



EXTENSION AGRICULTURE & AGRIBUSINESS IN MICHIGAN

\$104.7 billion

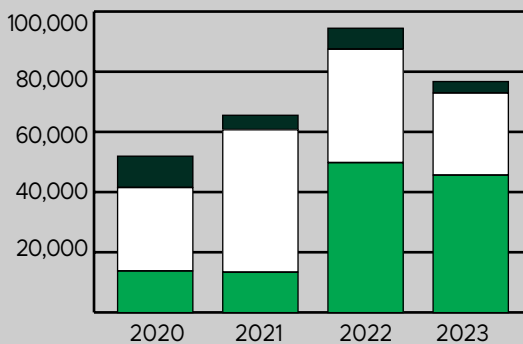
annual impact of food and agriculture on Michigan's economy

300 commodities

Michigan ranks second in the nation in crop diversity due to its unique climate, topography and impact of the Great Lakes

REACHING PEOPLE WHERE THEY ARE

Michigan is agriculturally diverse both in what we produce and who produces it. Through our efforts to reach farmers at every level and size of production wherever they may be, MSU Extension goes beyond traditional methods of working with farmers. We understand that some farmers may not be able to meet in person either due to distance or timing of an educational offering, so we have incorporated a vast array of in person, online learning and digital informational opportunities to meet people where they are and when they have time to consume information integral to their success.



in-person participants
 virtual participants
 virtual and in-person participants mix

KEY PROGRAMMING IMPACTS

Michigan State University (MSU) Extension educators work with farms of all sizes to positively impact individual farming operations. When individual operations do well, their success helps to fuel state and local economies.

Since 2018, the **Field Crops Virtual Breakfast Series** has provided timely crop and pest management information to field crop producers and agronomists for 26 weeks during the growing season when important decisions are made. Participants hear weekly crop and pest updates, detailed weather updates and forecasts, earn pesticide recertification credits and have ample opportunity to ask questions. Sessions are accessed through participating live via Zoom, listening to podcast recordings, viewing YouTube video recordings or Facebook livestream. In 2023, 4,729 participants attended the live sessions, 7,888 viewed the YouTube recordings and another 2,171 listened to podcasts. Surveyed recipients of the program indicated that they planned to make changes producing a projected additional cost savings or income of \$2,816,810 in 2024.

14,788

total views/plays of live and recorded sessions in 2023



The **Greenhouse College of Knowledge Online Course Series** provides basic training to commercial greenhouse growers in Michigan, the U.S. and internationally in an easy-to-access and cost-effective manner. Four non credit online courses are offered yearly during the winter in both English and Spanish. Each course offers between 2.5 and 4 hours of pre-recorded video, handouts, quizzes and additional sources of information. A total of 1,343 participants took the online greenhouse courses. The participants represented 47 countries, 48 U.S. states and 42 Michigan counties.

1,343

participants took online greenhouse courses





2,363

pounds of phosphorus prevented from leaving farm fields



Having clean water is important to our health and the health of the world around us. Farmers use **nutrient management** to keep the nutrients used to grow our food in the soil and out of the water where it can cause problems such as harmful algal blooms and fish kills. MSU Extension's efforts benefit water quality by helping maintain the integrity of the Great Lakes. Research, education and outreach efforts in the Western Lake Erie Basin, Saginaw Bay and Macatawa Watershed contribute to meeting water quality goals across Michigan. MSU Extension educates farmers on ways to reduce nutrient and sediment inputs in the Great Lakes. The most popular practices to improve water quality in watersheds have been cover crops and nutrient management. There were 3,948 acres of cover crops installed in the St. Joseph River Watershed of the Maumee Watershed in the Western Lake Erie Basin and 1,433 acres of nutrient management planning has been contracted. Approximately 289.4 tons of sediment, 664 pounds of nitrogen and 2,363 pounds of phosphorus have been prevented from leaving farm fields.

The agriculture industry is one of the most hazardous industries, and farm workers have a high rate of work-related fatalities. To reduce injury and death from grain engulfment, MSU Extension, Michigan Farm Bureau, Michigan Farm Bureau Insurance and Michigan Corn sponsored a **confined space grain bin safety training** and rescue program at various locations in Michigan. The safety programs were designed for farmers and rescue programs were for first responders. For the grain bin rescue training, grain bin extraction was demonstrated multiple times so every first responder got hands-on experience in extracting someone from the grain. They also learned how to cut into a grain bin without making it topple over to one side.

44

grain bin rescue certificates awarded to first responders



43

farmers from 16 counties attended manure pit and grain bin safety programs



MSU Extension's **pollinator programming** focuses on instructing beekeeping through webinars, in-person presentations and in-hive workshops; sharing pollinator protection best practices with farmers, growers, gardeners and other pesticide users; encouraging land managers and home gardeners to grow flowering plants for pollinators; supporting commercial beekeepers through applied research; and training veterinary practitioners in apiculture and honey bee medicine.

8,500

people participated in pollinator programs in 2023



5,499

participants attended vegetable-related educational programs in person and virtually

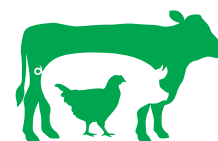


Michigan growers farm over 100,000 acres of **vegetables** across more than 3,000 farms, producing a uniquely diverse set of crops. Michigan is among the top five states in the production of asparagus, beets, celery, cucumbers, parsnips, radishes, snap beans, squash, tomatoes and turnips. MSU Extension has on-campus vegetable researchers and strategically placed educators who work with local vegetable growers in key regions.

MSU Extension's **Emergency Response to Accidents Involving Livestock (ERAIL)** provides training and resources for local governments and law enforcement that keep travelers, animals and our food supply secure when dealing with accidents involving livestock. When these accidents occur, first responders and many animal control officers don't have adequate training or equipment, which can be dangerous for responders, travelers and the animals. MSU Extension trains animal control officers and first responders how to work safely with large animals and use specialized animal containment and handling equipment. Standard response vehicles do not have animal containment and handling equipment, so MSU Extension initially supplied three response trailers with this equipment. In 2024, a grant partnership with the Michigan Department of Agriculture and Rural Development allowed MSU Extension to place three more fully stocked ERAIL response trailers throughout Michigan in areas that frequently receive animal transportation traffic. Three additional trailers will be funded in 2025 for a total of nine statewide trailers that will help responders keep animals and humans safe while efficiently clearing the roadway.

700

first responders and industry partners trained



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