

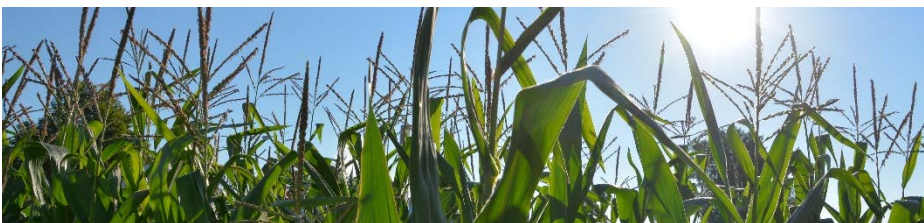


Field Crop Production

Cultivating Sustainable Field Crop and Forage Systems

Michigan agriculture continues to be a diverse and thriving segment of the state's economy. When you support Michigan State University (MSU) Extension, producers learn efficient farming practices that enhance crop productivity while protecting soil and water resources. This education leads to better use of time, money and human capital, which helps retain and create agricultural jobs. Together, these measures strengthen Michigan's economy, encouraging growth of a sustainable and prosperous food and agriculture system.

In 2015, the state's \$56.6 million investment in MSU AgBioResearch and MSU Extension generated more than \$1 billion for Michigan residents. Every dollar the state invested in MSU AgBioResearch and MSU Extension leveraged an additional \$2.59 in federal funds and external contracts, grants and other revenues, including nearly \$1.3 million leveraged by MSU Extension children and youth programs alone. As a result, MSU Extension and MSU AgBioResearch are able to serve Michigan residents with a benefit/cost ratio of 18:1.



THE ISSUE

Michigan is unique in its diversity of fresh water resources, climate zones and soil textures. This contributes to Michigan's status as one of the most diverse agricultural economies in the U.S. Michigan is famous for producing specialty fruit, vegetable and floriculture crops. However, underpinning specialty crop agriculture in the state is a strong and stable field crops sector.

Field crops in Michigan include corn, soybeans, alfalfa/hay and wheat, but also important specialty row crops like sugar beets and dry beans. Diversity in the field crops sector allows for longer, multi-crop rotations in Michigan, in contrast to the typical two-year corn-soybean rotation practiced in much of the Corn Belt. Specialty and organic field crops are additional sources of income for Michigan farmers.

Field crops are grown on more than 18,500 (34.3 percent) of Michigan's 54,000 farms, and by the majority of commercial farmers in the state. In terms of sales receipts, field crops as a whole accounted for 42 percent of the market value of Michigan agricultural products in 2012. Five field crops—corn, soybeans, hay, sugar beets and wheat—are among the top 10 commodities produced in the state in terms of gross value. Four of the remaining top 10 are livestock-related—milk, cattle, hogs and eggs. Livestock production depends on locally-produced field crops for feed.

MSU EXTENSION ACTION

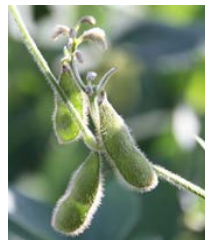
The MSU Extension Field Crops Team has a long history of providing research-based knowledge to address the needs of field crop producers across Michigan. Twelve faculty specialists and 18 county-based educators are currently assigned to field crops extension in Michigan. Faculty specialists are experts in their fields of study, conducting research and sharing recommendations based on their findings with growers. Field educators work side-by-side with producers, delivering educational programming on either a regional or statewide basis. Each educator covers on average 322,000 acres.

In addition to general field crop expertise, many educators have a special focus that fits their educational background or coverage area in Michigan, including commodity-specific outreach.

Michigan field crop producers are also supported by a number of commodity organizations that engage in market development, research and outreach. These organizations are valuable partners for the MSU Extension Field Crops Team, expanding its capacity through grower engagement, financial support, and in some cases, direct funding of MSU Extension staff positions.

THE IMPACT

To meet the needs of Michigan's field crop sector, MSU Extension focuses on assisting producers in four key areas: improving production efficiency, mitigating production risk, increasing economic activity and enhancing sustainability. Major programming initiatives within these categories are developed and prioritized according to input from advisory groups consisting of growers, agribusinesses and public agency partners.



In 2015, over 290 MSU Extension field crop programs reached approximately 6,600 farmers and agribusiness professionals from 71 counties across the state. As a direct result of these educational opportunities:

- **306 farms and 15,145 additional acres** adopted practices or technology to increase yield, improve quality or decrease inputs.
 - › Examples include: planting improved crop varieties, fertilizer nutrient stewardship and efficient irrigation practices.
- **359 farms and 5,934 additional acres** adopted practices or technology to mitigate production risk.
 - › Examples include: pesticide resistance prevention, monitoring emerging pests and evaluating niche/specialty field crops.



- **\$7,210,251 of savings or added revenue** was generated and **42 new businesses** were created.
 - › Examples include: enhanced crop yields, reduced input costs and beginning farmer development.
- **28 farms and 12,068 additional acres** adopted practices or technology to reduce fertilizer and pesticide use, soil erosion and runoff.
 - › Examples include: conservation tillage, cover crop adoption and soil health monitoring.

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