

## **Southwest Michigan Field Crops Updates February 2020**

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 me an email or call the office.

### **Go Time for Making ARC/PLC Decisions**

The 2018 Farm Bill made provisions for farmers to make decisions about participating in either the Agriculture Risk Coverage (ARC) or Price Loss Coverage (PLC) programs. Farmers have until March 15<sup>th</sup> to make that decision which will impact the 2019 and 2020 growing seasons (it will be an annual decision thereafter). However, from what I hear from several FSA staff, few farmers have yet made that determination or have arranged a time to visit their office, meaning that each office will have several hundred forms to process in a short period of time. We advise farmers to call or visit your local FSA office soon to begin the conversation and use the Extension tools to help you in making the decision. The USDA 2019 crop price estimates are due to come out later in February, and you can make changes to your determination after you make your selection (by March 15<sup>th</sup>) if needed.

MSU Extension Farm Management educators Jon LaPorte and Roger Betz wrote a recent article summarizing the situation. Here is a brief snippet from that article.

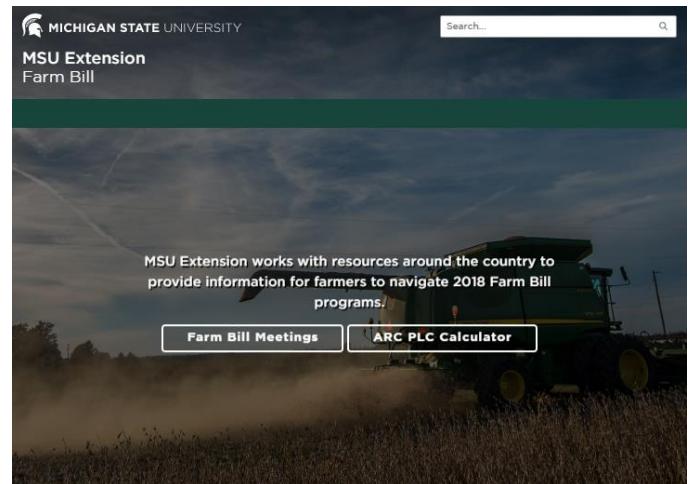
“Many Michigan farmers have chosen to forego 2018 Farm Bill meetings across the state, erroneously thinking that what has worked for them in the 2014 Farm Bill, will work again this time, but MSU Extension educators warn choosing the same program as last farm bill could result in a vastly different outcome.

“Farmers signing up for 2018 Farm Bill programs are probably missing out if they are signing up for the same programs they did in 2014. While the programs may have the same titles, they are handled slightly different than in previous years, which can have a big impact on a farm’s bottom line.

“When the 2014 farm bill was signed, farms had profited from years of high prices and many felt confident that PLC wouldn’t pay for the first few years. In 2014, the price situation indicated that only one program option in Michigan was going to provide the highest payment revenue and that program was ARC County. That’s what most of the farmers went with and was the best choice in nearly all Michigan counties.”

If you have not attended a Farm Bill Update meeting this winter, there are still online resources that you can access to help make an informed decision. They can be found on the [MSU Extension Farm Bill website](#). The [slide presentation](#) that Roger Betz and Jim Hilker created can be downloaded as well as the [ARC vs PLC Calculator](#) and a [Help Sheet companion](#) to the calculator.

Note: farmers are also strongly encouraged to update their PLC yields this year as the 2018 Farm Bill has extended this one-time offer. Yields can be updated anytime by Sept. 30, 2020, but farmers are encouraged to calculate these updated yields now to help in making ARC/PLC decisions.



# 2019 Applied Research in Field Crop Pathology for Indiana is Now Available

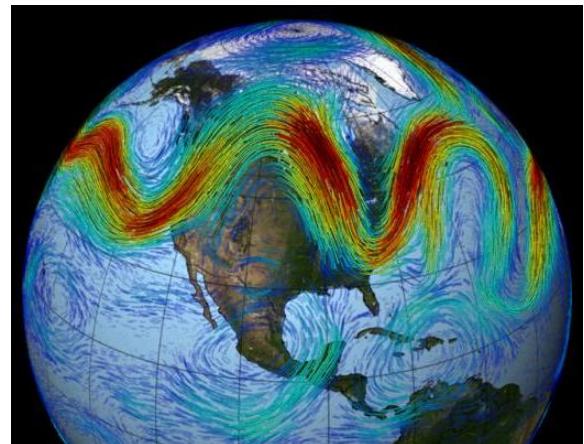
Purdue's new field crops pathologist, Darcy Telenko, has put together a new publication of her many fungicide efficacy trials throughout the state. The bulletin, [Applied Research in Field Crop Pathology for Indiana - 2019 BP-205-W](#), is available as a free download from the site

## What is a Polar Vortex Anyway?

The following was published on the [U.S. Climate Resilience Toolkit website](#). It gets fairly technical, but I dumbed it down a bit so folks like me can understand it. I did, however, leave in some details so any weather geeks out there would still take something away from it.

### The Jet Stream

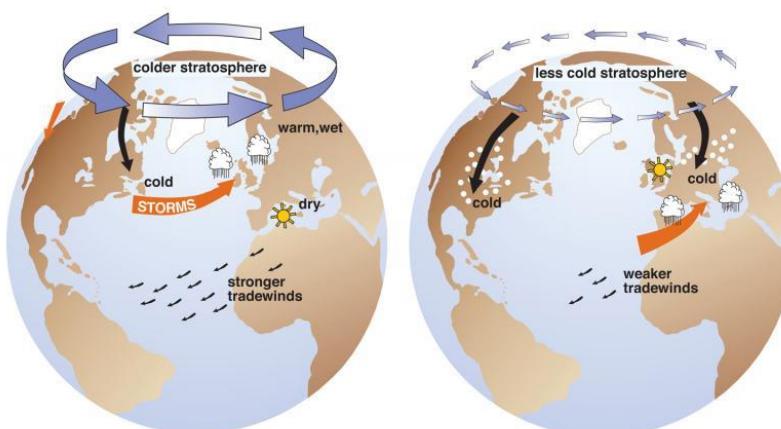
One of the most prominent factors influencing weather in the Northern Hemisphere is the jet stream, a meandering air current that flows around the globe in a generally eastward direction. It results from the collision of colder air masses from the Arctic with warmer air masses from the tropics. Because temperatures are increasing faster in the Arctic than in the tropics, the temperature gradient that drives the jet stream is becoming less intense. Some scientists have suggested that this could cause the jet stream to become weaker and more meandering, resulting in weather patterns that are more persistent in the mid-latitudes. This could result in longer droughts, heat waves, and cold snaps in many heavily populated areas of North America and Europe.



### The Polar Vortex

A vortex is a region within a fluid where the flow is mostly a rotational motion around a given axis. The Earth's atmosphere, while a gas, nevertheless behaves broadly as a fluid. The polar vortex is the region of the atmosphere that contains the hemisphere's cold air, rotating from west to east. In the Northern Hemisphere, the axis of the rotation is generally located in the Arctic.

The location and strength of the regions where the cold air dips southward vary from week to week. These variations in the polar vortex are expressed as changes in the weather, which can be quite pronounced. For example, in locations where the polar vortex is dipping strongly to the south, there is a sharp drop in temperature. This drop is known as a polar, or Arctic, outbreak, depending on the temperature of the invading air. Storms tend to form along the jet stream, so polar or Arctic outbreaks are often accompanied by stormy weather. The polar vortex tends to be more pronounced in winter than during summer.



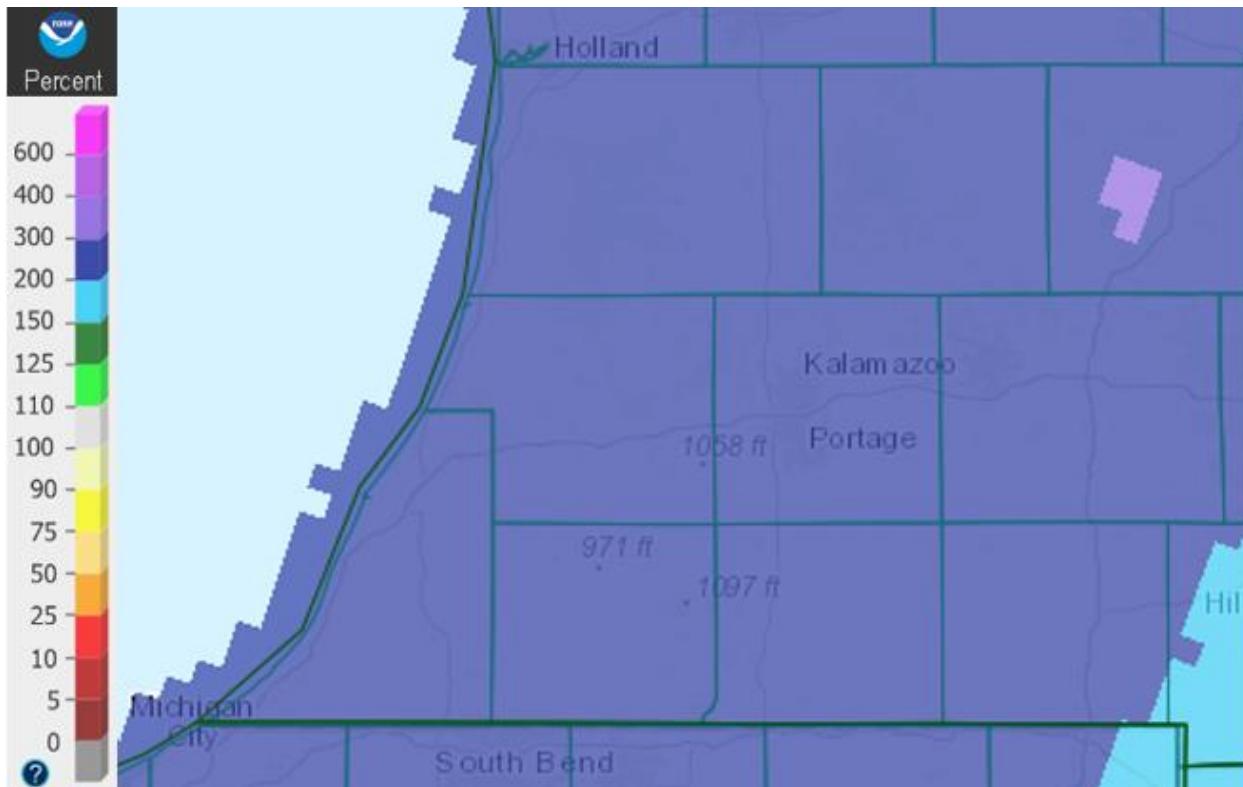
The character of the polar vortex is linked to the phase of the Arctic Oscillation (AO), a large-scale climate pattern that influences weather throughout the Northern Hemisphere. It alternates between a positive phase (left) and a negative phase (right). In its positive phase, the AO tends to bring warmer weather to the middle latitudes; in its negative phase, winter storms are more common in the eastern United States and Europe.

## Upcoming and Online Extension Programs

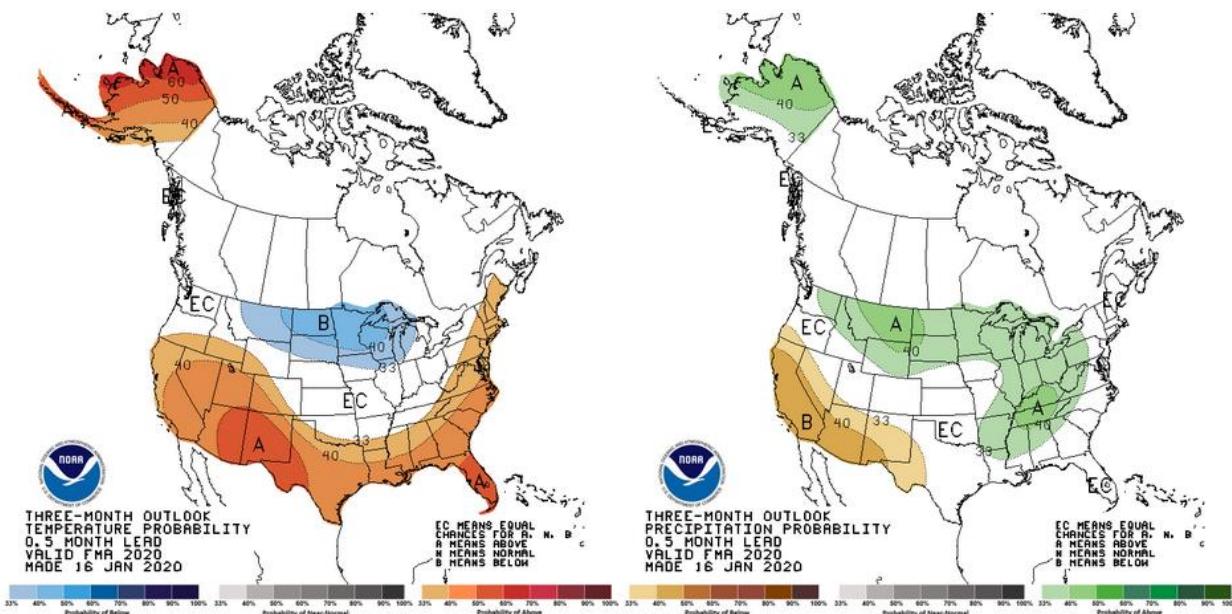
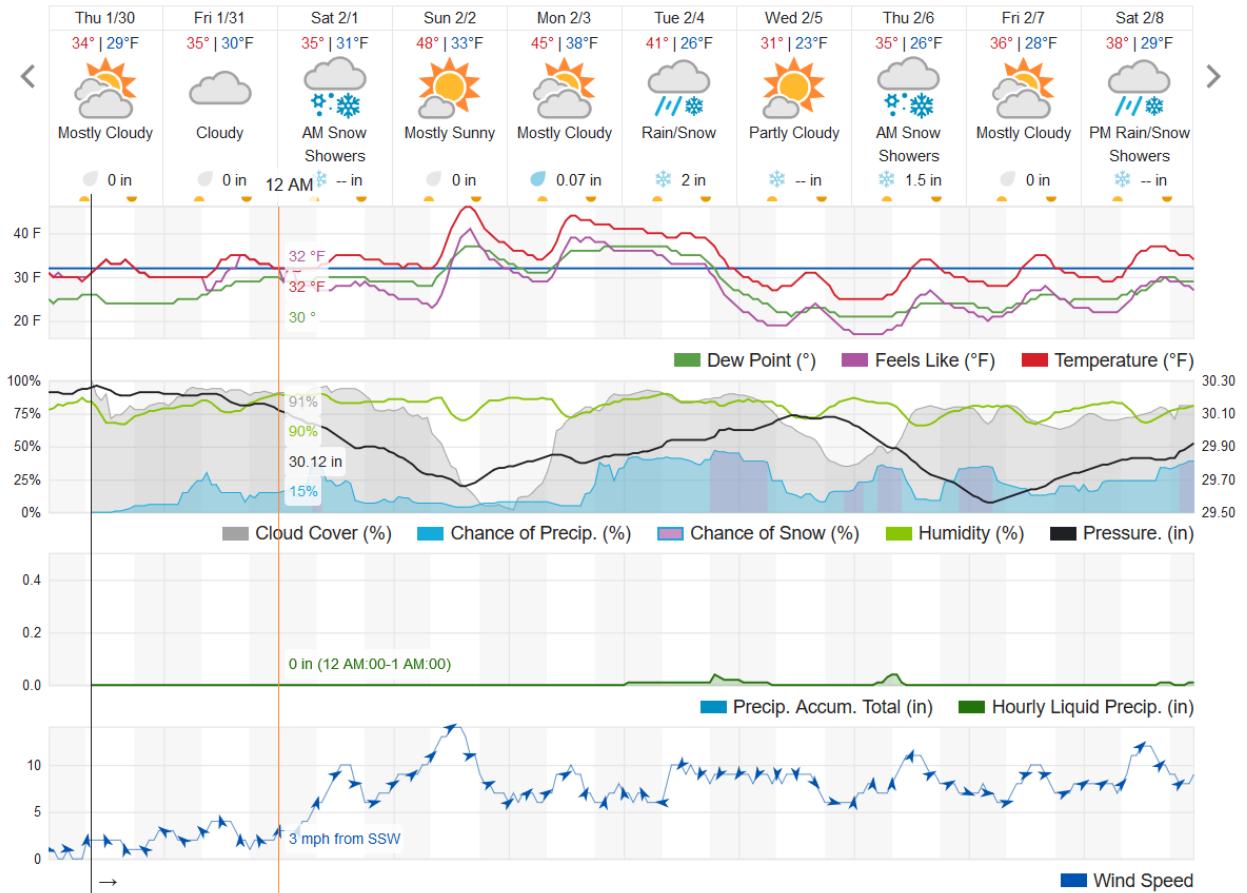
For those who want to catch up on the latest research results, observations and recommendations from MSU Extension specialists and educators, there are a number of opportunities coming in the next couple of months. Most are local or regional face-to-face meetings, but we do have two online opportunities to gain knowledge and earn pesticide credits. More information and hotlinks can be found in the Calendar of Events below, and you can contact me if you have questions about any of these.

- January 31 - **Ag Action Day**. Kalamazoo. Field crops and many other sessions.
- February 5 - **Beginning Farmer Webinar Series**. Wednesday evenings through Apr. 8.
- February 5-6 - **Southwest MI Hort Days**. Benton Harbor. Fruit, veg and hemp focus.
- February 10 - **MSU Extension Pest and Crop Update**. Dowagiac. Field crops focus.
- February 10 - **Field Crops Webinar Series**. Monday evenings through March. Field crops focus.
- February 12-13 - **Drainage Workshop**. Lansing.
- February 17 - **Branch County Farmers Day**. Coldwater. Field crops and other sessions.
- February 24 - **Michiana Irrigated Corn and Soybean Production Workshop**. Shipshewana, IN.

## Weather Update (in graphic form)



Precipitation totals in the last 30 days—a very wet January with 2 to 4 inches above normal precip.



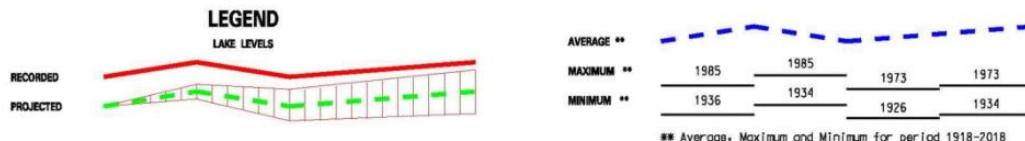
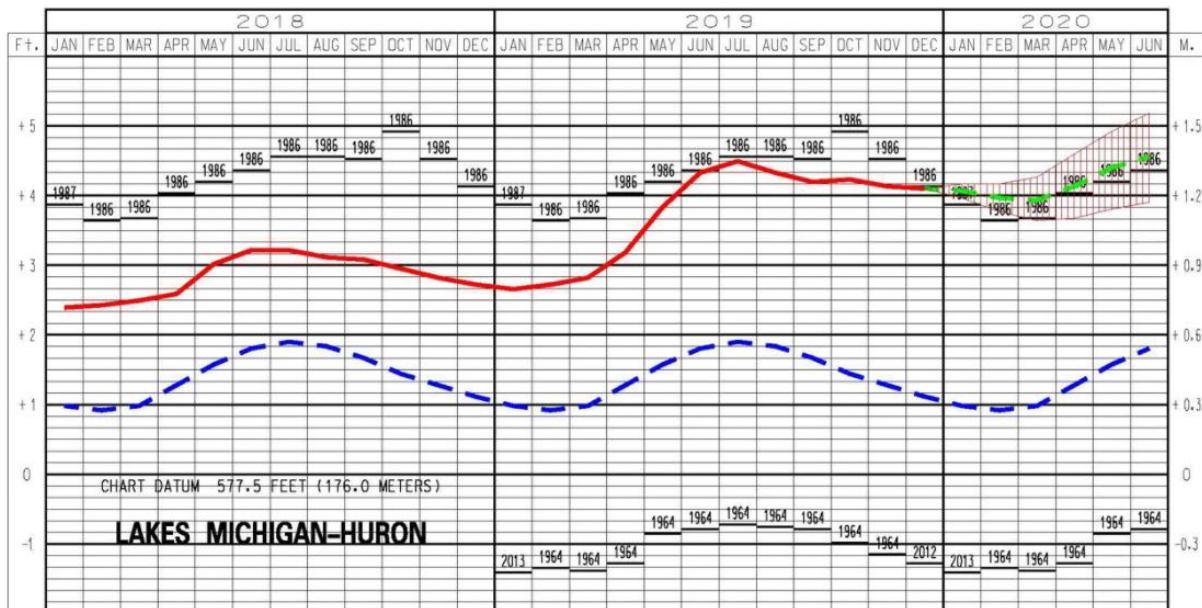
National Weather Service 3-month outlook (Feb-Apr) for temperature (left) and precipitation (right). Probability of higher than average precipitation for our region does not bode well for getting fields dried out in a timely manner. Incidentally, the outlook for the first half of February (5<sup>th</sup>-11<sup>th</sup>) is similar.

Lake	End of Nov 2019 Compared to:		Change since Sept 1st	
	Average	2018	2019	Average
Sup.	+33 cm	+6 cm	-6 cm	-9 cm
Mich.-Huron	+90 cm	+42 cm	0 cm	-17 cm
Erie	+70 cm	+8 cm	-25 cm	-23 cm
Ont.	+47 cm	+33 cm	-36 cm	-29 cm

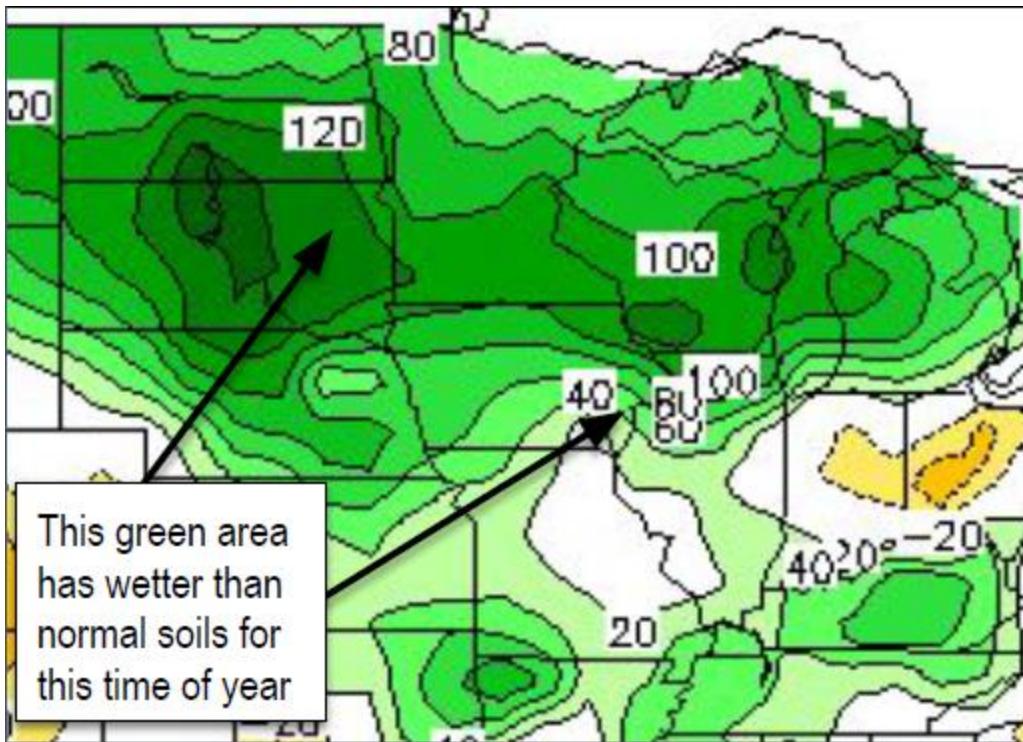


Water levels for the Great Lakes at the end of 2019 (left) and forecasted levels for January through March compared with the 100-year average. High water tables and wet conditions persisting into the spring will mean continued challenges for harvesting late-planted 2019 crops and managing weeds in 2019 prevented plant fields.

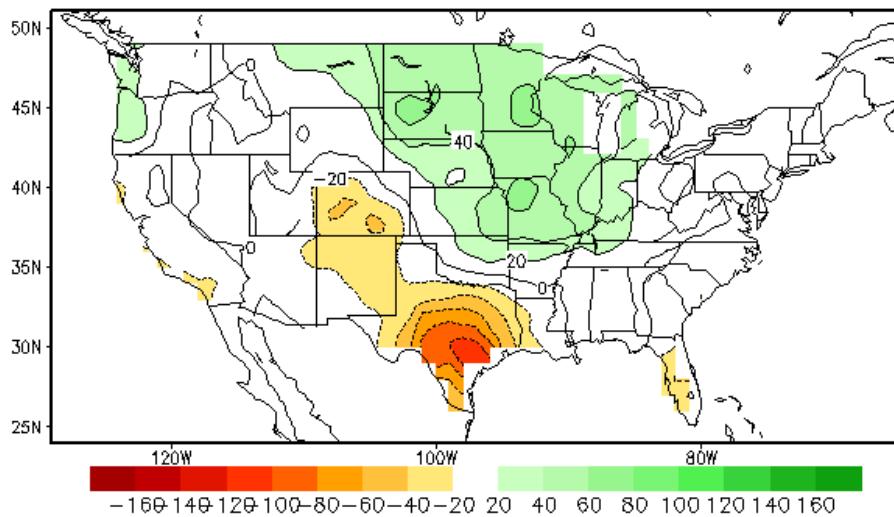
#### LAKES MICHIGAN-HURON WATER LEVELS – JANUARY 2020



Lake Michigan levels are approximately 3 ft above normal, and that is not likely to change in the first half of 2020. Water table levels in SW MI are generally well correlated to Lake Michigan levels.



Soil moisture conditions as of December 31<sup>st</sup>, 2019.



## Calendar

Titles are clickable links to online content when highlighted and underlined

### **January 31**

- [Ag Action Day](#). 8:00am-4:00pm. Kalamazoo Valley Community College, 6767 W O Ave, Kalamazoo, MI. \$40/person includes lunch and all educational sessions. Two RUP credits per field crops session applied for. Register at the door.

### **February 5**

- [Beginning Farmer Webinar Series](#). Wednesdays through Apr. 8, 7-8pm EST. Beginning farmers and others with basic information needs are invited to participate in a series of thirteen online programs addressing crop and livestock production, farm business and marketing. \$5 per webinar or \$32.50 for the full series. Register online.

## **February 5-6**

- **Southwest MI Hort Days.** Lake Michigan College's Mendel Center, 1100 Yore Avenue, Benton Harbor, MI. Sessions for vegetable tree fruit, grape, blueberry and—new in 2020—hemp will be offered. [Preregister online](#) or by mail (contact Renee Tinkey at 269-944-1477 ext. 201 or [tinkeyre@msu.edu](mailto:tinkeyre@msu.edu) for a preregistration application). Preregistration is \$50 per person; registration after Jan. 13 is \$65 per person. Lunch both days is included.

## **February 10**

- **MSU Extension Pest and Crop Update.** 8:30am-3pm. Dowagiac Conservation Club, 54551 M 51 N, Dowagiac, MI. \$30/person includes lunch, snacks, and the 2020 Weed Guide. RUP and CCA credits applied for. Register online.

## **February 10**

- **Field Crops Webinar Series Begins.** 7-8pm Monday evenings through March 30. Participants will learn how to enhance their corn, soybean, small grain and forage production systems in the coming season and have an opportunity to ask questions of MSU agricultural experts. Participants can register for single sessions (\$5 each) or the entire 8-week series (\$20). One RUP credit will be available for each live session. Register online. Contact Eric Anderson ([eander32@msu.edu](mailto:eander32@msu.edu), 269-467-5511) with questions.

## **February 12-13**

- **Drainage Workshop.** Henry Center, Room B120, 3535 Forest Rd, Lansing, MI. Intended for farmers, contractors, technicians, and whoever is interested in learning about drainage concepts and drainage design for crop production and water-quality protection from MSU faculty and experienced contractors. Register online, cost is \$200.

## **February 14**

- **RUP Core Training.** 8:30am-12pm. **Branch County** MSU Extension Office, 570 Marshall Road #C Coldwater, MI. A review of the Core Pesticide Applicators Manual to prepare for the MDARD Pesticide Applicators Certification Exam. Call the Extension office (517-279-4311) to reserve your seat. Cost is \$20/person. Three RUP credits available to those with a non-expired pesticide applicator license.

## **February 17**

- **Branch County Farmers Day.** 9:00am-3:30pm. Branch Area Careers Center, Coldwater, MI.

## **February 24**

- **Michiana Irrigated Corn and Soybean Production Workshop.** 8:30am-3pm. Blue Gate Restaurant, Shipshewana, IN.

## **February 28**

- **Last Day for CRP General Signup.** Contact your [local FSA office](#).

## **February 28**

- **RUP Core Training and Testing.** 8:30am-12pm. **St. Joseph County** Extension Office, 612 E. Main St., Centreville, MI. A review of the Core Pesticide Applicators Manual to prepare for the MDARD Pesticide Applicators Certification Exam. Call the Extension office (269-467-5511) to reserve your seat. Cost is \$20/person. Those taking the exam will need to sign up on [MDARD's website](#) (choose "Enter as Guest") or call 1-800-292-3939 and bring a separate check. Three RUP credits available to those with a non-expired pesticide applicator license.

## **February 29**

- **Oak Wilt Workshop.** 8:30am-12pm. 18623 Marcellus Hwy, Marcellus, MI. The workshop begins with presenters Dr. David Roberts, Jeff Steinkraus & Matt Bainbridge and offers additional option to visit an oak wilt damaged alternate site at noon. \$10 registration Please register by February 26 at the Cass County Conservation District (269-445-8641 x 5 or [korie.blyveis@macd.org](mailto:korie.blyveis@macd.org)).

## **March 4**

- **Cover Your Future.** 9am-3pm. Elkhart County Community Center, Elkhart County 4-H Fairgrounds, Goshen, IN. A meeting and tradeshow on options in conservation management. Cost is free, contact the SWCD office at (574) 533-4383, ext 3 or email [latkins@elkhartcounty.com](mailto:latkins@elkhartcounty.com) to register.

## **March 10**

- **Farming for the Future.** 8:30am-3pm. Van Buren Conference Center, Lawrence MI. Van Buren Conservation District's annual grower meeting, this year featuring Gabe Brown. Free, register online to reserve lunch.

## **March 15**

- **ARC/PLC and NAP Deadlines.** Deadline for making ARC/PLC decisions impacting 2019 and 2020. Deadline for spring-seeded crops coverage for Noninsured Crop Disaster Assistance Program (NAP). Contact your [local FSA office](#).

## **April 6**

- **RUP Core Training and Testing.** 8:30am-12pm. **St. Joseph County** MSU Extension Office, 612 E. Main St., Centreville, MI. See Feb. 28 entry for details.

# **MSU Extension Digest Briefs**

## **Getting “In the Weeds” on cultivating resilience on the farm**

*PUBLISHED ON JANUARY 23, 2020*

Michigan Field Crops In the Weeds podcast provides convenient education to critical issues facing farmers. This second series will explore conservation practices that build soil and our relationships with our communities.

## **New hemp session added to Southwest Michigan Horticultural Days program**

*PUBLISHED ON JANUARY 23, 2020*

From sourcing seeds to post-harvest needs, learn what it takes to grow industrial hemp during the Southwest Michigan Horticulture Days, Feb. 5-6, 2020.

## **FAQ on hemp licensing and regulation**

*PUBLISHED ON JANUARY 23, 2020*

Michigan State University Extension and Michigan Department of Agriculture and Rural Development address frequently asked questions on hemp.

## **Hemp production resources from Michigan State University**

*PUBLISHED ON JANUARY 23, 2020*

Michigan State University’s Hemp Production website includes news, recorded webinars and bulletins.

## **Results are in for the 2019 Michigan spring malting barley trial**

*PUBLISHED ON JANUARY 22, 2020*

A spring malting barley variety trial was carried out across three Michigan locations as part of the Eastern Spring Barley Nursery project.

## **Spring wheat variety and agronomy trials**

*PUBLISHED ON JANUARY 22, 2020*

Could spring wheat be an alternative for unplanted winter wheat acres?

## **Field Crops Webinar Series: Lessons learned from late and prevented planting in 2019**

*PUBLISHED ON JANUARY 21, 2020*

The first webinar will help growers and agribusiness professionals better prepare for and manage against the risks brought on in years like 2019.

## **Michigan Family Farms Conference brings education and resources to small-scale farmers**

*PUBLISHED ON JANUARY 21, 2020*

Small- and medium-scale farmers are invited to attend the Michigan Family Farms Conference on Feb. 8, 2020 at the Kalamazoo Valley Community College.

## **Cover crops can be used to prevent nitrogen loss**

*PUBLISHED ON JANUARY 20, 2020*

Cover crop research shows that winter cereal rye may reduce nitrate leaching.

## **The 2019 potato variety trial results from northeast Michigan are now available**

*PUBLISHED ON JANUARY 17, 2020*

A russet and tablestock potato variety trial in Presque Isle County showcased performance of 48 different varieties across multiple tuber types.

## **Understanding regulations regarding hemp cannabinoid testing**

PUBLISHED ON JANUARY 16, 2020

An important and required step in growing hemp in Michigan is to submit samples for THC analysis, but there is confusion about what needs to be tested and reported.

## **New videos explore benefits of cover crops to soil health**

PUBLISHED ON JANUARY 15, 2020

MSU Extension field crops team releases new cover crop videos to provide convenient information to Michigan field crop farmers.

## **Michigan Field Crops podcast “In the Weeds” first series now available**

PUBLISHED ON JANUARY 13, 2020

MSU Extension field crops team releases In the Weeds, a new podcast to provide convenient education to critical issues facing Michigan field crop farmers.

## **Field Crops Webinar Series starts February 2020**

PUBLISHED ON JANUARY 7, 2020

The Field Crops Webinar Series will help growers and agribusiness professionals prepare for the 2020 growing season.

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