MESSAGE FROM THE DISTRICT COORDINATOR

At Michigan State University, our goal is to move the state forward by focusing on research and educational programs that matter most to those who call Michigan home. The issue identification process is an important part of determining where to concentrate the time and energy of MSUE faculty and staff members for the greatest outcomes. In January 2016, District 4 held two sessions, this same process was repeated in 13 areas of the state, and data will be aggregated and used to set a direction for future university engagement with the development of our long-range plan of work. Although the plan is not yet complete, below are major program areas that were identified for our district.

CONTACT US

Arenac/MSU Extension
120 N. Grove St.
Arenac, MI 48658
Phone: 989.846.4111
Fax: 989.846.9651
http://msue.anr.msu.edu/

Michigan State University Extension
2015 Programs In Which Arenac County Residents Participated

Tourism has the potential to drive future economic development.

Arenac Residents took part in the following workshops which have a connection to economic development, business skills, community beautification and a strong county government.

- Supporting Coastal Community Development and Tourism Development in NE Michigan
- Small Harbor Sustainability (Au Gres)
- Understanding Tourism presentation
- Understanding Food Hubs
- Place Making Strategy Development workshop
- Lake Huron Fisheries workshops
- Home Foreclosure Prevention webinars
- Smart Gardening
- Soil Test services
- Mid Michigan Farm and Garden Show MSUE sessions
- Master Gardener training and certification
- Cooking for Crowds

Thank you Arenac County Residents and the Arenac County Commissioners for supporting Michigan State University Extension. Building relationships, solving problems and meeting the needs of Michiganders has been the focus for MSUE for over 150 years.
Health and nutrition, chronic disease, poverty and an aging population contribute to the poor health reports for our counties: (Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.)

Arenac Residents took part in the following workshops which have a connection to preventing chronic diseases, healthy eating, and food safety:

- Chronic Pain (PATH) series
- Farm to Table series for Commission on Aging members
- Diabetes prevention and management workshops
- ServSafe series for food establishment workers
- Food Preservation workshops
- Youth Gardens and Food Safety workshops
- SNAP series for adults and youth
- Mindfulness and Adolescence
- Stress Less with Mindfulness webinar
- This is Your Brain Online: The impact of digital technology mental health

Arenac County ranked 80 out of 83 counties for overall health according to countyhealthrankings.org (2016)

Natural Resources is a major financial, recreational, physical and emotional well-being platform in our region.

Arenac Residents took part in the following workshops which have a connection our water, forests, and wild life.

- Great Lakes Water Safety Conference; MSUE session
- Shoreline and Shallow Conference (ANR week)
- Science Camp
- Great Lakes Stewardship Camp for youth
- Lake Huron Fisheries workshop
- “Bringing Science Alive” 7 workshops around natural resources for teachers

Advances made by CANR student and faculty, and MSU Extension educators and specialists enhance your life today and will improve the lives of your children and grandchildren tomorrow.
Agricultural practices, financial management and regulatory requirements are changing rapidly and the producer has to be current to be viable. There is a need to promote the general publics’ understanding of agriculture literacy.

Arenac Residents took part in the following workshops which have a connection production, diseases, and financial management to assist growers in being profitable and environmentally friendly.

- Nutrient Management Plot Tour
- White Mold in Soybeans
- Potato Field Day
- Sugarbeet Planter clinic
- Pesticide Applicators training
- Small Ruminants for Small Farms
- Beef workshop
- Thumb Ag Review (6 webinars on diverse topics)
- Field Crop Management series
- Cover Crops to Reduce Soil Erosion
- Soil Test services

Youth and 4-H, a substantial portion of youth are unprepared for the skills needed to be successfully employed. Some of the factors that contribute to this are: high school dropout rates, limited out of school activities, a low number of people to volunteer for out of school time activities, and a high percentage of families living in generational poverty.

4-H Youth Programs:
- 295 youth members in 4-H clubs
- 158 youth participated in short term programs
- 21 youth attended camp
- 190 youth participated in school enrichment programs

⇒ Total of 664 4-H Arenac Youth
DEVELOPING YOUTH AND COMMUNITIES

CHILDREN AND YOUTH INSTITUTE

Melissa Prohaska, 4-H Program Coordinator—Arenac County

4-H preparing youth for the future

The future of Michigan lies, in part, in the hands of its students’ abilities to excel in science, technology, engineering and mathematics (STEM). Science literacy among school aged youth in Michigan is below the national average, directly impacting college readiness.

Extension 4-H clubs connect caring adult volunteers to youth

Through MSU Extension 4-H programs, youth participants learn life skills that prepare them for the workforce – especially for highly sought after jobs in science, technology, engineering and mathematics (STEM).

- 15 active clubs ranging from livestock to sewing, archery, horses, robotics, dogs and camps.
- New club that will be starting this fall is a community club in the Bentley area providing cooking, crafts, sewing, and woodworking.
- 63 adult volunteers make all clubs successful.

4-H Wild West Science Camp

A three day overnight camp where youth from Arenac, Iosco, and Ogemaw Counties explore hands-on science, technology, engineering and math (STEM) activities, learn to respect nature, make new friends and have fun.

- 21 youth from Arenac County attended 4-H Camp at Camp Nissokone in Oscoda.
- Youth chose to participate in one of the following science tracts: Veterinary Science, Rockets to the Rescue, Extreme Engineering, and Unsolved Cooking Mysteries.
- Fun activities included; swimming, kayaking, fishing, rock wall, archery, campfires and outdoor cooking.

“I’m realizing the science and what they learn are secondary to the relationship we are building. It’s more important to the kids that we are here and care about them.” - 4-H Tech Wizards volunteer
Developing Youth and Communities

4-H Youth Conservation Council
The Michigan 4-H Youth Conservation Council (M4HYCC) offers leadership and confidence-building opportunity for youth ages 13-19. Participation in M4HYCC assists youth in the acquisition of important life skills, experiences, knowledge and understanding of current environmental issues. Provides a chance to explore solutions to environmental issues and provide “youth voice” in state government public policy-making. Youth receive exposure to a number of career possibilities, mentoring from caring adults, life-long benefits as future community leaders and stewards of Michigan’s natural resources.

- Rachel LeFever, Arenac County 4-H youth, applied and was selected as one of 25 youth from across the state to represent M4HYCC at the Michigan Senate hearing for conservation issues.
- Youth met face-to-face and via zoom to learn public policy process; select, research and debate their chosen conservation issue; show their public speaking skills; and prepare their presentation to the Michigan Senate.
- On April 20, 2016 M4HYCC presented their research and conclusion to the Senate Natural Resources Committee on Net-Pen Aquaculture in the Great Lakes.

“4-H has taught me how to set goals and strive to reach my goals. With my leadership opportunities in 4-H, I have developed my communication, teamwork, and problem solving skills, along with many more. Without 4-H I would not be the person I am today.”
Joel Hugo, 4-H member.

MSUE 4-H Exploration Day—10 Arenac youth joined 2,500 youth from Michigan in a pre-college program.

Congratulations Rebecca Daniels from Arenac County on winning the $2,000.00 MSU Pre-College Scholarship.
Supporting STEM careers through youth programming

4-H STEM Robotics
Standish and Sterling Elementary students, library patrons and summer recreation participants get opportunity to do Robotics that provide hands-on STEM experiences and other valuable life skills such as problem solving, communication and cooperation.

- A teacher in-service introduced STEM WeDo Lego Robotics program and curriculum to 29 Standish and Sterling teachers and administrators.
- 157 students in Standish and Sterling Elementary Schools participated in classroom time learning how to build and program the robots.
- 49 youth aged 5-12 were able to utilize the robotics kits through the months of June and July during the SSC Summer Recreation 4-H MakerSpace Program. Youth also had access to Duke University TechXcite Speed Quest and Alternative Energy K‘nex sets to explore. Over half of these youth attend multiple sessions.
- 4-H MakerSpace program reached 45 youth that are patrons of the Au Gres, Omer, and Standish Libraries during the month of August. Many youth elected to attend multiple sessions offered.

“My hands to larger service may be the most influential part of 4-H for me. It taught me to work my hardest and in the end things will work out in your favor.”
Own Herner, 4-H member.
Supporting STEM careers through youth programming

4-H Chicken Embryology
4-H members explored the inner workings of chicken eggs and learned about the stages of development, incubation and how to build a brooder.

- Youth and adults in the 4-H poultry club discovered what the parts of an egg are and the role the parts play in the fertilization and development of a chicken’s egg. Nineteen youth and adults were able to participate in the hour long session.

- Five youth participated in the Special Interest Embryology club for six weeks learning about the development of a chicken embryo. These youth set up the incubator, candled eggs throughout the 21 day incubation period to see the various stages of development, prepared a brooder house, and watched the eggs hatch. The youth had the opportunity to take the chickens they hatched home to start or add to their flock.

Arenac Conservation District 5th Grade Tours
5th graders gained a firsthand look at the Goodroe Dairy Farm to learn about the facets of agriculture and conservation in Arenac County.

- MSU Extension and 6 partnering organizations within Arenac County were involved in the event.

- Attended by 162, 5th grade students from Standish, Sterling, Au Gres-Sims and Arenac Eastern Schools.

- MSUE staff led students in the understanding of Zoonotics, any disease that can be transmitted from animals to people, and the importance of following good biosecurity practices.

“Leadership is something I will always carry with me throughout my career, as it has taught me to appreciate every individual effort. People come with different views and backgrounds, and 4-H leadership helped me gain the knowledge that every individual has a word yet to be heard to help in a community.” Dana Banning, 4-H member.
Business Entrepreneurship Education (B.E.E.)

Michigan State University Extension and local business leaders provided Arenac and surrounding county high school aged youth with a two day camp focused on innovative business practices and developing a sound plan for creating a new idea into a budding business.

- Participants toured local establishments and learn from experts on various business related topics like financing, marketing, networking and transitioning of a business.
- Guest speakers from MSU and Incba8 (a start-up consulting company in the Midland) were among the variety of speakers and programs.
- Youth networked with the business leaders in their community.
- The youth participants developed their own business and presented their new business plan to a panel of experts. The winning group included Ali Norton from Au Gres and she and her partner elected to donate their winnings of $50.00 to the Wounded Warrior project.

“I learned networking a lot. I didn’t realize how much this helps!”
- B.E.E. student participants.

“I will now be equipped with the tools necessary to create [or take over] my own business,”
- B.E.E. student in their evaluation.
Great Lakes Natural Resources Camp

This week long camp focuses on environmental issues that affect our great lakes and the natural resources we have here in Michigan. The hands on classes included, forestry, wetland studies, fish processing and great lakes ecology. There were some fun activates as well, like snorkeling, shooting sports, sailing, and night hikes.

- 75 plus campers throughout the state to participant in Great Lakes Natural Resource Camp this summer.
- Fish processing, lake ecology and biology were among the many environmental sessions for youth.
- Tom Long of MSU Extension (pictured below) helps students learn about the anatomy of fish and the management of the fishing industry in the Great Lakes.
- Students learn to process and prepare fish as well as the unique features they have.
- Rachel, second year leader, from Arenac (pictured at the right) looks to bring back to her county the passion and education she gained from this powerful camp experience.

The fish caught during the camp are measured, weighted, and analyzed for other data that is used by the DNR and Great Lakes Sea Grant Initiative to help maintain and evaluate this wonderful resource.

Campers explore dunes, hike forest trails, wade through wetlands, fish, snorkel and sail on Lake Huron while educators and scientists teach them about the Great Lakes ecosystem.
KEEPING PEOPLE HEALTHY

Health Nutrition Institute
Gretchen Stelter, Extension Educator
Disease Prevention & Management

Encouraging healthy behaviors
Encouraging healthy behaviors helps reduce food and health care costs by helping prevent chronic health conditions and providing safe environments throughout a person’s life span.

“
I have walked better this last 6 weeks than I have in the last 6 years.”
Commented a local participant.

Helping Arenac County prevent diabetes

Personal Actions Toward Health (PATH)

PATH Diabetes help participants learn important skills such as goal setting, eating healthy, exercise, communicating with health care professionals and managing medications.

- Diabetes Education through St. Mary’s in Arenac County. 22 participants in the two hour presentation.
- Dinning with Diabetes Class—9 participants
- Arenac Community open house had a booth with Tom Long; 22 people stopped by.
- Working with Community Advocacy and hospital.

Michigan ranks 15th in the nation for prevalence of diabetes, with an estimated 10 percent of Michigan adults aged 18 and older had been diagnosed with diabetes – about 758,300 people. An additional 250,200 Michigan adults are estimated to have diabetes but are currently undiagnosed.
Karen Fifield
Extension Educator, Health and Nutrition Institute, Food Safety

Prevent Foodborne Illness and Ensure a Safer Food Supply

The National Institutes of Health estimates that every year, 48 million people in the United States become ill from pathogens in food. Of those, up to 3,000 people die.

- Karen Fifield held three Food Preservation workshops in Arenac County.
- Participants reported 95 percent will follow researched based/tested recipes for home food preservation.
- Participants reported 97 percent will use correct processing methods to safety preserve low and high acids foods.
- Participants reported 97 percent will use correct processing times to safety preserve low and high acid foods.

Foodborne illness are estimated to annually cost the economy more than $15.6 billion. Your support of MSU Extension food safety programs helps prevent foodborne illnesses and ensures a safer food supply for consumers. This benefits other community members by decreasing the economic costs of foodborne illness.
Keeping People Healthy

Melissa Prohaska
Family Nutrition Program Instructor

Teaching valuable healthy-eating skills

In 2011, 17.5 percent of people in Michigan were considered to be living below the poverty level. More than 1.7 million Michigan residents receive Supplemental Nutrition Assistance Program (SNAP) benefits.

Show Me Nutrition

A comprehensive nutrition curriculum that teaches youth to have a healthy lifestyle using age appropriate content, activities and handouts.

- 36 students from Sterling and Omer Headstart completed the program.
- 8 youth with cognitive impairments completed the series at the Standish-Sterling Middle School ISD classroom.
- Youth learned how to eat healthy and be active.
- Youth taste tested fruits and vegetables that many had never had before.
- Nutrition fact sheets and newsletters went home with each student after each lesson to share with their family.

Project Fresh Nutrition Education

A nutrition presentation that teaches WIC families the importance of fresh fruits and vegetables in their diets and how to utilize their Project Fresh coupon benefit.

- 102 WIC families participated in the program.
- Half of these families expressed an interest in receiving additional nutrition education classes.
- Nutrition fact sheets and recipes went home with each family after the presentation.

MSU Extension nutrition aims to improve the knowledge, skills, attitudes and behavior of how individuals view nutrition.
ENSURING STRONG COMMUNITIES

Greening Michigan Institute
Bonnie Wichtner-Zoia, Extension Educator
Leadership, Community Engagement and Tourism

Tourism

MSU Extension helps communities grow and prosper by proving leadership community engagement and tourism educational programming

Understanding Tourism in Michigan Communities (UTMC)

- This 3 hour workshop is directed at communities and individuals seeking to better understand tourism opportunities and how niche markets can help transform, grow and sustain assets in their communities.
- Attendees explore their own assets and identify possibilities to leverage tourism opportunities.
- Twenty-two people participated in a UTMC workshop held at the Saganing Eagles Landing Casino in Standish in October 2015.

First Impressions

- The purpose of the First Impressions Program is to help a destination learn about their existing strengths and weaknesses as seen through the eyes of the first time visitor.
- Participating communities receive a written summery, public presentation and tourism–related recommendations.
- A First Impressions assessment, only the second in Michigan, was conducted in the city of Standish this past April. Key findings were presented to Standish officials, local organizations and interested community members on May 2, 2016. The report, along with tourism development recommendations, has been filed with the Arenac EDC and the city of Standish.
- Articles and information about a variety of tourism–related subjects can be found on the Michigan State University Extension Tourism website at: http://msue.anr.edu/topic/info/tourism.

MSU Extension’s focus on year-round tourism brings together educators and researchers with municipalities, communities and businesses to develop and enhance their uniqueness as a destination “hotspot.”
Lake Huron Regional Fisheries Workshops

Engaging 245 local fisheries stakeholders with fisheries research and management agencies, 14 attendees identified themselves as residing in Arenac.

- Recreational anglers had the opportunity to become more scientific anglers, learning about feeding trends of predator fish species
- Fishery businesses gained insights related to Lake Huron fisheries resources around which their business depends
- Research and management agencies shared informational updates.

Wild produced Lake Trout more often seen in angler catches, a sign of recovery for this native.

Michigan Sea Grant Extension offers expertise to coastal communities and partners interested in developing and enhancing water trails.
AuGres-Sims Students Partnering to Protect Threatened Pitcher’s Thistle on Charity Island

Students are committed to studying the impact of the control measures carried out by Huron Pines on the invasive phragmites and on the threatened Pitcher’s thistle.

- In the fall of 2015 students had traveled to Charity Island and used Global Positioning Systems (GPS) units to mark the location of the invasive phragmites and the threatened Pitcher’s thistle.
- Students canvassed the dunes collecting data on the location, age of Pitcher’s thistle and density and plotted the range of the invasive phragmites.
- Collected seeds were transported to a Michigan resident who has experience growing native species. He will germinate the seeds in a protected environment and return the adult plants to MNFI and the students to plant on Charity Island in the fall of 2016.
- AuGres-Sims School has embraced Place-Based Education as a means of strengthening their students’ educational experience, building stronger communities and developing stewards of the Great Lakes.

To learn more about Place-Based Education in Michigan visit the NEMIGLSI website.
SUPPORTING FOOD AND AGRICULTURE

Dennis Stein; Business Management Educator
Phil Durst, Sr. Extension Educator; Dairy & Beef Cattle Health and Production

Farm Business Management

In collaboration with the USDA Farm Service Agency and commodity organizations in Michigan, the MSUE Firm team (Farm Information Resources Management) developed a one-stop source of information for producers and landlords that include:

- A set of publications for Michigan producers and landlords.
- Decision-making software to analyze the financial consequences of alternative program decisions.
- Integration of the FIRM software with advanced risk management tools developed at the University of Illinois and Texas A&M University.
- 110 local and regional educational meetings that reached a total audience of 8,000 producers throughout the state.

Farm Employee Management:

Managing employees on a dairy is a key to better and more consistent performance; therefore:

- Have helped dairy owners and managers develop their skills and knowledge to more effectively manage employees.
- Co-wrote a series of employee mastitis lessons that are published in Hoard’s Dairyman magazine so that dairy employees develop their knowledge.
- Taken a leadership role in coordinating a section of a new book on managing farm employees for dairy producers.
Supporting Food and Agriculture, continued

_Cattle health and comfort:_
- Leading a statewide project to help dairy producers, including those locally, reduce the risk of transmission of BLV.
- Involved statewide, and locally with dairy farms to better understand mastitis and improve treatment use.
- Have written and taught locally, statewide, nationally and internationally about cattle health and comfort.

Learning on the farm:
The best classroom for farmers is often a farm, and farmers can provide a good example and model for other producers.
- Involving local dairy producers as members of the MSU Extension Dairy Advisory Team; providing input and learning and sharing experience and ways of doing things.
- Host monthly conference calls with producers to discuss current issues on farms and in the industry.
- Developed farm tours enable producers to see and understand how other producers solve problems and achieve results.

Proper animal composting works well as a way to deal with road kill, as an alternative disposal method for animal control units and as a disaster response when livestock and other animal mortalities require disposal.

During the 2014 Ag Expo, MSU researchers provided a demonstration for local municipality representatives of animal mortality composting.
Arenac Growers Participate in Michigan State University Potato Field Day

On-farm research and outreach bring locally relevant research-based information directly to producers, who learn more effectively using this participatory approach.

- This annual event showcases an on-farm potato variety plot, including 32 varieties this year, and provides an opportunity for researchers and industry representatives to communicate directly with potato producers.
- Chris Long, MSU Potato Specialist, presented information on potato variety development and performance in the trial.
- Mike Wenkel, Executive Director of MPIC discussed activities of the commission.
- Dr. Noah Rosenzweig also attended our event, sharing an update on potato pathology concerns in 2015 and ongoing soil health research in potato systems.

Field Crops Management:
7 Arenac growers participated.
Topics included:

- Soybean White Mold
- Nitrogen Management in Corn and Wheat
- Weed Management

Evaluations at the end of the Field Crops Management series indicated:
72% of participants will use new strategies to combat white mold in soybeans.
48% will implement new herbicide resistant weed control measures.
34% will use nitrogen loss prevention techniques.
Extension Educators Serving Arenac County

Staff Located in Arenac County Office:

Kelly Hiemstra, District Coordinator  hiemstra@anr.msu.edu

Thomas Long, Extension Educator, career Exploration and Workforce Preparation/Capacity Building  longt@msu.edu

Melissa Prohaska, 4-H Program Instructor, Family Nutrition Program Instructor  prohask1@msu.edu

Connie Manszewski, Support Staff  manszews@msu.edu

Staff Programming in Arenac County Office:

Dennis Stein, Extension Educator, Farm/Business Management  steind@msu.edu

Phil Durst, Extension Agriculture And Agribusiness  durstp@msu.edu

Bonnie Wichtner-Zoia, Leadership, Facilitation, Conflict Management and Tourism Educator  zoiy@msu.edu

Gretchen Stelter, Disease Prevention Extension Educator  stelter@msu.edu

Karen Fifield, Extension Educator, Health and Nutrition Institute, Food Safety  fifield@msu.edu

Brandon Schroeder, District Sea Grant Extension Educator  schroe45@msu.edu

James DeDecker, Extension Educator, Agriculture and Agribusiness institute  dedecke5@msu.edu

DISTRICT 4 DIGITAL REACH
From July 1, 2014, to June 30, 2015:

⇒ 2.5 million visitors viewed more than 5.3 million web pages.

⇒ Search engine ranking help make msue.msu.edu one of the most visited Cooperative Extension Systems education sites in the country.

⇒ 751,000 topic newsletters were distributed to more than 10,400 email addresses.

⇒ MSUE Extension reached more than 2,500 Facebook and more then 2,200 Twitter followers.

⇒ Michigan 4-H families and volunteers stay informed about activities through Michigan 4-H Facebook with 3,125 likes
Each district of MSU Extension has an advisory council to assist the District Coordinator in a variety of ways. The Council’s composition is a balance among various sectors that Extension educational programming serves.

Members are nominated and selected due to their experiences with Extension and proved leadership. They network with others who share similar interests and concerns, help shape Extension programming efforts important to citizens in the district, gather support for establishing or extending educational effectors around issues of concern in the district, and participate in leadership and issue focused educational events.

Members of the District 4 Council in 2016 include:

- Bobbe Burke (Arenac)
- Joan Crick (Alcona)
- Sharon Czaika (Iosco)
- Jen Czymbor (Arenac)
- Robert Dixion (Crawford)
- Roy Elie (Ogemaw)
- Rose Ford (Iosco)
- Elizabeth Grabow (Ogemaw)
- Paul Grabstanowicz (Alcona)
- Shelly Hubbard (Crawford)
- Patricia Killingbeck (Arenac)
- Joell Krejarek (Alcona)
- Ken Melvin (Roscommon)
- Marc Milburn (Roscommon)
- Joe Powers (Crawford)
- Chuck Preston (Iosco)
- Bruce Reetz (Ogemaw)
- Erik Rodriguez (Arenac)
- Leisa Sutton (Iosco)
- Sasha Weaver (Crawford)

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