyond preconceived obstacles, youth have the capacity to change the world.

4-H Clubs

4-H Clubs are the foundation of every successful 4-H Program. 4-H Clubs can take the form of a community clubs, school clubs, or a 4-H Special Interest (SPIN) club. Regardless of the structure, the primary purpose of 4-H Clubs is to support the development of each youth through building significant and lasting relationships with adults and other youth. In 2016, Genesee County had **356 youth** members in 4-H Community Clubs, **830 youth** in School Clubs, and **101 adult** volunteers working with the youth.

4-H Special Interest Clubs (SPIN Clubs) and School Enrichment Programs

Short term SPIN clubs were held in partnership with the YMCA and other organizations. In 2016, **2851 youth** were in a SPIN club and **4328 youth** participated in a school enrichment programs. SPIN club sessions were held at the Holy Redeemer Catholic Church, Mt. Olive Baptist Church, Cathedral of Faith Ministries, Carriage Town Ministries, the Atherton East Apartment Complex, Flint Public Schools Community Education STEAM Camp, Eisenhower Elementary, Durant –Tuuri-Mott Elementary, Carmen-Ainsworth Middle School, and the Kennedy Center. Topics included Straight Talk, Relaxation, Wearable Arts, Silly Science, Healthy Eating, Personal Hygiene, Art Through Humanities, Cooking, and Literacy.

Developing Youth and Communities



The best practices around creative, critical thinking in STEAM encourage projects that “throw away the instructions” and are very self-guided.



Supporting STEAM Careers Through Youth Programming

The future of Michigan lies, in part, in the hands of its students’ abilities to excel in science, technology, engineering, art and mathematics (STEAM). Science literacy among school-aged youth in Michigan is below the national average, directly impacting college readiness. MSU Extension provides resources aligned with Michigan science education standards to teach confidence, leadership and responsibility related to STEAM. MSU Extension staff have provided the following workshops and contests with a total of **169** youth in Genesee County attending: Science Saturday, Exploration Days, Horse Judging Workshop and Clinic, State 4-H Horse Trail Ride, the Honey Bee Challenge, Livestock Judging Contest, MI 4-H Poultry Show, 4-H Rabbit and Cavy Expo, MI 4-H Goat Expo, Meat Judging Contest, the Beecher Library Gardening Program, and the MI 4-H Goat Workshop.

4-H Summer Camps

Overall, **20 Genesee County youth** attended camps this year. In a partnership with Shiawassee County 4-H, Genesee County 4-H youth participated in 4-H Camp held at Camp Neyati located on Crooked Lake in Lake Station in June. Campers enjoyed arts, crafts, archery, swimming, boating, games, nature, science, dancing, basic structural design and making new friends while developing their independence in a camp setting.

Capitol Experience

Participants in Citizenship Academy have the opportunity to attend the Capitol Experience conference to learn how state government works. **Three** Genesee County youth were able to attend. Youth were able to examine a current policy from a variety of perspectives. In addition, youth were able to visit State Senators and Representatives, and participate in activities designed to reinforce and apply what they have learned about government.

MSU Exploration Days

This year, **21** Genesee County youth attended Exploration Days. Explorations Days, a 3-day event on MSU’s campus in June, is designed to help youth learn new ideas and techniques, increase their interest in and readiness for college, explore career options, and develop their decision making, independence and teamwork skills. They also meet and interact with others from different backgrounds and areas throughout Michigan.

Keeping People Healthy

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

When you support MSU Extension, residents learn safe food handling practices, increase their physical activity and improve the quality of their diets. Encouraging these healthy behaviors helps reduce food and health care costs by helping prevent chronic health conditions and providing safe environments throughout a person's life span.

Improving Nutrition and Increasing Physical Activities in Michigan Communities

Unhealthy water, limited income and poor nutrition affect quality of life and can increase healthcare costs. The Centers for Disease Control and Prevention reports that more than 30 percent of Michigan adults are considered obese, and one out of every three deaths in Michigan is caused by cardiovascular disease, influencing the quality of life and adding billions of dollars each year in economic burden.

MSU Extension delivers affordable, relevant, evidence-based education to help residents in urban and rural communities stay healthy throughout their lifespans. Programs teach participants how to buy and prepare nutritious, budget-friendly and lead blocking foods and increase physical activity. In 2015 alone, these programs reached more than 112,000 adults and youth across the state in over 1,600 different locations.

Locally, our impact has been as follows:

- MSU Extension reached over **235,000** Genesee County residents through the distribution of materials, including the Flight Lead with Nutrition handout, Nutrition and Lead recipe booklet, factsheets, newsletters, community events and the news.
- 92% of the children and youth in our nutrition programs improved their abilities to choose foods according to FDA dietary recommendations.
- 63% of youth in our physical activity programs improved their physical activity practices.
- 65% of adults in our programs showed improvement in one or more nutrition practice (plan meals, makes healthy food choices, prepared food without salt, reads nutrition labels or has children eat breakfast)



Keeping People Healthy

Teaching Valuable Healthy-Eating Skills



In 2015, 16.2 percent of people in Michigan were considered to be living below the poverty level. More than 1.5 million Michigan residents qualify to receive Supplemental Nutrition Assistance Program (SNAP) benefits.

MSU Extension's Supplemental Nutrition Assistance Program Education (SNAP-Ed) programs in Genesee County reached **1,049 adults and 299 youth** (Oct. 2015-Sept. 2016) who participated in a series of educational sessions, and another **522 adults and 247 youth in the county** who participated in one time presentations.

Through our programs, adults and youth learn how to 1) make the most of their food dollars, 2) understand food labels, 3) make healthy food choices, 4) prepare and portion food, 5) plan menus, 6) understand recipes and 7) keep food safe.

- The curriculums, teaching tools and venues used to teach the programs include:
Curriculums: *Eat Healthy Be Active, Cooking Matters, Project Fresh, Healthy Harvest*
- Curriculum Highlight: Show Me Nutrition Curriculum—Youth programming continues to be a cornerstone of educational programming in Genesee County. Children participate in a six-week series of lessons about important health themes such as nutrition, food safety, physical activity, media influence and body image.
- Venues: MSU Extension has provided programming in **over 50 different locations** and with different partners throughout Genesee County. These locations include community centers, faith-based organizations, schools, day care facilities, WIC, Head Start, public housing complexes, senior centers and other locations.

Chronic Disease Self-Management (PATH)

Michigan State University Extension disease prevention and management programs provide participants with strategies to improve the quality of their diets, manage chronic health conditions and reduce their risk of type 2 diabetes. Access to high-quality and affordable disease prevention and management education programs such as those that MSU Extension provides is essential to saving lives, reducing disabilities and lowering the costs of everyone's medical care. MSU Extension's Personal Action Toward Health (PATH) for Diabetes program equips participants and their family members and caregivers to face the daily challenges of living with diabetes. **Thirteen** Genesee County residents participated in PATH for Diabetes in 2016. They reported improved health status at the end of the program, completed the program with decreased symptoms of fatigue and decreased pain symptoms. They also reported decreased fearfulness about their future health by using the strategies they learned in PATH for Diabetes.

Ensuring Safe And Secure Food



MSU Extension efforts in ensuring safe and secure food lead to a healthy population, which in turn helps keep health care costs in check and our communities viable.

Teaching Residents About Food Safety

MSU Extension offers ServSafe, a national certification program, for those working in food service, especially managers and other leaders. ServSafe teaches about foodborne illness, how to prevent it and how to train employees about the latest food safety issues. This year, **17 Genesee County** residents completing the 8 hour ServSafe course and **3 residents** attended the 16 hour ServSafe course.

MSU Extension also teaches Cottage Food Law seminars. This allows residents to prepare and store certain foods in home kitchens for a home based business or community fundraiser. This year, **27 Genesee County** residents attended the MSU Extension Cottage Food Law course for small businesses.

MSU Extension Reducing Foodborne Illnesses Through Home Preservation Education

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. As a result of MSU Extension food safety programs, individuals now use safer food handling, preparation, storage and preservation techniques. This reduces medical expenses, reduces food recalls and contributes to the financial stability of food businesses. This benefits other community members by decreasing the economic costs of foodborne illnesses, estimated at \$6.9 million in 2000.

85 Genesee County adults enjoyed the following Food Preservation courses MSU Extension offered:

- Preserving Food at Home—Canning Basics
- Fresh Pack and Fermenting Pickling Methods
- Canning Jams and Jellies
- Blanching and Freezing
- Drying Fruits, Veggies & Herbs
- Keeping Food Safe At Fundraisers

Ensuring Strong Communities



Planning for the transfer of both titled and non-titled property is an important issue that can significantly impact family relations.

Improving the Fiscal Health of Flint and Other Michigan Communities

Only with healthy, vibrant communities can Michigan residents be expected to thrive. To help Michigan prosper in a sensible, sustainable fiscally responsible way, MSU Extension launched the Center for Local Government Finance and Policy in late 2015.

The center is led by MSU Extension economist Eric Scorsone who has assisted multiple cities during fiscal crises including Detroit, **Flint** and Lansing. The center advises cities during fiscal hardships, develops fiscal tools and offers outreach to help communities improve their fiscal health. In addition, the center is committed to connecting legislators with experts in public policy and forging partnerships in the public and private sector.

The City of Flint has had a long-term relationship with Center staff via revenue and financial analysis, strategic planning, performance measurement and general support to Flint City Council and the mayor's office in partnership with the C.S. Mott Foundation.

Estate Planning Education

Thirty three Genesee County residents participated in a course about will planning, insurance and appraisals called Grandma's Yellow Pie Plate. Local participants were social workers, Habitat workers, and representatives of the Department of Insurance and Finance Services and Community Action Agency.

Tourism As An Economic Driver

Nine Genesee County residents attended the Regional Tourism meeting to identify regional projects to fund through a facilitation process. Those that attended in the region were representatives of Convention Boards, Economic Development Boards, the Economic Development Administration, City Managers and the Michigan Transportation Association.

Community Food Systems and *edible flint*



MSU Extension supports the development of community food systems in Michigan by providing resources and programs to develop local food policy councils, farm-to-institutional purchasing, food hubs and farmers markets.

edible flint

Edible Flint began in 2009 and is the local nonprofit organization that advocates to improve access to healthy food through community and economic development. The mission of *edible flint* is to support Flint residents in growing and accessing healthy food in order to reconnect with the land and each other.

MSU Extension serves as a strong partner with Edible Flint initiatives through staff time, housing *edible flint* staff, grant writing and providing expertise for programming.

The need for initiatives that can support economic opportunities for low-income individuals, access to healthy foods, obesity reduction and innovative ideas around neighborhood vitality were raised to a higher profile with Flint's lead crisis this year. All of this served as the launching point for *edible flint's* organizational strategy in urban agriculture, community gardening and nutrition education.

With nutrition experts' emphasizing a healthy diet as one of the mitigation strategies for lead exposure/poisoning, *edible flint's* mission to improve healthy food access in Flint is even more essential.

Public safety and food access have been significant factors in *edible flint's* programming with 1,068 food gardens in the City of Flint (111 of which are community gardens) that our Garden Starters program has supported over the last 6 years. These gardens have truly contributed to blight elimination and healthy food access for residents.

After the state of emergency was declared in Flint in January of 2016, *edible flint* fielded numerous concerns about safety in food gardens in response to lead in the water, with fears regarding lead uptake in vegetables intended for human consumption. In consultation with two MSU environmental chemists and a USDA agronomist with expertise in urban agriculture, the *edible flint* team mobilized to educate and provide assistance in response to community concerns resulting in:

- delivering 30 presentations and 37 media interviews
- publishing several articles
- a day long educational program in north Flint at the Neighborhood Engagement Hub
- the creation of a risk reduction flyer specific to [lead safety in food gardens](#)
- grant funding for 175 soil tests with lead screening
- offering 225 irrigation hose filters that remove lead while watering
- distributing 90 low cost rain barrels to many food gardeners
- Garden Starters veggie kits with extra vegetables high in the lead fighting nutrients iron, calcium and vitamin C

During 2016, *edible flint* has reached 4,684 residents through these presentations, programs and events. *Edible Flint's* dollar value of community generated volunteer hours (based on [Independent Sector](#) hourly value \$23.56/hr) was \$33,337, with 229 (76-unduplicated) volunteers performing 1,415 volunteer hours for *edible flint* program and outreach work in 2016.



Community Food Systems

edible flint Creates Sustainable Recovery Program

Through a strategic planning process that was made possible by a Michigan Department of Agriculture grant this summer, *edible flint* and MSU Extension worked together to identify steps for transitioning our efforts from the initial lead crisis response to a sustainable recovery program that increases the local food production capacity in the Flint region, while incorporating the evaluation's stakeholder feedback in the plan's implementation. Through *edible flint* we've secured **\$193,478 dollars** in 2016 through six grants.

FoodCorps MI National Service Program

FoodCorps, a Farm to School National Service program, has been in Michigan since its launch in 2010, and has been managed by MSU Extension Community Food Systems (CFS) as the state partner since 2013.

Genesee County MSU Extension houses the FoodCorps Fellow and provides administrative oversight for **14 staff** in the 6 service sites in Michigan. MSU Extension CFS staff work to weave FoodCorps into the statewide food systems movement by creating opportunities for members to present at statewide events like the MI Family Farms Conference and the 2016 Good Food Summit.

This school year ('16-'17), in response to the lead crisis in Flint, the National FoodCorps program scaled up our team here, growing from 2 to 6 locally-recruited service members serving in **all 11 of the Flint Community Schools**. This will increase Flint residents ability to increase good nutrition which is one of the few scientifically supported ways to reduce lead uptake among exposed children. Our Flint partner with the Food Corp programming is the Crim Fitness Foundation. In 2015/16, 2 service members at the Crim reached **830 children** with direct nutrition and school garden programming, and statewide, reached **6,344** students.

Other Genesee Food Systems Initiatives

The MSUE CFS educator is involved in several other healthy food access initiatives in Flint and Genesee County, including the following:

- Serving on the advisory board for the Community Foundation's Food Systems Navigator- helping to build the supply chain side of food systems to support local producers to supply area institutions
- Serving on the MI Food and Farming Systems Women in Agriculture network and its Farm Development Center at Genesys Regional Medical Center – a facility to train women farmers in scaling up their farm businesses for retail sales
- Collaborating on the new Flint Fresh Mobile Market with its organizational partners the Local Grocer, Community Foundation of Greater Flint, YMCA, Neighborhood Engagement Hub, and Flint Food Works to address the challenges that the residents of Flint have in accessing healthy foods, and to support a food hub facility to aggregate, store, process, distribute and market locally produced foods – contributing to job development and the local economy.
- As part of the Applewood's Fall Harvest Festival with over 4000 participants, MSU Extension staff, in partnership with *edible flint*, provided Genesee County residents with education on the Michigan Fresh initiative, agriculture, youth development, garden safety in urban food gardens, and taste testing rainbow carrots.

Supporting Food and Agriculture



Careers in the agriculture field are important to give youth awareness for job possibilities as they start looking at jobs and what they would like to do in the future.



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

Preparing Youth for Future Careers in Agriculture

As a pillar of Michigan's economy, agriculture must continue to grow and thrive. One way to ensure this success is to prepare an informed and skilled workforce ready for careers in this essential sector.

To meet this need, MSU Extension offers youth a continuum of learning opportunities in the agriculture industry. These opportunities range from interactive experiences such as 4-H Renewable Energy Camp and World Food Prize Michigan Youth Institute, to educational resources such as the Youth Business Guide to Success, animal marketing curriculum and zoonotic disease prevention tools. Through these experiences and resources, as well as county 4-H projects, youth are educated about agriculture and prepared for careers in this important industry. In the last program year:

- More than 24,000 4-H youth participated in animal, biological and plant science projects in 78 counties.
- More than 850 youth took part in Michigan 4-H pre-college programs with an agricultural focus. These programs, which include 4-H Exploration Days and 4-H Animal and Veterinary Science Camp, among others, are designed to help youth explore potential careers or academic areas.

Supporting Food and Agriculture

Michigan agriculture continues to be a growing segment of the state's economy. MSU Extension teaches producers profitable and efficient business production practices while learning to optimize and reduce the use of pesticides and fertilizers to conserve and protect water resources. The number of households raising a portion of their own food and raising livestock or gardening for pleasure or relaxation continues to increase as well.

Michigan Sugarbeet Research Reporting Session

Thirty-five Genesee County producers attended the research session in collaboration with Ontario. Generally 12-14 speakers report at this event. It has become very popular to growers to attend this event because they can get a quick research update on a lot of different agronomy topics.

Sugarbeet Advancement Program

Four local farmers participated in the REACh sugarbeet agronomy sessions. The sugarbeet industry alone has a direct economic impact of over 550 million dollars. When compared to other sugarbeet production areas in the last 10 years, Michigan tops the charts for improved sugarbeet yields, quality and profitability. Much of these gains have come from extensive effort put forth by MSU Extension's Sugarbeet Advancement Program working with the industry. In 2016, 25 research trials were conducted in the Great Lakes Genesee Area. These efforts included variety testing, improving management techniques, and solving production constraints.

Bean and Beet Symposium

This symposium was held on February 19, 2016 at Horizons Conference Center. This trade show/conference is for dry bean and sugarbeet growers and includes over 104 exhibitors in the region and draws over 450 producers.

Genesee Thumb Vegetable Meeting

Eleven Genesee County growers attended the meeting to learn about the Food Safety Modernization Act for vegetables from research and extension specialists and Extension Educators.

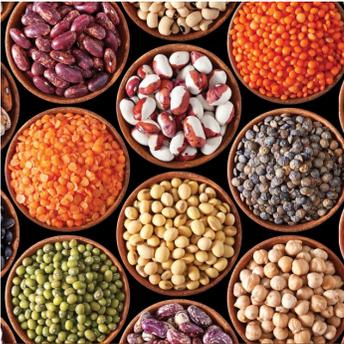
Beginning Farmers Webinar Series

Three Genesee County residents participated in the webinar seeking basic, start-up information for new farming enterprises. The audience was primarily people currently engaged, or considering engagement, in smaller scale commercial agriculture

Great Lakes Forage & Grazing Conference

A critical program for the forage based farm industries of Michigan. Forages for livestock feed include alfalfa, grass, corn silage, and pastures. In 2015, Michigan had 970,000 acres for hay, 41,097 acres for pasture, and 260,000 acres for corn silage totaling 1,271,097. Forages are the third largest commodity crop in Michigan after corn and soybeans and represented \$417,570,000 in revenue for farmers in 2015. Forages are also an integral part of the dairy, beef, horse,

Supporting Food and Agriculture



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

Integrated Pest Management (IPM) Academy

Twelve Genesee County residents completed a two-day program covering the fundamentals of IPM and the resources and technology for sustainable agricultural practitioners. This program is a collaboration between several Extension field-based educators and campus specialists. The Academy's long-term goal is to increase sustainable agriculture through expanded awareness and adoption of IPM strategies that improve crop efficiency, minimize pesticide use and enhance environmental quality.

Agriculture Emerging Insect Pests and MSU Extension Response

Genesee County MSU Extension partners with farmers and statewide agencies to monitor tree fruit pests. Working together to eliminate these invasive species will be essential to lessen the loss of the Michigan tree fruit crops in the future.

The spotted wing drosophila and the brown marmorated stink bug are two invasive pests that pose the biggest threats to Michigan's fruit production. The spotted wing drosophila attacks fruits by laying eggs on the inside of the fruit, particularly blueberries, raspberries, grapes and cherries. The brown marmorated stink bug attacks apples, grapes, sweet corn, tomatoes, berries, landscape plants, and many more.

MSU Field Crops Webinar Series

Three Genesee County residents participated in the six webinars where MSU Professors covered Overcoming Weed Management Challenges in 2016, Field Crop Disease Management Updates, Forage Improvement on a Budget, Nutrient Management Research in Field Crops, Evaluating Insecticide Seed Treatments and Cover Crop Termination Strategies.

Ornamental Horticulture

Twenty-eight residents participated in educational sessions about various topics such as Christmas Trees, nurseries, and floriculture with greenhouses.

Soil Test Kits and Platbooks

This year Genesee MSU Extension sold 53 home owner kits and 33 farmer/food plot boxes.

Test kits, as well as additional publications on a wide variety of topics, are available at the local MSU Extension office or at shop.msu.edu (click the MSU Extension Bookstore link on the top right).

Master Gardener Program



GENESEE COUNTY



Genesee County Master Gardener Training

Genesee County MSU Extension has a full time Master Gardener Coordinator that organizes Master Gardener trainings in the Genesee County. Residents attend training to learn basic horticulture principles and environmentally sound practices. Once they complete the training and at least 40 hours of community-based service, they earn the title of certified Extension Master Gardener.

In 2016, a Spring and Fall Master Gardener training series was held resulting in 90 new Master Gardener volunteers and trainees in Genesee County.

Genesee County Master Gardener Association

Everyone who completes the Genesee Master Gardener Volunteer Training Program (or transfers in) belongs to this association. The association is a volunteer group dedicated to learning about gardening and horticulture and sharing acquired knowledge with the people of Genesee County. They encourage horticulture and gardening which through adding beauty improved the quality of the community's environment.

Master Gardener Volunteer Hours of Service

There are 237 Genesee County Master Gardener Volunteers. These volunteers have donated 11,168 hours of volunteer time this year. This year 39 volunteers were awarded a gold badge for having over 1000 hours of lifetime volunteer hours. The economic value of these volunteers is \$257,639.

Volunteer Projects in Genesee County

The MSU Extension full time Master Gardener Coordinator works collaboratively with the association to coordinate and oversee volunteer projects for Master Gardener Certification and continuing volunteer hours.

MSU Extension Master Gardeners completed 33 projects within local communities in Genesee County. The locations and partners of some of the gardening projects are listed below:

- Churches: Carriage Town Ministries, 1st Presbyterian Church
- Parks: Crossroads Village (Monarch Way Station)
- Farmers Market: Grand Blanc and Davison
- Trails: Flushing River Trail—Educational Signage
- Organizations: Humane Society, GCCARD Gardens
- Libraries: All Genesee Library Gardens
- MDOT Partnership: Multiple Rest Stop Projects on I-69 and US-23
- Memorials: Clio Veterans Memorial

Master Gardener Program

Genesee County Jr. Master Gardener

In collaboration with For-Mar Nature Preserve and Arboretum, 9 Junior Master Gardener Volunteers were trained. After the class, participants have community service hours assigned to complete, based on their age, in order to receive their certification.

Michigan Master Gardener Program (MMGP) College

MMGP provides interested individuals an opportunity to take part in a focused, 13-week training experience that provides in-depth education in many aspects of horticulture including trees and shrubs, flowers, vegetables, fruit, soil, water, pests, indoor plants and lawns. In Genesee County, 19 local residents completed the training that consisted of four educational tours and one workshop. These volunteers can get involved in local gardening activities through the Genesee Master Gardener Association.

Genesee County Award Winners At MMGP College

As part of the 2016 MG College, the Extraordinary Project Search was held to showcase outstanding contributions that Master Gardener's make in their communities. Fourteen posters were submitted from 7 different counties. Seven of those posters were from Genesee County.

Genesee County's Crossroads Village won the "Peer Preferred Project" award.

The rest of the following Genesee County 6 Projects all received Honorable Mention from the highly regarded judges:

- Desert Oasis Cactus Garden
- Genesee County Partnership with MDOT Rest Area Poster
- Flushing River Trail Educational Signage
- Carriage Town Ministries Food and Garden
- Genesee County Humane Society
- Genesee County District Libraries

MSUE Lawn and Garden Hotline

MSUE Consumer Horticulture educators and trained Master Gardener Volunteers are dedicated in helping answer any at-home garden questions. In 2015, Genesee County Master Gardener hotline volunteers assisted 40,589 contacts through either phone contact, face-to-face interaction or through the hotline, which was the highest in the state that year. They have also conducted outreach to 296 residents through community events.

MSUE has an "Ask an Expert" button on the webpage msue.msu.edu, or call toll-free 1-888-MSUE4MI (888-678-3464). Staff and volunteers are available statewide on Friday's from 9am-12pm.

You can also receive valuable information and sign up for MSUE's Gardening news at migarden.msu.edu.

Keeping Businesses Strong



When you support MSU Extension, you help participants understand the economic, environmental and social benefits of purchasing local and regional foods.

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 bioeconomy sectors. When you support MSU Extension, you help participants understand the economic, environmental and social benefits of purchasing local and regional foods. This fuels the economy by creating and retaining jobs, and helps ensure a healthy tax base.

Building Youth Entrepreneurial Spirit and Skills

MSU Extension is providing youth and the adults that support them with the skills and resources necessary to turn ideas into business ventures. Through simulations and workshops, youth learn how to develop business plans and operate their own companies, as well as how to be more entrepreneurial in their everyday 4-H experiences. In 2015, these programs were delivered to nearly 1,200 people in 59 Michigan counties.

As a result, 92% said they learned how entrepreneurial skills could be used in any career, and 60% reported planning to start their own businesses.

Growing Food Processors

As the backbone of the economy, small business owners play a critical role in the prosperity of the nation. The MSU Product Center specializes in helping food processing entrepreneurs succeed. This year the Product Center helped Genesee County residents with the following needs:

- Interviewing skills
- Trade Show preparation
- Regulatory requirements
- Edible insects
- Aquaculture operation
- A cooperative grocery store

Making the Most of Our Natural Assets



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

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

Raising Awareness of Healthy Watersheds

A hands on session was held with 10 residents at the Sloan Museum as part of their exhibit on Water's Extreme Journey. Participants built their own watershed models and experimented with the impact of wetlands on reducing runoff pollution. They also learned about green infrastructure techniques used to replicate the benefits of wetlands in filtering out nonpoint source pollution both in urban and agricultural contexts.

Sustainable Fisheries and Aquaculture

MSU Extension and Michigan Sea Grant hosted the Lake Huron Regional Fisheries Workshops in partnership with the Department of Natural Resources Fisheries Division and USGS Great Lakes Science Center. Five Genesee County residents attended. The seminar covered the following topics:

- Surveying Forage Fish
- Saginaw Bay Reef Habitat Assessment
- Saginaw Bay Youth Fishing Education
- Saginaw Bay Walleye and Yellow Perch Fisheries and Management Updates

Water Information in Flint

As part of the WOW Outreach resource day, 32 residents received education about the importance of water, demystifying the boiling dilemma, use of filters, water quality testing, and source water.

Making the Most of Our Natural Assets



Flint water testing and study of local river insects provided education on water quality for local residents.

Flint River Environmental Education Program

In partnership with the Flint River Watershed Coalition, General Motors, and the Genesee County Drain Commissioner's Office, and Flint River GREEN (Global River Environmental Education Program), MSU Extension worked with **21 schools and over 1100 students**. This involved students testing the Flint River and its tributaries and analyzing the data. Students were partnered with environmental professionals who served as a classroom mentor. After the testing was completed, students attended a GREEN Student Summit at Kettering University. Students shared their data with diverse peers, and attended breakout sessions. Because of the Flint Water Crisis, teachers, mentors, and students were taught about the relationship between water quality in the Flint River, water treatment and distribution systems, and how those factors combined to contribute to the drinking water issues in Flint. Through this process, students improved their perception of the Flint River, learned about science, and explored careers in environmental professions.

Flint River Insects Study For Water Quality Education

In partnership with the Flint River Watershed Coalition, MSUE Genesee County trained adult and youth volunteers to 'catch bugs in the river'. By catching water bugs, also known as benthic macroinvertebrates, residents can learn about the water quality in the river. Some critters need very clean water in order to live, and others can live in polluted water. While chemical testing gets a point-in-time measurement, this biological monitoring provides a longer term picture of a river's health. The monitoring is conducted twice a year and Genesee County MSU Extension staff train the volunteers who collect the bugs and verify the identification back in the laboratory.

Water Related Articles In Flint

The MSU Extension Natural Resources team created a series of articles about testing water, water treatment options for homeowners in response to the Flint Water Crisis. Go to <http://msue.anr.msu.edu/program/news/lead> to read these articles.

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