



PROVIDING TIMELY & RELEVANT INFORMATION TO PRODUCERS & AGRONOMISTS

12,844

field crop producers and agronomists were reached through a wide array of educational methods.

2,029

direct one-to-one consultations were provided.

97%

of surveyed producers and agronomists improved their knowledge by participating in Michigan State University (MSU) Extension programs (n = 1650).

PRIORITY

A R E A S

The following priority areas were identified by regional advisory groups composed of producers, agribusiness representatives, Michigan Farm Bureau and commodity groups:

- Cropping systems agronomy
- Nutrient management and soil health
- Farm profitability
- Pesticide resistance and integrated pest management
- Government regulation and policy

For additional information regarding field crops educational programs, research projects and materials, visit www.canr.msu.edu/field_crops.

IMPACTS

The MSU Extension field crops team has a long history of providing research-based knowledge to address the needs of field crop producers and agronomists across Michigan. The team consists of 18 faculty specialists and 12 county-based educators. 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, agribusinesses and agencies, delivering educational programming on either a regional or statewide basis. Exit surveys conducted at educational programs revealed the following combined impacts:



1,475,987

acres were projected to be impacted by the new information learned.



\$12.00

per acre was the projected additional income generated by implementing the new information.



\$17,732,980

was the total projected financial impact in 2022.

“*I think the series provides timely information in a convenient format and I look forward to next season.*”

• Virtual Breakfast Series participant

VIRTUAL BREAKFAST SERIES



PowerPoint slide showing the specialists and educators that gave Virtual Breakfast presentations in 2022.

The MSU Extension field crops team has planned, promoted, conducted and evaluated the Virtual Breakfast Series since its inception in 2018. The purpose of the Virtual Breakfast Series is to provide timely crop and pest management information to field crop producers and agronomists during the growing season when important decisions are made. Participants hear weekly crop and pest updates as well as detailed weather updates and forecasts from MSU's state climatologist, earn pesticide recertification credits and enjoy ample opportunity to ask questions.

Twenty-six weekly sessions were conducted from late March through September 2022. The sessions featured an expert presenting their latest research results and recommendations on a timely and relevant crop or pest management topic, an agricultural weather update and forecast, and an open-ended question-and-answer session. Three "hot topic" sessions were strategically scheduled throughout the growing season to allow more time for meaningful interaction between the participants and the experts.

The Virtual Breakfast Series was recognized by agriculture Extension educator peers as the national winner of the 2023 Search for Excellence Award from the National Association of County Agricultural Agents for outstanding Extension educational programming in crop production.

“This series provides much information about current topics/issues and is a great tool for farmers to gain knowledge. It generates discussions between us farmers as well outside of the series airtime. You guys do a GREAT job with this, and I thank you for providing this information and discussions.”

- Virtual Breakfast Series participant

Producers and agronomists accessed the sessions through various channels, such as participating in the live sessions via Zoom, listening to podcasts, viewing videos on YouTube or connecting through Facebook Live. In 2022, 3,869 producers and agronomists participated in the live sessions for an average of 149 participants each week. A total of 5,122 producers and agronomists viewed the YouTube recordings and another 2,448 listened to podcasts. The live sessions reached producers and agronomists in 15 states and eight countries in addition to those from Michigan.

A follow-up survey distributed six weeks after the last weekly session of the season evaluated the financial and educational impacts of the program. Respondents indicated that they planned to make changes on 473,374 acres producing a projected additional cost savings or income of \$7,207,969.

PEST & CROP MANAGEMENT UPDATES



Overhead view of participants at an educational meeting sponsored by MSU Extension, the Michigan Soybean Committee and the Michigan Bean Commission held at the Saginaw Valley Research and Extension Center.

MSU Extension provided information and resources to help field crop producers address their pest and crop management challenges using a variety of educational methods. Six in-person educational meetings for producers and agribusiness agronomists were conducted across the state.

One of these was designed primarily for agribusiness agronomists and welcomed 408 participants — 185 in-person and 223 online. The participants strongly supported offering the program in-person with a virtual option. The educational and financial impacts of this program were determined in two ways — the actual impacts from the 2021 program and the projected impacts from the 2022 program.

- 69 of 162 survey respondents (43%) who participated in 2021 indicated that they changed some aspect of their business in 2022. These changes impacted 437,733 acres and resulted in \$3,852,458 in increased revenue in 2022.

- 125 of the 279 survey respondents (45%) at the 2022 program planned to make changes in 2023. These projected changes would impact 476,323 acres and result in an estimated \$5,174,968 in increased revenue or savings.

MSU specialists also presented their latest crop and pest management recommendations at five in-person regional meetings conducted across the state in 2022. The agenda was adjusted at each location to meet regional needs. A total of 267 producers and agronomists participated in these programs. The participants indicated that they plan to make changes to 292,269 acres, which are projected to produce \$2,913,515 in additional revenue or savings in 2022.

“I really appreciated the time spent talking about the fiscal aspect with the input costs and the commodity prices. Overall, I think it was the best and most thorough such meeting I have ever attended.”

- *Pest and Crop Management Update participant*

FIELD CROPS WEBINAR SERIES

The MSU Extension Field Crops Webinar Series informs agriculture professionals across the state in the comfort of their own homes every winter. Eight weekly sessions were conducted in February and March. Each session featured one or more specialists who gave interactive presentations around managing risk and improving productivity on farms. The audience is typically farmers and agriculture advisors. The 2022 season was as well attended and successful as previous iterations.

A total of 1,544 people participated in the Field Crops Webinar Series live for an average of 193 participants per week. An additional 222 participants watched the recordings of the sessions. Approximately 1,063 people completed the webinar survey, which allowed them to get pesticide applicator recertification credits and complete an impact questionnaire. Seventy-five percent of the respondents were farmers and the remainder were agribusiness professionals. Most of the farmers grew corn, soybean, wheat and some forages. Eighty-six percent of survey respondents reported that they learned something (n=918) and 35% (n=368) indicated they plan to make changes as a result of attending this program. The intended changes will impact 234,021 acres and generate projected additional cost savings or income of \$2,436,528 in 2023.

After 10 months, a follow-up with registrants revealed the practices that were actually implemented. Only 18% of

registrants chose to complete the follow-up survey, and 80% of these were farmers (n=33). Nineteen respondents reported to have made changes on their farms due to information gained from the webinar in 2022, accounting for 1,500 acres and projected cost savings or income of \$71,500.

“You did a wonderful job with the presenters you featured. Very helpful to hear hands-on information from the field.”

- *Field Crops Webinar Series participant*

SOYBEAN ON-FARM RESEARCH & EDUCATION PROGRAM

MSU Extension hosted seven production-focused soybean education meetings that reached 313 producers and agronomists in 2022. Follow-up evaluations were mailed to program participants at the end of the 2022 harvest season to measure and document the actual educational and financial impacts of the programs. A summary of the survey results follows:

71

producers earned additional income by implementing the new information they learned in 2022.

\$15.63

per acre in additional earnings was generated on 26,700 acres.

\$417,297

is the reported actual total financial impact of the programs in 2022 alone.

MSU Extension and the Michigan Soybean Committee cooperated to plan, conduct and summarize 59 on-farm trials in 2022. Eleven projects, based on input from more than 300 producers and agronomists, were evaluated in the trials. The research results were summarized in a 32-page research report that was mailed directly to more than 11,000 soybean producers and distributed at in-person programs.



Participants at the 2022 soybean harvest equipment field day held in Allegan County



Center pivot irrigation system running in a seed corn field

IMPROVING IRRIGATION EFFICIENCY & WATER USE REPORTING

In 2022, staff from the MSU Department of Biosystems and Agricultural Engineering and MSU Extension developed and delivered 43 presentations focused on improving irrigation system uniformity and irrigation scheduling. These presentations were given at field days hosted by MSU Extension, commodity groups, other state agencies and irrigation equipment suppliers. More than 2,283 farmers, agricultural professionals and policy makers participated. The participating farmers irrigate a variety of crops including field crops, fruits, vegetables and ornamentals. In 2022, the number of visitors to the MSU Biosystems and Agricultural Engineering Irrigation website increased by 20% compared to 2021.

Awareness and compliance education on the topic of large volume water use (LVWU) registration and reporting requirement was provided to over 1,200 Michigan producers as a part of 53 educational meetings during 2022. Michigan LVWU registration and reporting requirements education is targeted at areas of high LVWU and low compliance.

“We regularly attend this program, so I have picked up quite a bit of information over the years. The white mold information and how to manage beans under irrigation have been the most helpful. Lower populations, white mold tolerant soybeans, watering schedules, row widths, etc. have been the changes we recommend to customers.”

• Michiana Irrigated Corn and Soybean Conference participant

MSU Extension and Purdue University Extension have collaborated with the corn and soybean checkoff organizations in Michigan and Indiana to conduct a high-profile, multi-state educational program since 2014. The goal of the program is to provide information to help producers mitigate the challenges and maximize the opportunities associated with irrigated corn and soybean production. Ninety-three producers and agronomists participated in the 2022 conference. The results of a follow-up evaluation of the 2022 conference follows:

10 producers said they actually earned additional money by implementing the new information they learned at the program.

\$22.44 per acre of additional income was generated on 6,429 acres.

\$144,242 is the reported actual total financial impact of the program in 2022 alone.