



# Charlevoix County

## 2015–2016 ANNUAL REPORT

## MESSAGE FROM THE DISTRICT COORDINATOR

## CONTACT US

Hello from Michigan State University Extension (MSUE) District 14, which serves Alpena, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle Counties. We want to thank Charlevoix County for another year of partnership. Together we bring dynamic and diverse educational events and programming to people right here in our communities.



MSUE is the outreach and engagement arm of Michigan State University and brings the latest research from campus directly to you. We believe education and innovative solutions can help address many of today's complex issues. We look forward to our continued service to Charlevoix County and the state. We hope you enjoy reading through the Charlevoix County MSUE annual report for 2015-2016.

Lisa Anderson  
District Coordinator, District 14

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## ISSUE IDENTIFICATION PROCESS

In 2015-16, MSUE conducted focus group sessions throughout the state to determine where the people we serve felt our efforts should be focused. In January of this year, District 14 conducted two such focus groups; one in Alpena and one in Gaylord. The top ten issues identified are summarized below. These areas of focus will be combined with our statewide focus group results and will be used to prioritize our future direction and long-term planning. We are currently conducting additional focus groups and surveys to ensure Michigan's diversity is represented. These results will also be combined with the statewide efforts. Thank you to those who participated in this process—your time is appreciated and your perspectives are important to us.

### Top Ten Issues Identified in District 14

- Youth Development/Education (4-H)
- Agriculture
- Community Development
- Citizenship
- Water Quality Issues
- Life Skills
- Farm to School
- Nutrition
- Race Relations
- Bovine Tuberculosis Research



# 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). 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 Charlevoix County 4-H Program currently has an enrollment of 1,502 youth in 19 traditional 4-H clubs, 8 county committees and many after-school programs and activities. These clubs and committees are supported by 261 adult and 80 youth volunteers. Health, food & nutrition, physical fitness, livestock, horse, crafts, visual arts, photography, animal and natural sciences, community service, citizenship, character education, shooting sports, financial literacy and outdoor education are just some of the current project areas that clubs offer.

Our National recruitment campaign for 2015-16 is titled - “4-H Grows Here.” Through that campaign, we will be working on volunteer recruitment, the development of 4-H clubs in the northern part of the county, creation of a 4-H alumni data base and an enrollment increase of 10% of our 4-H membership.

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Boyne Valley Ropin' Ranchers  
4-H Club - Scarecrows for  
Harvest Festival  
in Boyne City



## ***Developing Youth and Communities, continued***

**Annul Charlevoix County 4-H Fall Awards Banquet:** The 4-H awards banquet is the membership recognition component of the county 4-H program. The event is held each October for all 4-H families. The Charlevoix County 4-H Council Youth board members are stepping up and leading the ceremony. Yearly membership medals, project certificates, and project pins (for outstanding achievement or growth in a specific project area) are presented to youth by each of their club leader(s). Leader and volunteer certificates and pins are awarded based on years of service to Charlevoix County 4-H as well. All 4-H leaders and volunteers are also presented with an appreciation gift as a thank you for all the hard work and dedication they give year round to Charlevoix County 4-H. Then a potluck dinner with a pig roast is shared and enjoyed by all. The highlight of the evening is the “Volunteer of the Year” award, which is presented to an adult volunteer who has been nominated by their peers for their outstanding contributions to the 4-H program during that year. Earlier in the month “4-H member of the Year” is awarded in conjunction with Farm Bureau of Charlevoix County at their annual meeting.



**Cyndel Thompson,  
Senior at East  
Jordan High School  
Charlevoix County  
4-H Member of the  
Year 2016**

**4-H Exploration Days:** Exploration Days at MSU provides youth age 11-19 with the opportunity to experience life on a college campus. The 4-day event held in June each year gives over 2,500 4-H members a chance to live in the dorms, experience a college setting, and be self-directing and responsible for getting themselves where they need to be. This year, 35 youth and 5 adults attended from Charlevoix County, as part of a 56 member delegation from Emmet and Charlevoix counties. Participants traveled by charter bus, visited Michigan Adventure Park in Muskegon, MI, stayed on MSU campus and experienced dorm life, participated in classes and workshops, and other enrichment events. Some of the classes that Charlevoix County youth took part in included: working with sled dogs, keys to my first car, ice skating, self-defense, youth leaders in a global world, small engines, basketball, biosecurity on the horse farm, glass etching, and Lions, Tiger, Bears, Oh MY! The event is designed as apre-college experience, and youth entering 8th-10th grades following their involvement at Exploration Days are eligible to apply for a \$ 2,000.00 scholarship, which will be applied toward the student’s first year at MSU as a degree-seeking student.



# DEVELOPING YOUTH AND COMMUNITIES

Charlevoix County 4-H youth participate in 16<sup>th</sup> Annual community service learning project called TAKE A DAY ON! This is an event where youth get to take a day off of school and take a day on for an organization in their local community. The event this year was on Friday, June 3<sup>rd</sup> at Challenge Mt. Resale Shop. We had 30 youth and 5 adults in attendance this year. Challenge Mountain has invested in a new facility for its Resale Store that will support the demands of current operations and provide a strong foundation for future growth. The mission of Challenge Mountain is to enrich lives and empower individuals living with disabilities through year-round adaptive recreation and the Resale Store is the organization's primary funding source with sales going directly to support programming. In recognizing the important role, the Resale Store plays in the organization's future and as a community resource, the Challenge Mountain



Board and staff took this opportunity to invest in the Store's continued success. The new store will be located at 1100 Boyne Avenue in Boyne City and opened at the end of June. Students started the morning off learning all about the history of Challenge Mountain and a tour of the facility. An ice breaker activity was done by all the participants that helped the youth understand different physical challenges that some are faced with and how simple daily tasks are now overcome in a different way. The youth and volunteers were broken up into groups and began packing boxes and then loaded them on the truck for the move to the new facility. After a lunch break the group began unloading boxes and unpacking. The rest of the day was spent cleaning the old facility. The youth also collected many donations of cleaning products: such as paper towels, wipes, glass, toilet bowl, floor, and all-purpose cleaners to donate to Challenge Mt. Resale Shop.

**"The Charlevoix County 4-H youth worked very hard helping us move. Their community service made our transition run smoothly to the new store. We are very thankful."**

***Staci Payton - Resale Store Manager & Alaina Farrington - Boyne City Resale Store Assistant Manager***

## Developing Youth and Communities, continued

**Emmet-Charlevoix County Fair:** This year-end event is held in mid-August and is an opportunity for 4-H youth to showcase their projects. The 4-H projects are exhibited in the Community Center where clubs set up their booths to display the member's projects as well as their club's community service activities. Over 1,700 exhibits are on display in the Community Center and over 500 animal projects can be found in the many livestock barns. Members involved in animal projects are kept busy participating in the 10 horse shows, 15 livestock shows, 5 small animal shows, 2 dog agility classes, 2 exotic animal shows and the livestock auction.

In July and August, 4-H staff conduct five pre-fair orientations for 4-H families as they prepare for the fair. Families learn about everything from registration and paperwork procedures, arrival at the fair, camping opportunities, show day schedules, rules and requirements, as well as all of the non-competitive opportunities available for the youth. Non-competitive events are also offered for the Cloverbud members (age 5-8) and free-time events include scavenger hunts, and a 4-H dance sponsored by the fair board.

Over 30 teen leaders serve as mentors for the younger members as they serve on barn duty and offer showmanship clinics, and adult volunteers provide leadership as barn superintendents, show days clerks, announcers, award presenters, and overnight barn duty workers.

Adult and teens are also instrumental in setting up the Community Center the week before the fair and the tear-down of the exhibits at the end of the week. The fair is a wonderful opportunity for the 4-H members who exhibit and participate in the many fair events, but it is also a great opportunity to promote the 4-H program, the volunteer opportunities available for adults and the youth development opportunities are available to all youth in the county.

**Sports and Fitness Clubs:** Charlevoix County 4-H sports clubs use the Jump Into Food & Fitness (JIFF) curriculum, which adds nutrition education for the wide range of sports education to our local youth such as: spring soccer, summer soccer camps, fall soccer, travel soccer, sailing, sailing races, swimming, golf, and tennis. Adult and teen leaders have fun teaching the sport while tackling the serious business of teaching kids about healthy food choices and the importance of being physically active and how it pertains to the sport they are learning. The JIFF, research-based curriculum is designed for adults and older teens to use with kids aged 8 to 11 (grades 3 to 5). "Jiff the Joey" sets the stage for each of the eight "Kangaroo Jumps" or sessions in JIFF. Fun nutrition, physical fitness and food safety learning activities are integrated into the program, which uses the MyActivity Pyramid and the MyPyramid for Kids.



The Vincent brothers, Chase and Lane, of East Jordan, took home grand and reserve market swine at the Emmet-Charlevoix County fair this year.

MICHIGAN STATE UNIVERSITY Extension

Proud to be  
#4H Grown



4-H GROWS HERE

# KEEPING BUSINESSES STRONG

MSU Extension and the MSU Product Center help Michigan entrepreneurs develop and commercialize high-value, consumer-responsive products and businesses in the food, agriculture, natural resources and bio-economy sectors. When you support MSU Extension, you help participants understand the economic, environmental and social benefits of purchasing local and regional foods. You also help young people develop business skills that will help them succeed as adults and help communities capitalize on their ecological, social and cultural assets. This fuels the economy by creating and retaining jobs, and helps ensure a healthy tax base.

## Providing education, technical assistance and support to food and agricultural professionals

» Charlevoix County has experienced an increase of food and farm related business start-ups or expansions over the past twelve months. The free and confidential business counseling and technical assistance offered by the MSU Product Center can be accessed through their Innovation Counselor, who is housed at the Emmet MSUE office. Taking advantage of that opportunity were 12 individuals, representing 8 unique businesses, totaling over 80 hours of contact. There were 3 business start-ups and 4 business expansions from Charlevoix County. Businesses range from those new to both agriculture and to business, to experienced entrepreneurs that may or may not have a farming background, to seasoned agricultural professionals looking to diversify or grow.

» In addition to one-on-one assistance, many benefited from the classes taught by MSUE staff in and around the area through strategic partnerships with other institutions. One of those is with North Central Michigan College, which now routinely features *Food, Farms & Garden* classes as a part of their Corporate and Community Education offerings. MSUE staff taught 4 courses at NCMC, with 8 of the 30 students attending coming from Charlevoix County. Classes range from topics targeted to specialty food entrepreneurs as well as farm business basics.

» Classes taught elsewhere in the region also benefited Charlevoix's farming businesses. In January 2016, staff partnered with Crosshatch, a local non-profit, and the area's Small Business Development Center, (SBDC) to offer three *Picture your Business* classes to the 126 attendees of the Northern Michigan Small Farm Conference's Farm School pre-session. The 6 farmers from Charlevoix County learned an innovative way to plan their business through use of a business model canvas.

» The number and variety of food and farming business opportunities is predicted to stay strong for NW Lower Michigan. Almost all of this growth comes from the non-commodity sector as entrepreneurs seek out unique business opportunities in niche markets such as Community Supported Agriculture, specialty herbs, wine, agri-tourism and others well-suited to our unique agricultural and natural features.

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



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# KEEPING PEOPLE HEALTHY

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.

## Teaching valuable healthy-eating skills

The Supplemental Nutrition Assistance Program – Education (SNAP-Ed) provides nutrition education to income-eligible adults and children. This program focuses on improving dietary quality and increasing physical activity while stretching food dollars. The ultimate goal of these programs is to promote healthy weight maintenance and obesity prevention. Between January and December 2015 in Charlevoix County, 304 adults and 426 youth were reached through nutrition education classes at various venues in the county.

One of the many classes MSU Extension staff teach each year is through a partnership called **Project FRESH**. In collaboration with the Emmet County Health Department, MSU Extension nutrition staff provide nutrition education to families involved in the Women, Infants and Children program (WIC) on the benefits of including more fruits and vegetables in their diet. Coupons were provided to these participants to purchase locally grown fresh fruit and vegetables from Emmet County farmer's markets through Project FRESH.

Here are a few impacts achieved through the MSU Extension nutrition education classes:

### Impacts with Adults:

The percentage of adults eating fruits and vegetables as snacks increased...

⇒ by 6.7% across the state of Michigan

⇒ by 10.0% within District 14 (Charlevoix, Cheboygan, Emmet, and Presque Isle Counties)

### Reaching Youth

**Show Me Nutrition** offers students six weeks of in-class nutrition education to students by bringing hands on learning into the classrooms. Students are able to try new foods and learn the importance of good nutrition and physical activity. In Charlevoix County this program has been brought to East Jordan and Boyne City Head Starts and Boyne City Elementary School.

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.



*First Grade students at Boyne City Elementary created their own MyPlates while learning the food groups during the six week series Show Me Nutrition.*

Nutrition education at Manna Food Project has helped make it easier for families to choose and prepare the more nutritious options available at the food pantry

## **Keeping People Healthy, continued**

### **Teaching valuable healthy-eating skills**

Through a partnership with **Manna Food Project** MSU Extension is serving 2,200 children and families weekly in Antrim, Emmet, and Charlevoix counties . As part of the backpack programs of food distributed for the weekends, children and families receive recipes, resources and information to make a healthier choice an easier choice.

### **Farmers Market Presentations**

SNAP Ed and Disease Prevention and Management combined knowledge and had 3 presentations/ demonstrations at the Farmers Market in Boyne City on Saturday's. Each week the topic was different but related to healthy eating habits. We highlighted different Farmers each week and promoted the value of fresh produce. The SNAP Ed Instructor and the Disease Prevention and Management Instructor also prepared a demonstration and participants were able to taste test the jewels (produce) of the great County of Charlevoix. We also had information sheets that included bullets of the three topics and recipes. Snap Ed was able to give each participant a small NERI item (gift) which was a tote bag, strainer and cutting mats. Each week we had from 50-75 people stop by to see our presentation and taste test the recipes.

#### *Disease Prevention and Management discussed*

- Chronic Disease
- Diabetes
- Exercise

#### *Snap Ed Recipes*

- Greens Stir Fry
- Blueberries and Peaches over Yogurt
- Beets and Winter Squash stir fry

### **Munson Wellness Center, Charlevoix**

In the summer of 2016 MSU Extension and the Charlevoix Wellness Center began planning for programing that MSU Extension, Disease Prevention and Management will host at their center. We have an exciting venue of classes coming January 2017 which will begin with Dining with Diabetes. We have also worked closely with the Wellness Center so they can begin their first National Diabetes Prevention Program that will begin in January 2017.

**Through the National Diabetes Prevention Program, MSU Extension helps participants to learn ways to change their lifestyles and improve their health.**





## Keeping People Healthy, continued

### Working to improve social and emotional health

Through MSU Extension's Be SAFE: Safe, Affirming and Fair Environments initiative, young people and adults learn ways to reduce and prevent bullying and harassment behaviors. As a result of the education:

- ◆ 98% gained understanding about different types of bullying behaviors and how they can affect those involved.
- ◆ 98% developed new skills for interrupting behavior.

In an effort to promote prevention of child abuse and neglect, MSU Extension Educators have offered Nurturing Parenting series throughout the state. As a result of the 10 workshops involved in this program:

- ◆ 53% improved their adaptive skills and strategies to use in times of crisis.
- ◆ 41% of Nurturing Parenting participants improved their perceived informal support that helps provide for emotional needs.

MSU Extension's RELAX: Alternatives to Anger program offers techniques for calming down and de-stressing, problem solving, communicating and letting go of the past. The program reaches low-income and racially/ethnically diverse audiences. As a result of the program:

- ◆ 70% now work hard to be calm and talk things through
- ◆ 66% try to end on positive note when they get upset.
- ◆ 68% reduced their frequency in yelling and screaming which is an indicator of improved strategies to address aggression and violence.
- ◆ 66% now take time to understand how others feel.

Stress Less with Mindfulness introduces participants to the experience and practice of mindfulness to reduce stress. Mindfulness can be defined as paying attention in a particular way: on purpose, in the present moment, and non-judgmentally. As a result of the training, participants showed improvement on these key outcomes:

- ◆ 78% can describe how a mindfulness perspective changes reactions to daily stressors.
- ◆ 75% use mindful awareness when eating.
- ◆ 74% know three mindfulness tools to help them manage stress.

*"I learned some different ways to model self-control. I intend to take what we learned and apply it in my home."*

RELAX Parent/Caregiver workshop participant

# MAKING THE MOST OF OUR NATURAL ASSETS

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

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

## Lake Charlevoix Water Quality Protection

Lake Charlevoix is one of the premier water bodies in northern Michigan, noted for its outstanding water quality, beauty and recreational opportunities. MSU Extension, in partnerships with the Tip of the Mitt Watershed Council and the Michigan Department of Environmental Quality, is implementing a set of activities to further enhance education and assistance programs to build capacity and connection between Lake Charlevoix Association leaders and local officials.

MSU Extension led three sets of activities during 2015-2016:

- **Lake Charlevoix area zoning administrators meetings.** Through these discussions, zoning administrators learned about tools and techniques and shared experiences regarding the challenge of enforcing zoning standards in shoreline areas.



To marshal all of the passion and energy so many people and organizations have regarding Michigan's lakes, MSU Extension helped organize the second Michigan Inland Lakes Convention held at Boyne Mountain Resort in May 2016.



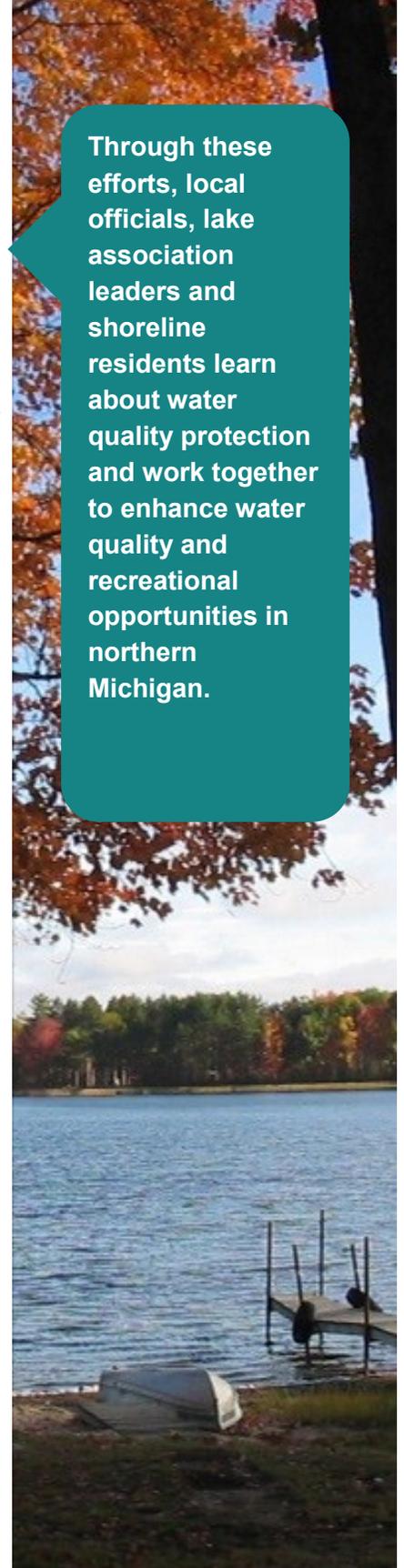
## ***Making the Most of Our Natural Assets, continued***

- **Lake Charlevoix Shoreline Tour.** New this year, MSU Extension hosted a shoreline landscape tour to help shoreline property owners and local officials understand strategies for maintaining or enhancing buffer strips that protect water quality while meeting owners landscaping goals. Nineteen individuals participated in this event during August 2016—nearly all indicating that they found the experience “very useful” or “extremely useful.”
- **Charlevoix County Planners Forum.** The goal of this November 2015 event was to promote learning and interaction among elected and appointed planning officials in the County's 19 jurisdictions. 37 local leaders participated in the program, which included presentations on a wide variety of water quality and planning topics.



This project is funded by a grant from the Michigan Department of Environmental Quality and Environmental Protection Agency. Although 2016 is the final year of this effort, project partners are exploring other ways and funding to continue shoreline stewardship education and support for local land use decision makers.

Through these efforts, local officials, lake association leaders and shoreline residents learn about water quality protection and work together to enhance water quality and recreational opportunities in northern Michigan.



# SUPPORTING FOOD AND AGRICULTURE

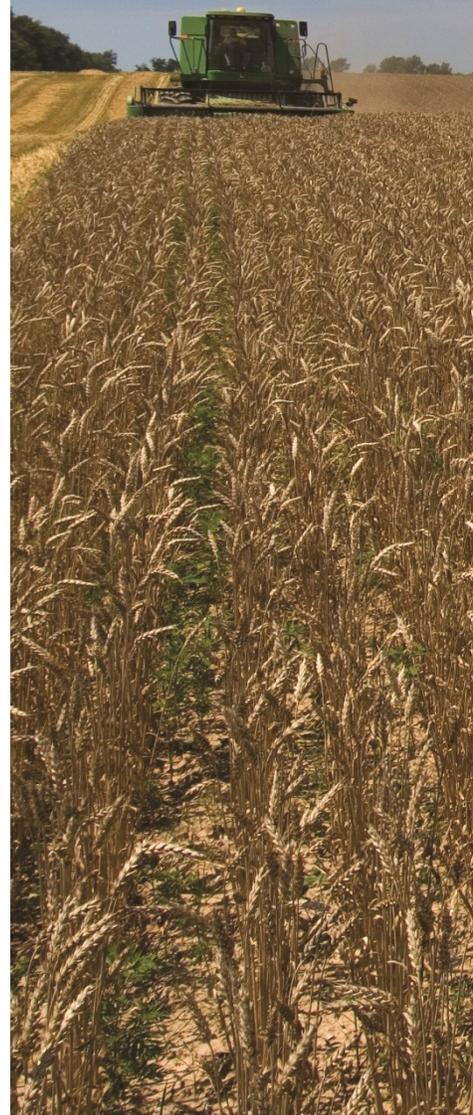
Michigan agriculture continues to be a growing segment of the state's economy. The production of commercial food and nonfood agricultural operations is growing rapidly. The number of households raising a portion of their own food and raising livestock or gardening for pleasure or relaxation continues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

## *Bridging the gap between farm to fork*

» MSUE staff is once again a planning partner of the Northern Michigan Small Farms Conference, held each year at the Grand Traverse Resort. The 2016 conference was the 17<sup>th</sup> annual, with 49 of the 1021 attendees reporting Charlevoix County as their home. The conference is sponsored by Crosshatch, a Bellaire based non-profit that builds strong communities through the intersections of art, farming, ecology and economy." Several educators from MSUE and MSU conducted workshops and staffed informational booths during the trade-show.

» Another community collaboration that is working to connect growers to eaters is that of the Local Food Alliance, LFA. The Alliance was formed in 2012 as a follow-up to that year's Small Farm Conference in an effort to catalyze work surrounding food and farming in the Northern Farms Foodshed, the area that comprises parts of 5 counties located at the northern tip of the Lower Peninsula, including Charlevoix County. After 4 years of building awareness, extending education through seminars, films and conferences, the initiative has recently kicked off a fundraising campaign to staff a position to be located in Petoskey to help further this work.. This initiative has been led by staff and volunteers at the Petoskey Harbor Community Foundation and represents a coalition of representatives from the grower community, as well as MSUE, NCMC's Corporate and Community Education Department, Crosshatch, the Friendship Center,

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



*The 2016 conference was the 17<sup>th</sup> annual, with 49 of the 1021 attendees reporting Charlevoix County as their home.*



## ***Supporting Food and Agriculture continued***

Health Department of North West Michigan, Grain Train Natural Food Natural Foods Market, and a core group of the hundreds of concerned citizens, including many from Charlevoix County that participate in LFA events throughout the year.

»MSU Product Center staff also is supporting Michigan's maple syrup industry, which is experiencing an exciting upswing in both products and producers. *The Business of Maple*, hosted by the new Commercial Maple Syrup Producers of Michigan Association, was the group's first trade-show and educational conference, held in late August of 2015. Staff presented a workshop session to growers and was also available to offer counseling services to the many northern Michigan businesses present, including those from Charlevoix County.

### ***Farm Business Succession Planning Workshops***

Planning and executing the transition of a farm business to a younger family member or non – family successor(s) can be a complex and emotional process. In November of 2015, MSU Extension partnered with the Law Offices of Richard L. Edmonds, PLC and Fortitude Wealth Planners, LLC to offer two identical workshops in Gaylord, MI addressing several topics related to farm succession such as evaluating the financial health of a current operation and owners, communicating succession goals, building and implementing a succession plan, evaluating what is fair for the successor(s) versus what is equal, different business arrangements, and how to work effectively with a qualified attorney. Representatives from several Northern Michigan farm businesses, including Charlevoix County residents, attended these workshops to receive this critical education that may help protect the future of their family farms.

### ***Pesticide Applicator Training and Exam***

MSU Extension pesticide applicator training and recertification programs improve pesticide use practices in Michigan by ensuring that certified applicators receive up-to-date information on pesticide regulation, handling and application. On February 26th 2015, MSUE delivered a Pesticide Applicators' National Core Manual Review to pesticide applicators, including Charlevoix County residents, at the Central Lake Public Library. The four-hour review covered basic pesticide regulation and safe handling. 30% of participants indicated that the information they received was necessary in their job or profession. After the review, an MDARD representative offered an open pesticide applicator's exam session. Thirteen pesticide applicators completed 15 core and category exams, with all applicators that participated in the review session passing their core exams.



***Soybean acreage has increased in Northern Michigan over the last 25 years and soybeans are a favorite food of deer.***

## ***Supporting Food and Agriculture continued***

### ***2014 Farm Bill Education***

The 2014 Farm Bill, including new programs designed to help producers better manage risk, represents one of the most significant reforms to U.S. farm policy in decades. Each farm operation is different, and finding a good fit for risk management depends on individual needs. With this in mind, MSU Extension developed numerous Farm Bill resources to assist farmers and landowners.

In collaboration with the USDA Farm Service Agency and agribusiness partners, MSUE offered four Farm Bill Title I Workshops across Northeast Michigan in January 2015, including locations in Petoskey, Rogers City and Alpena (2). The profit and risk management implications of alternative program choices were explored with 80 participants under a range of assumptions using the Excel based Farm Bill Analyzer Tool developed by MSUE. Educators also met with individual producers after the workshop to run detailed analysis of their operations. Information gained through this technical assistance allowed local producers to carefully select Farm Bill risk management programs and increase projected farm revenue for the current Farm Bill cycle.

### ***White-tailed Deer Exclusion Research***

White-tailed deer are among the most beloved creatures on the landscape. However, deer feeding, trampling and bedding on Michigan farms can damage crops and reduce harvestable yields. Soybean acreage has increased in Northern Michigan over the last 25 years and soybeans are a favorite food of deer. Yet, no information on soybean yield losses to deer has been available.

In 2015, MSU Extension, with support from the Michigan Soybean Promotion Committee, measured soybean yield lost to white-tailed deer by constructing and installing exclusion cages in eleven soybean fields. In our study fields, deer browsing significantly reduced soybean yields. Yield loss averaged 10% or 3.89 bushels per acre across all fields and cages. With about 26,000 acres of soybeans planted in Northeast Lower Michigan, we estimate that approximately 91,000 bushels were consumed by deer in 2015 with a farm gate economic impact of \$910,000. In 2016, MSU Extension is partnering with the MI DNR and local producers to trial habitat modification including plantings of sacrificial crops along wooded field edges as a strategy for reducing damage to soybeans.

## Extension Educators Serving Charlevoix County

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#### MISSION:

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

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