It is my pleasure to bring to you the Annual Report for Osceola County Michigan State University Extension. Thank you for your continued support of Extension services and 4-H in Osceola county. We continue to strive to help people improve their lives by bringing the vast resources of MSU directly to individuals, communities and businesses. For more than 100 years, MSU Extension has helped grow Michigan’s economy by equipping Michigan residents with the information that they need to do their jobs better, raise healthy and safe families, build their communities and empower our children to dream of a successful future.

2013 was another productive year for MSU Extension in Osceola County. Our agriculture, 4-H, food and nutrition programming were all strong, and I’ll elaborate on that in the following pages.

2014 marks the anniversary celebration of 100 years of Cooperative Extension in the United States. On May 8, 1914, the Smith Lever Act was signed, granting federal legislation to the vast cooperative extension services throughout this county. In 1917, Osceola County received its first agriculture agent and joined many counties throughout the state of Michigan in a cooperative extension program.

Shari Spoelman, District Coordinator

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

Staff
Tonia Hartline
Office Manager
Renee Bisel
Supplemental Nutrition Assistance Program Instructor
Jerry Lindquist
Agriculture Extension Educator
Shannon Lindquist
Health & Nutrition Extension Educator
Jacob Stieg
4-H Program Coordinator
Shari Spoelman
District Coordinator

2013 Participation Numbers

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
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<tbody>
<tr>
<td>Soil Tests</td>
<td>328</td>
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<tr>
<td>Youth Enrolled in 4-H Clubs</td>
<td>428</td>
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<tr>
<td>Total Youth Served</td>
<td>962</td>
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<td>Nutrition Program Recipients</td>
<td>420</td>
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<tr>
<td>Agriculture Program Recipients</td>
<td>116</td>
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In 2013 the Osceola County 4-H launched a new curriculum called 4-H Science Blast in the Class. 4-H Science Blast in the Class offers a variety of hands-on lesson plans for youth from first grade to high school in Animal Science, Environmental Science, and Plant Science. Each lesson plan states what Michigan Grade Level Content Expectations are reached thru the lesson. During the last year three lessons were taught to youth.

4-H Science Blast in the Class — The first 4-H Science Blast in the Class took place in December at the Evart Middle School sixth grade science classroom. The teacher was preparing the sixth grader to learn about salmon after the holiday break and wanted the youth to do “Fins, Tails and Scales: Identifying Great Lakes Fish lesson”. Over the course of four days, 56 sixth graders learned how to identify fish by using the Dichotomous key which has the youth count the number of dorsal fins, scale patterns and markings, and tail shape.

The second 4-H Science Blast in the Class happened in January at the Evart Middle School fifth grade science classroom. The fifth grade teacher was teaching the youth about genes. Sixty-one fifth graders learned “What do Genes do?”. In this lesson, the youth created a human being using key traits such as ear size, hair color, and gender. Each youth had to reach in a bag and pull out different color and length pipe cleaners which represented dominate and recessive genes.

The final 4-H Science Blast in the Class happened began in February at the Evart Middle School with the sixth grade science classroom again. This time the youth participated in the “Best Lettuce Experiment”. This lesson took five weeks to complete because the youth got to grow lettuce in their classroom. Youth worked in groups and planted several types of leaf lettuce. Over the course of five weeks the youth had responsibilities in making sure their plants were watered, data was recorded and compare by each lettuce type. Their favorite part of the experiment was being able to taste test the lettuce at the end.

In the first year of using 4-H Science Blast in the Class 117 youth from two different grades were reached. During the lessons the youth learned about science using hand-on lessons and what the local 4-H program has to offer.

<table>
<thead>
<tr>
<th>Osceola County 4-H</th>
<th>2013</th>
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<tbody>
<tr>
<td>Total Youth Served</td>
<td>962</td>
</tr>
<tr>
<td>Adult Volunteers</td>
<td>164</td>
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<tr>
<td>4-H Clubs</td>
<td>28</td>
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</table>
Osceola County 4-H Youth Endowment—A charitable gift from the Adrian R Sengelaub Revocable Trust established the Osceola County 4-H Youth Endowment Fund. The fund provides memorial recognition to Adrian Sengelaub and perpetual support for the Osceola County 4-H program. The gift was matched 1:1, doubling its impact for 4-H.

Mr. Sengelaub served 20 years as a 4-H leader and had a zeal for life and helping others.
Project RED—259 youth from Reed City, Evart, Marion, and Pine River public school attend the 21st annual Project Rural Education Days at Gingrich Meadows.

Fun at the Fair—Each year the 4-H youth in Osceola County engage in fair activities and educational exhibits.

The skills youth learn from their 4-H fair projects include decision making, record keeping, entrepreneurship, responsibility, marketing, and animal care (to name a few.)
MSU Extension Guides Beef Farms on Drought Recovery & Rising Feed Costs—The MSU Beef Team including District 6 educators Jerry Lindquist and Kable Thurlow coordinated a series of three educational meetings across the State entitled Feeding the Beef Herd in 2013 & Beyond. This series helped 50 beef farms to strategize their recovery from the 2012 drought with the associated high feed costs and rising price of land. 83% of the attendees surveyed said they planned to adopt new management practices highlighted in the series. Follow up survey work on some of these farms documented feed cost savings of $10,000 - $15,000 per farm for the year. One of the meetings was held at Kettunen Center near Tustin with producers attending from Osceola, Mecosta, Clare, Missaukee and Gladwin Counties.

Helping Farms Raise Better Soybeans in Northern Michigan—With rising interest in soybean production in Northern Michigan an educational meeting was coordinated by Extension Educator Jerry Lindquist in conjunction with the Michigan Soybean Association and Extension Soybean Educator Mike Stanton to update cash crop producers. 38 farms attended the February meeting in Cadillac with 27% of those surveyed the following fall reporting increased incomes of an average of $4,845 per farm as a result of info gained at the meeting. Farmers attended from the following counties Clare, Gladwin, Mecosta, Missaukee, Osceola & Wexford.

Cover Crop Tour Demonstrates the Many Benefits of Cover Crops—A late October tour offered in Clare, Lake, and Mecosta Counties demonstrated the many benefits of cover crops for cash crop and grazing farms. Offered in cooperation with the Lake-Osceola Conservation District and NRCS Office, MSU Extension Educators Christian Curell and Jerry Lindquist show-cased the cover crop plantings of over 18 different species of cover crops on three farms. Over 35 farmers and USDA staff attended and learned of the multitude of benefits cover crops provide including: better soil water holding capacity; reduced soil erosion; improved soil organic matter; improved natural fertility of soils; and the ability to be a low cost grazing feed source for cattle and sheep.

We are excited to be hosting a Breakfast on the Farm in Mecosta County this year. It will be held August 16th at the De Grins Oer Dairy in Blanchard. Plan on attending this awesome event to learn more about modern farming.
Enhancing Reproductive and Genetics Management of Dairy Cattle—This MSUE educational program was held at 4 locations across Michigan in February 2013 including Kettunen Center. Participants learned about new strategies to enhance reproductive performance and to improve the genetic potential of dairy herds. Profitability of Michigan dairy herds is dependent on cows beginning a new lactation on a regular interval. In addition, selecting genetically superior sires is necessary to ensure the availability of high-quality heifers for herd replacements.

People who attended these meetings consisted of dairy farm owners and employees, veterinarians, agribusiness professionals and students. The veterinarians and agribusiness professionals act as amplifiers by sharing the information gained from these meetings with their clientele.

Wind Turbines—With a sudden rush of wind leasing activity in the northeastern portion of Osceola County in December, 2012 land owners began asking the MSU Extension Office for help. In response Jerry Lindquist quickly lined up resources over the Holiday season and on January 2 offered an educational meeting on leasing land for wind farm development. Over 50 landowners from Hartwick, Highland, Middle Branch, Sylvan and some adjoining townships in Osceola County attended. Speakers included an MSU Extension educator and an attorney that both had significant experience with leasing land for wind development. A representative from the leasing company spoke about the company’s interest in the area.

Participants learned what landowner’s rights are in wind leasing, how to evaluate a lease proposal, what financial revenue is considered appropriate for wind leasing of property, liability issues of leasing, the difference between leases and easements, and why the energy company was expressing interest in Osceola County. Many in attendance walked away much more confident about what questions to ask, and what changes they might want to make in a lease agreement. Some walked away deciding they were not interested in signing a wind lease.

Jerry Lindquist has worked as a member of the Osceola County Planning Commission, taking county officials and planning commission members to the base of one of the first commercial wind turbines in Osceola County. He also coordinated a speaker with concerns about the impact of wind turbines on human health to speak to the Planning Commission Board. The Commission had listed learning more about wind turbines’ impact on Osceola County as one of their priorities in 2012 & again in 2013.
Communicating With Farmers in the Technology Age—

Extension Educator Jerry Lindquist remembers when he started in his job as Agricultural Extension Agent in Osceola County in 1982 that newsletters were produced with blue inked duplication steno paper on a rolled drum. It was a major task to produce copies so mass communications were sent out infrequently. Folks either had to call the office or stop by to get information.

What hasn’t changed over those 32 years is the need for farmers to communicate with the MSU Extension Office. But, my how the process of communication has changed! Lindquist’s role as a state-wide Grazing Educator for all eighty-three counties and a Field Crops Educator in nine counties in Northwest Michigan requires that he use modern methods to communicate. Emails and cellphone calls are farmers’ preferred ways of communicating with him. Weeds or plant disease photos are emailed as soon as the photo is taken in the field so identification can be made and control recommendations offered within hours instead of days or weeks. If there is a new pest threat to the broad farm community, a tele-conference cab be made with other Extension colleagues across the state within a day to learn if they are seeing the same threat. An electronic newsletter can be produced and sent out via email to farmers state-wide with research-based information on identification, biology and control of the pest or disease with full color pictures all within 24 – 48 hours of a threat being identified.

In 2013 Jerry Lindquist sent out five Great Lakes Grazing electronic newsletters to over 400 farms across the state and three Northwest Michigan Field Crop Newsletters to over 200 farms in Northwest Michigan. These newsletters are full of educational research, management guidelines, pest updates, and announcements of upcoming educational meetings. These newsletters are archived at the Osceola County MSU Extension site at http://msue.anr.msu.edu/county/info/osceola.

Evaluating, Operating and Scheduling Irrigation Systems—Following the drought of 2012 and escalating grain prices, farms were seeking information on expanding or installing new irrigation systems to reduce their weather risk. In March 2013 MSU Extension provided an educational program at Baker College’s Lake City campus on irrigation for croplands. Over 30 farms from Missaukee, Osceola and Wexford Counties attended. Topics included:

⇒ Water source and legal statue for irrigation
⇒ Irrigation management and scheduling—how much water do I need?
⇒ Irrigation economics—what can I afford to pay?
⇒ Chemigation/Fertigation—using irrigation to maximize resource inputs

Evaluation of those in attendance show that 87% were already utilizing some irrigation and 71% planned to expand the number of acres they irrigated. The 13% not currently irrigating planned to begin irrigation within the next two years. The majority said they did not understand the water statutes and reporting requirements of Michigan before the meeting and had a better understanding at the conclusion of the meeting. As the demand for farmland continues to increase in the area, many farms are turning to irrigation to get more yield out of their existing land.
Dining with Diabetes in Osceola County – In 2013, MSU Extension’s Health and Nutrition Institute partnered with Meijer. Meijer has donated $1,000 to MSUE’s Dining with Diabetes. Thanks to MSUE & Meijer corp., more Osceola residents will have the opportunity to learn more about healthy eating. Dining with Diabetes is taught exclusively by MSUE. Dining with Diabetes is a five-session course designed for people at risk of diabetes or who have diabetes, as well as their family members. Through Dining with Diabetes participants learn how to prepare healthy meals using less fat, how to make meals using less sodium and sugar without reducing flavor and enjoyment, the causes of diabetes, tools for managing diabetes, and the importance of diet and exercise in managing diabetes.

The National Diabetes Prevention Program – In 2013, MSUE’s Health & Nutrition Institute added a Certified Lifestyle Coach to work in Osceola County with those at risk of developing Type 2 diabetes. The CDC-led National Diabetes Prevention Program is an evidence-based lifestyle change program for preventing type 2 diabetes.

Diabetes Education — Diabetes education through Michigan State University provides practical knowledge and skills to Michigan residents who are at risk of diabetes and for those who live with diabetes. Michigan ranks 15th nationally for prevalence of diabetes and it ranks fifth nationally for obesity. Just over nine percent of Michigan adults have been diagnosed with diabetes – an estimated 701,000 people. Healthcare costs are 2.3 times higher for a person with diabetes as opposed to a person without diabetes. Osceola County - Percent of adults aged 20 and above with diagnosed diabetes = 11%. MSUE’s Disease Management & Prevention team worked hard in 2013 developing great partnerships in Osceola County.

PATH Workshops — In 2013, MSU Extension added a trained PATH leader to their Health & Nutrition staff to serve Osceola County. PATH (Personal Action Towards Health) workshops are designed to benefit adults with chronic or long-term health conditions including arthritis, heart disease, diabetes, emphysema, asthma, bronchitis and depression. MSU Extension saw the beginnings of some great partnerships which brought Living with Chronic Illness & Diabetes PATH workshops to Osceola County. MSU Extension teamed up with the Osceola County Commission on Aging and Spectrum Health Reed City Campus.

It started on a cold (really cold) chilly day in 2013. Eighteen Osceola residents (ages 16 – 87) came out to join the PATH workshop held at The Commission on Aging in Evart.
» **Community Connections Expo** – October, 2013. MSUE Health & Nutrition Institute Educators, Program Instructors and Program Assistants, were on hand serving residents of Osceola and Mecosta Counties during the Community Connections Expo sponsored by Great Starts of Osceola/Mecosta Counties. Over 350 people received free information, event and program information as well as health related giveaways.

» **Home Food Preservation**—MSU Extension food safety workshops teach food preservation skills and techniques that provide participants with safe, high-quality canned products. Using up-to-date research methods, participants learn how to successfully and safely preserve food. District Coordinator and Extension Educator Shari Spoelman provided a Canning Class to Osceola County residents in August 2013 at the LeRoy United Methodist Church.

**SNAP-Ed Program**—SNAP-Ed staff talked with a local farm market vendor who currently participates in Project FRESH, regarding accepting the Bridge card at their market, they agreed and filed all the required paperwork with the state.

» **Eat Smart Live Strong**—From the USDA, Eat Smart, Live Strong is an intervention designed to improve fruit and vegetable consumption and physical activity among 60-74 year olds participating in or eligible for nutrition assistance programs. This series taught older adults to eat more fruits and vegetables and to get at least 30 minutes of physical activity most days. The class also addressed goal setting and tips on saving money while eating fruits and vegetables. Program Instructor Renee Bisel asked her classes to finish the following question: Because I have been coming to the Eat Smart Live Strong classes given by MSUE, …

- I have kept all my goals so far. I have been running close to my goals
- I am more conscious of what I am eating, reading labels.
- I have been trying new ideas, eating more vegetables and fruits and getting more exercise.
- I eat a lot healthier.
- I learned different ways to prepare fruits and vegetables, motivated me to exercise more.
- I have lost weight, have lots of energy, and sleep good at night.

What would you say to your friends who are thinking about joining the class next time?

- Start thinking about your health.
- You won’t be sorry. So much to learn and fresh ideas.
- Go ahead it’s very interesting and you will learn more about how to eat healthy.
- Come join us, it’s a lot of fun and you learn a lot, we have a real nice instructor.
- Please give us a try, you won’t regret it.
Cooking Matters— This six-part series teaches the basics of selecting nutritious, budget friendly ingredients and preparing healthy meals. At the close of Cooking Matters class a participant said the curriculum and staff helped her change the way she felt about food and cooking. She was excited to report the family had changed the way they eat and had lost weight. They were also doing a ‘power hour’ at work where they worked harder and faster, moving more than usual. Participant states the other employees around her have started doing the ‘power hour’ also!

In the Cooking Matters for Adults grocery store tour participants were amazed to find out that regular sweet peas have added sugar, while the no sodium added sweet peas do not have added sugar. Several participants decided they were only going to purchase no sodium added vegetables from now on.

One participant said “It’s easier than I thought to cook healthier” and, “We are now eating more vegetables than before and a larger variety than before and I am working on getting more activity into my day.”

In March of 2013 MSU Extension Osceola County SNAP-Ed partnered with Joe and Barb Fitzgerald to bring Cooking Matters to Pine River Area residents (LeRoy, Tustin and, Luther). Joe and Barb are a married couple that love to cook and share experiences with others. We had fourteen participants start our series. The kitchen was tight, but everyone got a chance to cut and measure and cook. The participants had many questions and were totally engaged in every aspect of the class. Joe and Barb kept humor in everything they did while teaching, making chopping vegetables and doing dishes a fun experience.