Grand Traverse County
2015–2016 ANNUAL REPORT

msue.msu.edu
FROM THE DISTRICT COORDINATOR:

This past year, MSU Extension conducted focus groups and online surveys to solicit feedback from the public on what are the most vital needs and priorities for Michigan residents. These results will shape our educational programming for Grand Traverse County residents now and into the future. MSU Extension is committed to providing relevant, responsive and timely outreach to families and communities.

Your MSU Extension staff have linked the knowledge resources of the University directly to individuals, communities and businesses. It is my distinct privilege to present these accomplishments in our annual report. This report summarizes some of the important work done by MSU Extension staff in Grand Traverse County. It has captured most of the significant highlights of our work in 2015 and provides a sense of the direction of our work into the future.

As always, I thank you for your continued support. Without you, we would not be here doing this important work with your constituents.

Jennifer Berkey
District 3 Coordinator

CONTACT US:

520 West Front Street, Suite A.
Traverse City, MI 49684
Phone: 231-922-4620
Hours: Mon. - Fri. 8:00 am - 5:00 pm
msue.grandtraverse@.county.msu.edu
msue.msu.edu/grandtraverse

STAFF HOUSED IN GRAND TRAVERSE:

John Amrhein
Govt. & Public Policy Educator
Mark Breederland
Michigan Sea Grant Educator
Linda Cronk
Extension Health Research & Geriatric Education
Sarah Eichberger
Disease Prevention & Mgmt. Educator
Duke Elsner
Small Fruit & Viticulture Educator
Karin Stevens
4-H Program Coordinator
Jennifer Ritter
Safe Kids North Shore Injury Prevention Coordinator
Michelle Smith
Nutrition Program Instructor
Jane Rapin
Nutrition Program Instructor
Jenny McKellar
Office Manager
Veronica Mork
Office Specialist

MEASURING IMPACT:

CONNECTING WITH RESIDENTS

4-H: Developing Youth & Communities ................................................ 2,473
Keeping People Healthy & Ensuring Safe Food .................................935
Supporting Food & Agriculture .........................................................937
Fostering Strong Communities & Businesses while Enhancing Our Natural Assets .........................................................471
Protecting People from Unintentional Injuries .................................... 8,289

TOTAL PARTICIPANTS IN GRAND TRAVERSE COUNTY: ......13,105

MSU EXTENSION'S EXPANDED DIGITAL REACH IN DISTRICT 3 & STATEWIDE:

2.5 million visitors viewed more than 5.3 million pages
751,000 topic newsletters distributed to more than 10,400 email addresses
Nearly 2,500 Facebook and more than 2,200 Twitter followers

Statewide 2014-15 Digital Reach

2013-14

2014-15

27,817

35,640

28% Increase in District 3 Visitors to MSU Extension Website
When you support the MSU Extension 4-H program, 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 Grand Traverse County 4-H Program empowers youth to change their world! According to the MacArthur Foundation, 65 percent of today’s grade school students will end up working in jobs not yet invented. Young people need more than a good education to prepare for their future; they need well-rounded skills that can be applied to any career as well as the ability to explore and try on exciting opportunities in a safe and informative way.

4-H provides many types of learning experiences that teach life skills like confidence, leadership and responsibility. 4-H youth develop relationships with caring adult volunteers who provide a safe environment in which to participate in “hands on” learning experiences in their passions and interests. 4-H volunteers and parents work together to provide youth with programming that focuses on community service, excellence in education, fairness in competitive activities and the development of skills and abilities that will last a lifetime.

“4-H is everything to me. It has helped me learn how to be social. I now talk to everyone around me and can make friends. You learn how to care about living things and know how special life really is. Life is beautiful and meaningful. Our animals teach us so much. They teach you how to teach another living being how to do something. They teach you respect and responsibility. 4-H has made me who I am today.”

- Facebook post by a Grand Traverse County 4-H'er.
This year 4-H members in Grand Traverse County participated in a variety of learning experiences. Seven new clubs were added to more than 50 clubs in Grand Traverse County. New project areas of interest included STEAM learning through Makerspace, sewing, additional archery and animal science clubs. A large number of youth worked with animal science education studying horse, steer, llama, alpaca, sheep, pigs, chickens, rabbits and/or dogs. Youth had the opportunity to attend workshops, retreats, and overnight events, such as 4-H Capitol Experience, 4-H Robotics and Technology, 4-H Beef, Sheep, Swine and Vet Science workshops and 4-H Exploration Days.

4-H STEAM Learning: As a result of a new 4-H task force, we discovered that Fife Lake Area was a community needing 4-H programming within Grand Traverse County. We recruited a few enthusiastic 4-H leaders and were able to hold a first ever 4-H Makerspace STEAM learning event at the Fife Lake American Legion Hall. This event in January was attended by more than 50 boys and girls and their parents. STEAM learning is Science, Technology, Engineering, Art and Math and was open to youth ages 5-19. We had an awesome turnout from the community and area! The families that arrived were curious about 4-H Makerspace and we were able to share with them the possibilities of STEAM learning. We had tables for science with Kinetic Sand and other goo! We had a take-a-part table with different electronics and power tools. The children were encouraged to take microwaves, adding machines, and computers apart and discover what was inside. We also had some electronic snap circuits and robots made from different electronic parts as well as a variety of craft projects. Following this event, the leaders began an ongoing 4-H Makerspace afterschool club at Fife Lake Elementary.

Summer Fun at MSU with 4-H Exploration Days: Over 35 youth and adult leaders from Grand Traverse County adventured their way through countless amazing activities and session during this three-day event on MSU’s campus in June. Youth are provided the opportunity to sample college life—a potentially life-changing experience. Comments from some of the participants show the impact of this program:

“It prepared me for college and made me aware of how competitive college is.”

“I’m more likely to try to pursue a four-year degree now.”

“It showed me how independent I’ll need to be in the future.”

“It was great! I can’t wait to come back next year!”

Classes are offered in a variety of activities to suit everyone’s interests. This year’s sessions included eye dissection, kayaking, climbing and rappelling, fishing basics,
vegetarian cooking and Japanese culture. During free time, Grand Traverse County youth and adults were treated to behind-the-scenes tours, entertainment and recreational activities and much more!

**4-H at the Fair:** One new aspect to our 2015 Northwestern Michigan fair was the absence of live poultry due to avian influenza precautions. 4-H'ers with poultry projects were encouraged to decorate their pens with information about their birds for visitors and buyers alike. The youth also improved on their showmanship skills using fake birds and skill-a-thons. Detroit Free Press visited the poultry barn for five hours to learn more about the poultry ban, how the 4-H youth did their shows and the youth's reaction to the ban. The Detroit Free Press produced a great informational news story in their newspaper and video. They interviewed multiple youth and adults including Grand Traverse County 4-H Program Coordinator, Karin Stevens. The video turned out great and has been viewed all over the state of Michigan and throughout the country!


The Northwest Michigan 4-H Livestock Council held its 44th Annual 4-H Livestock Auction on August 13, 2015 during the Northwestern Michigan Fair. This year we had 1150 youth participating at the fair with 514 selling market animals. Gross sales from the auction totaled $720,530.78. This was a 9% increase from 2014 Sales. Animals donated to local food pantries/charities included 44 swine, 5 steers, and 4 lambs for a total live weight donation of 19,160 pounds!

**4-H Scientists for a Day!** Inland Seas Educational sail was the site of some water and environmental education for numerous 4-H youth and adults last August in Grand Traverse County. Youth set sail on a rainy but exciting day on West Grand Traverse Bay checking water quality, collection and analysis of water samples including fish, plankton and other organism from the bottom of the bay. They investigated through experiments the amount of oxygen in the water and had the opportunity to sail the tall schooner. The 4-H'ers enjoyed the experience and learned how important it was to keep our bays alive, clean and a quality habitat for all.
4-H Farm Market Entrepreneurs! In the summer of 2015, Grand Traverse County 4-H launched a new endeavor called the 4-H Clover Market with the DNR, MSUE and 4-H. Wheel Barrow Bunch, Forever Farmin’ and Frontier Quest 4-H clubs sold local fruit, vegetables, pumpkins and other goodies at the Interlochen State Park and Traverse City State Park as part of this project. The goal was for 4-H youth to learn and understand marketing, money handling and entrepreneurial skills as well as provide healthy eating options to campers at the parks. The 4-H youth had a great time, learned a lot, and had fun selling their produce.

Serving the Community through 4-H: This year our 4-H clubs and youth have been active in giving to our community. They have done river clean ups, served community meals, collected food for a local food pantry, clean up and remove invasive plants on a local trail, planted flowers at a school, volunteered with Cherry Festival’s Cherry Connection, parade and food tent, and helped teach younger students through a 4-H Cloverbud event. Here are a few of the highlights from this year:

• Kuddos to the Outdoor Adventure 4-H Club from Kingsley who participated in the Boardman River cleanup on a cold, rainy day last June. Look at the items pulled out of the river.

• Over 50 4-H youth and adults representing clubs from Leelanau and Grand Traverse counties put on a great petting zoo for an estimated 2500 visitors to Cherry Connection during Cherry Festival at the Northwest Michigan Horticulture Research Center.

• In April a request went out to all our 4-H families to provide some food donations for a local school’s food pantry. MSU Extension staff Karin Stevens and Michele Smith were able to drop off the donations to the Traverse City High School pantry. They enjoyed talking with the youth and staff at this school and helped them load their shelves. Teacher, Mary Preston sent a thank you note to the office saying, “Thank you for your generous donations. Our students truly appreciate having the pantry as a resource for food and supplies whenever they are in need, so thank you for helping to stock our shelves and also for “spreading the word” about us!”

• Frontier Quest 4-H club welcomed served and cleaned up at a pancake fundraiser breakfast for Reining Liberty Ranch at Moomers in Traverse City and Rudy’s Kids 4-H Club helped serve a meal through GTACS for community members.
Improving Nutrition and Physical Activity

The Supplemental Nutrition Assistance Program – Education (SNAP-Ed) provides nutrition education to income-eligible adults and children. This program focuses on improving dietary quality, increasing physical activity while stretching food dollars. The ultimate goal of these programs is to promote healthy weight maintenance and obesity prevention. During the past year in Grand Traverse County, 446 adults and 351 youth were reached through nutrition education classes at various venues in the county. There were 1,909 contacts with these groups in total.

Through a partnership called Project FRESH, in collaboration with the Grand Traverse 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. Coupon booklets were provided to these participants to purchase locally grown fresh fruit and vegetables from Grand Traverse County farmer’s markets though Project FRESH. These coupons were redeemed at farm markets for over $4,800 in produce grown by local farmers.

One of the many organizations that the SNAP Team partners with is BrickWays. This is a local nonprofit corporation that provides housing and support services for adults with developmental disabilities. This year, ten adults with a range of capabilities participated in the six-week Cooking Matters for Adults series. During the series, there was one young man that especially stood out. During the first class he was quiet and visibly apprehensive in helping to prepare our chosen recipe. As each class passed, he became more engaged and his confidence grew. As the series progressed, this young man become more willing to participate in class discussion and even would take the initiative to jump right in as ‘Head Chef’. He helped to prepare and taste recipes that he says he would have never tried in the past. During the $10 Grocery Shopping Challenge, he easily chose ingredients for his meal that centered around MyPlate while staying within the given budget. He was so proud of his accomplishment that he was grinning ear to ear! The BrickWays group has had many such successes and as instructors, the SNAP Team feels so fortunate to accompany and help guide them on their journey.

Impacts with Adults:
- 83% improvement in one or more nutrition practices like planning meals, making healthy food choices or reading food labels.
- 95% of participants in Project FRESH will eat more fresh fruits and vegetables per day.
Youth programming continues to be a cornerstone of educational programming in Grand Traverse County. Children participate in a six-week series of lessons using Show Me Nutrition, a curriculum that teaches youths from preschool through junior high how to have a healthy lifestyle. Several important health themes are taught in each grade level, such as nutrition, food safety, physical activity, media influence and body image, and the grade levels are designed for continuity. Age-appropriate content, activities and handouts make learning about healthy eating fun for students in all grade levels. The students especially enjoy the food samples which reinforce the learning lessons that week like yogurt parfaits for low-fat dairy. Keeping the students on their feet and physically active is another favorite part of the class time as well.

Teaching Residents about Food Safety

Supporting MSU Extension food safety education programs helps prevent food borne illnesses and ensures a safer food supply for consumers – whether that is at food retailers, restaurants, farmers’ markets or community meals served by organizations. MSU Extension food safety education programs train participants to prevent incidents of foodborne illness associated with unsafe food handling practices, which results in fewer medical expenses, fewer food recalls, and less temporary or permanent closures of food businesses by local health departments. Costs of illness, recalls, and food business closures are more expensive from a public health perspective than taking an inexpensive class to learn how to prepare food safely and preserve food correctly. Residents in Grand Traverse County participated in a variety of food safety classes.

Grand Traverse County residents indicated that as a result of attending food presentation workshops:

- 96% will follow research based/tested recipes when canning food at home.
- 97% will properly use processing techniques to safely can low and high acid foods.
- 98% will use correct processing times to safely can low and high acid foods.

Enhancing Farm-to-School Programming

As the places where children spend much of their time and often eat at least half of their calories, schools are a primary driver in young people’s knowledge of, attitudes about, and access to food. Therefore, by focusing on classrooms and cafeterias, particularly in communities that suffer elevated inequities in public health, income, and education, are a critical point of intervention against diet-related chronic disease. Since September 2015, MSU Extension Grand Traverse County has served as a local service site for FoodCorps, a nation-wide organization working to bring real food to kids and help them grow up healthy. MSU Extension Through this program, we host a FoodCorps service member,
who actively delivers nutrition education, garden education, and conducts taste tests in order to aid the development of sustainable farm to school programming in two target schools in Grand Traverse County: Traverse Heights Elementary and Interlochen Elementary. From September 1 – May 31, FoodCorps service members reached 322 children in Grand Traverse County, with 103 lessons taught within 11 classrooms and 8 cafeteria taste tests conducted at both schools.

Cafeteria Local Food Taste Tests

To provide support to food service directors as they menu items and encourage increased sourcing of local food, FoodCorps engages students during monthly taste tests that highlighted the respective “Harvest of the Month.” Eight cafeteria taste tests were conducted at both Traverse Heights Elementary and Interlochen Elementary since September. Thanks to these taste tests, combined with additional nutrition education, students are realizing they can have a say in designing their own lunch menu and their preferences for vegetables are increasing as they excitedly to try a new recipe each month.

Classroom Education

Another vital aspect of instituting sustainable farm to school programming is teaching lessons on nutrition and gardening. In the eleven classes FoodCorps provide service, a variety of lessons were integrated into existing curriculum and taught in collaboration with teachers. These lessons included making Three Sisters Stew while learning about corn, beans, and squash; conducting plant properties experiments; and getting their hands dirty while learning about how worms break down food in vermicomposting bins.

Garden-based projects/education

Garden based lessons are also essential to build a foundation of understanding about the environment needed to grow plants and experience healthy, fulfilling lives. Using the raised beds at Traverse Heights and Interlochen, students have planted, and are growing, their own food while they learn about soil and nutrition requirements for both the plants and their bodies. Mayor Carruthers came out to support students as they transplanted vegetables and herbs during their school-wide garden planting extravaganza on May 20, and recognizing the importance that school gardens play to the wellbeing of the children, he proclaimed May 16-20 as “Traverse City School Garden Week.”

Presentations to stakeholders and media

Finally, to grow the culture of school health and wellness through community engagement, FoodCorps service members participated in school carnivals at Interlochen Elementary, Traverse Heights Elementary and Blair Elementary schools. There, they provided students opportunities to plant seeds to take home and grow with their families.
Interacting with and receiving feedback from those invested at all levels of the school is essential to a sustainable farm to school program in Northwest Michigan. Our FoodCorps program has been recognized through a variety of news and communication outlets for innovative and engaging service.

**Preventing and Managing Chronic Disease**

Chronic diseases are among the most prevalent, costly, and preventable of all health issues. Compared to the national average, Michigan adults suffer from more risk factors (obesity, hypertension, and high cholesterol) that contribute to chronic disease. Chronic diseases such as diabetes increase the financial burden on the healthcare system. Diabetes is a chronic disease of critical concern. The estimated cost of diabetes in Michigan is $10.5 billion each year, including medical care and lost productivity. This figure is expected to triple over the next 25 years, reaching $21.6 billion by 2040. It is estimated that the state can save $54.5 billion spent across all chronic diseases by investing $10 in preventive care per person per year. Support of MSU Extension benefits participants and the community by moderating the increase in healthcare costs associated with caring for a growing population of people with diabetes and other chronic conditions.

MSU Extension’s Disease Prevention and Management (DPM) programs work to promote health and wellness by reducing and managing the incidence and impacts of chronic diseases among Michigan residents and communities. These community-based, evidence-based core programs provide participants with proven strategies for improved dietary quality, management of chronic health conditions and prevention of chronic diseases.

**Dining with Diabetes** is a fun and interactive course series targeting individuals with prediabetes, type 1 or type 2 diabetes, members of their support system and/or anyone interested in learning more. Participants learn to make healthy food choices and incorporate balanced menus into the family dining experience. Classes include research-based education, cooking demonstrations and healthy recipe tasting. Noted results of this program include greater knowledge and awareness in applying key concepts for type 2 diabetes management and prevention. For example, according to program evaluations, over 90% of participants can correctly identify which nutrients provide glucose of the body, and identify sources of carbohydrate in the food system. MSU Extension Grand Traverse County has worked in partnership with the Grand Traverse Bay YMCA and the Northwestern Michigan College Great Lakes Culinary Institute to provide strong and engaging programming.

**National Diabetes Prevention Program** is designed to bring to communities evidence-based lifestyle change programs for preventing type 2 diabetes. It is based on the Diabetes Prevention Program research study led by the National Institutes of Health. The lifestyle
program shows that making modest behavior changes, such as improving food choices and increasing physical activity to at least 150 minutes per week, results in participants losing 5% to 7% of their body weight. These lifestyle changes reduced the risk of developing type 2 diabetes by 58% in people at high risk for diabetes. MSU Extension has achieved full program recognition from the Centers for Disease Control and Prevention and is the only fully recognized program provider in the northwest Michigan region. MSU Extension Grand Traverse County partners with the Northern Michigan Diabetes Initiative to support delivery and recruitment of this year-long program.

Diabetes Personal Action Toward Health (PATH) is a self-management workshop aimed at empowering people to take an active role in managing diabetes. Over the course of 6 weeks, participants learn strategies to help them deal with difficult emotions, how to develop a healthy eating and exercise plan, goal setting and problem solving, and a variety of other tools to manage diabetes. MSU Extension Grand Traverse County relies on a longstanding partnership with the Northwest Michigan Area Agency on Aging to deliver this self-management series.

A Matter of Balance is designed to reduce the fear of falling and increase activity levels among older adults. A Matter of Balance includes eight two-hour sessions for a small group led by a MSU Extension Educator and coordinated in with the Northwest Michigan Area Agency on Aging and was offered through partnerships with the Grand Traverse Bay YMCA and the Village at Bay Ridge Assisted Living. This nationally recognized program was developed at Boston University.

In addition to core programming, MSU Extension Grand Traverse County disease prevention and management staff support local and regional events, networks and community initiatives aimed at increasing community health and engagement.

Farms, Food and Health - MSU Extension co-hosted Farms, Food and Health conference held on January 29 at the Grand Traverse Resort and Spa. The sold out conference aimed to build greater connections between food, wellness and business sectors.

Northwest Michigan Food & Farming Network & Summit – MSU Extension provided leadership to the network by serving as a lead on farm to institution work and relationships within the region. MSU Extension spoke at the annual summit held in February at the Hagerty Center and facilitated conversation on next steps for network activity as it relates to farm to institution in the area.

Grand Traverse Bay YMCA Summer Youth Camp – MSU Extension provided direct and engaging education to over 200 youth campers. MSU Extension will return this summer to provide educational opportunities for youth ranging in age from 5-16.
Reducing anger, bullying and stress

MSU Extension addresses violence and bullying prevention through its focus on social and emotional health, with the overarching goal of helping young people and adults learn to foster safe, affirming and inclusive relationships and settings that are free from violence, abuse, bullying and harassment. By helping people learn safer and healthier ways to interact with others, MSU Extension benefits communities through decreased mental, emotional, social and economic costs associated with violence in communities.

After one-time presentations on social and emotional health topics, evaluation surveys documented that:

- 82 percent of participants said they knew the skills needed for healthy relationships and ways to promote healthy communication.
- 80 percent of participants said they knew how to keep relationships safe physically, emotionally and socially.

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. As a result of the program:

- 96 percent of RELAX Parent/Caregiver workshop participants learned activities to assist children with self-control.
- 65 percent of RELAX participants reported they increased efforts to talk things through until a solution is reached.

Be SAFE offers a variety of educational resources to help communities reduce and prevent bullying behaviors while promoting healthy social and emotional learning and development. The initiative focuses on helping adults consider ways to do this within all of the settings where young people live, learn, grow and develop – including out-of-school settings. Be SAFE resources include the Be SAFE: Safe, Affirming and Fair Environments curriculum, face-to-face and online workshops for adults and a series of workshops for parents and caregivers.

“As a result of your program, our adults are more open to understanding young people, and the youth seem to better recognize how much concern and care the adults have for their safety.” - Youth group leader, Be SAFE: Safe, Affirming and Fair Environments
The Northwest Michigan Horticultural Research Center was pleased to host its annual open house in late August this year. This annual event features a day of tree fruit production education through a research station wagon ride farm tour. Tree fruit researchers from MSU’s campus and the NWMHRC provided attendees with the most current updates of the 2015 season’s research projects. The 120 attendees were particularly excited to watch a video from the NWMHRC’s demonstration of a new approach for harvesting high-density tart cherries using an over-the-row blueberry harvester. At the evening dinner and banquet, Don Gregory of Cherry Bay Orchards was awarded the Distinguished Service Award.

Developing an Industry-Wide Approach for SWD Management in 2016
Spotted wing drosophila (SWD) is an invasive insect pest that poses significant challenges to cherry production in Michigan. The Northwest Michigan Horticultural Research Center host a summit on November 20th to bring researchers and industry leaders together to discuss a strategic plan to mitigate the risk of SWD in cherries. There were 75 in-person participants and 49 remote participants who joined the event through ZOOM technology. Participants were provided with the latest updates on SWD research and observations, and MSU Extension conducted a needs assessment to determine the critical foci for future research and extension programs for SWD. As a result of this needs assessment, MSU researchers submitted five grant proposals geared toward SWD in cherries research, totaling more than $173,500 in potential project funds.

2015 Tree Fruit Integrated Pest Management Updates Series
MSU Extension Educator, E. Pochubay hosted a total of 32 2-hr meetings in Antrim, Benzie, Grand Traverse, and Leelanau from May-early August. Over the course of this program, 537 participants attended the meetings to discuss the current season’s tree fruit production and receive diagnostic services. Based on a survey of 44 respondents, 60-100% respondents reported that they adopted a practice that was suggested at an IPM Update, and estimated this program’s value at a total of ~$11,177 - $558,883 for the 5,588 acres of apples and cherries that were reported.

Other educational programs with D3 leadership and participation included:

- 2016 Tree Fruit School, February 18-20, Grand Rapids, MI
- Cider: From Apple to Bottle, March 25, Thompsonville, MI
- Hart Spring Meeting, March 31, Hart, MI
Wine Grapes
The wine grape industry in Grand Traverse County has been growing at a rapid pace over the last 25 years, growing from four wineries in the early 1990’s to an amazing 24 wineries in 2016. MSU Extension has played a significant role in the support of this agricultural industry through educational meetings, employee development, diagnostic services, analysis of potential vineyard sites, trainings for new growers and variety trials at the Northwest Michigan Horticultural Research Center near Bingham.

The grower meetings in 2015 included a full day session at the annual Northwest Michigan Orchard and Vineyard Show in January, the annual Wine Grape Kick-Off meeting in April, and a series of “First Friday” grower updates held at local vineyards from May through August. Much of the meeting time during 2015 was taken up looking at severe cold injury from winter weather, harsh freeze injury from May, and devastating hail injury from an August storm. The end result was the smallest percentage of a full crop at harvest time in over ten years. Various topics relating to vine recovery from winter cold and spring frost injuries, growing practices and selecting varieties to avoid weather-related injuries and the future of the wine grape industry in the light of climate change were features at the December Great Lakes Fruit & Vegetable Expo in Grand Rapids and the Northwest Michigan Orchard and Vineyard Show in Acme in January.

A number of Grand Traverse County wineries cooperated with MSU ongoing viticultural research efforts in 2015, through producing test batches of wine from experimental varieties and providing equipment or services for maintenance of the research center vineyard.

Saskatoon Berries
Saskatoons are a relatively new crop to the Grand Traverse region, but a well-established crop in central and western provinces of Canada. Similar in appearance and culture to blueberries, they are actually more closely related to apples. They do not require acidic soils, so they could likely be grown on much of the agricultural land in Grand Traverse County. MSU Extension and campus specialists worked with growers of this emerging fruit crop in 2015 to develop pesticide recommendations, establish a pruning demonstration plot and prepare a grant proposal for a local variety trial and growing practices research plot (funded in early 2016).
**Conservation Issues**

In recent years the plight of honey bees due to colony collapse disorder has brought a great deal of attention to honey bees, our native bees (Michigan has over 500 species of bees), and other beneficial insects that rely on flowering plants for some portion of their food resources. Recent severely downward trends in the overwintering population of monarch butterflies has also generated a call for action in the area of native plant and insect conservation.

Duke Elsner coordinated and helped to facilitate an on-line webinar to inform members of the National Association of County Agricultural Agents (NACAA) on the monarch butterfly situation in June of 2015. Dr. Elsner received a national award for communications from the NACAA for the fact sheet he wrote on [growing milkweeds in Michigan](https://michigan.msu.edu) to support monarchs. He also contributed information on butterfly nectar plants and several photographs to an MSUE bulletin titled “Protecting and Enhancing Pollinators in Urban Landscapes” which was released in early 2016.

**Plant & Pest Diagnostic Clinic**

Although county residents are always welcome to call or visit the office for assistance with horticultural issues, the office held specific diagnostics on the last Wednesday of the month in May through September of 2015. Residents were welcomed to bring in samples of plants, insects, diseases and other problems; MSUE staff, county employees and volunteers provided the expertise to diagnose problems and provide management recommendations.

The Consumer Horticulture Program Instructor is part of the statewide MSU Extension Consumer Horticulture Team. This group shares expertise, resources and personnel time for generating educational materials and conducting programs locally and across the state. The Consumer Horticulture Team maintains the following resources and programs for all Michigan residents:

- The MSUE Lawn & Garden Hotline, 1-888-MSUE-4MI
- The Soil Test Self-Mailer and interpretation website, msusoiltest.com
- The Gardening in Michigan website, migarden.msu.edu
- The Smart Gardening Initiative, tip sheets available online and in hardcopy
- MSUE Consumer Horticulture webinars, workshops and conferences

The Farm Business Management team conducted 2014 Farm Bill educational workshops with the objective of informing producers on the new Farm Bill. This includes the changes in commodity programs and the farm and risk management implications that come along with these changes.
Supporting Food and Agriculture, continued

The bill introduced major changes in risk management programs for corn, wheat, soybeans, fruit, vegetables and dairy producers in Michigan. These new programs, combined with an anticipated decrease in commodity prices, created major risk management decisions that will affect the financial success of Michigan producers during 2014-2018 (the life of the 2014 Farm Bill). Because the bill required a 1-time irrevocable decision by producers, programing in this area required the combined farm management, financial analysis, and marketing subject matters of the MSU Extension Farm Business Management Educators. This irrevocable decision, combined with the complexity of these new programs and the uncertainty of the long-term commodity price outlook, created a unique urgency for programming on this topic.

The 2014 Farm Bill brought the most significant change to the Noninsured Crop Disaster Assistance Program (NAP) since the program was initiated. NAP provides financial assistance to producers of crops that are not insurable under normal crop insurance. Tart cherry is one of those crops. The NAP policies are administered by county FSA offices and are designed to protect against natural disasters that result in lower yields and/or prevent crop planting.

Area Farm Business Management educator Curtis Talley, in cooperation with the Farm Service Agency conducted a regional meeting in Traverse City to explain these new developments and demonstrate decision making software designed by the Farm Service Agency.

Michigan State University Extension conducted 10 meetings across Michigan on the Dairy Margin Protection Program (DMPP) in September 2015. Seven of the meetings were held live, and 3 were live webinar broadcast. Producers received a current milk production and marketing forecast, discussed risk management, and how the DMPP program can fit into a risk management strategy.

The Michigan State University Extension Dairy Team delivered the Optimizing Dairy Farm Profits program to 7 locations in Michigan. The program highlighted information relevant to staying profitable with today’s milk prices including: understanding financial performance indicators, improving labor productivity, and making good financial decisions in the areas of forage harvesting, stocking density, and the heifer enterprise.

Managing employees is a critical function of business management, yet one in which farm business owners may lack skills and confidence. The Effective Management of Farm Employees research project continues to deliver educational programs for Michigan’s agricultural employers. Phil Durst and Stan Moore taught a 1.5 hr. pre-conference session for the Great Lakes Regional Dairy Conference with highlights from the 2015 Employee Management conference. The project also led to a regular column for Dairy Business – East, a popular dairy magazine with wide circulation.
FOSTERING STRONG COMMUNITIES & BUSINESSES

Assistance to support beginning farmers across MI

In addition to wine grape and tree fruit education, MSU Extension provides valuable education throughout the Grand Traverse Region each year to support current and prospective producers of emerging crops like hops.

The reemergence of commercial hop production began in 2009 with a 1.5 acre yard on Old Mission peninsula. Since then hops have been planted in many counties across Michigan—though the majority of Michigan’s acreage is in the Grand Traverse Region. In addition to the 40+ acres currently grown on Old Mission Peninsula, MI-Local Hops in Williamsburg planted 200 acres in 2015. They will farm over 450 acres of hops by 2017, including a 2+ acre research and demonstration farm in partnership with Michigan State University Extension. Public/private partnerships like these have the potential to provide beneficial impacts to the industry writ large. MI LOCAL Hops recently completed a 30,000 sq. ft. harvest facility and has broken ground on a new 20,000 sq. ft. cold storage facility. By 2017, MI LOCAL will have invested tens of millions of dollars in the Grand Traverse Region.

Michigan State University Extension was fortunate to count MI LOCAL as one of its sponsors for the 2016 Great Lakes Hop and Barley Conference held at the Grand Traverse Resort. The conference attracted over 350 participants from multiple states and countries. MSU Extension has taken a leadership role across the North Central and North East regions by providing valuable research and outreach to current and prospective growers on best practices for planting, harvesting and pest management.

MSU Extension is also facilitating economic development opportunities within the community food systems realm. MSU provides leadership for the Grand Traverse Foodshed Alliance, a non-profit organization based in Traverse City, MI that developed the Grand Traverse Food Innovation Hub (GTFIH) in partnership with Cherry Capital Foods at 1610 Barlow. The GTFIH, currently managed by Taste The Local Difference, is comprised of ten suites that house multiple value added food businesses such as: The Redheads, Michigan Hop Alliance, Kale Mary, WhiskTC, Cultured Ferments, and more. A commercial teaching kitchen is in the planning stages as well. The facility is also home to the NW Michigan Food and Farming Network, hosts a monthly permaculture design course, and has served as a venue for Traverse City SCORE chapter meetings.
Fostering Strong Communities & Businesses, continued

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. The innovation counselor has special training to deliver these services to local residents. Business counseling is conducted on a one-on-one basis and may take place at the MSUE office or the client’s home or business location. The assistance provided is tailored to meet the needs of the client and may include things like developing a business plan, navigating the regulatory maze, accessing the supply chain or seeking funding options. The innovation counselor also assists clients in accessing specialized services they may need that are offered through Michigan State University like feasibility studies, nutritional labeling and packaging assistance.

One local entrepreneur assisted by the Product Center is Bill Kouchy, who has launched two businesses; Grand Traverse Culinary Oils and Grand Traverse Pasta Company. Grand Traverse Culinary Oils was launched after foray into canola oil began with planting 20 acres for fuel production a decade ago. Three years ago he opened a food grade facility and started Grand Traverse Culinary Oils producing both canola and sunflower oil. In 2015, he grew about 75 acres of canola and 100 acres of sunflower. Both the canola oil and sunflower oils are produced entirely from crops grown in northwest Michigan. The canola and sunflower oils are sold in Meijer and will soon be in Whole Foods statewide. Currently, he is planning on expanding production and launching a new refinery to do light refining that will allow him to enter into a larger bulk food market.

Bill is also producing several stone ground flours - soft white pastry, buckwheat, corn, emmer and hard red spring which is bread flour. The flours are now being used is several northwestern Michigan restaurants and bakeries. Recently, Grand Traverse Pasta Company was launched making pasta using Bill’s own stone ground flour. The pasta is currently available at the Sara Hardy Downtown Farmers Market and wider distribution will begin shortly.

Other businesses assisted included food processors, distributors, orchards, value-added agriculture operations, wineries, and two non-profit organizations. The partnership between MSUE and the MSU Product Center Food-Ag-Bio is providing support for entrepreneurs in supporting economic development across northwest Michigan.

---

“I’m very grateful for the assistance the Product Center gave me for all of my nutritional labeling for the pasta, oil and flour products. They were also very instrumental in getting us into Meijer with the sunflower and canola oil.”

~ Bill Kouchy, Grand Traverse County entrepreneur

---

2015 Product Center Impacts in Grand Traverse County

<table>
<thead>
<tr>
<th>Counseling Sessions</th>
<th>New Ventures Launched</th>
<th>Increased Annual Sales</th>
<th>Value of Investment by Local Businesses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>189</td>
<td>3</td>
<td>$520,000</td>
<td>$6,211,000</td>
</tr>
<tr>
<td>39</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

productcenter.msu.edu
Fostering Strong Communities & Businesses, continued

With the intention of promoting and building a vibrant local agriculture community, the 2015 Northern Michigan Small Farm Conference hosted more than 1,000 attendees at this multi-day event. MSU Extension was part of the annual planning committee for this committee as well as taught educational sessions. Local growers had some significant impacts from attending the conference:

- 90% intended to make positive changes in their farm with their new knowledge
- Local growers indicated a highly significant increase in knowledge of where to find local resources and make connections with others working in the local food system
- Participants indicated a highly significant increase in food production/processing knowledge

The public value of this conference is increased local production and purchasing of local products keep dollars in the regional economy which fundamentally supports rural and regional development.

Placemaking workshops, delivered as part of the MIplace Partnership Initiative, help communities create and enhance amenities resulting in a high quality of life for residents, increasing their ability to retain and attract talented workers and therefore making them more competitive in the global economy. Workshops provide training on the MIplace Placemaking curriculum, and MSU Extension facilitators assist communities in developing draft placemaking strategies to move from training to action.

Northern Michigan Counties Association, organized by MSU Extension, county commissioners from 33 counties in northern lower Michigan meet 8 times per year to share information and learn from the experiences of others.

MAC Annual Conference joint presentation by MSU Extension and Citizen’s Research Council on constitutional and statutory requirements that Michigan fund mandated local services, types of mandates, and the use of fiscal notes in Michigan and elsewhere to enhance compliance.

Extraordinary Governance and Effective Meetings workshop held in Benzie County attracted participation from Grand Traverse County.

Building Strong Sovereign Nations is a leadership building program developed by MSU Extension in cooperation with leaders of Tribal Nations in Michigan and delivered annually in conjunction with the United Tribes of Michigan fall meeting. The program is open to leaders from all Tribal Nations in Michigan and is also available to leadership and staff of individual tribes.

New County Commissioner Workshops are being planned for late November and early December 2016, following the election of commissioners. Watch for dates and locations.
Fostering Strong Communities & Businesses, continued

The Stronger Economies Together (SET) program is a national initiative collaborating with USDA and local partners in Manistee, Benzie, Grand Traverse and Kalkaska, to help identify and develop business sectors that hold the highest growth potential in an effort to help create, attract, and retain jobs.

MSU Extension educators also held the following Government & Public Policy trainings in and around Grand Traverse County this year:

- Form Based Zoning
- Zoning Board of Appeals Training
- Freedom of Information Act Training
- Land Division Review Training
- Sidewalk Design, Planning and Liability

Enhancing & protecting our Great Lakes coastal resources

Through research, education and outreach, Michigan Sea Grant is dedicated to the protection and sustainable use of the Great Lakes and coastal resources. Sea Grant staff engage partners on projects designed to foster science-based decisions that promote vibrant, livable communities that offer opportunities for economic growth while preserving our natural resources.

Michigan Sea Grant co-hosted the 8th annual Freshwater Summit which was held in conjunction with the State of Lake Michigan Conference 2015 at the Grand Traverse Resort. District Educator Mark Breederland moderated and gave a Great Lakes Update on fisheries and lake level variations. Other topics covered included evaporation and microplastics research to a crowd of over 170 people.

To help promote Michigan fish producers, Michigan Sea Grant hosted the 2nd Michigan Seafood Summit at the Hagerty Conference Center in Traverse City in April with just over 100 in attendance. This year’s Seafood Summit had two primary sessions. The morning session, was directed at those involved or wanting to become involved with producing fish in Michigan. Topics included seafood sales at farmers markets, the status of permitting for aquaculture, and Michigan seafood and the Pure Michigan campaign. The afternoon session was geared toward the general public and covered such topics as net-pen aquaculture, trout culture, the future of Michigan seafood, and Lake Michigan fishery trends. Dr. Ted Batterson, professor emeritus at Michigan State University and former director of the North Central Regional Aquaculture Center, gave the keynote address. The event culminated with a dinner featuring Michigan seafood (whitefish, rainbow trout, perch, lake trout appetizer) prepared by chefs and students from the Great Lakes Culinary Institute.

Michigan Sea Grant: miseagrant.umich.edu
Safe Kids North Shore/Injury Prevention Services is in its 16th year of providing injury prevention focused education and programming to the residents of Grand Traverse County and Northern Michigan. In addition, the coalition just entered its 11th year of programming through a continued partnership between MSU Extension and Munson Trauma Services. In 2015 a new partner, MSU CHM-Traverse City Campus, came on board as well. Unintentional injuries are the number one cause of death to children ages 1-14. Safe Kids North Shore uses research and programs developed by Safe Kids Worldwide to provide education and programs to the community in effort to decrease the occurrence of unintentional injury deaths in both children and adults.

Grand Traverse Region Injury Prevention Network, led by Safe Kids North Shore brings area agencies and their experts together to address injury prevention programming across the lifespan in a collaborative manner. Through a joint endeavor with Grand Traverse Metro Fire and their Risk Watch program, education and presentations are taken into the Traverse City Area Public schools monthly. Through our partnership with Munson Healthcare, our Injury Prevention Services oversees the Kohl’s 4 Season Safety program, providing head and sports injury prevention programming with funds made available to the hospital through Kohl’s Cares.

Some highlights of this year’s programming in Grand Traverse County includes:

- Direct contact injury prevention programming to over 8,500 adults and children
- Indirect contact was made to over 4,000 individuals through flyers and brochures distributed at events, doctor offices, urgent care, emergency room, etc.
- Approximately 1,414 safety related devices such as car seats, bike/multi-sport helmets, water bottles, personal floatation devices, reflective pedestrian zipper pulls and reflective helmet stickers were distributed throughout the community.
- Safety devices distributed totaled over $8,500, all made available through Safe Kids Worldwide or secured though grant dollars.
- 2,093 volunteer or in-kind hours were spent on direct-contact injury prevention programming.

Child Passenger Safety

- Conducted 379 individual car seat safety inspections with Certified Child Passenger Safety Technicians
Protecting People from Unintentional Injuries, continued

- 94 new car seats were distributed to families referred by Health Dept. nurses or Protective/Prevention Services at MDHSS. Total of seats valued at $5339.24 and were all acquired through grant dollars.

- 20 new Child Passenger Safety Technicians (CPST’s) were certified through the National CPST Certification Course held in Traverse City. The class was funded through the Michigan OHSP at a total cost of over $8,500.

- 15 former CPST’s were re-certified through the one day National CPST Renewal Course. This class was also funded through the Michigan OHSP.

- Child Passenger Safety updates were provided to pediatrician offices staff, Child & Family Services staff, the Northern Michigan Baby Pantry conference attendees and local MDHSS Protection/Prevention workers.

- 4 local migrant camps were visited and Child Passenger Safety information and resources were distributed.

In and Around Cars

- Over 800 elementary student participated in the multi-station program educating on proper seat belt fit and what can happen when it is worn incorrectly, reasons behind booster seat use, the dangers of being behind vehicles, hyperthermia with kids left alone in vehicles, and the dangers of trunk entrapment.

- 4 pedestrian safety events were held in October in anticipation of Halloween. Participants received reflective gear and/or the book Pedestrian Safety with Clifford the Big Red Dog provided by Safe Kids USA. The book was a joint effort in providing safety related education to children through Scholastic Books, FedEx and Safe Kids USA. Books were provided to Safe Kids Coalitions that applied for them through a grant opportunity.

Water Safety

- Safe Kids North Shore continues to be a primary partner assisting to lead the Northwest Michigan Water Safety Network: a group of community partners that collectively focus on water safety issues in the region. 39 Water Rescue Stations were installed along beaches of Grand Traverse, Leelanau and Benzie Counties. A social media page: www.facebook.com/playitsafeinthewater was created to bring awareness and pertinent information regarding water safety to followers. In late 2015 a presentation was given to the Grand Traverse Region Hospitality Association encouraging local beachfront businesses and hotels to purchase water rescue stations for their properties for the 2016 season.
Protecting People from Unintentional Injuries, continued

CHILL OUT for Winter Safety

- Over 3,400 persons participated in this winter safety program. Both Medical Students and Residents through the MSU CHM program assisted in delivering this program to area elementary students. Focus was placed on 4 key points: dress appropriately for the weather and in layers, use the proper gear and wear a helmet when doing something you like to do fast, always ask an adult for permission and bring a buddy/ have a plan if you are alone.

- Since the inception of Chill Out in 2008, winter activity pediatric injuries seen at Munson Medical Center have steadily declined, with the lowest number in 2015.

Distracted Driving and Driver Behavior

- 823 high school students and 325 adults participated this year in the Driver Behavior & Diminish Distracted Driving program, a partnership with the Grand Traverse Sheriff’s Office and the Michigan State Police. The program heightens awareness regarding driver behaviors and the outcomes of those behaviors. Following an informative presentation, students experienced first-hand the dangers of distracted driving while using a driving simulator, the effects of driving while impaired by wearing “fatal-vision” goggles then engaging in mock field sobriety tests and finally participated in a segment of “Ask Law Enforcement” where they can have myths dispelled by law enforcement partners. Adult presentations are tailored to fit the audience. They are offered for companies/agencies for employee trainings as well as for mature adults and the different issues they face with driving and aging.

Helmet Use, Wheeled Sports and Sports Injury Prevention

- Through the assistance of partnering sports medicine professionals, over 5,800 persons participated in either a sports related injury prevention activity or in a concussion prevention clinic.

Unfortunately, unintentional injuries continue to be the number one killer of children ages 1-14 and motor vehicle crashes the number one killer of persons ages 1-34. Through community partnerships, advocacy of best practices, public awareness, distribution of safety equipment and education, and training on the proper use of safety devices, we are making a difference in and around Grand Traverse County.
### Additional MSU Extension Staff Serving Grand Traverse County:

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Chastain</td>
<td>Leadership and Community Engagement</td>
<td>231-439-8972</td>
<td><a href="mailto:chastain@msu.edu">chastain@msu.edu</a></td>
</tr>
<tr>
<td>Julie Crick</td>
<td>Forestry &amp; Natural Resources</td>
<td>989-275-7179</td>
<td><a href="mailto:crickjl@msu.edu">crickjl@msu.edu</a></td>
</tr>
<tr>
<td>Christina Curell</td>
<td>Environmental/Water Quality</td>
<td>231-745-2732</td>
<td><a href="mailto:curellic@msu.edu">curellic@msu.edu</a></td>
</tr>
<tr>
<td>James DeDecker</td>
<td>Specialty Field Crops</td>
<td>989-734-2168</td>
<td><a href="mailto:dedecke5@msu.edu">dedecke5@msu.edu</a></td>
</tr>
<tr>
<td>Thomas Dudek</td>
<td>Greenhouse/Nursery</td>
<td>616-994-4542</td>
<td><a href="mailto:dudek@msu.edu">dudek@msu.edu</a></td>
</tr>
<tr>
<td>Phillip Durst</td>
<td>Beef</td>
<td>989-345-0692</td>
<td><a href="mailto:durstp@msu.edu">durstp@msu.edu</a></td>
</tr>
<tr>
<td>Barbara Duvall</td>
<td>Career Exploration/Workforce Prep</td>
<td>231-256-9888</td>
<td><a href="mailto:duvall@msu.edu">duvall@msu.edu</a></td>
</tr>
<tr>
<td>Elizabeth Ferry</td>
<td>Swine</td>
<td>269-445-4438</td>
<td><a href="mailto:franzeli@msu.edu">franzeli@msu.edu</a></td>
</tr>
<tr>
<td>Merrill Gould</td>
<td>Livestock/Bioenergy</td>
<td>616-994-4547</td>
<td><a href="mailto:gouldm@msu.edu">gouldm@msu.edu</a></td>
</tr>
<tr>
<td>Tom Guthrie</td>
<td>Pork/Equine</td>
<td>517-788-4292</td>
<td><a href="mailto:guthri19@msu.edu">guthri19@msu.edu</a></td>
</tr>
<tr>
<td>Andy Hayes</td>
<td>Community Prosperity</td>
<td>231-582-6482</td>
<td><a href="mailto:andy@northernlakes.net">andy@northernlakes.net</a></td>
</tr>
<tr>
<td>Philip Kaatz</td>
<td>Forage/Commercial Agriculture</td>
<td>810-667-0341</td>
<td><a href="mailto:kaatz@msu.edu">kaatz@msu.edu</a></td>
</tr>
<tr>
<td>Gerald Lindquist</td>
<td>Grazing Management</td>
<td>231-832-6139</td>
<td><a href="mailto:lindquis@msu.edu">lindquis@msu.edu</a></td>
</tr>
<tr>
<td>Erin Lizotte</td>
<td>Integrated Pest Management</td>
<td>231-944-6504</td>
<td><a href="mailto:taylor548@msu.edu">taylor548@msu.edu</a></td>
</tr>
<tr>
<td>Gerald May</td>
<td>Environmental/Air Quality</td>
<td>989-875-5233</td>
<td><a href="mailto:mayg@msu.edu">mayg@msu.edu</a></td>
</tr>
<tr>
<td>Michael Metzger</td>
<td>Goats &amp; Sheep</td>
<td>517-788-4292</td>
<td><a href="mailto:metzgerm@msu.edu">metzgerm@msu.edu</a></td>
</tr>
<tr>
<td>Dee Miller</td>
<td>Children &amp; Youth Institute Supervision</td>
<td>231-258-3320</td>
<td><a href="mailto:mille454@msu.edu">mille454@msu.edu</a></td>
</tr>
<tr>
<td>Stan Moore</td>
<td>Dairy/Agricultural Human Resources</td>
<td>231-533-8818</td>
<td><a href="mailto:moorest@msu.edu">moorest@msu.edu</a></td>
</tr>
<tr>
<td>Jill O'Donnell</td>
<td>Christmas Tees/Ornamental/Landscapes</td>
<td>231-779-9480</td>
<td><a href="mailto:odonne10@msu.edu">odonne10@msu.edu</a></td>
</tr>
<tr>
<td>Dennis Pennington</td>
<td>Biomass</td>
<td>269-838-8265</td>
<td><a href="mailto:pennin34@msu.edu">pennin34@msu.edu</a></td>
</tr>
<tr>
<td>Emily Pochubay</td>
<td>Fruit Production</td>
<td>231-946-1510</td>
<td><a href="mailto:pochubay@msu.edu">pochubay@msu.edu</a></td>
</tr>
<tr>
<td>Emily Proctor</td>
<td>Tribal Governance</td>
<td>231-439-8927</td>
<td><a href="mailto:proctor8@msu.edu">proctor8@msu.edu</a></td>
</tr>
<tr>
<td>Bethany Prykucki</td>
<td>Leadership and Community Engagement</td>
<td>231-258-3320</td>
<td><a href="mailto:prykucki@msu.edu">prykucki@msu.edu</a></td>
</tr>
<tr>
<td>Patricia Roth</td>
<td>Health &amp; Nutrition</td>
<td>231-882-0025</td>
<td><a href="mailto:bannonpa@msu.edu">bannonpa@msu.edu</a></td>
</tr>
<tr>
<td>Nikki Rothwell</td>
<td>Commercial Fruit</td>
<td>231-946-1510</td>
<td><a href="mailto:rothwell3@msu.edu">rothwell3@msu.edu</a></td>
</tr>
<tr>
<td>Kurt Schindler</td>
<td>Government &amp; Public Policy</td>
<td>231-882-0026</td>
<td><a href="mailto:schindl9@msu.edu">schindl9@msu.edu</a></td>
</tr>
<tr>
<td>Jeannine Schweihofer</td>
<td>Meat Quality</td>
<td>810-989-6935</td>
<td><a href="mailto:grobbelj@msu.edu">grobbelj@msu.edu</a></td>
</tr>
<tr>
<td>J Robert Sirrine</td>
<td>Community Food Systems/ Hops</td>
<td>231-256-9888</td>
<td><a href="mailto:sirrine@msu.edu">sirrine@msu.edu</a></td>
</tr>
<tr>
<td>Dean Solomon</td>
<td>Natural Resources</td>
<td>231-582-6232</td>
<td><a href="mailto:solomon@msu.edu">solomon@msu.edu</a></td>
</tr>
<tr>
<td>Michael Staton</td>
<td>Soybeans</td>
<td>269-673-0370</td>
<td><a href="mailto:staton@msu.edu">staton@msu.edu</a></td>
</tr>
<tr>
<td>Curtis Talley, Jr.</td>
<td>Farm Business Management</td>
<td>231-873-2129</td>
<td><a href="mailto:talleycu@msu.edu">talleycu@msu.edu</a></td>
</tr>
<tr>
<td>Marilyn Thelen</td>
<td>Agriculture Systems</td>
<td>989-227-6454</td>
<td><a href="mailto:thelen22@msu.edu">thelen22@msu.edu</a></td>
</tr>
<tr>
<td>Christine Venema</td>
<td>Family Financial Literacy</td>
<td>810-667-0341</td>
<td><a href="mailto:venema@msu.edu">venema@msu.edu</a></td>
</tr>
<tr>
<td>Wendy Wieland</td>
<td>Product Center Innovation Counseling</td>
<td>231-348-1770</td>
<td><a href="mailto:wieland5@msu.edu">wieland5@msu.edu</a></td>
</tr>
<tr>
<td>Mary Wilson</td>
<td>Master Gardener</td>
<td>248-347-0269</td>
<td><a href="mailto:wilsonm1@msu.edu">wilsonm1@msu.edu</a></td>
</tr>
</tbody>
</table>

---

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

---

MSU is an affirmative-action, equal-opportunity employer, committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Dr. Jeff Dwyer, Director; MSU Extension, East Lansing, MI 48824. This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by MSU Extension or bias against those not mentioned.