

## Southwest Michigan Field Crops Update August 15, 2024

Here are updates from the MSU Extension Field Crops team in Southwest Michigan. If you have any items you would like me to include in future email updates—whether events you want others to know about or topics you would like to have addressed—please send an email or call the St. Joseph County Extension office.

- Announcements
- [Field Crops Update](#)
- [Weekly Crop Water Use](#)
- [Weather Update](#)
- [Calendar](#)
- [MSU Extension Digest Briefs](#)

## Please Take This One-Question Survey!

This is to gauge the interest for crop scouting trainings in southwest Michigan. Please help us out by showing how interested you would be in attending a training hosted by MSU Extension in southwest Michigan.

[https://msu.co1.qualtrics.com/jfe/form/SV\\_ea54ZZlpRgP3Yj4](https://msu.co1.qualtrics.com/jfe/form/SV_ea54ZZlpRgP3Yj4)

## FREE SW MI On-Farm Research Field Day Wednesday, August 28, 2024

Join us to hear the latest and greatest in disease and crop management and irrigation and soybean research. Educational sessions will start the day off, followed by lunch and then a short tour of a couple research plots. The day will finish with an interactive pivot performance evaluation. The event starts at 9:00 am on Wednesday, August 28 at Covered Bridge Farm (56705 Covered Bridge Rd, Three Rivers, MI 49093). **Two RUP and 3.5 CCA (2 SW, 1 IPM, 0.5 CM) credits are available.** Courtesy of the Michigan Soybean Committee and NRCS, this event is offered free of charge. Whether you've collaborated on research in the past or not, all are welcome to attend! Check out [this article](#) for more information or [register here](#).

MICHIGAN STATE UNIVERSITY | Extension

August 28, 2024  
9:00 am - 2:30 pm

Covered Bridge Farm, 56705 Covered Bridge Rd, Three Rivers, MI

**FIELD DAY**  
**ON-FARM RESEARCH**

**REGISTER**

[bit.ly/on-farm-research](https://bit.ly/on-farm-research)

[msue.stjoseph@county.msu.edu](mailto:msue.stjoseph@county.msu.edu)

## FREE KBS LTAR Field Day Thursday, September 5, 2024

September 5th will be the second annual field day at the Kellogg Biological Station (KBS) Long-Term Agroecosystem Research (LTAR) site (9693 N 40th St. Hickory Corners, MI 49060). This year we will highlight early agronomic and ecological outcomes in our system with a 5-crop rotation, no-till, cover crops, and precision ag technologies. We'll also discuss the practical tips, tricks, and adjustments needed to make conservation practices work. Any and all agricultural and conservation practitioners and professionals are invited to attend! Registration highly encouraged for this free event. Morning refreshments, snacks, and lunch provided! Reach out to Tayler Ulbrich ([chico1@msu.edu](mailto:chico1@msu.edu)) or Christine Charles ([charl122@msu.edu](mailto:charl122@msu.edu)) with any questions.

Registration & more details: <https://events.anr.msu.edu/ltarfieldday2024/>

## FREE Harvest Equipment Field Day Thursday, September 26, 2024

The 14<sup>th</sup> Annual Soybean Harvest Equipment Field Day will be held in Lenawee County on September 26<sup>th</sup> from 10 am to 3 pm. This is a free event thanks to the Michigan Soybean Committee.

[Read more about this event](#) or [register here](#).



### 14<sup>th</sup> Annual Soybean Harvest Equipment Field Day

10 am – 3 pm, Thursday, Sept. 26, 2024

3308 S. Blissfield Highway, Blissfield, MI, Lenawee County

**WHAT:**

Reducing soybean harvest losses is an easy and effective way to increase soybean yields by one to two bushels per acre and income by \$10.80 to \$21.60 per acre in 2024. This field day will provide participants with information and educational materials about reducing soybean harvest losses. Farmers, agribusiness professionals, agency staff, and those interested in agriculture are welcome to attend. Equipment company representatives will discuss specific recommendations for fine-tuning their combines and the following topics and equipment will be demonstrated or presented.

- Draper heads
- Auger heads
- Air-assisted reels
- Harvest loss measurements
- Harvest recommendations
- Common harvest errors

A soybean desiccation demonstration as an aid to soybean harvest is planned. MSU Extension field crop weed specialist Dr. Christy Sprague will discuss desiccating soybeans and give a sneak peek at research being conducted in her lab.

**AGENDA:**

Check-in at 10 am, presentations begin at 10:30 am. Lunch will be provided free of charge. The afternoon will consist of demonstrations of soybean harvest representing a wide range of equipment manufacturers and technologies. The day will conclude by 3 pm.

**CREDITS:**

2 RUP and 4 CCA credits have been requested

**COST:**

Cost is FREE due to generous funding from the Michigan Soybean Committee

**REGISTRATION:**

Pre-registration is required **by Sept 19<sup>th</sup>** to reserve a meal. Walk-ins will be accepted but lunch is not guaranteed. Use this QR code to register or visit <https://events.anr.msu.edu/SoybeanHarvest24>.



**SPONSORS:**

EGA Inc., John Deere - Hutson, Redline Equipment, Burnips Equipment, Drexel Chemical, A3 AWS Airbar Systems, Michigan Soybean Committee, and Michigan State University Extension

**COMMUNICATION:**

Be sure your email and cell phone are correct when you register and check both in the days leading up to the event should it need to be postponed due to weather, delayed crop development, etc.

Michigan State University is an affirmative-action, equal-opportunity employer. MSU Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Accommodations for persons with disabilities may be requested by contacting Eric Anderson at 269-359-0565 two weeks prior to the start of the event. Requests received after this date will be honored whenever possible.



## Climate Change Research Opportunity

[This project](#) seeks to understand how climate change and extreme weather events impact crop yields, soil health, and the economic well-being of farmers across Michigan, while facilitating opportunities for Michigan farms to contribute to climate change solutions.

### Options for levels of Farmer Participation

- A. Any farmer interested in participating in a soil health assessment. Two fields of your choice will be sampled by a team of researchers Fall of 2024. (~ 80 participant limit).
- B. Conventional farmers who are interested in establishing regenerative practices such as cover cropping or buffer strips, but would like guidance through the process over the three-year study period (~5 participant limit)
  - a. This does not require shifting whole style of farming, just implementing new methods on select field(s)
  - b. Support regarding how this may work financially from farm collaborators and researchers
- C. Farmers currently using regenerative practices who would like to partner with researchers on this project for three years (~20 participant limit)

[Enroll in project here](#) or with the QR code below.



## Confidential Soil Nutrient Practices Survey

Soil nutrient deficiencies that limit crop yield are often foremost on farmer's minds but nutrient excesses, especially phosphorus and nitrogen, seem to grab the headlines. Since Michigan is surrounded by our five Great Lakes which ultimately receive any excess soil nutrients, there is an urgent need to identify best practices which feed crops adequately without adding to nutrient loading in the Lakes. Variation in soil type, soil texture, crops and cover crops grown, and crop rotations can have a huge impact on effectiveness of soil nutrient management practices. Vicki Morrone in the Department of Natural Resources at Michigan State University is part of a team evaluating the relationship among soil type, crops grown, and practices used to manage soil phosphorus and nitrogen. She is asking farmers from all types of production systems to help identify practices they use by filling out a brief anonymous online survey describing soil conditions and approaches used for soil phosphorus and nitrogen management. The information shared will help identify promising approaches for researchers to test on different soil types and with different field crop, vegetable, fruit, and pasture rotations. The survey will take about 15 minutes to complete, and everyone who completes it can be entered into a drawing for MSU hoodies. Deadline for survey is November 1, 2024. Winners will be announced on December 1, 2024, and mailed their prize. This work is funded by the USDA National Institute of Food and Agriculture. If you have questions, please email Vicki Morrone at [sorrone@msu.edu](mailto:sorrone@msu.edu). To access the survey, just point your phone camera at the QR code and tap the link when the address on the phone screen. This will take you to the confidential survey.



## Field Crops Update

Most **soybeans** are still at R5 as seeds continue to fill. This is a time of high water use for the plants, and water stress can reduce yields or affect seed fill. Read more about it in the article [“Irrigation during peak crop water use”](#). Some soybeans have reached R6, meaning the seeds are green but fill the pod cavity. The next stage, R7, is marked by one pod on the plant reaching mature pod color.



**White mold** has made an appearance in some fields. The distinctive white fuzz and hard black sclerotia can be found by checking underneath the canopy, especially in dense stands or areas where water may have pooled. Although this is peak water use for soybeans, it is a delicate balance for irrigators to provide sufficient water for seed fill without worsening white mold symptoms in the canopy. A variety of **stink bugs** are also present in soybeans with some pod feeding occurring. Although some seed damage may occur from feeding, they generally do not cause damage at an economic level, and natural predators help keep the population in check. The **Spined Soldier Bug (SSB)** is a predatory stink bug that feeds on stink bug pests. When assessing stink bug damage, do not include SSB in counts. Stink bugs are identifiable by their shield-shaped bodies and barrel-shaped eggs.

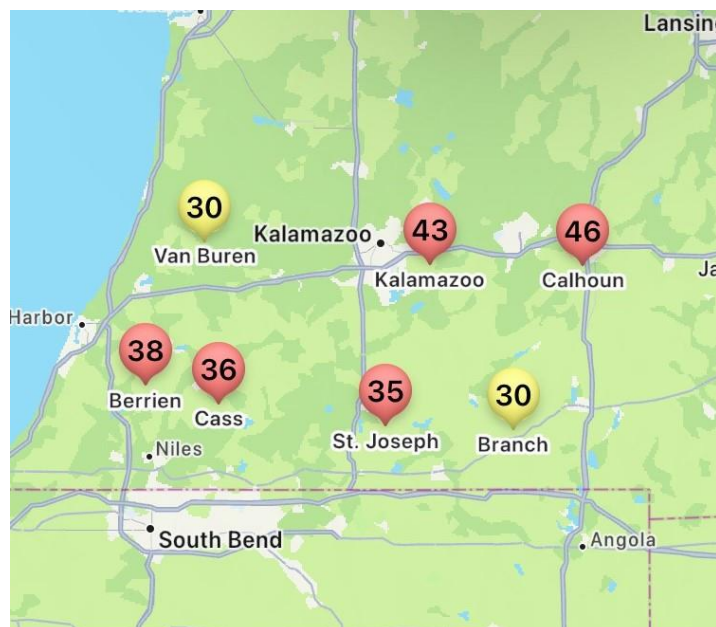


## Southwest Michigan Field Crops Update – August 15, 2024 - 5

**Corn** is mostly at R3 (milk) and R4 (dough), with some acres at R5 (dent). At R5, grain fill is complete, and the kernel begins to dry down toward the cob. The milk line is visible and shows the progress of starch accumulation.



**Tar spot** has not been reported in any new counties in southwest Michigan. It is important to scout fields to understand the specific pressure in each location. To properly scout, walk through the corn and pay especially close attention to the ear leaf. It is important to physically walk through the field since once tar spot is visible from a vehicle, it is at a much higher pressure and can be difficult or less effective to treat. For example, the leaves pictured below show the weekly progression of tar spot in the same area of an untreated field. The first lesions appeared at early milk (R3) stage. A spray at that time most likely would have been beneficial. Now, at dent (R5), tar spot is just barely visible from a slow-moving vehicle, but there are many more lesions on the leaf, and a spray at this time is not as beneficial. The Tarspotter app shows mostly high tar spot risk for southwest Michigan for August 15, 2024.



## Southwest Michigan Field Crops Update – August 15, 2024 - 6

**Potatoes** continue with early harvest and vine kill for storage acres. The cool temperatures were good for bulking but also ideal for late blight development. The cases of late blight in St. Joseph County have been contained and appropriately cleaned up, but it is still important for scouting to continue and protective fungicides on fields where vine kill is not imminent.

Most acres of **alfalfa and forages** are on a third cutting with some even approaching a fourth cutting. The drier weather from this past week was good for cutting and baling.

### Weekly Crop Water Use

Estimated weekly crop water use for field crops in Michigan (in/week)				
Week of August 12 - 18				
Crop	Growth stage	Constantine	Entrican	Hart
Corn	VT	1.25	1.16	1.22
	Silk, Blister, Dough, Begin dent	1.25	1.16	1.22
	Full dent	1.14	1.06	1.11
Soybeans	R2 Full bloom	1.25	1.16	1.22
	R3 and R4 Begin pod/Full pod	1.25	1.16	1.22
	R5 and R6 Begin seed/Full seed	1.25	1.16	1.22
	R7 Begin Mature	1.14	1.06	1.11

Peak water use continues for both soybeans and corn, making it essential to optimize irrigation efficiency and productivity. Irrigators should aim to apply enough water to meet five to six days' worth of crop needs per irrigation application. This week, daily crop water use is estimated at 0.17 to 0.20 inches, however it may vary across regions, agronomic practices and soil. For soybeans affected by white mold, larger irrigation applications are recommended to reduce continuous canopy moisture. If your soybeans are nearing the R7 stage, water needs will decrease, and under Michigan's weather conditions, additional irrigation may not be necessary to reach R8 stage. Keep an eye on crop water use, weather forecasts, and leave room for potential rainfall. As corn advances to the full dent stage, reduced transpiring leaf area and lower solar radiation will significantly decrease water requirements, though irrigation might be necessary. It's essential to continue monitoring soil moisture levels and water use until the crop reaches physiological maturity.

The table above presents estimated crop water use for various field crops across three locations in Michigan. This data helps irrigation management decisions by showcasing potential crop evapotranspiration, calculated based on reference evapotranspiration and crop coefficients for each crop growth stage. It is crucial to note that crop water use values vary across regions due to differences in weather conditions, growth stages, agronomic practices and soil properties. When using these values for irrigation scheduling, be mindful that they assume all applied irrigation water will be utilized by the plants without any loss. Additionally, these values do not account for any precipitation that may occur during the week of calculation. For more tools and information on irrigation scheduling tools, please refer to: [Irrigation Scheduling Tools](#).

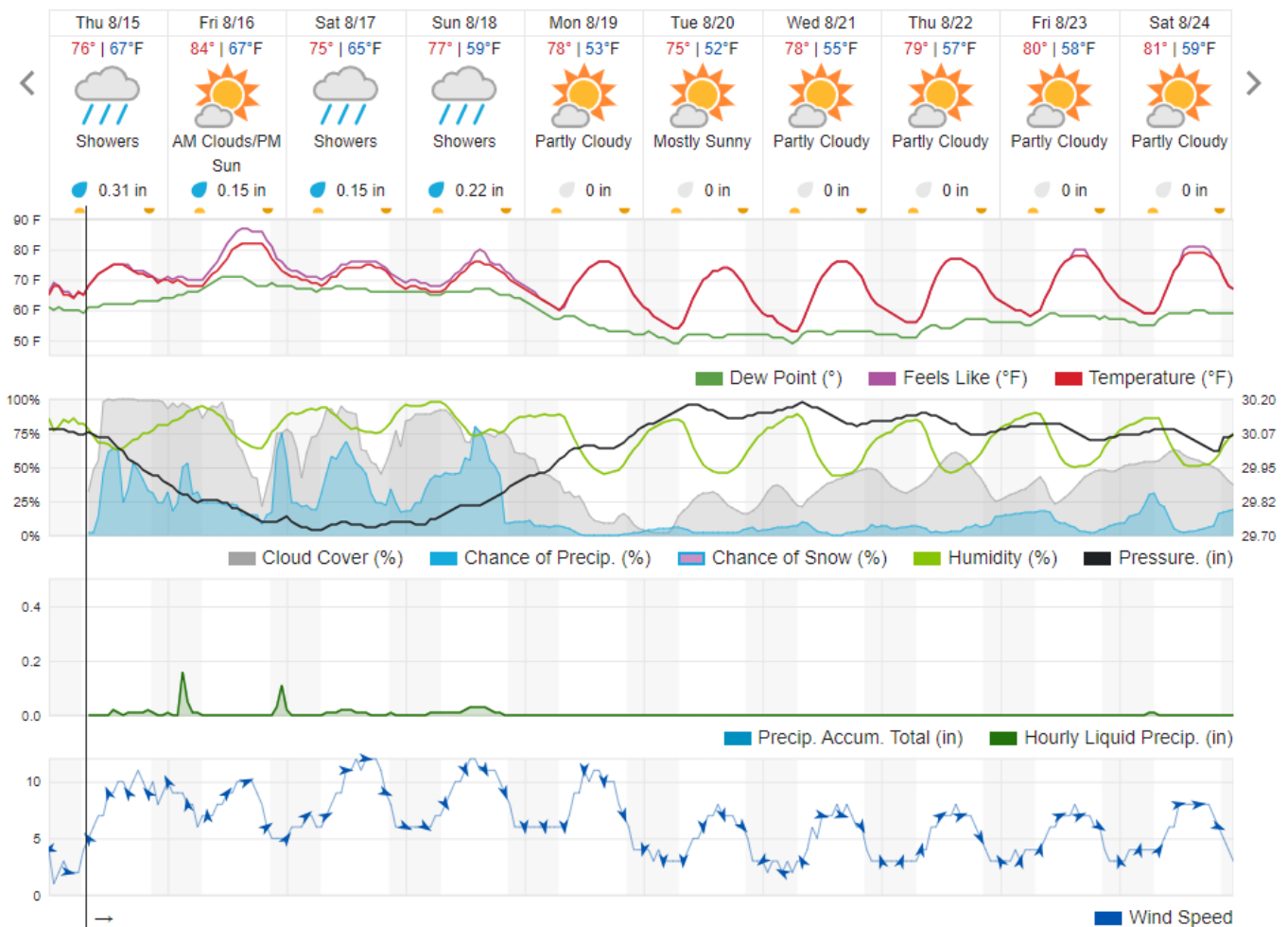
# Southwest Michigan Field Crops Update – August 15, 2024 - 7

Reference evapotranspiration data was obtained from Enviroweather, which also offers a model for determining potential crop evapotranspiration. To access this tool, visit [Enviroweather](#), click on "Crops," select your crop and use the potential evapotranspiration tool by choosing your nearest weather station, the latest date of interest and other crop information.

## Weather Update

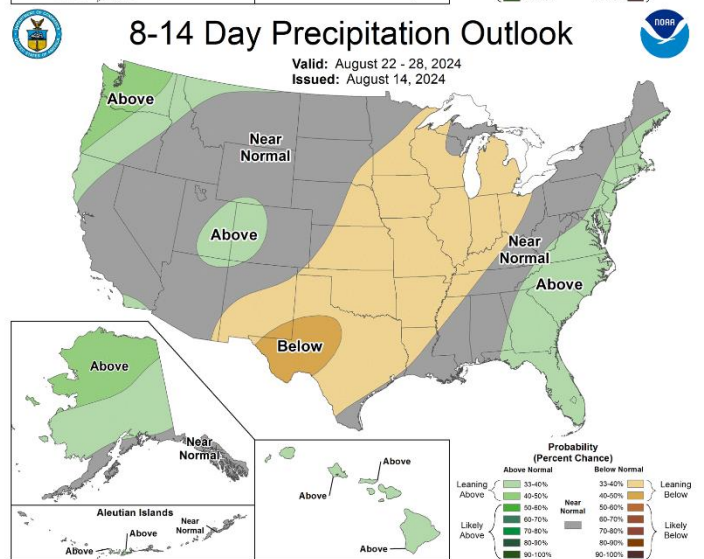
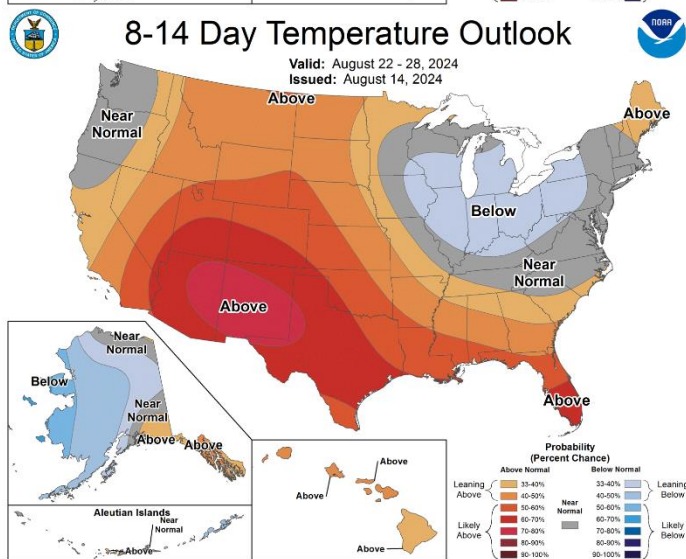
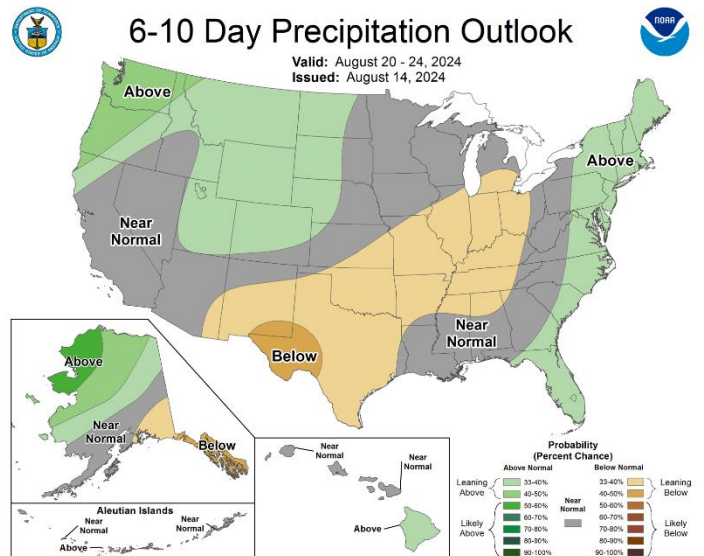
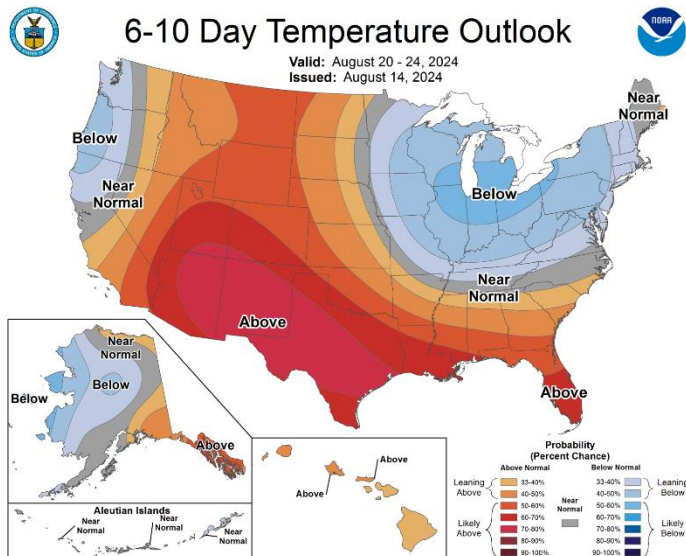
This week saw mostly cool and dry weather. The temperatures favored disease development, although the lower relative humidity and infrequent precipitation did not. These temperatures are expected to continue for the next week or two before returning to warmer than normal. There will be several chances of precipitation developing from west to east over the next three days in the form of mostly showers (some thunderstorms). This will return us to cooler temperatures and drier than normal before the next probability for precipitation arrives late next week.

For a weekly weather outlook from MSU's Jeff Andresen, join the free [Virtual Breakfast](#) meeting every Thursday through Sept 19. The weather update starts around 7:15 am (after the weekly topic).



Ten-day weather forecast for Kalamazoo according to wunderground.com.

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The 6-10 day (Aug 20-24, top) and 8-10 day (Aug 22-28, bottom) outlooks for temperature (left) and precipitation (right).

## Calendar

[Note: Titles are clickable links to online content when highlighted and underlined.]

- Aug 15** [Virtual Breakfast: Field Crops Nematode Update](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.
- Aug 22** [Virtual Breakfast: Lime](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.
- Aug 28** [On-Farm Research Field Day—SW MI](#). 9:00 am. Three Rivers, MI. Speakers will share key learnings from past research, and participants will be able to visit fields with current research plots and an interactive pivot performance evaluation.
- Aug 29** [Virtual Breakfast: Maximizing Wheat Yield Potential](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.



## Southwest Michigan Field Crops Update – August 15, 2024 - 9

- Sept 5** [\*\*KBS Long-Term Agroecosystems Research Field Day\*\*](#). 9:00 am. Kellogg Biological Station, 9693 N 40th St., Hickory Corners, MI 49060. This field day will focus on field crops, soil health and regenerative agricultural practices.
- Sept 5** [\*\*Virtual Breakfast: Drought-proofing Agriculture w/ Drainage Water Recycling\*\*](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.
- Sept 12** [\*\*Virtual Breakfast: Grain Marketing\*\*](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.
- Sept 19** [\*\*Virtual Breakfast: Late Season Weed Control\*\*](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.
- Sept 19** [\*\*Soybean Harvest Equipment Field Day\*\*](#). 7:00 am. The weekly online program provides timely, relevant information to keep field crop farmers and consultants up to date with rapidly changing crop conditions, pests, diseases and environmental conditions during the growing season. Register once for entire series online.

## MSU Extension Digest Briefs

### PESTICIDE USE AND SEED SELECTION HIGHLIGHTED IN NEWEST MSU EXTENSION BULLETINS

PUBLISHED ON AUGUST 19, 2024

New resources available from MSU Extension's DEMaND Series.

### MSU RESEARCHERS DEVELOP LOW-COST SENSORS TO HELP FARMERS IRRIGATE MORE EFFICIENTLY, MANAGE DISEASES

PUBLISHED ON AUGUST 14, 2024

Scientists have developed a system called LOCOMOS to monitor irrigation efficiency.

### MONITORING AND DATA COLLECTION: A SUMMER JOURNEY THROUGH REGENERATIVE AGRICULTURE

PUBLISHED ON AUGUST 14, 2024

Monitoring and Data Collection: A Summer Journey Through Regenerative Agriculture

### WORKING WITH AGRICULTURAL STAKEHOLDERS TO UNDERSTAND AND ADDRESS LABOR CHALLENGES

PUBLISHED ON AUGUST 13, 2024

Impact report about working with agricultural stakeholders.

### BULLETIN E-3429 INTRODUCTION TO PESTICIDE USE AND PLANNING

PUBLISHED ON AUGUST 08, 2024

As a new or beginning farm manager, you may be raising crops to reduce feed costs or to sell on the market. A common challenge to raising crops is managing various pests that would damage or limit potential yields. This publication explores the process of using chemical pest suppression (e.g., pesticides) and is intended to help you develop a pesticide plan for your farm.

### SOUTHWEST MICHIGAN FIELD CROPS UPDATE – AUGUST 8, 2024

PUBLISHED ON AUGUST 08, 2024

Potato late blight confirmed in another commercial field in St. Joseph County. White mold visibly present in some fields. Tar spot continued to develop.

### RESEARCH AND PIVOTS AND VOLES, OH MY! COMING AUGUST 28 TO SOUTHWEST MICHIGAN

PUBLISHED ON AUGUST 08, 2024

Speakers at the On-Farm Research Field Day will share key learnings from past research, and participants will be able to visit fields with current research plots and an interactive pivot performance evaluation.

## Southwest Michigan Field Crops Update – August 15, 2024 - 10

### 2024 MSU WHEAT VARIETY PERFORMANCE TRIAL RESULTS AVAILABLE

**PUBLISHED ON AUGUST 07, 2024**

Growers can use data from these trials when selecting wheat varieties to plant on their farm.

### SPRAY DRONE DEMONSTRATION FOR PEST MANAGEMENT IN VEGETABLE AND FIELD CROPS

**PUBLISHED ON AUGUST 06, 2024**

Learn and discuss with fellow vegetable and field crop growers and MSU Extension educators about drone usage for pesticide and fertilizer application, plus seeding cover crops.

### SOYBEAN HARVEST EQUIPMENT FIELD DAY SET FOR SEPTEMBER 26 IN LENA WEE COUNTY

**PUBLISHED ON AUGUST 01, 2024**

The 14th annual Soybean Harvest Equipment Field Day is scheduled for Sept. 26, 2024, near Blissfield, Michigan.

### SOUTHWEST MICHIGAN FIELD CROPS UPDATE – AUGUST 1, 2024

**PUBLISHED ON AUGUST 01, 2024**

Corn leaf aphids continued to settle into corn fields this week. Tar spot is in several counties but at low pressure. Soybean pods progressed toward full seed.

### IRRIGATION DURING PEAK CROP WATER USE

**PUBLISHED ON AUGUST 01, 2024**

Strategic irrigation during critical reproductive stages of corn and soybeans is essential to meet increasing water needs and optimize yield potential.

### MSU PLANT & PEST DIAGNOSTICS NAMES NEW DIRECTOR

**PUBLISHED ON AUGUST 01, 2024**

Plant diagnostic services continue at MSU Plant & Pest Diagnostics under the new direction of Jan Byrne, PhD, following the retirement of Ray Hammerschmidt, PhD.

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