



Tuscola County

2016–2017 ANNUAL REPORT

msue.msu.edu



MESSAGE FROM THE ACTING DISTRICT COORDINATOR:

Michigan State University Extension is the community-based arm of Michigan State University (MSU), working in partnership with counties throughout the state. We help people improve their lives by bringing the vast resources of MSU directly to individuals, communities and businesses.

MSU Extension helps grow Michigan’s economy by equipping residents with information needed to do their jobs better, raise healthy and safe families, build communities and empower their children to dream of a successful future.

We provide research- and evidence-based educational programs to meet the needs of our local communities. Our staff have access to MSU AgBioResearch scientists, other MSU researchers, and land-grant university researchers throughout the nation.

This report is a snapshot of work done by MSU Extension staff with Tuscola County residents over the past year. We value our relationship with the leadership and citizens in Tuscola County . Working in partnership, we make a positive difference for people across the county. Thank you for your support.

Matt Shane, Acting District Coordinator



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MISSION:

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

MEASURING OUTREACH

CONNECTING WITH TUSCOLA RESIDENTS 2016-17

Number of youth in all 4-H clubs and activities.....	1,971
Number of youth in 4-H traditional club programs.....	498
4H Adult volunteer leaders.....	186
4-H Youth volunteer leaders.....	95
Breakfast on the Farm attendees.....	1,113
ServSafe education participants.....	60
Nutrition education participants...(series and one-time).....	1,734

DISTRICT 10 DIGITAL REACH

From July 1, 2016 to June 30, 2017, there were 70,370 visits from District 10 which includes Tuscola County to the www.msue.anr.msu.edu/ website. The MSU Extension website is filled with pages of rich, science-based content. Search engine rankings make www.msue.anr.msu.edu/ one of the most visited Cooperative Extension Systems education sites in the country.

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Supporting Food and Agriculture



When you support MSU Extension, you help participants learn profitable and efficient business and production practices.

MSU Extension Agriculture educators serving Tuscola:

Bob Battel—field crops

Phil Kaatz—feed, forage and grazing

Martin Nagelkirk—wheat

Dennis Stein—business mgt.

Steve Poindexter--sugar beets

Michael Staton—soybeans

Marianne Buza—dairy

Jeannine Schwehofer—
Animal quality assurance &
food safety

Tuscola County—A Strong Agricultural Producer

Michigan agriculture continues to be a growing sector of the state's economy. Although Michigan may be best known for its specialty fruit, vegetable, and floriculture industries, field crops comprise the largest cropping sector in Michigan in terms of acreage, farms, farmers, and income. Field crops grown in Michigan include soybeans, corn, alfalfa/ hay, wheat and small grains, as well as important specialty row crops like sugar beets and dry beans. Michigan's diverse livestock industry is also a significant component of the state's agricultural industry. The economic impact of livestock and dairy products accounts for 37% of the total economic impact of Michigan's agricultural products.

The 2012 USDA Census of Agriculture, the most recent report available, stated that the market value of agricultural products sold from **Tuscola County** was \$274,446,000. This means that Tuscola has the 7th highest value of agricultural products in the state. Of this number, \$226,266,000 is the value of crops (4th highest in the state), and \$48,180,000 is the value of livestock, poultry and their products (18th highest in the state).

For individual crop or livestock categories, **Tuscola** is number 2 in Michigan in acres of dry edible beans (33,341 acres), and number 3 in the following categories:

- value of grains, oilseeds, dry beans and dry peas
- value of other crops and hay
- acres of wheat for grain

Tuscola also ranks:

- #5 in number of layers
- #6 in number of pullets, and also for value of sales for poultry and eggs
- #1 in number of chukars (partridge)
- #5 in number of pheasants

The MSU Extension Field Crops Team provides research-based knowledge to address the needs of field crop producers including strategies for **managing production risks** and advancement of **efficient farming practices that enhance profitability while protecting soil and water resources**. Participants learn how to optimize and reduce the use of pesticides and fertilizers, and how to conserve and protect water resources. This education leads to better use of time, money and human capital, and helps retain and create agricultural jobs.

Supporting Food and Agriculture



Hal Hudson The impact he had on our lives

Dr. Hal Hudson, a long-time MSU Extension employee, passed away September 5, 2017. Hal's positions at MSU Extension included: 4-H educator-Sanilac; County Extension Director (Clare; Tuscola); acting County Extension Director-Huron, and Horticulture Educator in vegetable production. A soft-spoken individual, Hal taught programs during 2016, his last full year with MSU Extension. Staff and friends spoke on the impact Hal had on their lives:

"Hal, in his own quiet way, made a difference and an impact on the "thumb" of Michigan. I consider him not just a colleague, but a dear friend. Hal was working in the Sanilac office when I came onboard the Extension train & he always looked after me & was a good counsel when I needed a listening ear. He will be missed."

Gail Innis—Retired MSU Extension Educator, Sanilac County.

"My first boss in MSU Extension was Hal Hudson. He was a great mentor, leader, and friend. He gave me some great advice when I started working in MSU Extension and I continue to pass that advice on to new staff members. Hal was very detail oriented and had a great style for working with community members to help them learn and grow. He will surely be missed by his past and present MSU Extension colleagues."

Michelle Neff, Extension Educator in Clare County.

"Hal loved the simple things in life like driving his "old" tractor. He would say when he was sitting on the tractor with the engine running that he felt like a kid in a candy shop. He loved growing vegetables for sale..... He gave me a tip to grow a brand of tomato called "Goliath" which I have never stopped growing..... He lived a basic life style and was very frugal. He would collect and cut used pallets....for his wood burner that heated his home at no cost. He told me this is how he got his exercise.

The reason Hal was so successful in life is that he was modest, humble and an excellent listener. He was a down-to-earth man that made you feel comfortable being around him which made him approachable by all people. Yet behind this soft demeanor was a highly skilled, highly educated person who was dedicated to helping his fellow citizens and helping to solve problems. These qualities made Hal an outstanding professional. Let me say that as one of many of Hal's friends he will be missed but we are thankful for the time he was here."

Michael R. Hoagland, Tuscola County Controller/Administrator

"Hal was an extremely thorough man that knew the importance of building local relationships to ensure our efforts were needed and made an impact. He made no exception in holding to ethical standards in everything he did." **Diane Smith, District Coordinator, MSU Extension**

"I worked with Hal when he was in the 4-H program in Tuscola....When he became CED of Clare county, we did a lot of programming together....When our counties had to approach the county board of commissioners, Hal was right there for all my questions and gave me direction....I spent a lot of time with Hal even at his home, in front of the computer, with his kids on my lap working on budgets, etc.... I will miss his southern drawl when he would say: "Well....Bev....I look at it this way....." and give me one of his big smiles..."

Bev Przystas, MSU Extension



Hal's obituary included a very fitting tribute. We quote it here:

"His dedication in providing loving care to his aging father was heroic. He was his father's pride and joy. Hal was a gentle and kind man with a steadfast dedication to any goal he sought; a very warm hearted guy with the highest integrity."

Supporting Food and Agriculture



According to the USDA Census of Agriculture (2012), Tuscola County is third in the state in number of acres of wheat, with 34,285 acres planted.

Martin Nagelkirk
Senior Educator, Wheat

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Click [here](#) for MSU Extension articles written by Nagelkirk

Winter wheat receives specialized attention from local Agricultural Educator

Winter wheat is an important crop for Michigan, particularly in the Thumb region. As an Agriculture Extension Educator located in Sanilac County, Martin Nagelkirk focuses his efforts on providing statewide support to the wheat industry to help insure that wheat production remains a profitable crop for Michigan growers.

Martin's educational efforts for wheat producers include writing and disseminating fact sheets, news articles, and a wheat newsletter, as well as helping to conduct field meetings and winter educational events. His work generates information through extensive field research that addresses the effectiveness of various production inputs and practices.

The success of the wheat initiative is due, in part, to a close working relationship with the Michigan Wheat Program, a grower supported referendum developed to financially support research and outreach that promote the profitable production of wheat in Michigan. Martin's work is also recognized and financially supported by national programs and industry.

In addition, the success of Martin's wheat initiatives can be attributed, in part, to the collaboration he receives from Michigan State University Specialists who assist in specific projects; individual farmers who allow research to be conducted in their fields; and to an informal group of statewide growers (called the MI Wheat Workers) who provide information on the crop's progress throughout the season.

While Martin's wheat initiative often takes him outside the Thumb area, other specialized Agriculture Extension Educators directly serve Tuscola County farmers. For example, there are Educators focused on soybeans, sugarbeets, cover crops, and farm business management that interact with Tuscola County growers on a daily basis.

Grain may be subject to pre-harvest sprouting once wheat matures. Indicators of maturity include browning of the stem immediately below the head (stem on right).

Photos by Martin Nagelkirk, MSU Extension.



Supporting Food and Agriculture



Total value of crops raised in Tuscola County was \$226,266,000

(USDA Census of Agriculture-2012)

Thumb Ag Review provides results of research on local field crops

The Thumb Ag Reviews are a series of post-harvest meetings intended to provide farmers, agronomists and agribusiness an opportunity to learn about the results from the research and demonstration field trials conducted by the MSUE Field Crops educators located in the Thumb of Michigan.

Phil Kaatz, Bob Battel, and Martin Nagelkirk were the MSU Extension educators who presented the findings at five locations in the Thumb in December, 2016. These locations included Saginaw Valley Research & Education Center in Richville, Thumb Ag Day in Ubyly, Lapeer Education & Technology Center in Attica, Westpark Inn in Sandusky, and at Gracies Restaurant in New Lothrop.

The topics discussed included:

- corn hybrid trials
- soybean variety trials
- glyphosate resistant varieties
- conventional non-herbicide resistant varieties
- RR 2 Xtend varieties
- Liberty Link varieties
- biological additive trials
- corn population trials
- yard compost in a corn/soybean rotation
- corn nitrogen rate trial
- soybean cyst nematode resistance variety trial
- alfalfa sulfur source trial
- wheat fungicide efficacy trial on stripe rust susceptible varieties
- Intensive management of wheat inputs

In all, there were 160 participants, with 19 from Tuscola County. 77% of the participants completed a post-evaluation survey. Those completing the evaluation represented 107,420 acres of crops. 83% said they would make changes in management practices based on the information they received, and estimated a potential in increased revenue or in cost savings of \$242,885 from implementing the changes.

Supporting Food and Agriculture



Link to 2017 [MSU Field Crops Weed Guide](#)

2016 Pest and Crop Management Update

The 2016 Pest & Crop Management Update seminars were held in early 2016 at six regional locations across Michigan. Locations included Allegan, Alpena, Cass, Gratiot, Saginaw and Sanilac. These seminars were held in response to priorities set by MSU specialists, MSUE educators and their advisory group comprised of farmers and agribusinesses. The top three priorities identified for programming were:

- soil management,
- profitability, and
- reducing production risks.

MSU researchers and Extension educators addressed all of the top priorities at the seminars. They provided farmers and agribusinesses with the latest research results and recommendations for field crop weed, insect and disease control and crop fertilization as producers prepared for the 2016 growing season.

In addition to the work of MSU Extension, Michigan field crop producers are supported by commodity organizations that engage in market development, research and outreach. These strategic partners (Michigan Soybean Promotion Committee, Michigan Corn, and Michigan Wheat) help offset expenses associated with the meetings by providing the MSU Field Crops Weed Guide to each participant in addition to other marketing and promotional resources.

In all, 490 individuals attended one of the seminars, with 21 from Tuscola County. 212,886 acres were represented by the attendees. Almost 85% of the attendees were either farm owners (77%) or farm employees(7%).

Changes that respondents said they would consider making based on the information they heard were in the areas of:

- seed treatment reduction,
- weed control,
- seeding rates,
- fungicide treatments, and
- fertility.

They estimated that they could increase income or realize savings of \$444,985 by implementing all of the changes they were planning to make.

Supporting Food and Agriculture



Keeping accurate records is an essential part of animal management and a requirement of the Veterinary Feed Directive (VFD).

[Michigan 4-H](#) has teamed up with MDARD to provide resources to youth and adults to assist in understanding these changes. Additional resources can be found at the [MDARD Youth](#) webpage.

Veterinary Feed Directive—Impact on producers and youth exhibitors

The new Veterinary Feed Directive (VFD) changes that began on Jan. 1, 2017 limit the use of some antibiotics administered in feed and require veterinary oversight to obtain these products. The new rules affect all food production animal producers, including 4-H participants who raise livestock. The FDA is working to ensure the judicious use of antibiotics that can be used in humans. Not all antibiotics will be considered VFD drugs. The drugs affected by the VFD are those that are used for humans and animals. The main focus of the VFD is that some feeds and some medication used in water will now require a prescription from a veterinarian. The use of injectable antibiotics will not be affected.

The MSU Extension Dairy Team held meetings across Michigan in 2016 to help producers prepare for the changes. The meetings provided an opportunity for dairy producers, farm employees and industry professionals to learn about actions needed in order to comply with the directive. The rules apply to medicated feed (requiring a VFD), and medications used in water (requiring a prescription).

Seven educational meetings were conducted in Michigan in November 2016. Host sites were Sandusky, Fremont, Cadillac, Ionia, Ellsworth, Lachine, and Clare. Area veterinarians, feed mill representatives, and drug company representatives were also involved. A panel discussion led by local veterinarians, nutritionists and feed mill managers followed. Attendees learned:

- What is the Veterinary Feed Directive (VFD)
- How the VFD will affect feed-delivered antibiotics commonly used in agriculture
- How a farm can comply with the VFD
- What is a Veterinary-Client-Patient Relationship (VCPR)
- What you need to do to obtain feed-based antibiotics
- Discussion on implementation of VFD with veterinarians and nutritionists



Supporting Food and Agriculture



Thumb Young Dairy Group

Dairy is an important part of the agricultural landscape in Tuscola County. In the 2012 USDA Census of Agriculture, the sales value of milk was \$23,503,000, making Tuscola the 21st highest county in Michigan and the 300th highest county in the United States in the value of milk production. To keep this industry strong and growing requires education not only of current dairy producers, but also looking at the generation of young farmers coming up. MSU Extension Educator Marianne Buza did just that in 2016 with her series of meetings for members of the Thumb Young Dairy Group.



Buza held seven educational meetings from January through December 2016. The target audience was young adult dairy audiences. Farm owners, employees, and industry professionals were all in attendance. All were invited but topics were chosen to best fit the younger generation.

These events were held to educate young dairy professionals on multiple areas of their industry. Many young dairy professionals are isolated because of work load and the rural area. This group allows them to gather and network with their peers. These young dairy professionals also have few avenues to go to for education. This is because of time limitations and finances. These Thumb Young Dairy Group participants have never been charged for this education because of the willingness of local sponsors to help cover cost for food.

Marianne Buza, MSUE Dairy Educator

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Click [here](#) for MSU Extension articles written by Buza.

A variety of educational topics were covered. Topics were chosen by the surveys the group filled out. They included: farm tours and new technology, injection site reactions and beef quality assurance, genomics, on-farm crisis preparedness, starting a new dairy, silage harvest and utilizing your data.

The seven sessions rotated between locations in Snover, Sandusky, Bad Axe, Harbor Beach, and Decker. Attendance ranged from 11 participants at one session, to a high of 44 at another. In all, 148 adults attended, with 11 from Tuscola.



Supporting Food and Agriculture



“...MSU is uniquely positioned to educate growers. The majority of our research happens with farmers right in their fields. They see what we’re doing as it happens and, therefore, they learn to trust the research. Our credibility level is extremely high with them.” Steve Poindexter, who retired on 6-30-17.



MSU Today, 4-2-09, Photo by Natalie Ebig-Scott

When Michigan State University experts partnered with Michigan Sugar Company—a grower-owned cooperative—to revive Michigan’s declining sugarbeet industry, the result was sweet success. Today, Michigan is the nation’s fourth -leading producer of sugarbeets, producing one billion pounds of sugar annually. The state is home to four sugar factories—all owned by growers—and supports more than 1,000 farmers located mostly in the Thumb region.

Brought to the United States from Europe, sugarbeets have been grown in Michigan for more than 100 years. But yields of Michigan beets began to decline in the 1990s. By the mid-’90s, yields fell to an unprofitable level of production.

“People from the sugar industry approached us to help them study the problem and come up with solutions,” said Steve Poindexter, senior educator with MSU Extension and MSU AgBioResearch. “If production and profitability weren’t increased, the alternative was losing the industry completely.”

As a result, the SugarBeet Advancement Program was born. MSU spearheaded the partnership with Michigan Sugar Company, which owns the brands Pioneer Sugar and Big Chief Sugar. MSU scientists, industry representatives, and sugarbeet farmers worked side by side to reinvigorate production and yield.

Life is often about timing. Steve Poindexter jokingly points out that his arrival on the beet scene “just happened” to coincide with the beginning of the turnaround in Michigan sugarbeet productivity. Despite the tongue-in-cheek nature of that quip, there’s no doubt he played an important role in the big strides made by the Michigan sugarbeet sector since 1997. As senior extension educator for Michigan State University and coordinator of the Michigan Sugarbeet Advancement initiative, Poindexter was intimately involved in research and extension efforts that were an integral part of the success story for Michigan’s sugarbeet industry.

Researchers from MSU Extension and AgBioResearch, Michigan Sugar Company, and the U.S.D.A. determined the scope of the problems that included diseases, seed germination rates, parasites, poor soil conditions, and unfavorable weather patterns. The MSU team worked on-site with farmers to change tillage practices and planting times, and to switch to pre-germinated seeds. Over several years, farmers gained a few tons of beets per acre. With additional advances in disease and pest control, by 2008, farmers yielded 29 tons per acre, nearly double the yield harvested at the lowest point in the previous decade.

Today, Michigan’s sugarbeet industry has a net economic impact of \$550 million annually, giving the state an indirect economic boost of \$1 billion. Poindexter points out that without the cooperation and collaboration involving MSU, Michigan Sugar Company, and farmers, the industry wouldn’t be where it is today and, perhaps, wouldn’t exist. Steve Poindexter made a critical difference.

Supporting Food and Agriculture



[Link to Stein's online resources](https://msu.edu/user/steind/) (budgets, cost of production and decision making tools: <https://msu.edu/user/steind/>)

Farm Business Management

Dennis Stein, District Farm Business Management Educator for MSU Extension, provides a variety of relevant, important educational programs and resources for local farmers including farmland rental meetings; crop enterprise budget online templates; and optimizing dairy farm profitability in the areas of financial and partial budgeting. Dennis retired from MSU Extension on September 30, 2017. His contribution to farmers and to farm profitability through educational programs will be greatly missed. One important area where Dennis is the recognized expert in the state is in farmland rental.

Farmland rent is one of the largest single expenses on many farm operations. It is an important aspect of management if the farm is to remain economically profitable. For landowners, this often represents a large percentage of the household/retirement income. To obtain a WIN - WIN farmland rental arrangement, both the farm operator and landlord need to establish a positive working relationship and put in place sound written rental agreements. Over the years many disagreements and in some cases severe economic losses occurred when verbal rental arrangements fell apart and landowners failed to get paid, or operators lost rented land based on missed communication.

Farmland rental meetings were led by Stein across the Thumb in 2016-17. This was in response to hundreds of direct phone and email contacts made to Stein as individuals attempted to gain information, education and resources to help them in the process of securing Win - Win farmland rental agreements. Participants included farm landowners and active farm operators who each wanted to gain more information on trends and issues impacting farmland values and farmland rental values.

These sessions were fast-moving reviews of issues and options that farmland owners and tenants/renters should consider when setting a reasonable farmland rental rate. Current market prices have an economic impact on land rents and forecast where rents are heading. These sessions considered both sides (landowner and tenant) of the farmland rental agreement issue, with an overview of information helpful in the development of a win-win farmland rental agreement. Agenda topics included:

- Current land and rental values; how are they trending
- Approach to farmland rental rates considering current economic situation
- Considerations for using alternative farmland rental agreements (Pro- Con)
- How some farms use Flex Rental agreements to share in profits
- What needs to be in a farmland rental agreement
- How to approach the cost of field drainage tile in a rental agreement



Supporting Food and Agriculture

Enviroweather

Enviroweather Weather Data and Pest Modeling aims to help users make pest, plant production and natural resource management decisions in Michigan by providing a sustainable weather-based information system. This online resource provides 'local' weather information and weather-based tools. There are currently 78 weather stations throughout Michigan (each yellow dot on the map).

Enviroweather stations located in or near Tuscola include Richville, Munger, Pigeon, Kinde, Verona, Sandusky, Freeland and Linwood. Each station provides readings every 30 minutes on air temperature, soil temperature, soil moisture, relative humidity, solar radiation, wind speed and direction, precipitation and leaf wetness. There are different components of Enviroweather that deal specifically with field crops, fruit, vegetables, trees, turfgrass, and landscape/nursery.

Weather influences crop and pest development and management decisions. For example, wind speed and direction for drift management, temperature to prevent phytotoxicity that may result from applications on hot days, insect and pathogen development are all influenced by weather.

Model predictions allow growers to prepare to take management action if necessary. Enviroweather tools are intended to assist, not dictate, management decisions. The decision to take management action should be influenced by several factors including: a history of problematic pests, the current season pest pressure, susceptible crops, and past and predicted weather events.

Enviroweather is a collaborative project of: Michigan Climatological Resources Program & the MSU Integrated Pest Management Program. It is supported by: Project GREEN, MSU AgBio Research, MSU Extension, private donors, and the MSU departments of Crop and Soil Sciences, Entomology, Forestry, Geography, Horticulture, and Plant Pathology.



Enviroweather stations in Michi-



Information in this article was taken from "Using Enviroweather to assist pest management decisions", a presentation at the 2014 Integrated Pest Management Academy by Emily Pochubay, Fruit Integrated Pest Management educator for MSU Extension.

Supporting Food and Agriculture

Preparing youth for future careers in agriculture

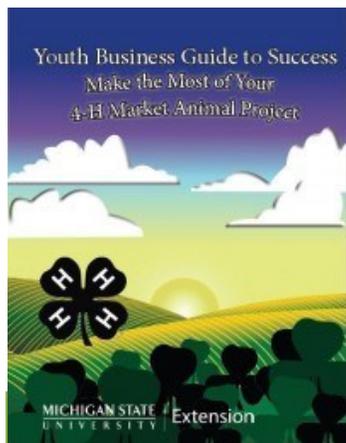
As a pillar of Michigan's economy, agriculture must continue to grow and thrive. One way to ensure this success is to prepare an informed and skilled workforce ready for careers in this essential sector.

To meet this need, MSU Extension offers youth a continuum of learning opportunities in the agriculture industry. These opportunities range from interactive experiences such as 4-H Renewable Energy Camp and World Food Prize Michigan Youth Institute, to educational resources such as the Youth Business Guide to Success animal marketing curriculum and zoonotic disease prevention tools.

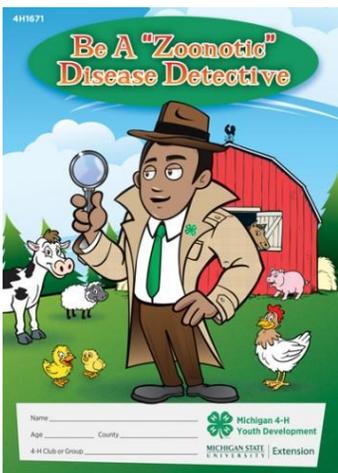
Through these experiences and resources, as well as county 4-H projects, youth are educated about agriculture and prepared for careers in this important industry.

In the last program year in Michigan:

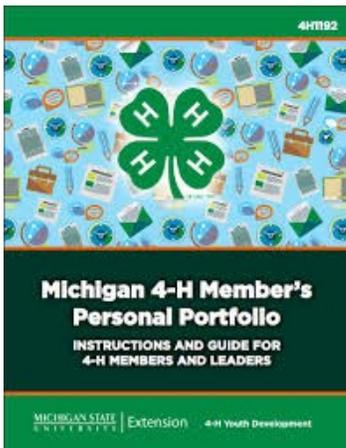
- More than 24,000 4-H youth participated in animal, biological and plant science projects in 78 counties.
- More than 850 youth took part in Michigan 4-H pre-college programs with an agricultural focus. These programs, which include 4-H Exploration Days and 4-H Animal and Veterinary Science Camp, among others, are designed to help youth explore potential careers or academic areas.
- The Michigan 4-H Agriculture Career Fair was held on May 13, 2017 in Frankenmuth. Planned jointly with the Lapeer County Farm Bureau, this all-day event was attended by 28 teens and 11 parents, many from Tuscola and the Thumb area. Focus of the career fair was exploring agricultural careers, writing an effective résumé, interview skills, and networking.



Betty Jo Krosnicki, Extension Educator from Sanilac County, is one of the authors of the "Youth Business Guide to Success" curriculum.



Developing Youth and Communities



4-H learning opportunities

4-H is America's largest youth development organization, providing educational opportunities to over 6 million youth. The 4-H program offers a vast selection of project area topics—science, healthy living, arts, and civic engagement to name a few, all with hands-on experiential learning for youth. 4-H programs are available for all youth ages 5-19, and are made possible by the service of our dedicated volunteers. We always welcome new members and new volunteers; if you are interested in joining 4-H, please contact the Tuscola County MSU Extension office at 989-672-3870. We would be happy to help you enroll today!

When you support 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).

Tuscola County 4-H provided local members and volunteers opportunities to connect to learning experiences beyond the county as well. These included:

- **4-H Exploration Days**-a pre-college awareness program for youth ages 11-19 held on the campus of Michigan State University. Youth and chaperones spent 3 days at MSU, lived in a dorm, ate in the cafeteria and attended Exploration Days classes they chose. Class sessions ranged from learning how to play a sport, weave a basket, learn a new language, show a chicken, open a checking account, or meet with a college admissions office.
- **Michigan 4-H State Awards Program** In 2016, the Thumb Area 4-H Camp won the 4-H State Group Award category.
- **Kettunen Center** in Tustin is the site of 4-H trainings throughout the year. Workshops included Winterfest; Challenge U; Teens as Teachers; Shooting Sports; Visual Arts, Crafts, Clothing, and Textiles.



Teambuilding



Developing Youth and Communities

4-H has different types of clubs, depending on a volunteer's interest and time commitment.

- **Community clubs** focus on multiple projects and involve members of a variety of ages and interests. Meet every month.
- **Project clubs** focus on one primary 4-H project. Meetings may be monthly or weekly.
- **SPIN clubs** combine concepts of special interest groups with the 4-H club model. Focus on one topic for a set length of time, perhaps 6 to 8 weeks.

MSUE 4-H staff serving Tuscola County:

Heather Middleton:
Program Coordinator
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4-H Youth Development in Tuscola County

Tuscola County 4-H had a very busy and productive year in 2016-17. We had total 4-H club membership of 498 youth! This was made possible by our wonderful volunteers—186 adult leaders and 95 youth leaders! Through shared leadership, youth volunteers learn and practice leadership skills that will be beneficial to the current 4-H program and also prepare them for future leadership roles in their community or career. Highlights of our work in Tuscola County include:

Thumb Area 4-H Camp is held in July at Camp Cavell hosting 4-H members from Tuscola, Sanilac, St Clair, and Huron Counties. The 3 day, 2 night camp features archery, crafts, games, singing, swimming, and a mud hike. In addition, a day camp is held for Cloverbud members ages 5-8 years old.

4-H Commodity Carnival Experience was held at Mayville Elementary School where students and parents were able to participate in a fun and fast-paced, single-player game with engaging, real-life content. This challenged them to take on the role of a modern day farmer and bring livestock to market. The youth were able to experience real life agricultural risks and learned to make strategic decisions in order to win the blue ribbon.



4-H Ag Innovators experience Healthy Soils Challenge at 4-H Camp

Commodity Carnival Activities

Developing Youth and Communities

4-H Youth Development in Tuscola County

Project Rural Education Day (R.E.D.) is a day when Tuscola County 3rd grade students venture through local educational and hands-on stations outlining the role agriculture plays in their lives. Tuscola County 4-H and the Tuscola County Farm Bureau have built meaningful relationships and programs at our county level to foster strong agricultural communities among our youth.



Tractor Safety:

The 4-H agricultural tractor and machinery program provided youth with educational information about agricultural tractors and machinery. This education develops project skills (i.e., principles of engine operation, hydraulic systems, electrical systems, safe operation) and life skills (i.e., decision making, using science and technology, developing communication skills). These fun-filled, hands-on learning experiences provided 4-H youth with a certification in tractor safety to provide future employers.



Developing Youth and Communities

Team America Rocketry Challenge:

Raytheon, Lockheed Martin, Boeing, IBM and other sponsors awarded the Deford Dazzlers Rocket Team with \$16,000 in scholarships – \$5,000 per team member, plus another \$1,000 for the 4-H club to help fund its science and rocketry education program.



Visit the Deford Dazzlers website at:
<http://deforddazzlers.com/>

Deford Dazzlers Rocket Team 4-H Club from Tuscola County

2016 was a very exciting year! Three club members, Peter Hansen, Alexander Hansen and Chrysler Parrish, won second place in the national Team America Rocketry Challenge (TARC) at the national competition in Washington D.C. on May 14. The competition is an important part of the aerospace and defense industry's strategy to build a stronger U.S. workforce in science, technology, engineering and mathematics. TARC is the world's largest student rocket contest.

Just to get to the competition, the team competed with 775 teams to qualify for one of 100 spots. Despite windy weather, the team's rocket launch reached an altitude of 829 feet, the second highest score.

Patricia Hansen, 4-H club leader told the Cass City Chronicle that all of this would not have been possible without Tuscola County 4-H, their program coordinator Heather Middleton and Extension secretary Catherine Patterson.

The Deford Dazzlers were recognized by the Tuscola County Board of Commissioners on June 16, 2016 with a resolution honoring them for their achievements. We are very proud of our 4-H members and would like to thank everyone who has contributed to their growth and the valuable opportunities they've had. Congratulations again to our young rocketeers!



Developing Youth and Communities



Photo above and some text from NASA SL website

Deford Dazzlers Rocket Team 4-H Club in 2017

NASA Student Launch—April 8, 2017, Huntsville, Alabama

NASA Student Launch is a NASA-conducted engineering design challenge which provides resources and experiences for students and faculty. Supported by the Human Exploration and Operations Mission Directorate and U.S. aerospace industry, the project is built around a NASA mission, not textbook knowledge.

NASA Student Launch (SL) challenges middle school, high school, and college students in designing, building, and launching a reusable rocket to 1 mile above ground level with scientific or engineering payloads. This is an 8-month commitment requiring teams to:

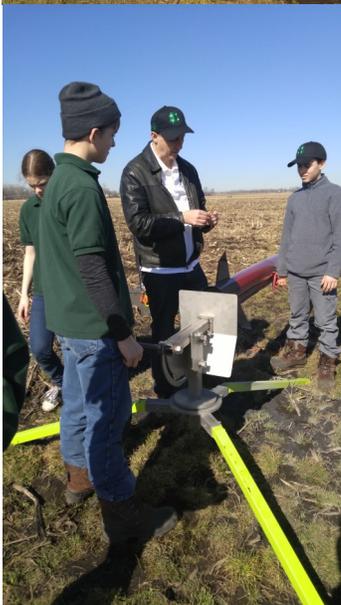
- submit a series of reports and reviews
- develop a Web site
- provide educational engagement in their local community
- provide a timeline, a budget, and other requirements

This is not a contest. Teams in this category must have competed and placed in the top 25 at the Team America Rocketry Challenge (TARC) in order to be eligible for NASA SL.

In order to compete, each team started with the NASA Student Launch Handbook, which gave them information needed to submit a proposal for Student Launch. The handbook contained information on what was expected of the teams at each stage of the project, as well as the timeline of events.

While the Deford Dazzlers did not place in top 10 at the competition in April, they certainly held their own. They were commended by the judges for the sturdiness of their rocket, which had a motor malfunction and never reached the optimum altitude range needed to place.

Congratulations to the Deford Dazzlers on qualifying for and entering the NASA Student Launch, and for the hard work and persistence they continue to demonstrate!



Left to right: Keaghan Garten, Teresa Tomasino, Ethan Thane, Samuel Gordon, Mia Wright, Alexander Hansen.

Ensuring Safe and Secure Food



MSU Extension efforts in ensuring safe and secure food lead to a healthy population, which in turn helps keep health care costs in check and our communities viable.

Michigan FRESH fact sheets educate the public on the safe use, storage and preservation of Michigan grown fruits and vegetables. They are distributed through local farm markets, at the Tuscola/MSUE office and at all food safety programs. Click here:

[Michigan Fresh Fact Sheets](#)

Reducing foodborne illness through education

The National Institutes of Health estimates that every year, 48 million people in the United States become ill and 3,000 die from pathogens in food. Causes range from outdated home food preservation practices to unsafe sanitizing practices at public events and small businesses. Since 2013, MSU Extension food safety and preservation programs have taught almost 10,500 Michigan residents safe food handling and food preservation methods to reduce illness.

Participants include youth, nonprofit organizations that prepare food for the public and food preservers who want to create safe products for their small businesses.

In Tuscola County, Laurie Messing, MSU Extension Educator for food safety and other Food Safety team members, provide programming in the areas of **Food Preservation, Cooking for Crowds and ServSafe manager training for adults**. In 2016-17, they provided ServSafe manager education leading to certification for **60 foodservice employees** in Tuscola County from local schools, restaurants, churches, and child care providers. This national certification program teaches about foodborne illness, how to prevent it and how to train employees on the latest food safety issues including:

- ◇ providing safe food
- ◇ forms of contamination
- ◇ the safe food handler
- ◇ the flow of food
- ◇ food safety management systems
- ◇ safe facilities & pest management
- ◇ cleaning & sanitizing

Food safety education outreach for children was done at the Cass City Preschool by Laurie Messing as she taught the Fight BAC series to 16 preschoolers.



Keeping People Healthy

Senior Project FRESH originates from a U.S. Department of Agriculture funding. It is part of the Senior Farmers Market Nutrition Program in the Farm Bill.

Improving nutrition for Michigan seniors

Senior Market FRESH:

Senior Market FRESH in Michigan provides seniors who qualify with unprocessed, fresh Michigan-grown produce from registered Farmers Markets and roadside stands throughout Michigan. In Michigan, Senior FRESH is managed by the Office of Services to the Aging. MSU Extension provides nutrition classes and distributes coupons. To qualify, a senior must be 60-years of age or older, have total household income equal to or less than 185 percent of the poverty level, and live in the county where the coupons are issued.

Vegetables and fruits offer important vitamins and minerals to keep us healthy. Most of these foods have little fat and no cholesterol, and are a good source of fiber. Eating more fiber may help with digestion and constipation, and help to lower cholesterol and blood sugar.

Senior Market FRESH is free for seniors and for participating farm markets. It allows seniors to benefit from eating more fresh fruits and vegetables during the summer and helps boost Michigan's local economy. The coupons can only be used at farm markets and not at grocery stores or supermarkets. Eligible items that can be purchased include any Michigan-grown fruit or vegetables such as strawberries, lettuce, cabbage, blueberries, cucumbers, peppers, carrots, squash, tomatoes, watermelon, apples, potatoes, onions, beans, etc., as well as honey and some herbs.

In 2017, there were 345 Senior Market Fresh coupon books, each valued at \$20, distributed to seniors in **Tuscola County**. This was a marked increase over the approximate 120 coupon books that had been distributed in prior years. Some of these additional coupon books were purchased with funds provided by the Tuscola Counsel on Aging. These coupons provided \$6,900 to local seniors for fresh fruits and vegetables, and meant additional income for our local Farmers Markets and growers. Julie Androsuk, a SNAP-Ed Program Instructor from the Tuscola County MSU Extension office, was in charge of providing the educational component and coupon distribution at senior centers throughout the county. The eligible seniors were very happy and grateful to receive the coupons.



Keeping People Healthy

The focus of Smarter Lunchrooms is to use easy, no-cost and low-cost changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choice.

Tuscola County schools participating in the Smarter Lunchroom Initiative:

- Caro High School
- Cass City Elementary
- Mayville Elementary
- McComb Elementary
- Cass City Junior/Senior High
- Mayville High School

“Smarter Lunchroom” strategies—Making healthier lunchrooms in Michigan

Smarter Lunchrooms is an initiative that helps make school lunchrooms healthier through changes in the environment. This is a component of Team Nutrition, a program of the USDA that works to help implement the School Meals Initiative for Healthy Children. MSU Extension helps to implement Smarter Lunchroom strategies in schools throughout the state. Our staff provide coaching and technical assistance to schools throughout the process including:

- Conduct a pre and post assessment using the Smarter Lunchroom Scorecard.
- Help a school choose and make 10 changes. Changes could include introducing creative names for food items and rearranging beverages.
- Assist schools to apply for grant funding to make larger changes such as purchasing a salad bar or a refrigerator.
- Help schools write a success story to communicate the success of their Smarter Lunchrooms initiative.

MSU Extension educator Laurie Messing assisted school lunch staff in five schools in Tuscola County on this effort. Utilizing grant funds, the schools implemented low-cost changes to enhance the lunchroom environment. The report from Mayville Elementary on the right is an example of what this school did to create a smarter lunchroom:

+ Stepping into Michigan's Smarter Lunchrooms

MICHIGAN STATE UNIVERSITY Extension Mayville Elementary School, Tuscola County



Smarter Lunchrooms Principles Used: <ol style="list-style-type: none">1. Improve Visibility2. Utilize Suggestive Selling3. Enhance Taste Expectations	Goals: <ul style="list-style-type: none">⇒ Low Cost/No Cost Solutions⇒ Lunchroom Environment Focus⇒ Promotion of Healthful Eating Behaviors⇒ Sustainability
    	Actions/Results: <ul style="list-style-type: none">Choose 10 strategies for school to implement:⇒ Whole fruit displayed in an attractive bowl or basket⇒ White milk is placed in front of other beverages in all coolers⇒ White milk crates are placed so they are the first beverage choice seen in coolers⇒ White milk is promoted on menu boards⇒ Dining space is branded to reflect student body or school (mascot, logo, etc.)⇒ Student surveys are used to inform of menu items, dining space décor and promotional ideas⇒ Students, teachers and/or administrators announce daily meals or targeted items in daily announcements⇒ Daily fruit options are written on the menu board⇒ Local celebrity is invited to share lunch with a student 3-4 times a year⇒ Available vegetable options have been given creative or descriptive names Success Stories: <ul style="list-style-type: none">• "Brightens it up" - Student• "Adds some school spirit" - Teacher• "offers Fruit and vegetables" - Staff• "Adds to our kitchen eating area" - Staff• "We enjoy promoting fruits and vegetables and encouraging students to eat hot lunch." - Foodservice staff
Contact: April Jester Position: Food Service Director Email: ajester@carak12.org	Michigan Team Nutrition Program Join: http://www.hs.usda.gov/tn/join-team-become-team-nutrition-school Stay Connected: http://www.facebook.com/MichiganTeamNutrition , https://twitter.com/TeamNutritionMI <small>The USDA is an equal opportunity provider and employer.</small>

Keeping People Healthy

“My Plate” is one of the fun ways MSU Extension SNAP-ED introduces fruits and vegetables to school age children. Most children can’t resist tasting while learning about food groups.



Children at Vassar Great Start Readiness Program enjoying a healthy snack!

Teaching youth and adults about choosing healthy foods through hands-on education

Michigan State University Extension partners with Michigan Department of Human Services to provide Supplemental Nutrition Assistance Program Education (SNAP-Ed), a free nutrition education program to reduce hunger and food insecurity and promote healthy eating habits. MSU Extension SNAP-Ed nutrition instructors teach youth, teens, adults and seniors how to make health a priority. The goal of the SNAP-Ed program is to increase the likelihood that those eligible for SNAP benefits will establish healthy eating habits and increase time spent involved in physical activity, while staying within their limited food budget.

SNAP-Ed reaches people throughout Tuscola County. Local partners include:

- NEMCSA (Northeast Michigan Community Service Agency)
- Head Start and GSRP (Great Start Readiness Program) Pre-schools which are income-based
- Thumb Behavioral Health Services
- Caro Senior Commons
- Tuscola Health Department - WIC (Women, Infant & Children)
- Maternal Infant Health Program
- Mayville Share Shop
- STARS (Students in Transition Achieving Real Skills) program at the Tuscola ISD
- Caro and Vassar TOPS groups (Taking Off Pounds Sensibly)
- Cass City High School
- Tuscola Peer Center

With community partners as host sites, MSU Extension staff presented information either in a series of 6 classes, or in single presentations to more than 1,734 youth and adults throughout Tuscola County. They taught youth and adults how to choose, prepare, and store healthy, safe foods that are also affordable and delicious. Youth and adult participants learned how to keep eating in balance with physical activity to address overweight and obesity concerns. Photos and details follow on the next page.

Keeping People Healthy

Cooking Matters helps families to shop for and cook healthy meals on a budget, as part of Share Our Strength's No Kid Hungry campaign.



Nutrition Education

Cooking Matters for Adults is a nutrition program where participants learn how to eat healthy, cook and grocery shop on a limited budget. The program consists of six lessons, lasting approximately two hours each. With the help of an experienced chef and nutrition educator, participants gain skills and confidence to make healthy, budget friendly meals for their family.

Each week, participants received take-home food, which they could use to practice a recipe they learned in class. Other activities:

- Participatory food preparation with cooking and food safety instruction
- Engaging nutrition activities and discussion
- Interactive grocery store visit and \$10 challenge
- Practice with food budgeting
- Recipe book for use at home
- Certificate of completion



Tuscola County students at the Octagon Barn School Tours

Julie Androsuk
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Karly Creguer
Program Instructor, Nutrition
Physical Activity Program
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Cooking Matters at Caro Senior Commons

MSU Extension nutrition instructors were able to reach many youth in Tuscola County this past year. They were part of the nutrition education team at the Octagon Barn School Tours in Gagetown in May 2017 which reached more than 1,000 youth from nine counties. They provided nutrition education to Tuscola County 3rd graders at Project R.E.D. (Rural Education Day). They also have taught children of all ages, from preschool and Head Start through high school and alternative education. They are a valuable resource for Tuscola County!

Keeping People Healthy

Through the National Diabetes Prevention Program, MSU Extension helps participants to learn ways to change their lifestyles and improve their health.

Michigan ranks 13th nationally for prevalence of diabetes and 17th nationally for obesity. An estimated 10% of Michigan adults have been diagnosed with diabetes and an additional 250,000 have the disease but are undiagnosed.

To view articles written by Kris, click on her name.

[Kris Swartzendruber](#) - Extension Educator, Disease Prevention and Management Programs (PATH) & Social Emotional work team
swartze6@anr.msu.edu

Disease prevention and management

MSU Extension disease prevention and management education programs help participants increase their ability to lead a healthy lifestyle. This greatly reduces a person's risk for developing chronic disease or improves disease management.

Chronic diseases are among the most prevalent, costly, and preventable of all health issues. Access to high-quality and affordable prevention measures is essential to saving lives, reducing disability, and lowering costs of everyone's medical care. Reducing the prevalence and improving management of diabetes is a public health concern for all Michigan citizens to reduce healthcare costs.

MSU Extension provides education related to prevention and management of leading chronic diseases. One of these educational programs is the Diabetes PATH (Personal Action Toward Health) series. For more than three years, MSU Extension educator Kris Swartzendruber along with Bonnie Johnson, a retired Registered Dietician who is also a certified Diabetes PATH Leader, have been co-leading the 6-part Diabetes PATH classes in Tuscola County. Local community partners associated with the Diabetes PATH program include:

- Caro Community Hospital
- Area Agency on Aging - Region VII
- Tuscola County Senior Meal Sites
- Tuscola Health Department

MSU Extension received \$3,000 from the Michigan Health Endowment Fund, Area Agency on Aging Association of Michigan and Region VII Area Agency on Aging to support two Diabetes PATH series in Tuscola county this past year.

Please see the next page for participant responses to the Diabetes PATH program.

Keeping People Healthy

Diabetes PATH—Personal Action Toward Health



Diabetes PATH, developed at Stanford University, enhances patient confidence in their ability to manage diabetes and work more effectively with their health care providers. It is a workshop series for adults with type 2 diabetes, their family, friends and caregivers. It takes 2 ½ hours a week for 6 weeks. The workshop covers many things about diabetes, but what participants really learn are ways to help take care of their health. Over the course of 6 weeks, participants learn:



- strategies to help them deal with difficult emotions
- how to develop a healthy eating and exercise plan
- goal setting and problem solving
- a variety of other tools to manage diabetes

Participants spoke of the difference that the Diabetes PATH program made for them:

“I was recently diagnosed with Diabetes 2. My healthcare provider set me up with classes in Grand Blanc MI. When I heard about the classes being offered here at Caro free of charge, I was so relieved. . . . I’ve learned a lot from these weekly classes. I hope Caro Community Hospital continues to offer these classes to the community, so others can learn about their Diabetes and the disease as I have. I plan to make changes to improve my overall health. Again, thank-you so much. I greatly appreciated all the information and assistance you have provided me.”

“Until I signed up for this class, I knew nothing about diabetes. Even though a few months earlier my doctor gave me a prescription for Metformin and told me I was pre-diabetic. I asked what does that mean and was told “just watch your sugars and carbs” and with that statement the doctor was out the door. Needless to say I was left hanging and confused. When the ad for this class came in the paper I decided to find out more about diabetes on my own.

This class has been so very beneficial to me! It has given me an understanding of what diabetes is and how to live with it. I have learned not only what to eat, but how often, along with portion size and control. I also gained knowledge about being more active and taking control of my feelings. I do feel so much better about myself since taking this class. I am no longer at a loss as to what diabetes is and how to live with it. Our two class instructors, Bonnie and Kris, were very nice and knowledgeable and made learning fun. I’d recommend this class to anyone who is diabetic or in need of learning more about diabetes.”

Making the Most of Our Natural Assets



Ecotourism for Prosperity Region 6

The Regional Prosperity Initiative (RPI) is a voluntary competitive grant process to encourage local private, public and non-profit partners to create vibrant regional economies. The legislature approved the recommended process and the Regional Prosperity Initiative was signed into law as a part of the FY 2014 budget.

Existing State Designated Planning Regions and Metropolitan Planning Organizations are eligible to apply for grants from the Regional Prosperity Initiative. However, they will not qualify for any funding at any level unless they are collaborating with business and non-profit representatives as well as representatives from local and regional economic development organizations, workforce boards, adult education providers and the higher education community. (website of Michigan Department of Technology, Management and Budget, 2017)

Region 6, the I-69 Thumb Region, includes Genesee, Huron, Lapeer, Sanilac, St. Clair, Shiawassee and Tuscola counties. MSU Extension educator Andy Northrop has helped this region in their collaborative efforts by working directly with them and chairing the **tourism subcommittee** for the region, as well as working with the group to identify local leadership for project implementation.



In 2016-17, an initiative for **ecotourism** came directly out of this subcommittee along with other regional tourism/community development programs, such as First Impressions Tourism Assessments (FIT), a project of MSU Extension. Region 6 allocated \$20,000 for tourism development projects in addition to the dollars set aside for First Impressions. Northrop's role is to facilitate the development and implementation of regional tourism projects. He has provided updates on the various First Impressions programs in Michigan. FIT is a comprehensive community assessment that develops community leadership, assesses the host community, shares the results in a community forum open to all, and provides suggestions to drive community action. Overall, FIT helps communities learn about their strengths and weaknesses through the eyes of first-time visitors.

Tuscola County Commissioner Craig Kirkpatrick represents the county on the Ecotourism group. One specific area under consideration is drawing tourists to the region by focusing on the Cass River as a primary attraction. The long-term hope is that the river be designated as a National Water Trail by the National Park Service. <http://www.tuscolatoday.com/index.php/2016/12/21/cass-river-to-be-a-focus-of-eco-tourism-efforts-in-thumb-region/>

[Andy Northrop](#), MSU Extension
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Extension Educators Serving Tuscola County, Continued

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