



Kalamazoo County 2016–2017 ANNUAL REPORT

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MESSAGE FROM THE DISTRICT COORDINATOR

It is my pleasure to compile the 2016-17 Annual Report for the Kalamazoo County Board of Commissioners. It has been another great programming year with impactful work taking place in the county, throughout my district and in the state. As always, I want to thank the commissioners and county administration for your continued support of our educational programs. We have a strong team assembled in Kalamazoo County, and a strong network of educators throughout the state that are also offering educational programs to county residents and businesses. You will see examples of that work highlighted in this report. MSUE continues to reach people not only face-to-face in programs, but also through our web-based classes and through timely articles on the MSUE website. We look forward to serving Kalamazoo County from our new office location downtown Kalamazoo and hope that being closer to other county departments we will nurture new partnerships within county government. Please contact me at any time, especially if you want to talk about expanding our educational impact in Kalamazoo County! Cheers to another successful year!

Julie Pioch, District 13 Coordinator



CONTACT US

201 W. Kalamazoo Avenue, Suite 306
Kalamazoo, MI 49007
Main Office: 269.383.8830
FAX: 269.384.8035
msue.anr.edu/county/info/kalamazoo

FUNDING

2015 Base County Assessment	\$110,343
2016 Base County Assessment	\$113,700
2017 Base County Assessment	\$114,790

Total County Appropriations

2015	\$300,600
2016	\$293,300
2017	\$302,800

Staff Located in Kalamazoo County Office:

Name	Role	Phone
Amanda Hulet	Health and Nutrition Instructor	269-384-8064
Anthony Frontiera	4-H Program Coordinator	269-383-8878
Beth Clawson	Natural Resource Educator	269-383-8852
Cathy Drew	Health and Nutrition Associate	269-384-8071
Jeremy Jubenville	Floriculture Educator	269-384-8010
Leatta Byrd	Food Safety Educator	269-384-8063
Linda Whitlock	Consumer Horticulture Educator	269-383-8815
Stonia Hunter	Health and Nutrition Associate	269-384-8065
Veronica Bolhuis	4-H Program Coordinator	269-383-8867
Mariel Borgman	Community Food Systems Educator	989-506-3922
Jordan Duckens	Support Staff	269-384-8041
Karen Carvell	Support Staff	269.3838834
Julie Pioch	District 13 Coordinator	269-384-8061

Find other experts in MSU Extension at www.msue.msu.edu

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).

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). Extension programs help children develop early literacy skills that support school readiness. They learn leadership and decision-making skills in 4-H that increase their likelihood of becoming civically active. 4-H'ers also demonstrate reduced high-risk behaviors such as drug use, and learn to complete tasks, solve problems and seek any help they might need from peers and adults. 4-H involvement also helps participants avoid or reduce involvement with the court system. This helps ensure more young people succeed in school, attend college and contribute to their communities. More successful young people in communities results in greater tax revenues and consumer spending and increases the likelihood that young people will stay in, or return to, their communities.

4-H Member Experience

Youth programming in 4-H has covered a broad range of topics this year including animal science, gardening, robotics, interview skills, financial literacy, hiking, entrepreneurialism, sewing, fishing, nutrition, and more. Through the use of the 4-H guiding principles and the Life skills wheel, each 4-H program not only explores the content of the curriculum, but also character-building qualities like leadership, organization, goal-setting, self-discipline, and other skills youth need to become competent, caring adults.

Many of these programs were delivered through partner organizations that would house and staff the 4-H program and/or club. Others, were delivered directly by community members who became registered 4-H volunteer leaders prior to working with youth members.

Adults and youth involved in community clubs throughout the county are also involved in giving back to their communities through a variety of community service projects. Through the community service local animal shelters have received homemade toys and treats, parks were cleaned up, nursing homes were visited, veterans received cards and families in need received personal items and meals.

New Urban Partnerships

Since December of last year, new partnerships were formed with neighborhood associations, community organizations, local schools, afterschool programs, small non-profits and local businesses. This does not include multiple pre-existing partnerships which developed into more expansive and effective programs.

These new partnerships include Kalamazoo Valley Community College Food Innovation



Developing Youth and Communities, continued

Center, Juvenile Home of Kalamazoo (includes boys and girls), Suzuki Academy and affiliated refugee program Orchestra Rouh, and the Kalamazoo Carbon Flyers.

4-H Members and the Kalamazoo County Fair

This year, youth from across the county participated in animal science related programming through their 4-H project meetings, workshops at MSU Exploration Days, Pork Quality Assurance training, club trips that included a visit to a Kalamazoo County 4-H alumni's poultry farm, the World Dairy Expo in Wisconsin, the North American International Livestock Exposition, and more. Participants grew in their knowledge of animal health and care, zoonotics (illness passed from animals to humans) and personal health while caring for their animals. Through that knowledge they were able to raise healthy animals to showcase in the 2017 Kalamazoo County Fair. Many of these animals were auctioned during the annual livestock auction held on Thursday during Fair Week. Buyers were able to purchase quality animals while helping to support the youth's future endeavors such as future animal projects, home ownership and college.

We were also able to showcase over 400 youth educational projects in the Expo Center at the Kalamazoo Fairgrounds.

Youth participate in face-to-face judging prior to the fair, which allows youth to fine tune their interview skills while sharing their knowledge. 4-H families loved the newly built poultry and swine barns and worked with county staff to update and repaint several of the other barns. The 4-H Leader's Council opened their traditional Food Booth fundraiser in the little red barn at the end of the livestock mall. Funds raised during this fundraiser help to provide scholarships for 4-H enrollment fees, educational trainings, and college, along with sponsoring awards during the fall awards program for youth and volunteers.

The Kalamazoo County Youth Fair is an important part of a 4-H family's summer. Many take a week of vacation to be there so that their children can share what they have learned

in 4-H with other 4-H families and the many families and community members who attend the fair. Increased Food Booth sales allow more youth to attend the three-day MSU Exploration Days event, receive awards and scholarships, and participate in leadership and educational programs. By having this opportunity to pursue their own interests, they are able to become productive citizens in

their 4-H clubs, communities, country and world.



Many of the animals youth raised through 4-H animal science programming were auctioned during the annual livestock auction held during Fair Week.

Buyers were able to purchase quality animals while helping to support the youth's future endeavors.



Adult Training

MSU Extension staff trained adult volunteers on the MSU Extension Financial Guidelines which were updated in 2016. Volunteers also learned more about navigating the 4-H Online Registration Process and their role in helping families enroll. Prior to working with youth adults became certified 4-H volunteer leaders by completing an application, background checks, reference forms and four educational learning modules. Once these steps are completed prospective volunteers meet with 4-H programming staff for an interview and in-person orientation.

4-H Member Accomplishments /New Projects/ Initiatives

Throughout the year many of our members have been able to compete in competitions beyond Kalamazoo County. Youth involved in animal science projects were able to compete at MSU Winter Beef Show, Green and White Show, MSU State Horse Show, MSU State Goat Show, MSU Dog Show, and the North American International Livestock Exposition.

The StrykeForce Robotics team competed in local competitions and earned a chance to compete at the world championships in St. Louis, MO. While in St. Louis they won the World Championship along with their partners. The year 2017 was the first year that there were two world championships held. The winning alliances were invited to the “Festival of Champions” in New Hampshire by the founder of First Robotics. While there, StrykeForce earned the Festival of Champions competition.

With the continued interest in all things technology and engineering the Kalamazoo County 4-H program is partnering with a local drone racing club to create a “quadcopter” program for youth. Youth will learn to build a quadcopter and will be able to learn to program and fly them during meetings and events. A demonstration of the program was held during the Kalamazoo County Youth Fair where 30 interested youth signed up to receive more information about the program.

Youth were also able to meet new friends and share educational opportunities through the Interstate Exchange program, a two-year program partnering with another state who hosts Kalamazoo youth for a week, then Kalamazoo County youth host them for a week. Along with learning about the 4-H program and other educational opportunities the youth learn valuable life skills such as accepting each others’ differences, planning & organizing, self responsibility, contributions to group effort and so much more!



Through the Interstate Exchange Program, youth learn valuable skills such as accepting each others’ differences, planning & organizing, accountability and how to contribute to a group effort.



4-H Club Activity in Kalamazoo County for 2016-17

- 20 clubs
- 400 youth
- 90 Volunteers
- Goals for 2017-2018 year: 10% increase in youth enrollment and adult volunteers and continuing to build community partnerships for educational growth in Kalamazoo County



One goal we hope to see the 4-H program reach is a 10% increase in youth enrollment and adult volunteers during the 2017-2018 year.

Additional Educational Opportunities Offered

- Record keeping workshops
- Capitol Experience: Youth from Kalamazoo County joined youth from around Michigan in Lansing for three days to learn more about government
- Citizenship Washington Focus: Youth from Kalamazoo County joined youth from across the state and nation in Washington DC for a week to learn more about our government

Local Partnerships Include

- Zoetis
- Kalamazoo County Commissioners
- Kalamazoo County Youth Fair
- Kalamazoo County Parks & Recreation
- Stryker Industries
- Midlink
- Kalamazoo County Juvenile Home
- DKA charities
- Galesburg-Augusta Community Schools
- Portage Community Schools
- Kalamazoo Charter Township Board of Trustees
- Kalamazoo County Land Bank
- Northside Association for Community Development
- Sherman Lake YMCA
- Tractor Supply Company
- Western Michigan University
- Eaton County Farm Bureau—The Feed Bag



4-H Exploration Days

2017 Impact Report



Exploration Days is a three day campus-based pre-college program that is designed to help youth build the skills they need to successfully transition to college and to life as an adult. Youth participants stay on campus in MSU residence halls and attend action-filled classroom and field trip sessions on a wide variety of topics, including animal science, business & entrepreneurship, international

language & culture, performing & visual arts, and science, engineering & technology.

Nearly 2,000 youth attended Exploration Days in 2017, including 42 from Kalamazoo County. Post-event evaluations revealed that participating youth gained important life skills like decision making, problem solving, and communication. Youth also reported feeling more prepared to attend college.



90% of youth feel more independent



91% of youth built time management skills



84% of youth feel more prepared for college

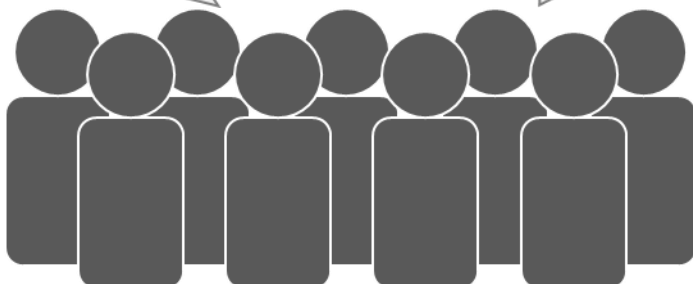


73% of youth are now interested in attending MSU

“4-H Exploration Days has helped me **get the feel of a college life**. Being responsible for... being on time to class gave me a huge idea on how college will be like in my future.”

“Coming in here, I was set on another college, but after seeing the gardens, trails, and all the buildings, I can see myself going here in the future. **MSU STOLE MY HEART!**”

“[Exploration Days] helped me **get out of my comfort zone** and be more independent.”



DID YOU KNOW?

Youth who participate in Michigan 4-H pre-college programs are more likely to go to college: 68% of youth who participated in Exploration Days between 2009 and 2016 enrolled in college within six months of finishing high school. That's 14% higher than the Michigan average!

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.

When you support MSU Extension's efforts to enhance residents' access to an adequate supply of safe, affordable food, program participants will focus on food safety measures in the field and at harvest, learn proper food preparation and food preservation techniques, and bring community partners together to strengthen access to healthy food supplies. This leads to a healthy population, which in turn helps keep health care costs in check and our communities viable.

MSUE Programs Focus on Prevention of Foodborne Illness in Kalamazoo County

Michigan State University Extension Food Safety Education programs train participants to prevent incidents of foodborne illness associated with unsafe food handling practices. ServSafe and Cooking for Crowds are two programs that focus on equipping people who cook and prepare food for the public with the knowledge they need to do their jobs well and handle food safely. ServSafe is a national certification program offered by MSU Extension for people who work in food service. Cooking for Crowds is designed for nonprofit organizations. Research has shown that those food establishments who have a certified food safety manager have fewer food borne illness outbreaks.

- Cooking for Crowds evaluation results estimate that within 3 months after the class, a typical participant reaches an average of 428 individuals with served food.
- 80% of ServSafe participants passed the certificate exam with an average score of 81%.
- 89% of Cooking for Crowds participants know the correct methods of cleaning and sanitizing food preparation surfaces.
- 77% of Cooking for Crowds participants understand the cause of foodborne pathogens.

Topics covered in the ServSafe Managers training include food safety, personal hygiene, temperature control, preventing cross-contamination, cleaning and sanitizing, food preparation, storing food, hawing, cooking, cooling and reheating food. These topics are covered in eight-hour and 16-hour classes.



- Five 8-hour or 16-hour ServSafe courses were offered in Kalamazoo County in 2016-2017 reaching 60 foodservice managers working at businesses in the county.

Cooking for Crowds is an educational program for nonprofit groups who prepare large quantities of food for their members or for the public as fundraisers. The class teaches about the risks of cooking large amounts of food and how to reduce those risks.



Cooking for Crowds!

Foodborne illness is a serious health threat and can be easily avoided with proper food handling and preparation. MSU Extension offers an educational program for nonprofit groups who prepare large quantities of food for their members or for the public as fundraisers. The class teaches about the risks of cooking large amounts of food and how to reduce those risks. A program held at the Trenches Church in Kalamazoo reached nine nonprofit volunteers in 2017.

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FSMA Produce Rule Grower Trainings

The Food Safety Modernization Act (FSMA) regulates growers of fresh produce in the United States for the first time in history.

Public value: a greater awareness of food safety on the farm will lead to safer food and a decrease in foodborne illnesses.

Produce growers have obtained the required certification to comply with the Food Safety Modernization Act (FSMA) requirement by attending a MSU Extension Produce Safety Alliance Training between November 2016 and August 2017. Eleven growers in Kalamazoo County received certificates by D13 county.

Making Michigan Recipes Work Training Series

Michigan-specific culinary skills and menu planning training and supplemental materials for school nutrition professionals. The training was delivered regionally in a pilot round of five sessions between August and November 2016. Attendees of the Making Michigan Recipes Work training make changes in their institutional food service practices that will increase purchases of Michigan specialty crops. This will ultimately boost Michigan's local economy, support Michigan's specialty crop producers and better connect producers to Michigan's schools and communities. In schools, serving more specialty crops will provide fresh, healthy products to Michigan students, thereby increasing their overall school nutrition. This has the potential to increase academic performance, focus, and overall long-term health outcomes for Michigan students.

- 89 people attended the five pilot round trainings, representing 23 Michigan counties, including Kalamazoo.

The top informational items participants indicated learning were:

- How Michigan ingredients could be substituted for non-Michigan ingredients in recipes
- What SOPs are and how they can help your team safely handle Michigan produce
- When Michigan vegetables and fruits are in season
- How to connect to MSU Extension Community Food Systems Resources

Participants reported learning an average of 3 new skills as a result of the training. The top skills participants indicated learning were:

- How to properly and safely use kitchen knives
- How to store locally-grown produce

A train-the-trainer course was held in 2017 for statewide trainers from the School Nutrition Association of Michigan. The curriculum was adopted by the School Nutrition Association and is now part of their statewide training offerings.

Ensuring Strong Communities



MSU Extension develops and delivers training in quick response to legislation that requires local governments to make significant public policy decisions such as regulating medical marijuana facilities.

When you support MSU Extension, participants learn how to implement best practices in good governance that keeps communities solvent, productive and engaged; learn effective conflict management skills that help leaders and residents work collaboratively on complex issues; and engage youth leaders in decision-making. In the personal finance area, MSU Extension helps youth and adults alike learn the skills they need to increase their savings, manage their spending avoid predatory lending and reduce mortgage defaults. All of these outcomes help lower the cost of governmental services and lead to personal and community stability, strong neighborhoods and safe communities.

Regulating Medical Marijuana Facilities: A Workshop for Local Government

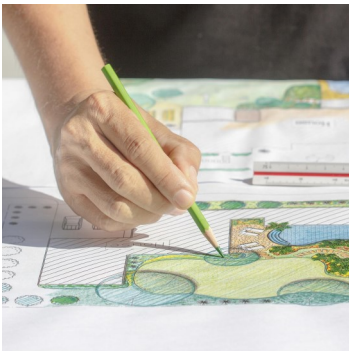
MSU Extension developed and delivered this training in quick response to recent legislation that requires local governments to make significant public policy decisions on barring or accepting and regulating five new types of commercial medical marijuana facilities. This series of workshops in the spring of 2017 trained 864 individuals state-wide, including **five at the site in Kalamazoo County**. Nearly 90% of evaluation respondents reported feeling more confident or much more confident to address this topic in their community as compared to before the workshop. Since the conclusion of the face to face workshops the MSUE team has provided on demand webinar sessions for communities seeking information on this topic.

Walkability Workshop

As part of MSUE's on-going partnership with communities in teaching our place-making curriculum, this workshop held in 2016-17 helped Michigan communities learn about and implement a strategic economic development initiative for the New Economy focused on the benefits of a walkable community. A Kalamazoo County workshop location attracted 11 participants, while others from Kalamazoo have connected to the webinar offering.

New County Commissioners Workshops

Since 1968, MSUE and the Michigan Association of Counties have offered an educational program for new county commissioners following the November election. In late 2016, a team of MSUE educators offered the New County Commissioner Workshop at seven locations around the state, including Kalamazoo County. The workshop consists of four hours of training on the fundamentals of county government plus time for networking with other county officials, MAC staff, and MSUE educators and directors. Overall, 92% of the 213 attendees indicated that they found the program valuable for their professional



Elections and appointments of new local officials create an ongoing need for MSUE training programs that address the fundamentals of local government, including the best possible processes for making and implementing decisions, effective meeting techniques for fostering enhanced work within the government and improved public engagement.

(or personal) growth and development. Two county commissioners from Kalamazoo were in attendance.

Michigan Citizen Planner: Fundamentals of Planning and Zoning Course

Local communities that proactively plan to succeed in the New Economy can improve their quality of life and lead Michigan's recovery and transformation. The Citizen Planner Classroom Program is delivered locally to provide a convenient way for busy volunteer community leaders to obtain the latest technical knowledge and skills they need to perform their duties more effectively and responsibly. MSU Extension also offers online and webinar versions of the course along with the Master Citizen Planner webinar series for continuing education. 1 Kalamazoo County local leader participated in the webinar version of the program this year in order to be able to attend MSU's Zoning Administrator Certificate Program.

Kalamazoo County—In the Pursuit of Extraordinary Governance

Elections and appointments of new local officials create an ongoing need for training programs that address the fundamentals of local government, including the best possible processes for making and implementing decisions, effective meeting techniques for fostering enhanced work within the government and improved public engagement. In response to new administration and commissioners in Kalamazoo County, a customized training on the intentional application of principles and practices of extraordinary government was presented by MSUE to the Kalamazoo County Board of Commissioners, elected officials and department heads in January 2018. The program was part of a series of meetings to develop a vision and strategic plan for Kalamazoo County planned by county administration.

Training and Updating Local Leaders

Kalamazoo County leaders attended programs taught by MSU Extension public policy educators throughout the state and online this year. Educational topics and locations included Data Informed Decision Making held on line and viewed by 38 people with three from Kalamazoo County; Effective meetings through parliamentary procedure in Frankenmuth in partnership with the MTA was attended by nine county township officials. As a follow-up to that short MTA session, the Comstock Township Board requested help from MSUE to improve their boardsmanship and participated in an afternoon of Parliamentary procedure training in October 2017. The entire board learned about best practices of preparing and running a meeting, then practiced what they learned through a mock meeting exercise.

Keeping Businesses Strong



The MSU Product Center is facilitating economic development across the region. Forty-one business counseling sessions took place to assist six clients. Two new ventures were launched with \$277,500 of new investment. Five new jobs were created and four jobs were retained. MSU Product Center clients in Kalamazoo County reported \$83,000 in new sales.

Building entrepreneurial spirit and skills

As the backbone of the economy, small business owners play a critical role in the prosperity of the nation. But to be a successful entrepreneur, one must have not only the ambition and moxie to take a risk, but also the business sense and skill to make a profit. To ensure the business owners of tomorrow – today's youth – are triumphant in their future endeavors, they need to learn the entrepreneurial concepts that pave the way for success. MSU Extension is helping to meet this need by providing youth and the adults that support them with the skills and resources necessary to turn ideas into business ventures.

MSU Product Center

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. Extension educators are specially trained as innovation counselors to deliver these services to local residents. Business counseling is conducted on a one-on-one basis and may take place at the MSU Extension office or the client's home, farm 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 innovation counselor also assists clients in accessing specialized services they may need that are offered through Michigan State University like feasibility studies, nutritional labeling, food science, and packaging assistance. In Kalamazoo County:

Forty-one business counseling sessions took place to assist six clients. Two new ventures were launched with \$277,500 of new investment. Five new jobs were created and four jobs were retained. MSU Product Center clients in Kalamazoo County reported \$83,000 in new sales. The MSU Product Center is facilitating economic development across the region.

Michigan Cottage Food Law

Michigan's Cottage Food Law permits those with an entrepreneurial spirit the chance to sell certain foods, made in their home kitchens, to the public at local farmers' markets. The workshops that were offered by MSU Extension combined the business and food safety features of preparing and selling cottage foods safely and successfully. In the workshop participants learned what foods can be legally produced as well as how to label and sell them. MSU Extension Educators provided techniques to develop and maintain a successful small business. Twelve residents of Kalamazoo County attended this program in 2016-17.



2016 Arts and Eats Tour

2016 marked the 6th year of the Arts and Eats tour of Southwest Michigan. The tour has proven to have a large overall impact, not only for the participating sites, but for the surrounding communities. This tour is helping to create a more sustainable form of tourism development for the region and is highlighting local entrepreneurs in the process. Through the years Arts and Eats has brought thousands of people to the region and has infused thousands of dollars of outside money to the local economy. MSU Extension continues to be a major partner in the event through its Community Food Systems educator involvement and leadership. This tour is a vehicle to promote the small local artists, eateries, and farms which make this special and attracts visitors from across the region to shop, dine, and provide a positive economic impact in local communities. Participating businesses include two from Calhoun County; 15 from Kalamazoo County and one from Van Buren County.

- 84% of the respondents felt that Arts and Eats has benefited their business. Benefits were articulated as increased sales activity for their business but also growth in business exposure. Most of the vendors reported generating between \$100-\$500 over the weekend.
- 96% percent of the respondents felt that Arts and Eats had a positive economic impact on the region. This indirect impact was perceived to have been positive for other local businesses (i.e., restaurants, gas stations, non-Arts and Eats shops).
- 92% percent of the respondents indicated that the event had a positive cultural impact on the region.

Participant evaluation data was collected through a passport program which allowed visitors to collect stamps as they visited sites:

- 338 Passports Collected (increase of over 100 from 2015)
- More than 75 Zip codes were represented from MI, WI, AZ, IL, IA
- Passports included 1,995 unique site visits during the two-day tour.

GroupGAP Certification

In partnership with Kalamazoo Valley Community College, MSU Extension has worked with small to mid-sized produce growers to develop farm food safety manuals and become USDA Good Agricultural Practices (USDA GAP) certified through the GroupGAP program. This allows growers to sell into new markets, including wholesale and institutional accounts. Kalamazoo County GAP certified two growers.

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

2016 Arts and Eats Visitor Quote:

“It is a delightful tour and has taken us to parts of SW Michigan we don’t often travel even though we have lived here for over 45 years. It is a marvelous way to enjoy local artists in this area. We don’t spend much but we always buy something. We are proud of and enjoy Michigan and this is a gentle, enriching way to appreciate what we have.”

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, you help participants learn safe food handling practices, increase their physical activity and improve the quality of their diets. Extension programming also helps decrease incidents of violence and bullying. 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

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.

Between October 1, 2016 and August 31, 2017 MSU Extension provided interactive direct nutrition education to a total of 118,466 unduplicated individuals from across Michigan through the SNAP-Ed program. Out of the total number of participants reached with direct nutrition education (YTD) 86% were SNAP eligible participants (n=101,356). Our goal for the year is to reach at least 65,000 SNAP eligible youth and adults with direct nutrition education. As of August 31, we had reached 156% of our outreach goal for the year. The total number of contacts with SNAP-eligible participants (units of service) through direct education YTD is 320,379.

- SNAP-Ed programming has been conducted at 1,657 different venues throughout Michigan, including summer SNAP-Ed programming at camps, fair grounds, summer feeding sites, and parks.
- Additionally 1,533,068 individuals have been reached year-to-date with nutrition education through indirect methods, such as written nutrition materials delivered face-to-face and nutrition messages sent through electronic media and radio PSAs.

SNAP-Ed and EFNEP Impacts in Kalamazoo County

Nutrition Education was taught throughout Kalamazoo County within schools by working with numerous agencies and teaching health and nutrition to clients.

During the 2016-2017 program year:

- 253 adults completed a 6-week series
- 1,037 youth completed a 6-week series
- 720 adults were present for a one-time presentation
- 126 youth were present for a one-time presentation

Keeping People Healthy, continued

After participating in programming, adults demonstrated the following:

Nutrition Practices

- 30% more often planned meals in advance.
- 30% more often thought about healthy choices when deciding what to feed their families.
- 28% more often prepared foods without adding salt.
- 32% more often used “Nutrition Facts” on food labels to make food choices.
- 20% reported that their children ate breakfast more often.
- 69% improved in one or more nutrition practice.

Food Safety

- 12% more often followed the recommended practice of not allowing meat and dairy foods to sit out for more than two hours. 55% always followed this practice.
- 19% more often followed the recommended practice of not thawing foods at room temperature; 12% always follow this practice.
- 29% improved in one or more food safety practice.

Physical Activity

- 11% improved in level of physical activity.

Youth participating in programs also showed improvements. Youth demonstrated improvements in:

Dietary Quality

- 77% improved their knowledge or ability to choose foods according to Federal Dietary Recommendations.

Physical Activity

- 38% improved their physical activity practices or knowledge.

Food Safety

- 43% use safe food handling practices more often or gained knowledge.

Food Resource Management

- 45% improved their knowledge or ability to prepare simple, nutritious, affordable food

Nutrition Program Community Partners

Hispanic American Council, The Salvation Army Community Center, Hispanic America Council, Kalamazoo Probation Enhancement Program, YWCA Kalamazoo, Northeastern Elementary, Kalamazoo RESA Head Start, Forest Academy, Northglade Montessori School, August Child Development Center, Spring Valley Center for Exploration, Childcare Resources, Lincoln International Studies School, Prairie Ridge Elementary School, KRESA, Kalamazoo Farmers Market, Kalamazoo Public Library



The SNAP-Ed program in Kalamazoo County participates with the WIC-Project Fresh program.



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.

Farmers Market Programming 2017

MSUE Educators, nutrition instructors and Master Gardener Volunteers distributed Michigan Fresh factsheets and recipes, engaged in cooking demonstrations and provided samples, organized children's activities (temporary tattoos, fresh food friends) and market scavenger hunts throughout Michigan (including the Bank Street Market in Kalamazoo) during the summer market season. In Kalamazoo, 789 Michigan fruit or vegetable recipes and samples were distributed to the public.

426 surveys regarding impacts were received statewide with 66 collected from Kalamazoo County. Surveys showed that:

- 94% of participants said the Michigan Fresh cooking demonstration, activity or printed materials inspired them to purchase more Michigan Fresh foods.
- 97% of participants said they were inspired to cook a recipe using Michigan foods
- 83% of participants said they were inspired to can, freeze or preserve a Michigan Fresh food
- 78% of participants said they were inspired to grow a Michigan Fresh food in their garden or on their farm.

Chronic Disease Prevention

MSU Extension is positioned to provide education related to the prevention and management of leading chronic diseases of Michigan's citizens. Michigan ranks 15th nationally for prevalence of diabetes and it ranks fifth nationally for obesity. Just over nine percent of Michigan adults have been diagnosed with diabetes – an estimated 701,000 people. An additional 364,400 Michigan adults are estimated to have diabetes but are currently undiagnosed. MSUE offered the following programs in Kalamazoo County in 2016-17:

Dining with Diabetes

Participants in MSU Extension's Dining with Diabetes course learn how to prepare healthy meals and the importance of diet and exercise. They also gain tools for managing diabetes. The program offers opportunities to sample a variety of healthy foods and take home recipes to further encourage behavior change. As a result of the program:

- 90% can correctly report which nutrients provide glucose for the body.
- 92% know which foods contain carbohydrates.
- 73% are confident they can eat meals every 4 to 5 hours every day, including breakfast.
- 76% are confident they can follow their diet when having to prepare or share food with other people who do not have diabetes.
- In partnership with Kalamazoo County Wellness Program a DWD series was held in the Fall of 2017 with six county employees.

Keeping People Healthy, continued

MSU Extension's Personal Action Toward Health (PATH)

The PATH program equips participants to face the daily challenges of living with one or more chronic conditions. PATH is a series of six classes and it can focus on general chronic conditions, chronic pain, and diabetes. Highlights of program results are:

- 1/3 of participants reported an improved health status at the end of the program. 53% of participants ended the program with decreased symptoms of fatigue,
- 49% reported decreased pain symptoms.
- 51% decreased their fearfulness about their future health by using strategies taught in PATH.
- Diabetes-PATH was offered in Kalamazoo County—two classes in 2016 reaching 26 participants and one class in 2017 with eight participants



With the support of MSU Extension resources and education, parents and caregivers have the opportunity to enhance the social and emotional health of children in a variety of ways.

Programs for older Adults

Many older adults experience a fear of falling. People who develop this fear often limit their activities, which can result in physical weakness, making the risk of falling even greater. A Matter of Balance is a program designed to reduce the fear of falling and increase activity levels among older adults. It includes 8 two-hour sessions for a small group of 8-12 participants led by a trained facilitator

Six programs were held in 2016-17 reaching 68 older adults—locations included Portage Senior Center, Washington Square Apartments, First Presbyterian Church in Kalamazoo and New Park Village.

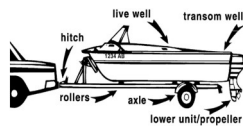
Supporting Child and Family Development in Kalamazoo County

A child's social and emotional skills, including the regulation of his or her emotions, capacity to solve problems and ability to interact with others have been identified as key factors in long-term academic and life success. With the support of MSU Extension resources and education, parents and caregivers have the opportunity to enhance the social and emotional health of children in a variety of ways. Trainings available for parents, caregivers and childcare professionals cover topics such as positive discipline, mindfulness, play-based learning, and other social and emotional skill development.

- Programs held around the state taught by Extension educators specializing in social emotional health reached 14 professional caregivers from Kalamazoo County in 2016-17.

Making the Most of Our Natural Assets

CLEAN WATERS
WATERCRAFT CHECK POINTS



- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Anchor | <input type="checkbox"/> Ladder | <input type="checkbox"/> Spare tire |
| <input type="checkbox"/> Axle | <input type="checkbox"/> Landing net | <input type="checkbox"/> Tackle |
| <input type="checkbox"/> Bait bucket | <input type="checkbox"/> License plate | <input type="checkbox"/> Tow rope |
| <input type="checkbox"/> Bunks | <input type="checkbox"/> Motor | <input type="checkbox"/> Trailer |
| <input type="checkbox"/> Bow line | <input type="checkbox"/> Wheels | <input type="checkbox"/> Transducer |
| <input type="checkbox"/> Fishing line | <input type="checkbox"/> Live well | <input type="checkbox"/> Transom well |
| <input type="checkbox"/> Floor | <input type="checkbox"/> Lights/wiring | <input type="checkbox"/> Trolling motor |
| <input type="checkbox"/> Hull | <input type="checkbox"/> Rollers | |
| <input type="checkbox"/> Intake pipe | <input type="checkbox"/> Prop | |

WORKING TOGETHER WITH BOATERS

The Michigan Clean Boats, Clean Waters Program trains volunteer leaders in recruiting and training local volunteers to inspect watercraft at local lakes to help prevent the spread of aquatic invasive species (AIS).

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.

Michigan Clean Boats, Clean Waters Program

Michigan Clean Boats, Clean Waters Program. MSU Extension is the education outreach partner for the Michigan Clean Boats, Clean Waters (MICBCW) program. Operating statewide, several trainings were held throughout the state. The MICBCW program trains volunteer leaders in recruiting and training local volunteers to inspect watercraft at local lakes to help prevent the spread of aquatic invasive species (AIS).

Over the last year (2016-2017) we recently finished online video training hosted at www.micbcw.org and updated curriculum for this program. It is now available free to everyone desiring to promote the “stop aquatic hitchhikers” message. Michigan Clean Boats, Clean Waters Volunteer Heroes actively participate with the Department of Natural Resources Landing Blitz events every July. We continue to work with volunteers to inspect boats at local landings for plants attached to prevent the spread of AIS. This year we have delivered presentations to local lake association groups about the MICBCW program and other programs available to them through MSU Extension.

Statewide programming both in person and online reached over 235 individuals across the state, as well as through participation with the State Landing Blitz Week.

- Youth Outreach included a program for 156 7th and 8th graders at West Portage Middle School. The water quality education program was delivered to all science classes and included information on algae, aquatic invasive species and how pollution accumulates downstream and flows to the great lakes. All students were introduced to the MICBCW program.

Natural Shorelines Partnership & Natural Shoreline Landscaping

Protecting Your Shoreline: A workshop for inland lakefront property owners was held in cooperation with the Michigan Natural Shoreline Partnership, local County Conservation District offices, and local organizations. This program provides four hours of intensive instruction in shoreline landscaping and erosion control techniques. Featured workshop

Making the Most of Our Natural Assets, continued



The mission of the Michigan Conservation Stewards Program is to create an informed Michigan citizenry who will practice community-based volunteer conservation management activities.

topics include healthy lake ecosystems, designing and maintaining natural landscapes on lake shorelines, bioengineering techniques to address high impact shorelines, using native plants in shoreline landscapes, attracting fish and wildlife to your shoreline, shoreline invasive plants to watch for, Michigan rules and regulations, and local examples of natural shoreline projects. This program is a part of a statewide effort with multiple simultaneous sessions held throughout the state annually. Four repeat programs were held in 2016-17 in Berrien, Cass, Van Buren & Kalamazoo Counties; Thirty-eight attendees from District 13 attended including 11 from Kalamazoo County.

Conservation Stewards

The mission of the Michigan Conservation Stewards Program is to create an informed Michigan citizenry who will practice community-based volunteer conservation management activities. The eco-system based training experience is combined with 40 hours of required community service and a capstone project. Participants learned about the history of conservation activities in Michigan, ecological principles, eco-regional classifications, and how to make choices to manage our natural resources. In addition to this foundation, participants learn about terrestrial ecosystems (forestlands and grasslands) and aquatic ecosystems (wetlands, lakes and streams) through classroom and in-field instruction.

A Kalamazoo based program offered in 2016-17 had 16 residents from Kalamazoo County and one Berrien County resident participate in this 45+ hour long training program

Improving water quality through septic system education

Malfunctioning septic systems affect water quality throughout Michigan. With more than 1.2 million septic systems statewide that each generate 300 to 400 gallons of sewage daily, onsite systems treat and dispose of more than 360 million gallons of sewage on average every day.

Few educational resources exist that address essential maintenance of septic systems that also focus on safeguarding the health of Michigan families and the environment. To fill this gap, Michigan State University Extension created the Septic System Education Program.

With the help of county health departments, onsite wastewater consultants and the Michigan Department of Environmental Quality, MSU Extension held several local Homeowner Septic System Use and Maintenance workshops throughout the state as well as one statewide webinar. Participants surveyed on a 6- to 12-month basis reported the following behavioral changes in how they maintain their septic systems:

- 74.3% of in-person participants noted a change in one or more behaviors regarding their septic system.
- 61.5% of webinar participants noted a change in one or more behaviors regarding their septic system.

Both delivery methods showed a 100% increase in knowledge about some aspect of septic use and maintenance.

Supporting Food and Agriculture



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

According to the USDA floriculture crops summary for 2015, Michigan continues to be the third largest floriculture production state in the United States with a wholesale value of \$409 million. Kalamazoo County has the greatest greenhouse area in the state (12.5 million square feet).

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.

MSUE Programs for Greenhouse Industry in Kalamazoo County

According to the USDA floriculture crops summary for 2015, Michigan continues to be the third largest floriculture production state in the United States with a wholesale value of \$409 million. Kalamazoo County has the greatest greenhouse area in the state (12.5 million square feet), followed by Ottawa (11.7 million square feet) and Kent (3.8 million square feet) counties. Kalamazoo County also leads the state with 50 greenhouse businesses followed by: Ottawa, 97; Kent, 34; Wayne, 33; Macomb, 30; and Monroe, 31. In this critical area of greenhouse production, Michigan State University Extension offered numerous events that targeted greenhouse and nursery growers in District 13. For example, 34 greenhouse growers from Van Buren and Kalamazoo counties (who represented 66 acres of production) attended the emergency preparedness and MAEAP session in Kalamazoo in January 2017. The emergency preparedness workshop came just days after a greenhouse business in Ottawa County experienced a major fire. All of the survey respondents reported that the session helped them to prepare for an emergency at their business while 82% said that the session would help them improve emergency training for their employees, be more aware of emergency resources in the community, and increase their environmental stewardship. Michigan State University Extension also offered a four-part webinar series on Christmas Tree Genetics and Tree Improvement. Over two hundred participants attended the series, which included numerous Christmas tree growers from Kalamazoo, Van Buren, Calhoun, and Allegan counties. According to the post-webinar evaluation, 73.8% of respondents said that they would make a change in their business as a result of the webinar series (n=42).

Lighting the way to the future

The market for greenhouse-grown ornamentals has become increasingly competitive, reducing grower profitability and increasing the need to cut operating costs. As crop margins continue to decrease, energy costs are becoming a grower's largest expenses. Michigan State University Extension assists ornamental plant growers in finding methods



Annual Ag Action Event provides a full day of educational sessions focusing on agriculture, food safety and home gardening topics, featuring a trade show highlighting products and services provided by local businesses. This program is held annually at Kalamazoo Valley Community College. Over 250 people attended in 2017. Participants hear the latest information from MSUE educators and specialists such as how to protect Michigan fruit from invasive spotted wing drosophila (SWD).

to reduce energy costs while still producing high-quality plants.

Using supplemental lighting is essential in greenhouses to increase crop quality and control flowering of some crops. In fact, 72 percent of greenhouse facilities use high-pressure sodium lamps for supplemental lighting of crops. To address this concern, the MSU Extension floriculture team offered three regional meetings and an online course on greenhouse and horticultural lighting:

101 greenhouse growers (representing 3.3 million square feet) attended from eight Michigan counties.

Attendees reported the information learned was worth over \$100,000 to their businesses.

Over half of the greenhouse growers (42 acres) who responded to the postsurvey made a change in their facilities as a result of the information they learned.

MSUE Field Crops programs

Michigan State University Extension educators are reaching more farmers by providing an annual Field Crops Webinar Series. Five years ago, Michigan State University Extension educators decided to change the way they conduct winter field crop programs by using a webinar format in addition to traditional in-person meetings. The annual Field Crops Webinar Series reaches underserved audiences who may have trouble attending regular programs due to scheduling conflicts, geography or ability. It gives participants the flexibility to join live sessions or access recorded versions online.

Through the webinars, experts share research results and key points pertinent to crop production for the upcoming year. Topics have included western bean cutworm, resistant and troublesome weed control, soybean sudden death syndrome and wheat stripe rust management, wheat inputs selection, soil fertility for field crops and forage, as well as cover crops for potato and soybean systems.

During 2016-17, 214 individuals from 50 Michigan counties, five other Midwest states, and Ontario participated in the program. As a result of the webinars:

Participants who responded to a survey collectively managed 383,047 total field crop acres.

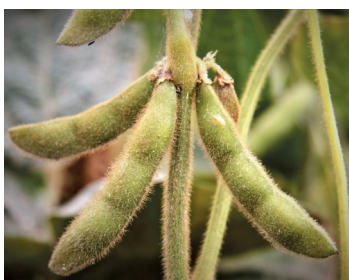
\$680,057 was projected in savings or added revenue to farms based on growers who indicated that they intend to implement 174 practice changes.

Participants earned 603 Michigan Department of Agriculture and Rural Development pesticide applicator recertification credits.

Asiatic Garden Beetle Damage/ Control/ Impact Evaluation

White grub pest of rotated corn production causes stand loss, plant unevenness, and delay in pollination through aggressive root feeding. Quantifying yield losses are on averaging 10-25% in fields with infestation. Grant proposal in partnership with Ohio State to evaluate management practices. We located several fields in Van Buren, Cass

Supporting Food and Agriculture, continued



MSUE Field Crop Program Impacts

- 87% of the participants completing an evaluation indicated learning new information that they intended to utilize on their farm operations in the coming year at these programs.

- Over the last 3 years, more than 85% of the corn growers in attendance at MSUE meetings in S.W. MI reported splitting their nitrogen applications, applying N to corn when the crop uptake was greatest, reducing risk for N losses to surface and groundwater resources.

and Kalamazoo counties to potentially conduct research projects. Developing scouting techniques and thresholds for treatment based on spring grub observations and field history. Marestalk can be used to help focus scouting; heavy marestalk populations in soybeans draw many adult beetles to soybean fields to lay their eggs. Research needed: control of winter annual weed species to reducing “green bridging” overwinter survival of this pest; control of adult egg laying populations through correctly timed insecticide sprays of soybeans in fields near infested corn fields. This is a newer pest, with little research conducted in the Midwest.

Herbicide Resistant Weeds

Weeds, insects and diseases continue to develop resistance to crop protection programs. The most common herbicide resistant weed species we deal with in Kalamazoo County is glyphosate and ALS Inhibitor resistant marestalk. However, we have several fields that we identified with multiple herbicide resistant common waterhemp in Southwest Michigan in 2017. These weeds pose a significant threat because they can only be controlled by a limited number of expensive herbicides in corn and soybean production. Dealing with these weeds can often mean the difference between operating with a small profit potential or a significant loss. MSUE has been working with growers to learn how to develop more intensive strategies including increased tillage, broader crop rotations and targeted herbicide applications to provide answers in reducing the spread of these expensive to control weed species.

Western Bean Cutworm Damager/Control/ Impact Evaluation

Western Bean Cutworms have been a resurgent pest in southwest Michigan that damage corn ears through larval feeding on ears. We have been evaluating the incidence of ear feeding, the sizes of the larvae in the field in August and September, which can help us to evaluate duration of moth flight, efficacy of insecticide applications, and evaluating the effectiveness of different Bt events at controlling this pest. Corn fields evaluated in Van Buren and Kalamazoo County indicate we had heavy infestation in 2017, with incidence of ear feeding ranging from 15% to 80% in fields observed. Yield losses from this pest in terms of kernel loss range between 5 – 20%. Most will be in the 5-10 bushel per acre range. Direct yield loss is not the only threat from the pest. Larval feeding can lead to the development of ear molds around the area of feeding. These often impact additional kernel loss, and can cause issues with the use of the grain for livestock feeds and other uses. Higher levels of fusarium, a fungal pathogen associated with WBC larval feeding, can cause sows to abort in swine production. This information will be shared at winter meetings in southwest Michigan this winter.

Solving lawn and garden challenges with consumer horticulture hotline

Responders on the Michigan State University Extension Lawn and Garden Hotline assist Michigan residents throughout the state, regardless of the location of the caller or expert.

Supporting Food and Agriculture, continued



MSU Extension's Consumer Horticulture educators are tasked with delivering science-based, environmentally sound information to the 70% of Michigan adults who engage in yard and garden activities, which is nearly 5 million people statewide.



They provide reliable, research-based information to help Michigan residents solve lawn and gardening challenges. In 2016, the hotline received calls from all 83 counties in Michigan. When callers ask about fertilizer use, insect control and plant disease prevention, responders provide environmentally friendly advice that helps them maintain healthy soils, solve landscaping issues, and grow fruits and vegetables in their home landscape. Consumers who contact the hotlines are directed to a variety of lawn and garden tools and services available through MSU Extension. These services encompass soil testing, MSU Diagnostic Services, the Gardening in Michigan website, Ask an Expert and Smart Gardening tip sheets and articles.

- From 2012 to 2016, calls have increased 14%. There were 7,806 total contacts in 2016.
- Kalamazoo county is one of 8 sites in Michigan providing this service on a weekly basis for the state of Michigan and in the last year Kalamazoo Master Gardener volunteers and Consumer Horticulture educator Linda Whitlock handled 1,255 gardening questions.

Consumer Horticulture Programs offered in Kalamazoo County

Master Gardener Volunteer Training Program: 14-week in-depth class in horticulture; 49 adults completed the 2016 class, 50 completed the 2017 class. Kalamazoo is one of 14 sites in Michigan currently offering this training.

Graduates must complete 40 hours of community service to become certified as Master Gardeners. Community service projects are partnerships with non-profit organizations that must include education for the general public.

Vegetable Gardening 202 Workshop series offered at community gardens throughout the county. Attended by 74 county residents.

Tomato Taste-off A celebration of locally grown food held in September for the 8th consecutive year. 67 residents participated in this program co-sponsored by MSU Extension, the Master Gardener Volunteer Program, Kalamazoo in Bloom, and the Kalamazoo Garden Council.

Community Educational Programs 48 programs were presented to community groups, conferences, seminars by Linda Whitlock and Master Gardener volunteers.

Focus areas: Protecting Pollinator Resources, Environmental Stewardship, Teaching How to Grow Food, Smart Gardening, Integrated Pest Management.

Community Garden Tour 38 residents visited 6 local community gardens to learn new gardening techniques. Co-hosted with Common Ground Network and Kalamazoo County Land Bank in the greater Kalamazoo area, offering both a trolley tour and a bicycle tour.

Master Gardener Booth

Present at 22 local markets, programs, and community events answering gardening questions and providing horticulture information. Estimated outreach: 2,000 residents.

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