Message From the District Coordinator

MSU Extension (MSUE) in Houghton County continues to provide local educational programming and impacts to meet Houghton 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 Houghton County during 2012 within the structure of our four programmatic institutes:

» Agriculture and Agribusiness Institute (AABI)
» Children and Youth Institute (CYI)
» Greening Michigan Institute (GMI)
» Health and Nutrition Institute (HNI)

MSU Extension has changed in many ways since our beginnings in the early 1900s. However, 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,
Doug Brahee, Interim District 1 Coordinator

MSU Extension maintains a vibrant and relevant web presence with hundreds of new informative entries every month. All MSU Extension educators throughout the state contribute to this effective and efficient way of providing on-time educational information to everyone with web access. Find the website at http://msue.anr.msu.edu/. We integrate new technologies into all of our educational programming, workshops and communication streams on a regular basis, from our Facebook presence to our Twitter utilization for producer crop alerts. The website records more than 70,000 hits every month as Michigan residents rely more and more on web-based learning opportunities.

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.
The Houghton County 4-H Program currently has 203 youth enrolled in 12 4-H clubs. These clubs and committees are supported by 85 adult and 77 youth volunteers. Animal and plant sciences, civic engagement, community/volunteer service, leadership, personal development, communications and expressive arts, and food and nutrition are some of the foundational educational disciplines offered. These can take the form of various projects including market livestock, dairy, forestry, field crops, gardening, crafts, food preservation, citizenship, junior leadership, shooting sports and outdoor education along with numerous others.

Ongoing 4-H educational programs will continue to build on the solid base of volunteers and the broad array of youth educational opportunities in Houghton County. Exploration Days, 4-H Capital Experience, National 4-H Congress, and
the 4-H International Exchange Programs are state and national events that continue to be available to youth in Houghton County. Youth leaders and teens have a plethora of learning opportunities offered at Kettunen Center and Houghton County adult leaders and youth take advantage of those on an annual basis. Throughout the year, the center offers workshops for volunteers to learn projects and find out about related youth development skills that they can use in their county program. During the 2013 program year Houghton county had representation at a couple of trainings held at Kettunen Center.

Locally based youth educational events include 4-H teen leader and club officer training, the regional 4-H Leadermete Conference, 4-H camping opportunities, and the Houghton County Fair. These activities provide youth the opportunity to both develop and practice life skills, which will enable them to be academically successful and move on to promising careers. Hundreds of Houghton County youth have the opportunity to experience educational activities and programs each year.

Achievement Day is the membership recognition component of the county 4-H program. Fifty friends and family members attended Achievement Day and witnessed their 4-H’ers as they received awards and certificates. Two Houghton County 4-Hers competed at the state level for awards. A county-wide Leader banquet is held each fall with 50 or more volunteers and family attending as both leaders and the “Friends of 4-H” received recognition.

4-H Exploration Days at MSU provides youth aged 11 to 19 with the opportunity to experience life on a college campus. The 4-day event held in June each year gives more than 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. In 2013, 16 youth attended from Houghton County. Participants traveled by charter bus, stayed in the dorms, participated in classes and workshops, attended a statewide awards ceremony and were involved in a community service project.

The Houghton County Fair, held in late August, is an opportunity for 4-H clubs and individual members to display 4-H projects as well as their clubs’ community service activities at the facilities in Hancock. Members involved in

These Houghton County youth participated in the 2013 Camp Nesbitt program
animal projects are kept busy participating in horse shows, livestock shows and small animal shows. Other 4-H members are kept busy in the general exhibit area with exhibits in horticulture, grains, crafts, baking and food preservation, among others. More than 175 4-H youth participated during the 2013 4-day fair. There were non-competitive events planned for young members in the 4-H display area. Youth and adult volunteers serve in many supporting capacities at fair time, including show ring personnel, department superintendents, show day clerks, and announcers. The fair is 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.

**Building the capacity of volunteers** and of communities to effectively and successfully work with youth is of top priority. MSU Extension partners with other youth-serving agencies to provide programming and professional development experiences using a research-based curriculum. We make equipping adults to work with youth in engaging, age-appropriate, quality and positive youth development activities a priority. Houghton county has added new leaders in the past year that assist with youth programming in a number of capacities. We provide new professionals with current, relevant and up-to-date researched information on program delivery and youth-learning capacities. The program continues to be a strong and stable educational program, meeting the needs of county youth.

2013 Camp at Molinare.
Programming in the Agriculture and Agribusiness Institute (AABI) focuses on enhancing agriculture production throughout the state as an important component of the state economy and bio economy while protecting natural resources. Programs target all production scales including commercial and consumer agriculture.

**Increasing economic activity by increasing and expanding agricultural operations** is a key focus for the Upper Peninsula AABI staff. Additionally, AABI and GMI (Greening Michigan Institute) staff members have been working together to help facilitate this economic growth through efforts to assist existing farmers in expanding operations and to empower beginning farmers to increase farm start-ups. MSU Extension encourages farmers to increase revenues through efforts to improve production methods with sound environmental stewardship, produce profits through financial management and develop more marketing opportunities with local customers and external markets. More than 70 Houghton County producers participated in workshops and educational sessions in 2012-13. 14 of those were in the Beginning Farmer series below, 30 were in general plant and animal based agriculture sessions, and 9 participated in a dairy goat training session.

**Annie’s Project** is an educational program designed to empower farm women to manage information systems used in critical decision-making processes and to build on local networks throughout the state. The project strives to include farm women who have a passion for business and their farming enterprises. The original Annie’s Project was offered in Houghton County in 2010. In 2013 another class of Annie’s Project was held with 17 in attendance, with 12 of those being Houghton County residents.

Implemented in the Upper Peninsula by the AABI staff, the **Beginning Farmer series** consists of five consecutive webinars. Participants joined the webinar by computer from the comfort of their own homes or attended one of the three to five local sites where they viewed the webinars in a group setting. The sites varied depending on the date of the delivery. Sessions covered grazing, grass-finished beef, field crops and hay, field-grown vegetables and the utilization of hoop houses. As one of the group sites for the hoop house session, Houghton County had 6 participants among the different sessions with the most in the ‘getting started with field grown vegetables’ session. Other sessions with participants from Houghton County included ‘getting started with hoop houses’ and ‘grass-finished beef’.
The Ag for Tomorrow conference takes place annually in Escanaba in early March. In 2012, 9 Houghton County producers attended and in 2013, 10 Houghton County residents attended. The conference offers a new set of 20 to 24 workshops to choose from each year, ranging from commercial dairy production to field crop production and from agri-tourism to entrepreneurship in sustainable farming operations. A keynote speaker presents as well.

A survey of people who had attended two or more of the conferences revealed the following:

» 55 percent indicated that they had connected with new stakeholders in the food supply chain.
» 63 percent indicated increased economic activity and 46 percent made new investments in their agricultural businesses.
» 68 percent indicated they have increased income.
» 55 percent applied new methods to decrease production costs on their farms.
» A full 75 percent indicated that they had implemented a new best management practice.

Managing agriculture business focuses on making labor both productive and efficient. The MSU Product Center Food-Ag-Bio provides services such as one-on-one counseling as well as exploring business concepts, working with venture start-ups, including some specialized services such as product testing, market analysis and feasibility studies. An offshoot of this effort is the capacity building of the cottage food industry within Michigan. Developing entrepreneurs and businesses – whether new ventures or business expansion – remains high on the goal list. As stated elsewhere in this report, Houghton County has had residents participate in both the cottage food law as well as food safety.
As many new producers begin to immerse themselves in the direct market/ farmers market venues that have sprung up all over the state, more and more people are using the MSU Horticulture Hotline as a source of information for home horticulture and small producer questions. Seventeen Houghton County residents turned to the hotline. The MSU website (http://msue.anr.msu.edu) also provides the opportunity to click to the MIgarden site (http://migarden.msu.edu/), which provides hundreds of documents to meet the needs of the home gardener in an easy-to-use format.

Protecting natural resources is also fully integrated into production education. Issues on the horizon are increasing the efficiency of water availability, condition, and usage, as well as concerns about nitrogen and the environment. The social responsibility of producers, processors and marketers, as well as consumers are all emerging as issues for the future. Focusing on optimizing nutrient use with plant needs is essential with the goal of addressing soil health and protecting the environment. MSU Extension is addressing reducing sedimentation and runoff with the implementation of cover crop rotations. Twenty eight Houghton County residents have utilized the MSU soil lab on numerous occasions to determine correct fertilization application rates, which may contribute to less excess nutrients being washed into our fresh water streams. MSU Extension supplies a primer on how to get your soil tested located at http://msusoiltest.com/. It also provides a description of how to understand your results.

Increasing world population places 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 make 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, an MSU Extension 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 agribusiness community. Each of the meetings, a full-day event, 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 the needs of each of these segments to prioritize how MSU Extension can assist growers and producers. The MSU Extension team consisted of both field staff and campus specialists who 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 such as sustainability and climate variability. The MSU Extension 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, MSU Extension can assist agricultural producers in adapting production operations and minimize on-farm risk if weather-related challenges continue.

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 greater 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.
The AABI is interested in educating consumers regarding farm production and all aspects of community food systems. MSU Extension provides numerous opportunities through the Breakfast on the Farm educational event and production, marketing and packaging expertise for producer-to-consumer products. Building producer capacity in supplying local community food systems has sparked the interest of many small producers in a number of locations in the state. In 2012, MSU Extension brought Breakfast on the Farm to the eastern Upper Peninsula, and in 2013, Extension staff provided support to the Farm Bureau-led Breakfast on the Farm event in Menominee County.
Greening Michigan Educational Programs

The GMI has resources and expertise in a number of areas available throughout the state. Sustainable natural resource management and a stable and safe food system are two of the principles upon which GMI is based. Economic vitality for the state of Michigan, fiscally sustainable households, and communities and local governments that are well prepared and ready to face the current and upcoming challenges are an important part of their mission.

MSU Extension addresses the financial health of individuals and families through community-based educational Financial Literacy Programs. The overarching goal of these efforts is for Michigan consumers to become aware of their personal financial profile and to adopt sound financial practices. These practices include managing a spending and savings plan, utilizing financial products and services in a beneficial manner, and identifying the goals and the steps necessary to reach self-sufficiency. As recently as September 2013 a ‘train the trainer’ workshop for staff from organizations which provide food, emergency shelter, and money for utility bills, to limited resources families was held. They developed skills in utilizing the Dollar Works 2 program (money management) with an emphasis on meeting people where they are at and how to teach adults about budgeting, debt reduction, etc.

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 debts, obtain a housing payment that fits within their budgets, 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 and helps to improve credit scores, reduce defaults, improve borrowers’ financial standings, 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 MSU Extension housing education programs reported, as a result of the program, saving money to prepare for homeownership, improving credit scores, 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 situations and gained new skills to calculate reasonable monthly housing costs based on household budgets. During 2012, MSU Extension served 4,212 people in Michigan through 416 financial literacy and housing education series and workshops. With the recent legislative special appropriation targeted to financial literacy, the 1st District has recently had one of our educators move into the housing education role for the district.

Natural resources literacy, enterprise development and property protection are topics addressed through signature programs in natural resource leadership development, volunteerism, addressing ecosystem threats, sustaining forestry best practices, natural resource business development, and Firewise training and planning for individuals and communities. MSU Extension strives to explore new opportunities as they emerge in natural resource-based enterprises. More than 60 Houghton County residents participated in educational programming, individual consultations, and information access, learning skills in protecting, preserving and utilizing forest resources in 2012. Ninety two were exposed to the Firewise program through natural resource displays, training courses, and educational presentations. These opportunities provided opportunities for participants/contacts to become more aware of the forest resources around them. They also learned how to protect property and belongings from the threat of wild fires.

The Michigan Sea Grant College Program (MI Sea Grant) is a collaboration between MSU and the University of Michigan, with support from the National Oceanic and Atmospheric Administration. MI Sea Grant delivers programs that help foster economic growth and the protection of Michigan’s coastal and Great Lakes resources. MI Sea Grant collaboratively works with communities to provide programming in maintaining and developing productive and efficient use of natural resources around and in our Great Lakes. Programming may include water safety, fish marketing, aquatic plants, invasive plant identification and control as well as a wide range of related issues. Currently MI Sea Grant is working on two specific projects in the Houghton County area. There is an integrated assessment study underway on Torch Lake and they are working closely with a resident on the feasibility of a fish oil production facility utilizing the Siscowet lake trout out of Lake Superior. Due to record low lake levels on both lakes Michigan and Superior, 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 the 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. MI Sea Grant staff in the Upper Peninsula field numerous questions on aquatic plant control, aquaculture and invasive species from residents throughout the region and the state.

**Building and sustaining community food systems** featuring public education on understanding local food systems, efforts to make healthy local foods more accessible, development of local food councils, and the Federally Recognized Tribes Extension Program which focuses on local food systems and reaches 3 tribal communities in the Upper Peninsula. MSU Extension educators assist in the development and support of the Central/Western UP Food Hub, as a part of the UP Food Exchange, supporting development and activities of regional food councils. The context of the exchange is based on production, distribution, and access. The Upper Peninsula is fortunate to have both an educator with a focus on sustainable community food systems, as well as the Upper Peninsula Research and Extension Center located in Chatham which has as part of its mission to both support and create sustainable food systems within the Upper Peninsula of Michigan.

**Food, and Resource Economics.** The MSU **Product Center Food-Ag-Bio** helps Michigan residents in developing products and businesses in the areas of food, agriculture, natural resources and the bio economy. 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 local MSUE educator has special training as an innovation counselor to deliver these services. 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. Sustaining community prosperity through growing new entrepreneurs, business development, finance and homeowner education, support of tourism through targeted training, and leadership development/civic engagement for the general populations. 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. The educator also assists clients in accessing specialized services they may need that are offered through Michigan State University, like feasibility studies, market research, food safety review, nutritional labeling and packaging assistance. The Product Center educator in the District has provided a number of programs including the cottage food law workshop, how to start a business and entrepreneurship education. Each of those programs has been offered multiple times either in Houghton county or neighboring counties. He has a number of clients in Houghton county and has had 19 individual consultations with entrepreneurs in the county. He has assisted two clients organize and start their businesses.

**Building capacity in governance/public policy and community leadership** is a core program in the Greening Michigan Institute. Staff deliver a variety of educational programs (including new county commissioner training, Citizen Planner, governance training/technical assistance, Building Strong Sovereign Nations, form based code planning, fiscal solvency, and place making among many others) to provide opportunities for capacity building in community decision making for all levels of local government. Since 1968, MSU Extension, in partnership with the Michigan Association of Counties offers introductory programming for newly elected county commissioners. The program offers information and learning opportunities on county structure and process, budgeting and finance, county administration, courts, and more. The Citizen Planner program will be available to the Central UP counties on an annual basis. New Commissioner training is held every other year to coincide with the commissioner election cycles with the next one scheduled for November 2014.

In 2012 and the first few months of 2013, 19 Houghton County leaders participated in one or more public policy/citizen planner and community leadership activities. There were participants in the Mining: Restrictions in Zoning Authority, the Land Division Review, and in the Citizen Planner programs. Thirteen additional citizens were participants in workshops or presentations on Placemaking to build awareness and skills to be used in local communities.
The Health and Nutrition Institute (HNI) provides education for families around several areas: Disease Prevention & Management, Social Emotional Health & Well Being, Improving Nutrition & Physical Activity, and Food Safety.

Food safety education programs train participants to prevent incidents of foodborne illness associated with unsafe food handling practices, which may result in fewer medical expenses and potentially less down time for food businesses due to temporary closure by local health departments. Programs in Cooking for Crowds, ServSafe and the cottage food laws and the food prep expectations that go with it are all options. Food preservation for home application from freezing to home canning are always popular with neighborhood and community groups. Houghton residents have participated in both ServSafe and cottage food law education in recent months with 14 in attendance since the beginning of 2012.

Health and Nutrition staff help residents address disease prevention and management through educational opportunities related to Michigan’s most critical chronic diseases including diabetes, heart disease and obesity. Preventing and managing chronic disease is the top health challenge of the current century. With a prevalence of diabetes and obesity among Michiganders, Extension will focus on providing educational programs that will assist with the prevention and management of chronic diseases over an extended period of time. These include PATH (Personal Action Toward Health), Dining with Diabetes, and/or the National Diabetes Prevention program. 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.
Food preservation education contributes to safer food sources, especially those produced locally by Michigan residents. As a result of food preservation workshops, 89 percent increased knowledge of how to use proper processing techniques to safely can low- and high-acid foods, 87 percent learned the correct processing times to can foods safely, and 76 percent 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. In the last few months MSU Extension staff have answered numerous questions from consumers on food preservation techniques. The MIgarden website, http://migarden.msu.edu/, offers tips and techniques for preserving vegetables and fruits, along with production tips and suggestions.

From January 1, 2012 through June 30, 2013, more than 230 adults participated in the 6 session educational series in Houghton. They received nutrition education in a variety of venues through collaboration with Portage Health, senior centers, numerous others, and individual contacts. Senior Project Fresh was able to utilize 240 sets of coupon books for Houghton/Keweenaw Counties. All were distributed and we have about an 80 percent redemption rate. Each book is worth $20, which results in nearly $4000 being spent by seniors on healthy, fresh, local foods at the Houghton County Farmers Markets, and other participating producers. Another 206 participated in one time presentations gathering information of food preparation and nutrition.

SNAP-Ed (Supplemental Nutrition Assistance Program-Education) is also actively involved in health fairs and other public activities where they can inform and educate the public about quality nutrition throughout the county.

Partnerships have been built with a large number of Houghton agencies and organizations as we collaborate to support families with the greatest needs. In addition, our collaborations are designed to build the capacity of participants to make wise decisions in their food buying and preparation habits. These collaborations also help those involved to avoid any duplication of services. Those that have been valued partners in Houghton County are many and include the Department of Human Services-Houghton County, Portage Health, Farmers Market of Houghton, Senior Project Fresh, and Phoenix House.
In pre and post test research:

» 93 percent of the participating adults were more likely to watch their caloric balance in their diets.

» 61 percent told us they use the food labels to compare the fat and other nutrient content in foods that they purchase.

» 55 percent plan out their meals before they go shopping.

» 40 percent changed their behavior in that they now consider how healthy a food choice is before they make food selections.

» 37 percent of the respondents now compare prices when they shop and they look for the best value.

Those who participated in MSUE Nutrition Education classes were more likely to:

» Read the nutrition information on food labels.

» Choose a healthy snack when they have the choice.

» Increase choosing foods from all five food groups.

» Consume more fruits or vegetables.