Message From the District Coordinator

MSU Extension (MSUE) in Emmet County continues to provide local educational programming and impacts to meet Emmet County and Michigan’s needs. Extension staff members work diligently to maintain programming and reach as many residents as possible each year. Educators and all staff have worked hard to innovate creative and effective ways of providing programming at reduced costs.

This report provides highlights of MSU Extension’s work in Emmet County during 2012 within the structure of our four programmatic Institutes:

- Agriculture and Agribusiness Institute
- Children and Youth Institute
- Greening Michigan Institute
- Health and Nutrition Institute

MSU Extension has changed in many ways since our beginnings in the early 1900’s. But we have not changed our focus of connecting education and research on campus to the people and businesses in the communities we serve. Thank you for your continued support of this critical partnership.

Sincerely,
Patrick I Cudney, District 3 Coordinator

2012 Participation Numbers

4-H Children & Youth programs ................................................................. 833
4-H Members (Traditional Club Enrollment) ........................ 506
4-H Adult Volunteers ................................................................. 55
4-H Youth Volunteers ................................................................. 32
Short Term/Special Interest Participants ................................. 240
4-H Clubs .................................................................................... 18

Agriculture & Agribusiness ................................................................. 1,338
Greening Michigan programs ...................................................... 399
Health & Nutrition programs ....................................................... 1,403
Total ............................................................................................ 3,973

Michigan State University is an affirmative action/equal opportunity employer. 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. Thomas G. Coon, 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.
Emmet County 4-H Program currently has an enrollment of 506 youth in 18 traditional 4-H clubs and 4 county committees. These clubs and committees are supported by 55 adult and 32 youth volunteers. Livestock, horse, crafts, visual arts, animal and natural sciences, community service, gardening, food preservation, Folk patterns, citizenship, junior leadership, character education, personal appearance, shooting sports, financial literacy and outdoor education are some of the project areas that the clubs offer.

» Fall Awards Night is the membership recognition component of the county 4-H program. The Halloween themed event is held each October for all 4-H families. Membership pins and certificates are presented to youth and adults, prizes are awarded for costume contests (for all ages) and a potluck dinner is shared. The highlight of the evening is the ‘Leader 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 that year.

» 4-H Achievement Day was held on April 26-27 at the Emmet County Community Center. The 2-day event is designed to give 4-H members and interview-type experience and allows them the opportunity to share what they have accomplished in 4-H. This year, over 300 members were interviewed in the areas of personal appearance, junior leadership, visual arts and crafts, market livestock (beef, sheep, swine, veal and dairy), horsemanship, animal husbandry (rabbits, poultry and pocket pets), woodworking, dog care, and more. During the evening awards program, the personal appearance members participated in a dress revue fashion show and scholarships were presented to members who received the top honors from the interview process. This year there were 12 scholarships presented and they were sponsored by community organizations and businesses. Recipients used their scholarships to attend 4-H Exploration Days at MSU.

“One of the most important results of the 4-H members’ participation in the annual Achievement Day interviews is that over 80% reported an increase in their self-confidence and their ability to speak to others about their accomplishments in 4-H.”

~ Diane Brazier, Emmet County 4-H Program Coordinator

These youth received scholarships at the Spring Achievement Days for their interview and personal presentation skills. Scholarships are used to attend 4-H Exploration Days at Michigan State University in June.

These Emmet County youth received national award pins and certificates for their participation in 4-H this past year.
» **Kettunen Center** is the Michigan 4-H leadership training facility, located in Tustin, Michigan. Throughout the year, workshops are offered for volunteers to learn project and youth development skills that they can use back in their county program. During this past program year, 24 Emmet County adult and youth volunteers attended these trainings: Teen Leadership and Community Change; Visual Arts and Crafts; Veterinary Science; Beef, Sheep & Swine projects; Plant Science and Entomology; Shooting Sports; and Companion Animals.

» **4-H Capitol Experience** is a citizenship and leadership program for Michigan high school youth, in partnership with the Little Traverse Bay Band of Odawa Indians and Emmet County. Teens from across Michigan gathered at the state Capitol March 17-20 for the annual conference, which included 12 youth from Emmet County. The four-day event gave youth the chance to become involved in civic engagement and public policy as well as provide an in-depth look at state government. Before attending the conference, participants attended a 12 week local “Crooked Tree Citizenship Academy” where they met with and members of Little Traverse Bay Band of Odawa Indians and learned about Tribal government, and then with Emmet County Commissioners and department heads. During their time in the capital city, attendees learned the responsibilities of citizens, explored different aspects of policy issues, discovered various career options available in public policy, attended a bill writing session and met people involved with state government. The goal of this conference is for youth to learn they can influence the government, even at a young age. “I’m interested in how our government works and what the legislator’s roles are. This was a great experience and it helped me to see what’s involved in all aspects of our state government,” said first year 4-H Capitol Experience participant, and Emmet County 4-H member, Elizabeth Kurburski. When participants return home to their counties, they were encouraged to become involved with local public policy issues, participate in service projects or carry out local projects.
» **Vet-A-Visit** is the annual open house at the MSU College of Veterinary Medicine. On April 6th, a group of 56 Emmet County, Charlevoix and Cheboygan 4-H members and parents attended the day-long event on the MSU Campus. They participated in workshops, tours and lectures. Topics included: Stuffed Animal Surgery, Canine Agility, Zeke the Wonder Dog, Vet School Confidential, Equine Treadmill and Dressage Demonstrations, a Painted horse, petting zoo, How to Milk a Cow, small animal exhibits, So you Want to be a Vet, as well as kid's crafts. The group traveled to the event via chartered bus, with transportation funding provided by the Baiardi Family Foundation of Harbor Springs.

» **4-H 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 2,400 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, 20 youth and 2 adults will attend from Emmet County, as part of a 56 member delegation from Emmet, Charlevoix and Otsego counties. Participants will travel by charter bus, stay in the dorms, participate in classes and workshops, attend a state-wide awards ceremony and be involved in a community service project for Habitat for Humanity.

» **The 4-H Jr. Master Gardener Program** is a 6 week after-school program for students in the third through fifth grade. Sessions include plant and insect identification, composting, soil structure, food preservation, and perennials and annuals. In addition, students can participate in field trips to local greenhouses, the MSU Children’s Garden, as well as local greenhouses, organic farms and farm markets. The program has been offered for 6 years at Lincoln School, with additional sessions at St. Francis, Central and Pellston Elementary. Students are encourage to complete 10 hours of community service work in the school garden or gardens maintained by non-profit groups, and can exhibit their flowers and vegetables at the county fair. Volunteer instructors are certified master gardeners who have participated in the adult Master Gardener course.

Participants to Vet-A-Visit hold a banner thanking the Baiardi family Foundation for their grant support.
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 1,800 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. Non-competitive events are offered for the Cloverbud members (age 5-8) and free-time events include scavenger hunts, a 4-H dance sponsored by the fairboard, and an “Ask Me” pen where youth volunteer their time to meet the public and answer questions about their 4-H projects. 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 superintendent’s, 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 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 available to all youth in the county.

“My experiences in 4-H helped shaped my career choice. I always knew I wanted to work with animals, and 4-H gave me the confidence to pursue my dreams of working with the creatures of the sea. My personal growth, interviewing skills and thirst to learn more are all part of my 4-H experience.”

~ Sarah Wooden, 4-H Alumna and current animal trainer at Sea World

“The main thing that 4-H taught me was responsibility, but it also taught me how have fun at the same time. Starting in 4-H at such a young age really boosted my confidence level and it is something that I will carry with me as I pursue this next opportunity.”

~ Emily Love, Former 4-H horse member, currently studying with the Cavalia Odesseyo horse performance production company in Tarbes, France
Climate Variability Meetings — Increasing world population is placing more pressure on farmers to increase food production locally as well as around the globe. However, recent research has shown localized changes in climatic conditions over the last three decades, and these changes are making food production less reliable than in the past. Notable changes in the climate include warmer temperatures, more frequent severe weather events, more precipitation, and an earlier onset of spring. These changes in climate have resulted in pest survival over the winter and potentially more pest generations per season, increased erosion due to extreme precipitation events, longer and more variable growing seasons, and periods of excessive wetness and drought. All of these changes pose a threat to producing a crop year in and year out. Michigan farmers are faced with the challenge of meeting the needs of our growing population while maintaining the sustainability of livestock and cropping systems.

To address some of these important issues, a Michigan State University Extension (MSUE) team hosted four meetings around the state targeting four unique segments of Michigan’s agriculture: fruit, crops and livestock, state and federal governmental agency staff, and the agri-business community. Each of the meetings were a full day event that included a brief morning overview of the most current research about climate variability and production practices that promote sustainable production of food and fuel around the United States. During the afternoon, we hosted a listening session where participants openly discussed climate-related issues, impacts on Michigan agriculture as a whole, and recent weather events on local farms. Questions were designed to establish what the needs of each of these segments are so that we can prioritize how MSUE can assist growers and producers. The MSUE team consisted of both field staff and campus specialists that work in disciplines associated with the four above named groups.

Research from communication experts highlights the importance of dialogue with stakeholder groups when addressing complex topics like sustainability and climate variability. Our interdisciplinary team decided that the optimal strategy for discussing these difficult issues and their impacts on Michigan agriculture is to ask farmers about their current and future challenges in producing sustainable and economical food and fuel. Once the team gains a better understanding of the key challenges impacting Michigan producers, we can tailor Extension programs, research, and outreach programs to meet the immediate and future demands of the agricultural community.
We hope these four sessions will begin an open and honest discussion on how to meet production objectives in Michigan with variability in climatic conditions. By determining needs and establishing research and outreach programming priorities, MSUE can assist agricultural producers in adapting production operations and minimize on-farm risk if we continue to face weather-related challenges.

Following a difficult 2012 year for most of Michigan agriculture, we hope that this season will bring a bountiful crop for all of the state’s growers. However, if model predictions are correct and we continue to see variability in our climate and weather patterns, we hope these meetings will help the Michigan industry and MSU work together to keep farming alive and well in Michigan.

» **Good Food - Safe Food: Reducing the Potential for Antibiotic Residues in Milk or Meat** — From December 2012 through February 2013, the MSU Dairy Team conducted 13 half-day meetings on reducing antibiotic residues in milk and meat. This topic was suggested by the Extension Dairy Advisory Team and supported by them as timely and important. Each Dairy Educator played important roles in promotion, organization, finances and instruction. The meetings were intended to correspond with the planned January 2013 release of an FDA report on a study of residues in milk. The agenda explored the issues of residues in both milk and meat and practical preventative aspects including valid veterinary client patient relationship (VCPR), development of protocols and communication on farm with all involved. The agenda was planned to involve a local veterinarian on the program at each site. A bound conference proceedings was produced and provided to each participant. Meetings were supported by industry. One veterinary health company had a representative at eight meetings. MSU Extension took a leadership role in putting on these meetings that would not directly impact producer profitability nor production and are not new regulations. Yet they are important to the industry because of the need for consumer confidence in the safety of food.

The total attendance at these meetings was 187. These meetings were particularly well supported by the Michigan Department of Agriculture & Rural Development (MDARD) Animal Industry Division which sent their field and administrative staff to these meetings. Michigan Milk Producers Association (MMPA) likewise sent their field staff, laboratory and key staff, and two board members to the meetings. An estimated 90 producers attended.
The Good Food - Safe Food program was offered as a pre-conference session at the Great Lakes Regional Dairy Conference. This is the first time that a pre-conference session has been offered at GLRDC. The program was offered at no registration charge, and was included in the GLRDC flier for no charge. The program was well attended by a total of 62 out of 400 GLRDC attendees.

The meetings spurred discourse on the topic by professionals working with a number of dairy producers. Ten private practice veterinarians served as speakers on the program. Four additional private practice veterinarians attended. It is estimated that these veterinarians work with approximately 250 dairy farms with more than 80,000 cows. As a result, MDARD planned and hosted a one-day conference for food animal practice veterinarians entitled “When is Drug Use Appropriate?” That meeting will be followed up with additional workshops for veterinarians with the purpose of encouraging greater adherence to VCPR intent and greater use of drug protocols for farms. MMPA has told us that their field representatives will talk with members on-farm about the issues and avoidance of potential residues. A 6-month follow-up survey will be conducted to determine actual impacts of the program.

Articles have been written by Durst and Schweihofer and published on the MSU Extension News website:

- “Antibiotic residue testing in meat results in few positive samples” Jeannine Schweihofer
- “Do you have a valid Veterinary Client Patient Relationship?” Phil Durst
- “Work with your veterinarian on drug protocols” Phil Durst

Agriculture Labor Programs were offered in five locations within Michigan in 2013. Three of the locations were in Traverse City, Shepherd and Sandusky.

MSU Extension Educators work to tailor the program to the specific needs in the various areas of the state and the various commodity groups. The TC location program was significantly different from the Shepherd and Sandusky location as it focused mostly on a fruit grower audience and their unique needs with a shrinking migrant labor force. This variance was directed by grower input, and the program was planned around an overall effort to assist producers in the NW lower peninsula area that have experienced great hardship because of last year’s fruit freeze. The TC location also had several grower speakers focusing on how they manage diverse labor pools and also
sharing technology that they use to make labor management more efficient. The final difference in the TC location is that the Ag labor management portion of the program covered the entire programming time, whereas in the Shepherd and Sandusky location this was limited to the morning with an Ag Labor Safety program being conducted in the afternoon. The Ag Labor Safety program is a partnership between MSU and Michigan Farm Bureau.

The Shepherd and Sandusky locations were specifically marketed toward dairy producers in these heavy dairy areas, although all producers were welcome to attend. Attendance at these two locations was less than expected (13 & 11 respectively), but we see this as a first effort to reach the dairy audience with this very important program.

All three locations utilized speakers from the MI Workforce Development Agency, ICE, and MSU Extension (Stan Moore common speaker). This allowed us to summarize the evaluation questions that were repeated over the three programs and perform statistical analysis on the combined responses. The common denominator of the three programs revolved around “Understanding Ag Labor issues and complying with Farm Labor Laws.”

The survey results represent 26,060 acres of agricultural production in Michigan. Results showed a statistically significant change in participants: knowledge of agricultural labor law regulations, preparedness for a labor inspection, skills necessary to work with multiple sources of labor (TC location only), understanding of what skills and tools they need to manager labor more effectively, belief that employee retention on their farm would increase in the future (TC only), and willingness to explore hiring from a different source of labor than they had in the past. On a scale of 1 – 5, with 1 being strongly disagree and 5 being strongly agree, respondents indicated that they would implement some of the concepts learned at the program with a rating of 4.42. Respondents also indicated that their knowledge of agriculture labor state resources improved (3.71 with 1 being no change and 5 being greatly improved), as well as their knowledge of agriculture labor regulations (3.69). Finally, at the TC location, respondents indicated that their skills in agriculture labor management increased (3.72).
Farm Information Resource Management (FIRM) assists farmers, agricul-
turally-related businesses, industries, families, and individuals improve
their lives and achieve their goals through an educational process that applies
management, production and economic knowledge to critical issues, needs,
and opportunities. The FIRM team was involved in the following in Emmet
County and the surrounding region in 2012:

- **Oil and gas leasing information and individual consulting** —
  Landowners received detailed information about oil and gas leasing
  and development. Care was given to enable participants to more deeply
  understand some of the critical points in the lease that may impact
  them when they are participants in an oil and gas well that is placed on
  their farmland. The updated oil and gas web page is accessible to any-
  one at [http://msue.anr.msu.edu/program/info/oil_and_gas](http://msue.anr.msu.edu/program/info/oil_and_gas).

- **2012 Fruit Freeze** — The FIRM team created the 24 month Fruit
  Cash Flow Budget Planner, an Excel program that allows a fruit pro-
  ducer to project income, expense and cash flows for business and suc-
  cession planning. This is also required by lenders as part of qualifying
  for the 2012 MI emergency loan program.

- **Income tax and cash flow planning in December** — Four com-
  mercial farms produced an average positive change of $26,937 in their
  economic situation from this program. 100% of the attendees reported
  the workshops have improved their understanding of farm accounting
  principles and methods.

- **Cropland leasing consultation** — For the district as a whole, ap-
  proximately 16 producers were counseled and given printed infor-
  mation about cropland leasing and lease rates.
Financial Literacy Programs — MSU Extension addresses financial health of individuals and families through community-based educational programs. The overarching goal of these efforts is for Michigan consumers to become aware of their personal financial profile, to adopt sound financial practices – including managing a spending and savings plan and utilizing financial products and services in a beneficial manner and identify goals and the steps necessary to reach self-sufficiency.

Evaluation results reveal that the financial education program was effective in reaching the goals of positively changing financial practices among Michigan residents. Participants of the MSU Extension financial education programs show significant changes in the frequency of writing spending plans, keeping track of spending and income, saving money regularly, reviewing credit card bills for accuracy, and paying off new credit card charges monthly. Other outcomes shown in the evaluation results include participants reporting the ability to pay down their debt, obtain a housing payment that fits within their budget, and making choices today that will make retirement a reality.

Housing Education Programs train Michigan residents to be better consumers and help to secure and retain home ownership in the state. Sustainable housing is important to individuals and families. Homeownership education and counseling gets buyers into lower-cost mortgages, increase credit scores, reduce defaults, improve borrowers’ financial standing, and increase the likelihood of troubled borrowers seeking foreclosure prevention assistance.

Based on evaluation results, housing education was effective in reaching the goal of helping Michigan residents secure and retain homeownership as well as avoid foreclosure or to proceed with foreclosure as informed consumers. Michigan residents that completed MSUE housing education programs reported, as a result of the program, saving money to prepare for homeownership, an improved credit score, setting aside funds for home maintenance, and shopping around periodically for the best home insurance coverage. Other program outcomes show residents were able to identify the best mortgage type for their situation and gained new skills to calculate reasonable monthly housing costs based on household budgets. Housing education participants also reported greater confidence to make informed decisions including reviewing fees and rights related to homeownership and foreclosure processes. During 2012, MSU Extension served 4,212 people in Michigan through 416 financial literacy and housing education series and workshops.
Government & Public Policy and Community Engagement & Leadership Development — MSUE educators were asked by the Little Traverse Bay Bands of Odawa Indians (LTBB) to provide “good governance” training as it relates to participatory government, transparency, responsiveness and inclusion of Tribal Citizens in decision making processes. The Educators worked collaboratively with the LTBB Government to offer two separate full day trainings over the past six months, which included LTBB Government leadership and employees. In addition, a community activity was developed and delivered during the LTBB Community Meeting. This meeting is held on an annual basis for tribal members to learn more about their community and to connect with their leadership. LTBB’s vision for these trainings is to strengthen the understanding of Tribal Officials regarding the need and impact of full participation by the Tribal Citizens within the government process.

Placemaking & the New Economy — In the new or global economy, the rules and strategies for economic development have changed. Communities that will be successful and have prosperity are those that understand and adapt to those changes. Because Michigan has historically done well with the automobile economy and associated manufacturing, the incentive to make this shift has not existed. As a result, Michigan is behind the curve in adjusting to the new global economy.

In the global economy attracting talented workers is an important economic development strategy. Research on housing markets and demographics has demonstrated the demand for quality of life and places is what attracts talented workers. Talented workers are what bring employers to a community, or those talented individuals become employers. Those talented individuals are very mobile, and can choose to live anywhere, and they do. Only those communities that measure up to what they want will be successful in the new economy. Placemaking is a series of action steps and strategies to help make a region and its communities places where talented individuals wish to locate, which in turn brings prosperity to a region and community.

The process of Placemaking involves many organizations (public, private, and not-for-profit) in a community and region. But the two main actors are the economic development office and the planning commission/department. The Placemaking signature program is targeting training to help local officials understand this dynamic and to put into place actions (master plan, zoning,
Greening Michigan Educational Programs

economic strategies) to start this process in regions and communities. This Placemaking signature program is still being rolled out. A number of pilot sessions were done in 2012. A large multi-organization effort on Placemaking will take place later in 2013-15.

» **Michigan Northern Counties Association** — Bringing county commissioners together from 33 counties in northern lower Michigan to learn about issues important to county government, and to share information and learn from the experiences of others has long been the goal of the Michigan Northern Counties Association (MNCA). Recent topics include: ORVs and tourism, mining issues, roads, equalization, health care, statewide ballot issues and the impacts of these issues on county government services. Monthly meetings also include a legislative update from the Michigan Association of Counties.

» **New County Commissioner Workshops** — Since 1968, MSU Extension, in partnership with the Michigan Association of Counties, has conducted the New County Commissioner Workshops following the biennial election of commissioners. The program offers information and learning opportunities on county structure and process, budgeting and finance, county administration, courts, and more.

» **Product Center Food-Ag-Bio** is a unit of the Department of Agricultural, Food, and Resource Economics. With the goal of accelerating innovation and growth for Michigan business, industry and entrepreneurs in food, agriculture and bio-manufacturing, the Product Center stimulates and develops business innovation and economic growth through business counseling, in-depth market analysis and technical assistance for new entrepreneurs and existing businesses. The use of best practices, knowledge and experience along with collaboration from internal MSU and external partners supports clients in the creation of successful ventures. In 2012, the Product Center provided 70 one-on-one counseling sessions to businesses in Emmet County, helping to increase annual sales by $78,000.
Greening Michigan Educational Programs

» **Community Food Systems** — With an emphasis on developing farm and food businesses, entrepreneurs and supportive organizations and systems, 2012-2013 proved to be a busy year of new projects and collaborations in this programming area. These included:

- MSUE support of the Local Food Alliance of Northern Michigan. Working in conjunction with the Petoskey-Harbor Springs Area Community Foundation, NCMC’s Community and Corporate Education Department, and the Institute of Sustainable Living, Art and Natural Design’s (ISLAND) Small Farm Guild, the Local Food Alliance is a new, community based organization that works to educate growers, consumers and the community at-large about the economic, health and community benefits of building a more locally-focused food system. The group conducted a Local Foods Week in Petoskey in October of 2012, which included a photo contest, nationally known speakers and films focused on local food issues. The group meets monthly at NCMC and attracts over 2 dozen of it’s core members from a number of Emmet County communities.

- Collaborative partner with Michigan Land Use Institute and sponsor of educational programming including the North Central Michigan College Food and Farming Educational Series; Cottage Food Workshops; Understanding your Local Food System workshops, and the Business Plan in 6 Weeks series (with the Michigan Small Business and Technology Development Center). MSUE staff taught 32 Emmet county residents that attended these programs during the past twelve months.

- Major sponsorship of the Northern Michigan Small Farm Conference. In it’s 14th year, this is Michigan’s premier conference for smaller and sustainable growers. Scholarships from the Petoskey-Harbor Springs Area Community Foundation provided assistance for some of the 78 Emmet County residents that attended the January conference, which was attended by well over 700 small farmers and supporters from around the state.
Coastal Aquatic Habitat / Healthy Coastal Ecosystems —
Mark Breederland continued to educate, coordinate and respond where appropriate to waterfowl botulism kills in Northwest Lower Michigan. Based on a relative scale of high-medium-low, avian botulism kills in Fall 2012 were in the medium category with some localized areas of medium-high incidences. Michigan Sea Grant released a call for research proposals for an integrated assessment on avian botulism in April 2013 and will consider future research funding in this topic. Primary counties impacted include Benzie, Leelanau, Antrim, Charlevoix, Emmet, Mackinac, Schoolcraft and Delta.

Due to record low lake levels in Lake Michigan, MI Sea Grant has conducted several lake levels fluctuation educational programs. Many sectors are impacted with lake level conditions and regulatory issues with the state of Michigan and United States Army Corps of Engineers often surface. MI Sea Grant continues to track levels and has been heavily involved in working with the state of Michigan to help meet the needs of coastal communities.
The Health and Nutrition Institute provides education for families around several areas: Disease Prevention & Management, Social Emotional Health & Well Being, Improving Nutrition & Physical Activity, and Food Safety.

» **Chronic Disease Self-Management (PATH)** — Participants of PATH (Personal Action Toward Health) programs report improved symptom management including decreased worry, decreased fearfulness about future health, and fewer frustrations about health problems. At the end of the series, PATH participants show decreased symptoms of fatigue, decreased shortness of breath, and decreased self-reported pain. Other program benefits show increased physical activity and improved communication with physicians including preparing a list of questions to ask during a healthcare visit. Participants report higher self-efficacy after attending the program and show improved self-rated health scores. During 2012, there were 27 PATH series held statewide reaching 305 people in 27 counties.

» **ABC’s of Bullying Prevention: Addressing Bullying in Community Settings** — This half-day workshop is designed for adults who live with, care about and work with young people, including parents, caregivers and those who work in schools, youth and family agencies, youth organizations (such as 4-H, Scouts, and Boys and Girls Clubs), juvenile justice, faith-based communities, recreation departments and other community groups. During the workshop, participants explore how bullying is affecting their communities; examine bullying, bias and harassment through the lens of differences; and explore key strategies for addressing these complex issues at the personal, interpersonal, institutional and cultural levels. They also learn about programs and resources that can be used in community settings, including other components of the Be SAFE initiative. Eight community workshops with 315 participants were offered during 2012.

» **The Supplemental Nutrition Assistance Program - Education (SNAP-Ed)** provides nutrition education to Bridge card eligible adults and children in group settings either as series or one time presentations. This program aims to create behavior change around dietary quality and increasing physical activity while stretching food dollars. Our program is accountable to the United States Department of Agriculture and the Michigan Department of Human Services with the ultimate goal of promoting healthy weight management and obesity prevention.
Health & Nutrition Educational Programs

In 2012, 346 adults and 143 youth in Emmet County received nutrition education in a variety of venues through partnership with the Health Department of Northwest Michigan, Alanson Public Schools, Commission on Aging, MiWorks!, Northwest Community Action Agency (Headstart), Salvation Army and the Little Travers Bay Band of Odawa Indians. There were a total of 1304 direct educational contacts with SNAP-Ed recipients in Emmet County.

Adult Programs:
- Series—comprised of 6 to 8 contacts and 10 lessons
  - Eating Right is Basic
  - Cooking Matters: a national program in partnership with Gleaner's Food Bank and WalMart. A volunteer chef works with participants to prepare a meal and participants go home with groceries to prepare the meal on their own.
- Presentations—one time lessons

Adult Program Impacts:
- 90% of adults who participated in the nutrition education classes improved the dietary quality of their daily food consumption.
- 54% of adults followed safe food handling practices.
- 79% of adults reported an improvement in their food resource practices.
- 90% of adults learned new ways to incorporate more fruits and vegetables into their meals and snacks.
- 92% of adults reported they will eat more fresh fruits & vegetables daily.

Youth Programs:
- Series—comprised of 6 to 8 contacts and 10 lessons
  - Show Me Nutrition: grade level specific, theme/literature
  - Cooking Matters for Teens
- Presentations—one time lessons

Youth participants in MSUE Nutrition Education classes were more likely to:
- Read the nutrition information on food labels.
- Chose a healthy snack when they have the choice.
- Increase in choosing foods from all five food groups.
- Consume fruits or vegetables.

MSUE provided nutrition education to recipients of Women, Infant and Children (WIC) benefits through the Health Department and low income seniors to improve the quality of their diet by purchasing locally grown fresh fruit and vegetables from Emmet County farmer's markets though Project FRESH. These coupons were redeemed at the farm market for over $8000 in funds for produce grown by local farmers.
The Breastfeeding Initiative (BFI) impacted and served 110 participants in Charlevoix & Emmet counties in 2012. In both counties, the initiation rate of breastfeeding in participants was 100%. Of the 59 Emmet County participants, 55% continued breastfeeding through the first year of life, dramatically impacting the long term health (as studied) of both mother and baby.

Emmet and Charlevoix counties are now being served fully and will continue to be through September 2014 under a special research grant funded by the Kellogg Foundation. Outreach is expected to escalate and has, and services are now being expanded to offer regular classes to the WIC population allowing for more impact in our community.

Food Preservation — Michigan State University Extension educates community food handlers on skills and techniques for proper food preservation in an effort to decrease foodborne illnesses. Food-borne illness outbreaks occur on an ongoing basis crossing all lines – from production, consumption and preservation of foods. Residents in Michigan communities have the opportunity to receive high quality education on safe temperatures for storing food, cooling hot foods, storing temperatures, freezing and dehydrating food, as well as canning using the United State Department of Agriculture guidelines for safe food preservation. Food Preservation Education offered by MSU Extension is a workshop intended to teach safe food processing and canning techniques to homeowners.

Food preservation education contributes to safer food sources, especially those produced locally by Michigan residents. As a result of food preservation workshops, 89% increased knowledge of how to use proper processing techniques to safely can low- and high-acid foods, 87% learned the correct processing times to can foods safely, and 76% gained knowledge of how to use proper techniques for freezing foods. Participants also reported learning where to locate research based/tested recipes for home food preservation, how to follow research based/tested recipes when canning food at home, and how to select high quality foods for preservation.

During 2012, there were 46 Food Preservation events held statewide reaching 681 people. Eleven participants were from Emmet County.
<table>
<thead>
<tr>
<th>Name</th>
<th>Department/Project</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Amrhein</td>
<td>Public Policy Education</td>
<td><a href="mailto:amrhein@msu.edu">amrhein@msu.edu</a></td>
</tr>
<tr>
<td>Denise Aungst</td>
<td>Nutrition</td>
<td><a href="mailto:aungstd@msu.edu">aungstd@msu.edu</a></td>
</tr>
<tr>
<td>Jennifer Berkey</td>
<td>Food Safety</td>
<td><a href="mailto:berkeyj@msu.edu">berkeyj@msu.edu</a></td>
</tr>
<tr>
<td>Mark Breederland</td>
<td>Coastal Communities Development</td>
<td><a href="mailto:breederl@msu.edu">breederl@msu.edu</a></td>
</tr>
<tr>
<td>Elaine Bush</td>
<td>Firewise</td>
<td><a href="mailto:bushe@msu.edu">bushe@msu.edu</a></td>
</tr>
<tr>
<td>John Chastain</td>
<td>Community Engagement &amp; Leadership Development</td>
<td><a href="mailto:chastain@msu.edu">chastain@msu.edu</a></td>
</tr>
<tr>
<td>Christina Curell</td>
<td>Environmental/Water Quality</td>
<td><a href="mailto:curellc@msu.edu">curellc@msu.edu</a></td>
</tr>
<tr>
<td>Joanne Davidhizar</td>
<td>Product Development</td>
<td><a href="mailto:davidhiz@msu.edu">davidhiz@msu.edu</a></td>
</tr>
<tr>
<td>James DeDecker</td>
<td>Specialty Field Crops</td>
<td><a href="mailto:dedecke5@msu.edu">dedecke5@msu.edu</a></td>
</tr>
<tr>
<td>Thomas Dudek</td>
<td>Greenhouse/Nursery</td>
<td><a href="mailto:dudek@msu.edu">dudek@msu.edu</a></td>
</tr>
<tr>
<td>Phillip Durst</td>
<td>Ruminant</td>
<td><a href="mailto:durstp@msu.edu">durstp@msu.edu</a></td>
</tr>
<tr>
<td>Barb Duvall</td>
<td>Career Exploration/Workforce Prep</td>
<td><a href="mailto:duvall@msu.edu">duvall@msu.edu</a></td>
</tr>
<tr>
<td>Erwin Elsner</td>
<td>Small Fruit</td>
<td><a href="mailto:elsner@msu.edu">elsner@msu.edu</a></td>
</tr>
<tr>
<td>Elizabeth Ferry</td>
<td>Swine</td>
<td><a href="mailto:franzeli@msu.edu">franzeli@msu.edu</a></td>
</tr>
<tr>
<td>Merrill Gould</td>
<td>Livestock/Bioenergy</td>
<td><a href="mailto:goulddm@msu.edu">goulddm@msu.edu</a></td>
</tr>
<tr>
<td>Tom Guthrie</td>
<td>Pork/Equine</td>
<td><a href="mailto:guthri19@msu.edu">guthri19@msu.edu</a></td>
</tr>
<tr>
<td>Andy Hayes</td>
<td>Community Prosperity</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><a href="mailto:kaatz@msu.edu">kaatz@msu.edu</a></td>
</tr>
<tr>
<td>Russell Kidd</td>
<td>Natural Resources</td>
<td><a href="mailto:kidd@msu.edu">kidd@msu.edu</a></td>
</tr>
<tr>
<td>Gerald Lindquist</td>
<td>Grazing Management</td>
<td><a href="mailto:lindquis@msu.edu">lindquis@msu.edu</a></td>
</tr>
<tr>
<td>Gerald May</td>
<td>Environmental/Air quality</td>
<td><a href="mailto:mayg@msu.edu">mayg@msu.edu</a></td>
</tr>
<tr>
<td>Michael Metzger</td>
<td>Small ruminant</td>
<td><a href="mailto:metzgerm@msu.edu">metzgerm@msu.edu</a></td>
</tr>
<tr>
<td>Dee Miller</td>
<td>Leadership/Civic Engagement</td>
<td><a href="mailto:mille454@msu.edu">mille454@msu.edu</a></td>
</tr>
<tr>
<td>Stanley Moore</td>
<td>Dairy/Food &amp; Animal Systems</td>
<td><a href="mailto:moorest@msu.edu">moorest@msu.edu</a></td>
</tr>
<tr>
<td>Jill O'Donnell</td>
<td>Christmas trees/Ornamental/Landscape/Turf</td>
<td><a href="mailto:odonne10@msu.edu">odonne10@msu.edu</a></td>
</tr>
<tr>
<td>Janet Olsen</td>
<td>Social-Emotional Health</td>
<td><a href="mailto:olsenj@msu.edu">olsenj@msu.edu</a></td>
</tr>
<tr>
<td>Dennis Pennington</td>
<td>Biomass</td>
<td><a href="mailto:pennin34@msu.edu">pennin34@msu.edu</a></td>
</tr>
<tr>
<td>Emily Proctor</td>
<td>Chronic Disease/Tribal Extension Education</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><a href="mailto:prykucki@msu.edu">prykucki@msu.edu</a></td>
</tr>
<tr>
<td>Nikki Rothwell</td>
<td>Commercial Fruit</td>
<td><a href="mailto:rothwel3@msu.edu">rothwel3@msu.edu</a></td>
</tr>
<tr>
<td>Kurt Schindler</td>
<td>Government &amp; Public Policy</td>
<td><a href="mailto:schindl9@msu.edu">schindl9@msu.edu</a></td>
</tr>
<tr>
<td>Jeannine Schweihofe</td>
<td>Meat quality</td>
<td><a href="mailto:grobbelj@msu.edu">grobbelj@msu.edu</a></td>
</tr>
<tr>
<td>Dean Solomon</td>
<td>Natural Resources</td>
<td><a href="mailto:solomon@msu.edu">solomon@msu.edu</a></td>
</tr>
<tr>
<td>Michael Staton</td>
<td>Soybean</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><a href="mailto:talleycu@msu.edu">talleycu@msu.edu</a></td>
</tr>
<tr>
<td>Marilyn Thelen</td>
<td>Agriculture systems</td>
<td><a href="mailto:thelen22@msu.edu">thelen22@msu.edu</a></td>
</tr>
<tr>
<td>Nancy Thelen</td>
<td>Agriculture literacy</td>
<td><a href="mailto:thenn@msu.edu">thenn@msu.edu</a></td>
</tr>
<tr>
<td>Christine Venema</td>
<td>Family Financial Literacy</td>
<td><a href="mailto:venema@msu.edu">venema@msu.edu</a></td>
</tr>
<tr>
<td>Mary Wilson</td>
<td>Master Gardener</td>
<td><a href="mailto:wilsonm1@msu.edu">wilsonm1@msu.edu</a></td>
</tr>
</tbody>
</table>