



# Van Buren County

## 2016–2017 ANNUAL REPORT

[msue.msu.edu](http://msue.msu.edu)



## MESSAGE FROM THE DISTRICT COORDINATOR

It is my pleasure to compile the 2016-2017 Annual Report for the Van Buren 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 financial support of our educational programs. We have a strong team assembled in Van Buren County but don't forget that there are educators throughout the state that are also offering educational programs to the residents in the county. You will see much of that work highlighted in this report. We continue to reach people not only in face to face programs but also through our web-based classes and through timely articles on the MSUE website. Please feel free to contact me at any time especially if you want to talk about expanding our educational impact in some way! Cheers to another successful year!



Julie Pioch, District 13 Coordinator

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<b>FUNDING</b>	
2015 County Assessment	\$57,713
2016 County Assessment	\$58,789
2017 County Assessment	\$60,258
<u>Total Net Appropriations</u>	
2015	\$202,391
2016	\$212,442
2017	\$221,193

## Thanks to the county and these other local partners for helping MSUE bring *Knowledge to Life* in Van Buren County!

- |  |   |                                     |
|--|---|-------------------------------------|
| 4-H Leaders Association                | GreenStone Farm Credit Services                 | Van Buren Conservation District     |
| Van Buren Youth Fair Board             | Van Buren Farm Bureau                           | Senior Services of Van Buren County |
| Thomas Brothers                        | Crystal Flash                                   | Fritz Blueberries                   |
| Bronsink & Bos Equipment               | Modreske Fence                                  | Kalamazoo Valley Community College  |
| Van Buren Intermediate School District | Dupont Pioneer                                  | Brookside Farms                     |
| True Blue Farms                        | Van Buren FFA                                   | Van Buren United Way                |
| Chemical Bank                          | Tractor Supply Company in Paw Paw & South Haven |                                     |

# Developing Youth and Communities



**Honeybees don't just buzz—they dance. In June and July 2017, youth across Van Buren County learned about the behavior of honeybees and their role in pollinating crops.**

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.

## The Van Buren County 4-H program

The Van Buren County 4-H program reached a total of 460 youth through traditional club participation and has 25 adult volunteers. Through school enrichment, afterschool and short term/special interest programs a total of 2,148 youth were reached. There were also 31 teens that served as teen volunteers within the 4-H program.

## 4-H Ag Innovators Experience

Honeybees don't just buzz. They dance. During June and July 2017 youth across Van Buren County learned about the behavior of honeybees and their role in pollinating crops, using kits from the 2016 4-H Ag Innovators Experience, the Honey Bee Challenge. This program was provided by Janice Zerbe, 4-H Youth Educator in partnership with Van Buren local libraries summer reading programs in Covert, Bangor, South Haven and Decatur. A total of five programs were delivered reaching 106 Van Buren youth. The 4-H Ag Innovators Honey Bee Challenge focuses on a critical component—honey bees– to growing food and feeding the world. Approximately one in every three bites we eat is the result of these pollinators at work. The challenge introduces youth to the critical role honey bees play in food production, connects bees to the USDA MyPlate model, provides an opportunity for youth to work in teams, assemble model bot kits, design efficient foraging routes and learn ways they can help bees in their own communities.

## Youth Business Guide To Success

Youth Business Guide to Success – Make the Most of Your 4-H Market Animal Project  
Two educators (Deb Barrett and Janice Zerbe) from District 13 were involved in the writing, editing, launch and training of this new curriculum that was released August of



## Developing Youth and Communities, Continued



Students Ryan Brennen and Emeline Pioch of Paw Paw attended the 4-H Renewable Energy Camp to learn more about the science and application of wind and solar power energy systems so they could share their knowledge with students and faculty at Paw Paw High School through the environmental club they founded in 2016.



2016. Affectionately called YBGS, it was made possible with funding from the MSU Extension Career Exploration and Workforce Preparation Team and two Michigan 4-H Participation Fee grants. Across the state, 64 staff and volunteers have received curriculum training; nine from District 13 and three from Van Buren County.

### 4-H Renewable Energy Camp

Renewable Energy Camp is a pre-college program that is designed to educate youth on current issues and technologies impacting energy and the environment. Participants spend five days exploring ideas, research, and hands-on opportunities in the field of renewable energy. Youth work with leading researchers at Michigan State University to conduct experiments, make their own biofuel, design and test wind turbines, and design and build a solar-powered model home. In 2017, 33 youth attended Renewable Energy Camp (4 from Van Buren County). Post-event evaluations showed that participating youth gained knowledge and skills related to environmental science and conservation. Youth also reported aspiring towards scientific career fields

- **79%** of youth are interested in a career in environmental science
- **87%** of youth are now interested in attending Michigan State University
- **91%** of youth can use scientific data to form a question
- **93%** of youth believe that they can influence environmental issues through conservation.

Youth who participate in Michigan 4-H pre-college programs are more likely to go to college: of the youth who participated in Renewable Energy Camp in 2015 and 2016, 77% enrolled in college in the 6 months following high school. That's 23% higher than the Michigan average! Van Buren County businessman, Art Toy of Four Elements Energy, shared his knowledge and experience with the camp participants.

# 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 (22 from Van Buren 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.”

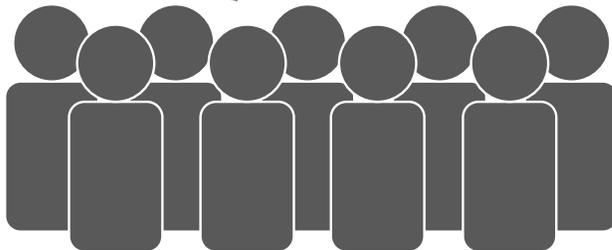
“[Exploration Days] helped me **get out of my comfort zone** and be more independent.”

“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!**”



### 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!



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**MICHIGAN STATE**  
UNIVERSITY

Extension

# Keeping Businesses Strong

**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 bioeconomy.**

**In Van Buren County, 43 business counseling sessions took place to assist five clients. Five new jobs were created, eight jobs were retained, and \$89,000 in new sales was reported.**

## **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 Van Buren County, 43 business counseling sessions took place to assist five clients. Five new jobs were created, eight jobs were retained, and \$89,000 in new sales was reported. Businesses that were assisted included both large and small food processors as well as value-added agricultural enterprises.

When you support MSU Extension, you help participants 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. Extension programming also helps decrease incidents of violence and bullying.

## **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

## Keeping Businesses Strong, continued

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. Two residents of Van Buren 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 2 from Calhoun County; 15 from Kalamazoo County and 1 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, FL, WI, AZ, IL, IA
- Passports included 1,995 unique site visits during the two-day tour

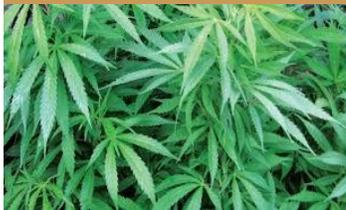
**When you support MSU Extension, you help participants understand the economic, environmental and social benefits of purchasing local and regional foods.**

#### **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.”*



# Ensuring Strong Communities



MSU Extension develops and delivers training in quick response to legislation that requires local governments to make significant public policy decisions.

When you support MSU Extension programs, participants learn how to implement best practices in good governance that keep 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.

## **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 60 at the site in Van Buren County. Twenty-one residents of Van Buren county participate in the program. 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.

## ***Walkability Workshop. As part of the Placemaking Curriculum***

This workshop helps Michigan communities learn about and implement a strategic economic development initiative for the New Economy focused on the benefits of a walkable community. The Van Buren County location attracted 22 participants, while others connected to the webinar offering.

## **New County Commissioners Workshop**

Since 1968, MSU Extension 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 MSU Extension educators offered the New County Commissioner Workshop at seven locations around the state,. 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 MSU Extension educators and directors. Overall, 92% of the 213 attendees indicated that they found the program valuable for their professional (or personal) growth and development. Three commissioners from Van Buren County attended.

## *Ensuring Strong Communities, continued*

### **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. Van Buren County serves as an important partner in providing support to the management and administration of the Citizen Planner program for the state through its employment of the program's coordinator Janean Danca.

### **Extraordinary Governance – Village of Decatur**

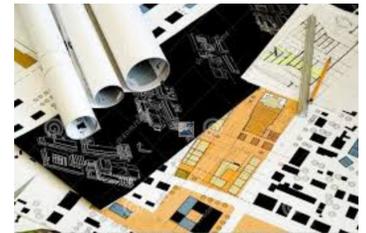
Elections and appointments of new local officials create the need for training programs that address the fundamentals of local government, including the best possible processes for making and implementing decisions and effective meeting techniques for fostering enhanced work within the government and improved public engagement. A customized training on the intentional application of principles and practices of extraordinary government was provided in June 2017 for the Village Council in Decatur (Van Buren County).

### **Training and Updating Local Leaders**

Van Buren leaders participated in sessions taught by MSU Extension public policy educators in Lansing this year including a session on communicating through conflict as part of the Farm Bureau Legislative Leadership Program and an Energy Policy update with the Michigan Association of Counties.

### **Home Buyer Financial Educator Program held in Hartford**

A six hour pre-purchase/ home buyer education program was held in Hartford in late 2016. The program covered all aspects of selecting, financing and closing on your first home. Participants learned about spotting predatory lending and fraudulent practices. MSU Extension believes an educated consumer will be more confident and successful with making important personal and financial decisions about homeownership. Home ownership strengthens communities. This program was taught in Spanish with 18 participants.



**Van Buren County serves as an important partner in providing support to the Citizen Planner program. Locally, twenty people participated in a Citizen Planner training and twenty-two people are certified Master Citizen Planners.**

# Keeping People Healthy



**MSUE provides educational support to the Van Buren Wellness Committee. Six workshops were offered to county employees and their families to provide the opportunity to improve their present and future wellness outlook. The Van Buren County Wellness in the Park hosted over 150 county employees, family members and elected officials. Local businesses provided products and services to promote employee and family wellness through healthy lifestyle choices.**

MSU Extension provides 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.

## **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. Van Buren County had 10 participants attend this program in 2017.

## **Supporting Child and Family Development in Van Buren County**

Parents and caregivers are the first to have an influence on a child's development and future academic success. To help ensure children are ready for school, caring adults can do much to develop their early math, science and pre-literacy skills. Through MSU Extension's early childhood education programs, parents and caregivers are equipped with the tools and knowledge necessary to enhance children's skills in these important areas and to become their best resources and advocates. Trainings available for parents, caregivers and childcare professionals in this area enhance math, science and literacy development in early childhood.

- Two programs were held in 2017 in Lawrence reaching 15 Van Buren childcare providers.

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.

- 14 Van Buren caregivers participated in an introduction to bullying workshop taught in Lawrence in 2017.

## *Keeping People Healthy, continued*

### **ServSafe Managers Certification**

Michigan Department of Agriculture and Rural Development and our local health department work hard to make sure safe food is prepared and served in restaurants and other food establishments. MSU Extension also helps by offering a national food safety certification program called ServSafe Manager training. This training is for those serving food to the public or who want to make themselves more employable by getting this managers certification.

Michigan food establishments that serve food to the public are required to have a certified manager under section 29 of the food law, 2000PA92, MCL 289.2129. Food establishments are to continually employ at least one certified manger per establishment. This certified manager must be a full-time employee of the establishment.

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

Participants in ServSafe classes take a 90 question exam. They must pass with a 75 percent in order to receive their national ServSafe certificate. Research has shown that those food establishments who have a certified food safety manager have fewer food borne illness outbreaks.

- Four 16 hours Serv-Safe courses were offered in Kalamazoo and Allegan Counties in 2017 in which 11 Van Buren County residents participated.

### **Smarter Lunchroom in Covert**

Extension nutrition professionals worked with Covert lunchroom staff to complete a smarter lunchroom assessment in 2017. Coaching and technical assistance was provided to help make their lunchroom environment healthier and encourage students to select, eat and enjoy healthier foods in school without eliminating their choice.



**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.**



# Making the Most of Our Natural 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.

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.

## Newsflash! Lake Michigan's charter fishing industry is...remarkably stable?

The economic impact of Michigan's charter boat industry has big implications for coastal tourism. In 2016, charter fishing generated \$23 million in Michigan's coastal communities, resulting in 476,361 employment hours. Lake Michigan's charter fishery is the largest, accounting for around 70% of the state's charter fishing effort according to Michigan DNR. Charter captains in Michigan report their catch and effort to DNR, and Michigan Sea Grant uses this information to calculate economic impacts and investigate trends.

In southwest Michigan alone, charter fishing generated over \$2.8 M in 2016. South Haven charter boats logged 804 trips last year, contributing over \$1 M to the Van Buren County economy and generating 21,420 employment hours. Farther south, charter boats in the Benton Harbor and St. Joseph area took clients on 1,262 trips and New Buffalo captains logged 64 trips. All told, this generated \$1.8 M in economic output and 35,327 employment hours in Berrien County.

## Big salmon are a big draw

Last year was a tough one for fishing. The Chinook salmon is a prized species on Lake Michigan, and charter harvest rate of Chinook salmon fell to the lowest it has been since 1995, when bacterial kidney disease (BKD) wiped out many of the lake's salmon. According to Michigan DNR, charter harvest in Michigan waters of Lake Michigan ranged from 1.09 to 1.94 Chinook salmon per trip in the early 1990s, ranged from 2.24 to 7.40/trip 1996-2014, and fell from 2.27/trip in 2015 to 1.94/trip in 2016. This understandably caused a lot of concern among charter captains last year. Angst was compounded by plans to reduce stocking, although the goal of the stocking cut was to prevent a complete crash in the fishery. Some of the debate centered on which species to cut: lake trout or Chinook salmon.

## Making the Most of Our Natural Assets, continued

### Consistent economic impacts are the rule

Despite low Chinook salmon catch rates in 2015 and 2016, charter trips and resulting economic impacts did not exhibit the same kind of crash that occurred in Lake Huron around 2004. In fact, Lake Michigan charter trips remained above the post-BKD average of 11,577 trips/year in 2015 and 2016 according to Michigan DNR.

A 2009 charter economic study found that the economic impact of charter fishing around Lake Michigan averaged \$14.0 M; due to economic factors (e.g., rising gas prices, recession) this fell to \$11.6 M in 2009. After adjusting for inflation, this means that Lake Michigan charter fishing generated an average of \$15.7 M in Michigan and bottomed out at \$12.6 M in 2009. In 2016, Michigan Sea Grant found that Lake Michigan charter fishing generated \$15.7 M in economic impacts for Michigan coastal communities. Dead on average, despite the low Chinook salmon harvest rate.

### Few fluctuations relative to Huron

The fact of the matter is that Lake Michigan's charter fishery has been much less volatile than Lake Huron's, both in terms of harvest rates and economic impacts. While Lake Michigan harvest rate dropped to just under two Chinook salmon per trip in 2016, Lake Huron crashed to fewer than one Chinook salmon every two trips (Michigan DNR data) and economic impacts of charter fishing fell by over 50%.

In other words, anglers could still expect a good chance that their boat would harvest a Chinook on Lake Michigan last year while this was not the case after the decline of salmon on Lake Huron. Other species (including lake trout, coho salmon, and steelhead) play an important role in the charter fishery, too. Many anglers are thrilled to catch any of our Great Lakes trout and salmon, all of which make good eating and top out at an impressive size.

Given the recent troubles with predator-prey balance in Lake Michigan and the high prey consumption of Chinook salmon, we can expect a more diverse mix of predators in the future along with modest Chinook catch rates. The good news is that the economic impacts of Lake Michigan's charter fishery appear to be quite stable so long as anglers can still expect a reasonable chance at boating a 'king.'

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

**In 2017, two MSU Extension Sea Grant educational programs were held in Van Buren County reaching a total of 83 county residents.**

## Making the Most of Our Natural Assets, con't.



Twenty-four people were present for a lively presentation and discussion about managing wildlife in their gardens and home at the Paw Paw Carnegie Garden Club this past Spring.

### 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](http://www.micbcw.org) and updated curriculum for this program. 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.

### Southwest Region Michigan Lake & Streams Association

The ML&SA presentation about preventing aquatic invasive species was attended by nine Berrien County residents, 14 Van Buren and 10 Cass County residents. They received information about Clean Boats, Clean Waters programs, Natural Shoreline Landscaping programs, and Introduction to Lakes online education as well as brief instructions on steps to take to slow the introduction aquatic invasive species in their lakes.

### 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. Featured workshop 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. Nine Van Buren County residents attended this workshop.

# Supporting Food and Agriculture



MSU Extension has developed a workshop specifically designed for people who work with agricultural producers and farm families who want to know more about managing farm-related stress and learn ways to approach and communicate with those in need.

The number of households that are choosing to raise a portion of their own food, livestock or gardening for pleasure or relaxation continues to increase in Michigan. When you support MSU Extension, you help to provide educational programs that supply participants with the knowledge to develop and sustain a profitable and efficient business, as well as, safe and effective production practices. Participants also learn how to optimize and reduce the use of pesticides and fertilizers, and how to conserve and protect water resources.

## Responding to Stress in Farming Communities

The National Institute for Occupational Safety and Health recently examined 130 occupations and found laborers and farm owners had the highest rate of death due to stress-related conditions like heart and artery disease, hypertension, ulcers and nervous disorders. In 2016, the CDC reports that out of every 100,000 farmers, 90 commit suicide. That is six times higher than the National rate of suicide with non-farmers. Michigan has seen an increase in suicides and suicide attempts over the last year since the commodity prices have fallen dramatically.

Phase one: Mental Health First Aid training is a full-day, hands-on, certification course that can help those people working with farmers and farm families to recognize the signs and symptoms of mental illness and emotional crisis. Two classes were offered during 2016 and 35 MSU Extension and Industry professionals are now certified in Mental Health First Aid.

Phase two: MSU Extension has developed a workshop specifically designed for people who work with agricultural producers and farm families who want to know more about managing farm-related stress and learn ways to approach and communicate with those in need. Educators discuss the present agricultural market situation with an overview of how this affects a farm's financial situation and cash flow, communication techniques, highlighting impact of stress on our body and state of mind, providing information on how to recognize some warning signs of depression, self harm and mental illness.

Since October 2016, workshops have been offered throughout the state of Michigan and Indiana which included 300 participants. **A session held in Lawrence at the Van Buren Conference center was attended by 27 farmers or ag professionals.** As a result of the program:

- 72% of participants increased their understanding of the current agriculture financial situation; 27% of participants were already very informed on the issues facing Michigan agriculture.
- 87% increased their understanding of the impact that stress has on their own bodies.

## Supporting Food and Agriculture, continued



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 150 people attended in 2017, 29 were Van Buren County residents.

- 91% were now able to recognize warning signs of depression, suicide, and mental illness.
- 95% learned where to send people for help in the community, and of those, over 50% said their awareness of community resources greatly increased.
- 95% of participants will use MSU Extension resources and training in the future.
- 94% of participants were already familiar with MSU Extension prior to this workshop; 68% had previously participated in an MSU Extension workshop on a different topic.
- 89% of participants left the workshop more aware of MSU Extension resources and opportunities.

### Telfarm assists Farmers with Business Financials

Telfarm is a Michigan State University Extension accounting software that is specifically designed for farms. It makes it possible for farm managers to closely monitor the financial progress of their operations. MSU Extension educators use this system to teach producers and others good financial management concepts.

- Van Buren County offered Telfarm services to 3 farms in 2017.

### Soil session at Farming for the Future VB CD Event

Managing Soil, Water and Nutrient Interactions in Vegetable Production with a Farmer Perspective was the title of the educational session for 42 attendees at the VB Conservation District event in April. New farmers learned how soil type and the cation exchange capacity (CEC) influences how fertilizer and nutrients should be applied for maximum nutrient use efficiency and minimal environmental impact. They also received information on cover crop possibilities by Dr. Ron Goldy.

### 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. One grower is certified to date from Van Buren County.

### 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. A greater awareness of food safety on the farm will lead to safer food and a decrease in foodborne illnesses.

## Supporting Food and Agriculture, continued

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. More trainings are scheduled for fall and winter 2017. Six growers have received certificates in Van Buren County.

### Southwest Irrigation Network

For 2017 there were 14 farming operations enrolled in the Southwest Irrigation Network (SWMIN). Sixty-five fruit, vegetable and field crop sites were monitored on a weekly basis across Berrien, Cass and Van Buren Counties. Producers were provided weekly reports as to the status of the moisture at their sites. Weekly irrigation recommendations were given to maximize water use efficiency at each site and for each crop stage. Recommendations were based on current soil moisture, crop stage and rainfall forecasts.

### Blueberry Grower Education in Van Buren County

- In partnership with the USDA Farm Service Agency, five classes were held at the Bangor Depot for underserved blueberry growers introducing them to services and resources available from USDA Agencies. The purpose of this outreach effort was to assist minority and underserved blueberry growers, mainly Hispanics, but also African-American and Caucasian growers with small acreages of blueberries. Michigan's small underserved fruit growers have limited access to Farm Service Agency programs and assistance, due to the complexity of the programs, and to cultural and language barriers. Concepts like Conservation Compliance, Financial Recordkeeping, and Business Management are difficult to grasp. This program considered the trainee's educational level, language appropriateness, and language barriers. Topics included Financial Recordkeeping and demonstration of how to use the MSUE E-1144, Farm Records Book for Management to complete the Schedule F for farmers use when filing income taxes. Other topics covered included taxes importance of balance sheets, types of loans available from FSA, budgets and strategic planning
- Spotted Wing Drosophila (SWD) was the focus during the early spring update where 31 growers were in attendance
- Update for 51 blueberry growers at Haven Harvesters in South Haven. Current information on Blueberry insect and disease pests, fertilizer needs and use of overhead sprinklers for reducing freeze injury during bloom was given. A freeze on May 8 reduced the blueberry crop but many growers used their overhead sprinklers to reduce losses.



**Spotted Wing Drosophila is a small vinegar fly from Asia that can cause significant damage to local fruit crops in Van Buren County. MSU Extension staff has been monitoring this insect since it appeared in Michigan in late 2010.**

## Supporting Food and Agriculture, continued



### 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 average 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 and Kalamazoo counties to potentially conduct research projects. Developing scouting techniques and thresholds for treatment based on spring grub observations and field history.

Marestail can be used to help focus scouting; heavy marestail populations in soybeans draw may 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 Van Buren County is glyphosate and ALS Inhibitor resistant marestail. 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 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

## Supporting Food and Agriculture, continued

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.

**MSU Extension Agriculture Educators provide timely updates to farmers via text, social media, the MSUE website and in face to face meetings throughout the year.**



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