

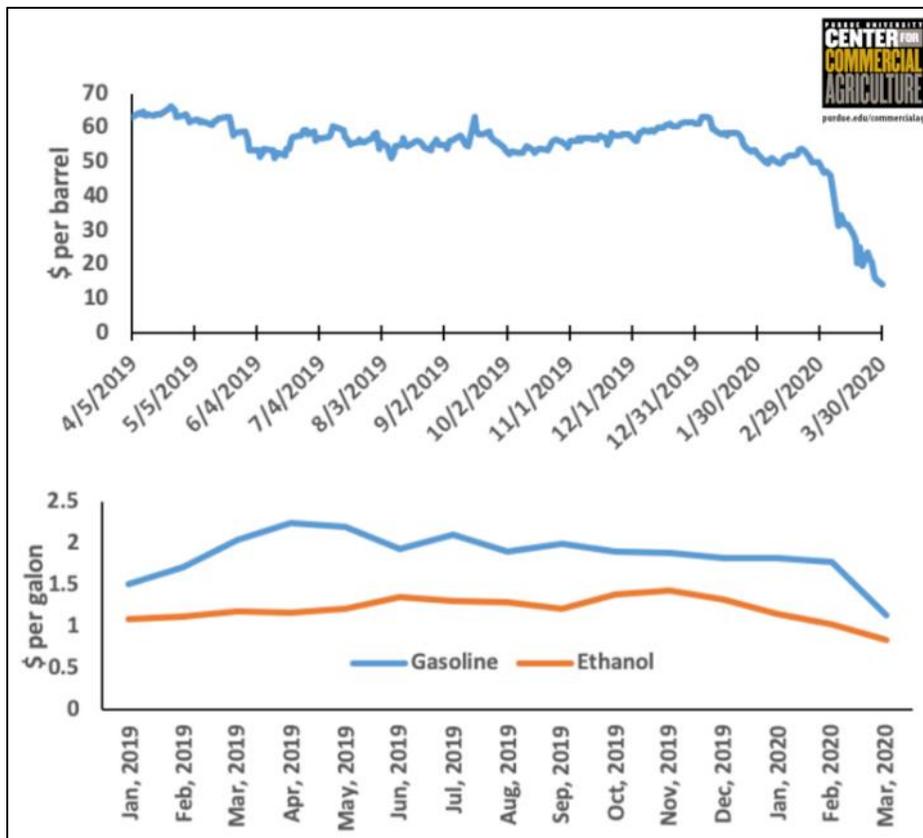
Southwest Michigan Field Crops Updates
May 1, 2020

Here are updates from the MSU Extension Field Crops team in Southwest Michigan. **We are switching to a bi-weekly update for the cropping season with critical pest updates issued as needed.** 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.

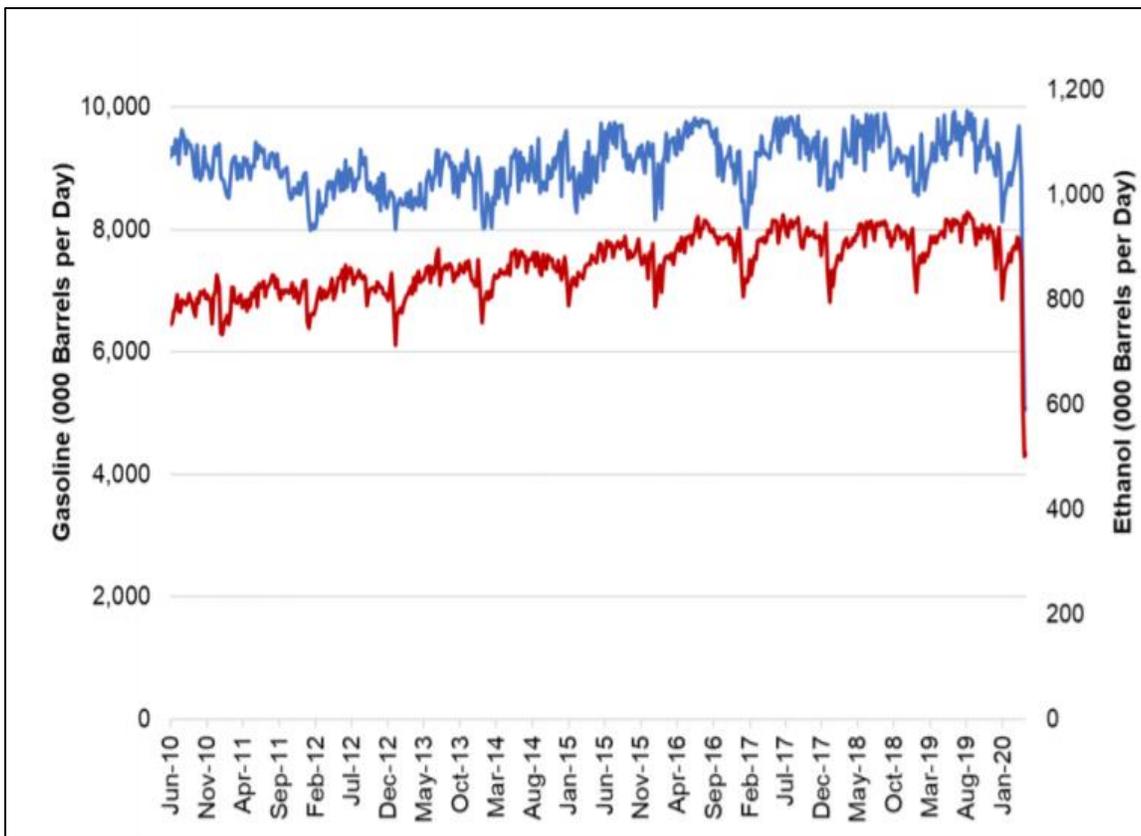
Update on COVID-19 Impact on Biofuels Industry

In a recent article, [“Impact of COVID-19 on the Biofuels Industry and Implications for Corn and Soybean Markets,”](#) Purdue ag economists Farzad Taheripour and James Mintert take a deep dive into the impacts of the COVID-19 pandemic on the biofuels industry and the domino effect that has had on corn and soybean markets.

Earlier this week, Congress announced the introduction of the Clean Fuels Deployment Act of 2020. According to a press release by Iowa Congresswoman Abby Finkenauer, the bill would provide funding for installing and converting fuel pump infrastructure to deliver higher blends of ethanol and biodiesel. The bill authorizes \$500 million over five years to help retailers offer higher ethanol blends, expand the geographic area selling ethanol blends, support biodiesel, bioheat, and sustainable aviation fuel markets, and accelerate the deployment of fueling infrastructure.



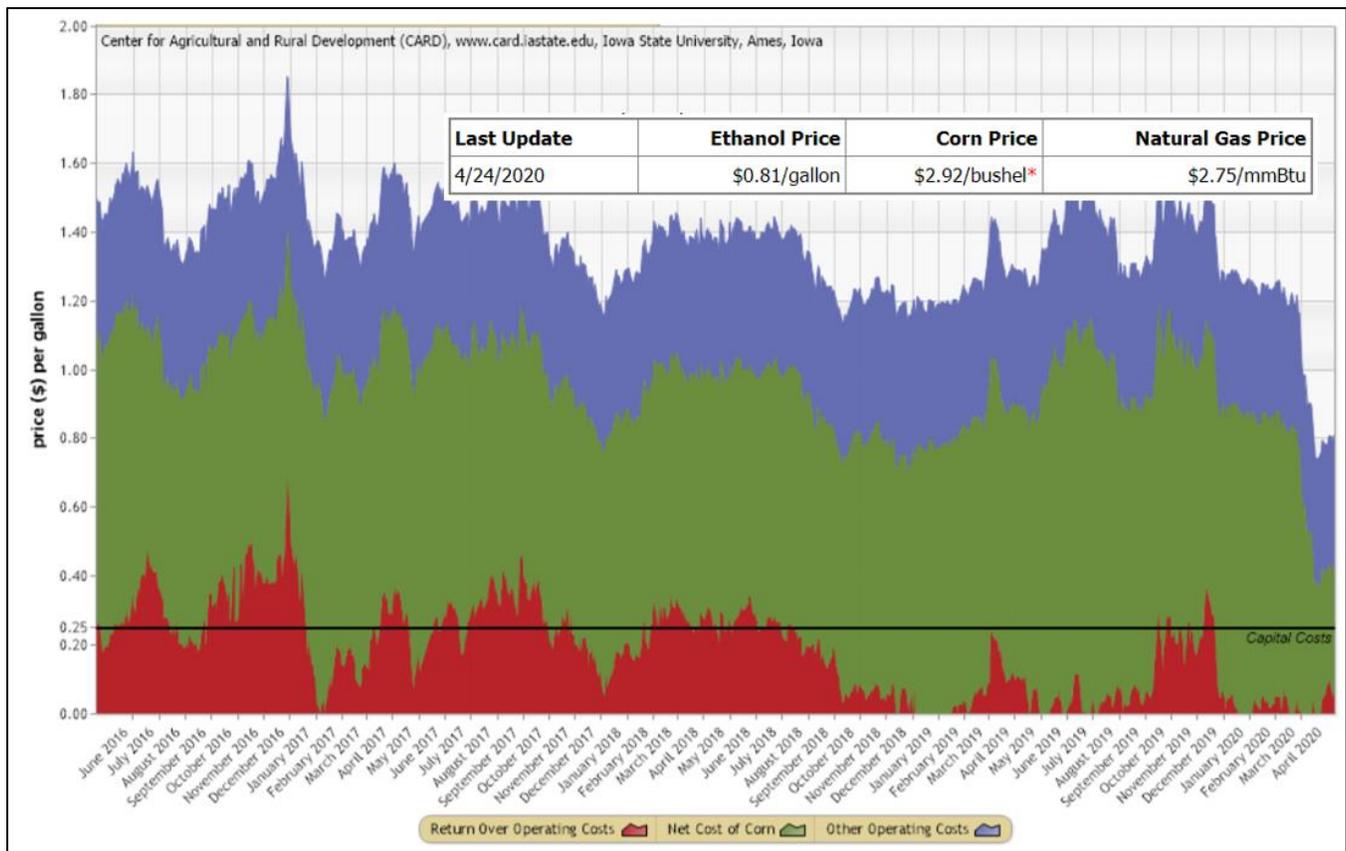
Oil (top), gasoline and ethanol (bottom) prices impacted by the global COVID-19 pandemic.



Gasoline and ethanol consumption as impacted by the COVID-19 pandemic. Source: Energy Information Administration.



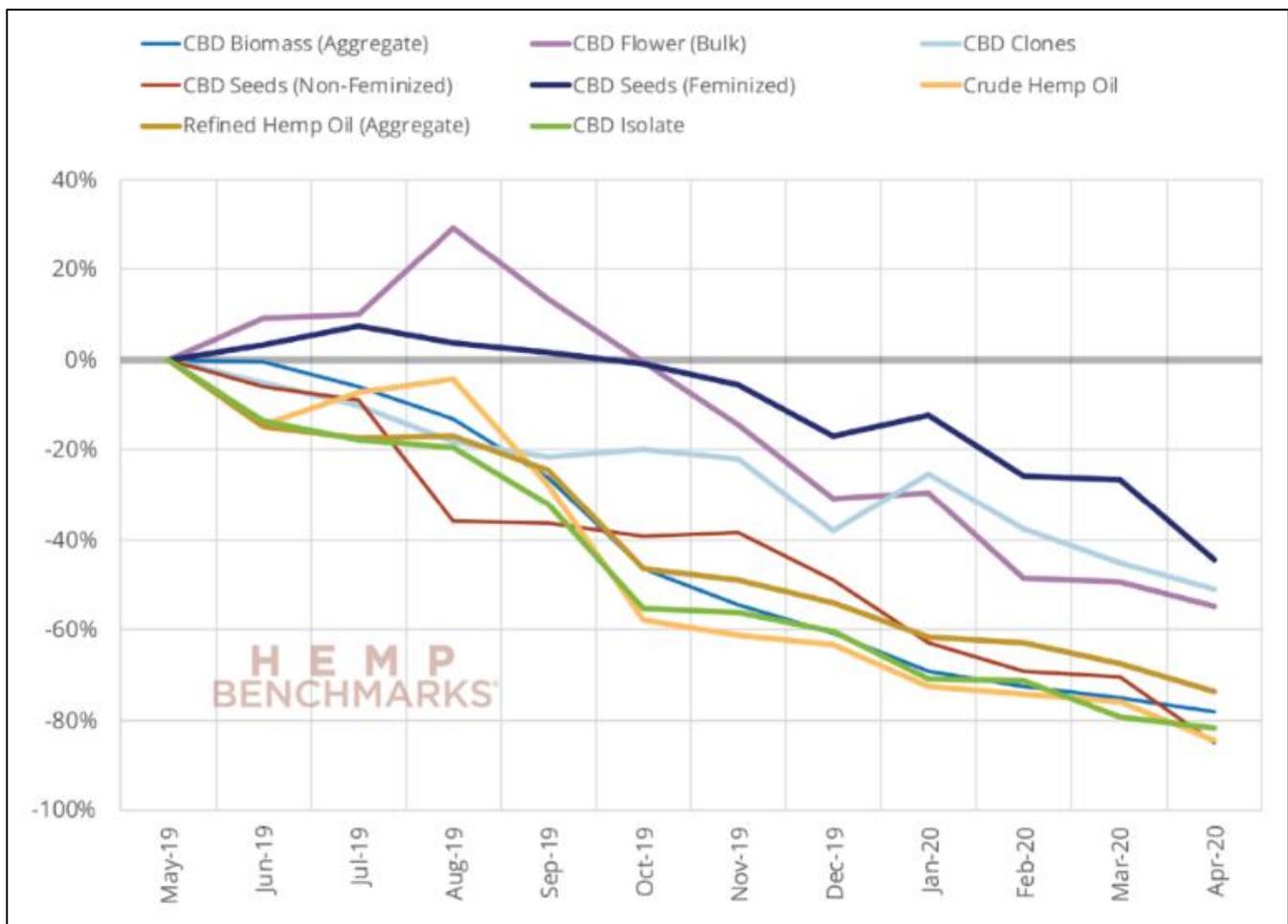
Ethanol industry capacity by operational status as impacted by the COVID-19 pandemic. Nearly half of U.S. ethanol production has been idled or shut down since February. Source: Renewable Fuels Association.



Ethanol operating margins, as tracked by [Iowa State University's Center for Agricultural and Rural Development](http://www.card.iastate.edu). The black line is the break-even level and the red indicates return over operating costs. This negative return has caused approximately 50% of all ethanol production to go offline.

Update on Hemp Markets

It is no secret that hemp prices plummeted during the course of 2019, particularly as harvest season progressed. Many growers continue to search for biomass buyers and processors even while some extraction businesses have switched to hand sanitizer production during the pandemic. Sales of CBD products (tinctures, edibles, smokable flower, etc.) have also suffered as boutiques and specialty stores have been shuttered during stay-at-home executive orders. Although several growers who raised hemp in 2019 have decided to scale back or even take a year off due to market signals—and now due to COVID-19 pressures—interest remains high this spring in hemp production. I have had several conversations with folks planning to plant hemp for grain or fiber, so it will be interesting to see how the industry develops this year.



Year on year price % change May 2019 to April 2020. Source: [Hemp Benchmarks](#).



Refined hemp oil pricing (\$ / kg, left) and hemp biomass prices (\$ / %CBD / lb, right). Source: [Hemp Benchmarks](#).

Young Farmer Program Opportunity

Farm Foundation is now accepting nominations for their [Young Farmer Accelerator Program](#), aimed at helping young farmers grow their knowledge, experience and network. The program will engage young farmers in a year-long series of interactive learning and networking experiences, focused on gaining a deeper understanding of a wide variety of agriculture, agribusiness and government issues. The program also hopes to help young farmers build a strong, enduring network of peers and senior agribusiness and government contacts.

To be eligible for this program, nominees must be a U.S. citizen, between the ages of 21 and 40, and actively involved in farming as a career. Young farmers from around the U.S. with careers and backgrounds in all types of farming will be selected in order to assemble a cohort that looks like American farming today. Nominators may be co-workers, community leaders, business partners or any other person familiar with the Young Farmer Accelerator nominee's work. Up to 10 participants will be sponsored to attend events, engage in virtual conversations and participate in exclusive learning opportunities.

Visit our [Young Farmer Accelerator Program web page](#) for more information and to submit a nomination by our May 15, 2020 deadline. For more information, contact Martha King at martha@farmfoundation.org or (314) 591-8433.

File a Notice of Loss for Failed Acres and Prevented Planting

I am not at all saying that we're going to have another 2019 season, but I thought it would be a good reminder to know when reporting deadlines are coming up to mentally plan ahead. USDA Farm Service Agency (FSA) reminds producers to report prevented planting and failed acres in order to establish or retain FSA program eligibility for some programs.

Producers should report crop acreage they intended to plant, but due to natural disaster, were prevented from planting. Prevented planting acreage must be reported on form *CCC-576, Notice of Loss*, no later than 15 calendar days after the final planting date as established by FSA and Risk Management Agency (RMA).

The final planting dates for the following crops are listed below:

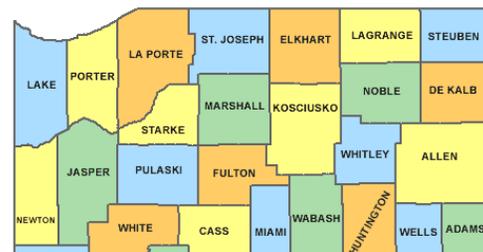
- Oats – May 15, 2020
- Corn – June 5, 2020
- Soybeans – June 15, 2020
- Spring planted cucumbers – June 15, 2020
- Potatoes – June 15, 2020
- Processing beans – July 15, 2020

If a producer is unable to report the prevented planting acreage within the 15 calendar days following the final planting date, a late-filed report can be submitted. Late-filed reports will only be accepted if FSA conducts a farm visit to assess the eligible disaster condition that prevented the crop from being planted. A measurement service fee will be charged.

Black Cutworm and Armyworm Report

Purdue's trap counts this past week were similar to those for the previous week. DTN's entomologist says their moth counts in IN, IL and OH concur with those collected by Purdue and he warns growers to be alert for armyworm and cutworm infestations in corn, soybean and wheat fields in mid-May.

Black Cutworm	Wk 1 4/2/20- 4/8/2020	Wk 2 4/9/20- 4/15/2020	Wk 3 4/16/20- 4/22/2020	Wk 4 4/23/20- 4/29/2020
Allen	1	1	1	5
Allen	2	3	0	6
Allen	6	2	4	9
Elkhart	7	12	5	10
Fulton	0	0	1	2
Jasper	0	0	0	4
Jasper	12	11	12	2
Lake	60*	35*	26*	38*
Lake	4	22*	6	8
Lake	5	21*	6	10
LaPorte	6	9	23*	14
Marshall				
Newton	0	4	4	1
Porter		1	0	6
Pulaski			4	11
Pulaski	31*	28		32*
Stark				
St. Joseph	9	0		
St. Joseph	2	19	1	48*
White	5	1	4	5
Whitley		7		28
Whitley		13		40



Armyworm	Wk 1	Wk 2	Wk 3	Wk 4
SIPAC	724	84	4	28
SEPAC	60	75	11	15
SWPAC	1162	308	56	168
PPAC	115	65	0	21
FPAC	974	347	57	741
DPAC	117	207	16	51
TPAC	225	wind dmg.	6	54
NEPAC	-	9		38

Cass County Annual Tree Sale Changes

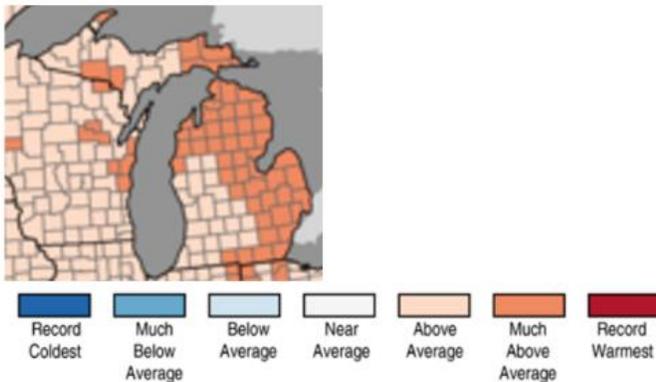
The Cass County Conservation District Annual Tree Seedling and Fruiting Plant Sale has been postponed due to Governor Whitmer's "Stay at Home Order" due to the COVID 19 virus. They are still taking orders on a first come first served basis until inventory is sold. Due to the coronavirus pandemic there will be NO in-person tree sales. All plants must be pre-ordered and orders will be delivered to in-County residents in early May and arrangements made for pick-up for out of County customers. The extension of order deadline is until all products are sold. Please call 269-445-8641 x 5 to place an order – first come first serve from current inventory.

Weather Update

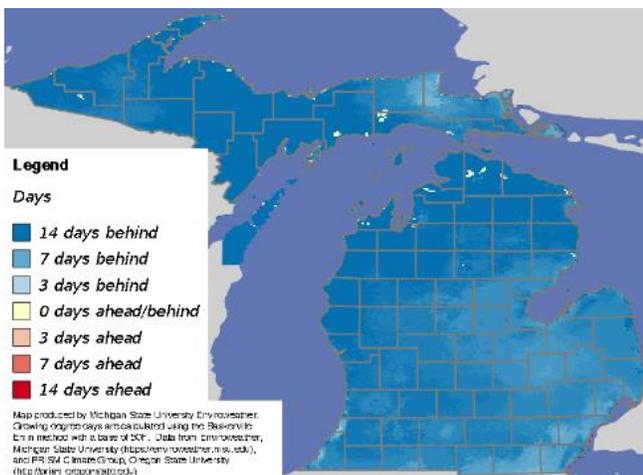
(in graphic form - see below for Crop Update)

March was warmer than normal for all of Michigan, but April turned much cooler on us. Growing degree day (GDD) accumulation is still behind by about a week in the southwest region. According to Enviroweather stations in the region, on average we have accumulated 235 GDDs (base 42) since March 1 and 66 GDD (base 50) since April 1. We can expect to add another 70 GDDs (base 42) or 33 GDDs (base 50) during the first week of May. Soil temps climbed slightly this past week, and daily low temp at the 2” depth remained above 50 °F at the Enviroweather station in Mendon. We will see what happens with the warmer weekend followed by the cool-down in the first two weeks of May.

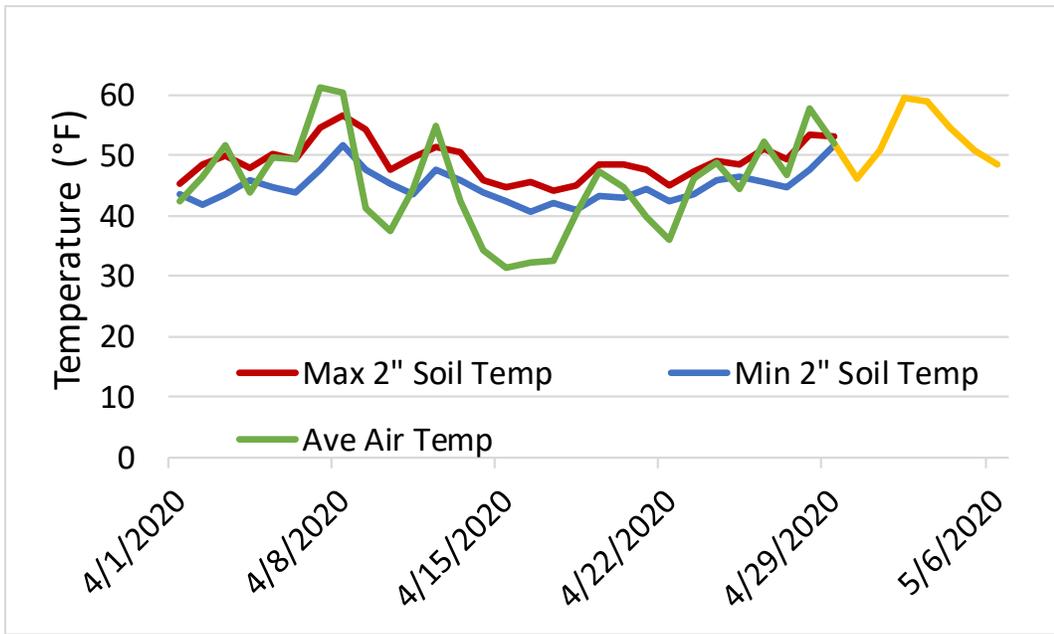
In a recent podcast, Shawn Casteel and Bob Nielsen, Purdue’s soybean and corn agronomists, respectively, said ideally planting should wait until minimum soil temps remain above 50 °F. They tempered those recommendations by saying that once we reach “go time” for planting in May, we can’t wait for ideal and need to take the risk of imbibitional chilling and uneven (corn) emergence. It is important to note that corn and soybean emergence is largely dependent on heat, assuming there is sufficient soil moisture. Corn germination requires 65-90 GDD (base 50) and emergence typically occurs 100-120 GDD after planting. Soybean is not as directly tied to GDDs, but emergence typically occurs 160-170 GDD after planting according to Casteel. In cool soils, it takes a long time to accumulate that many GDDs. For example, if average daily soil temps rise to 55 °F Friday through Monday, that would only generate 20 GDDs before air temperatures cool back down next week.



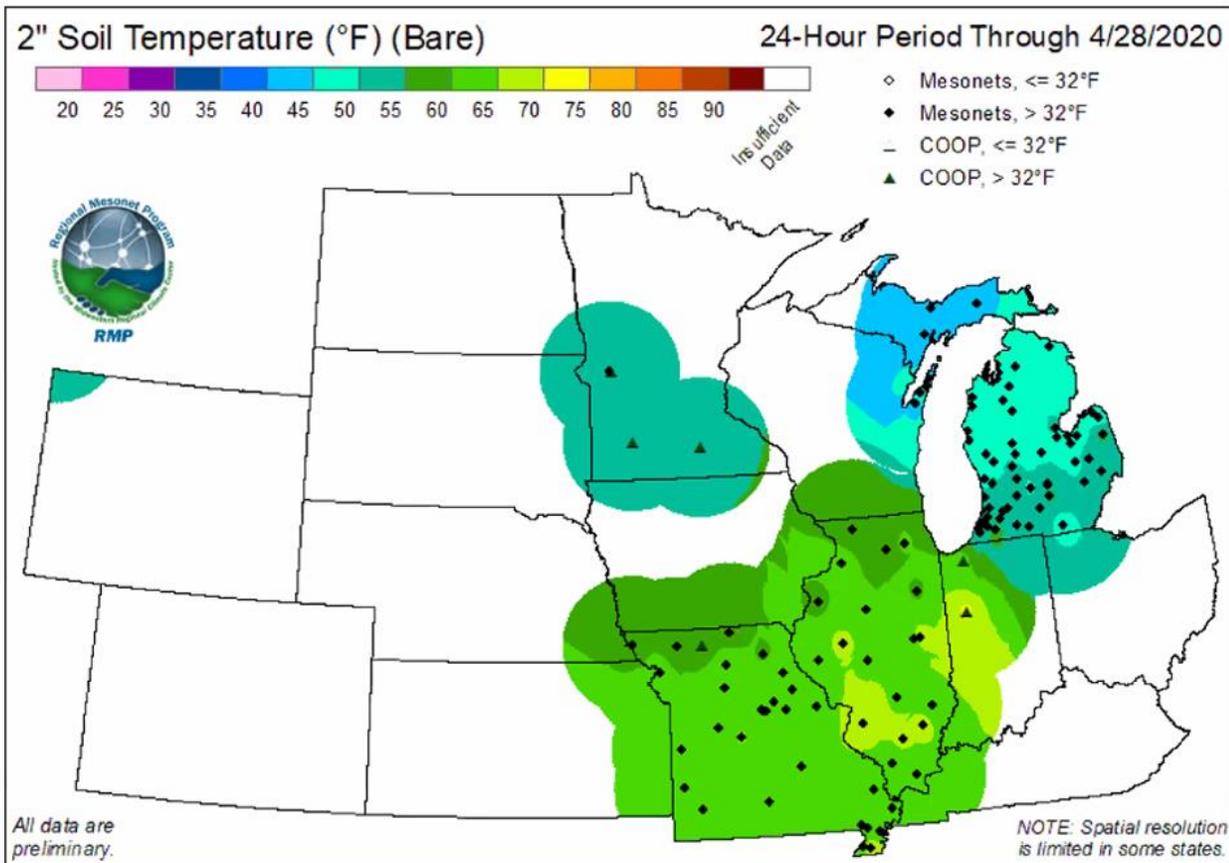
County average temperature ranks for March 2020 compared with 1895-2020.



Growing degree days compared with normal from March 1 through April 29. We are 16 units behind where we were this time in 2019 and nearly 50 GDDs (base 50) behind the 5-year average. With cooler temperatures returning after this weekend, I suspect we’ll be at least this far behind moving into the second week of May.



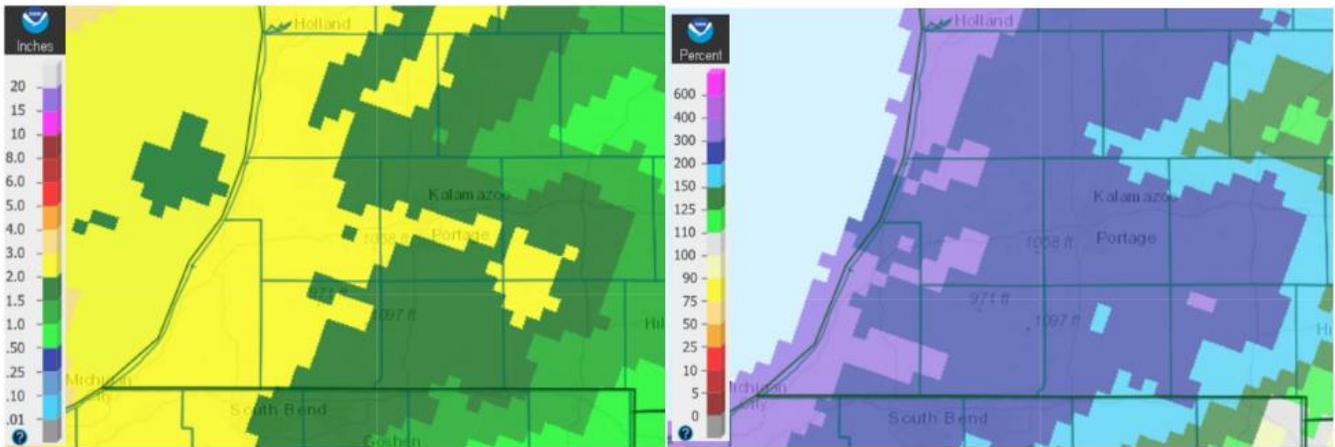
High and low soil temperatures (2 in depth) and average air temperature (yellow is projected) according to the Enviroweather station at Mendon. Soil temps have tracked fairly closely with air temps, so hopefully soil temps will remain at or above 50 °F with the cool-down next week.



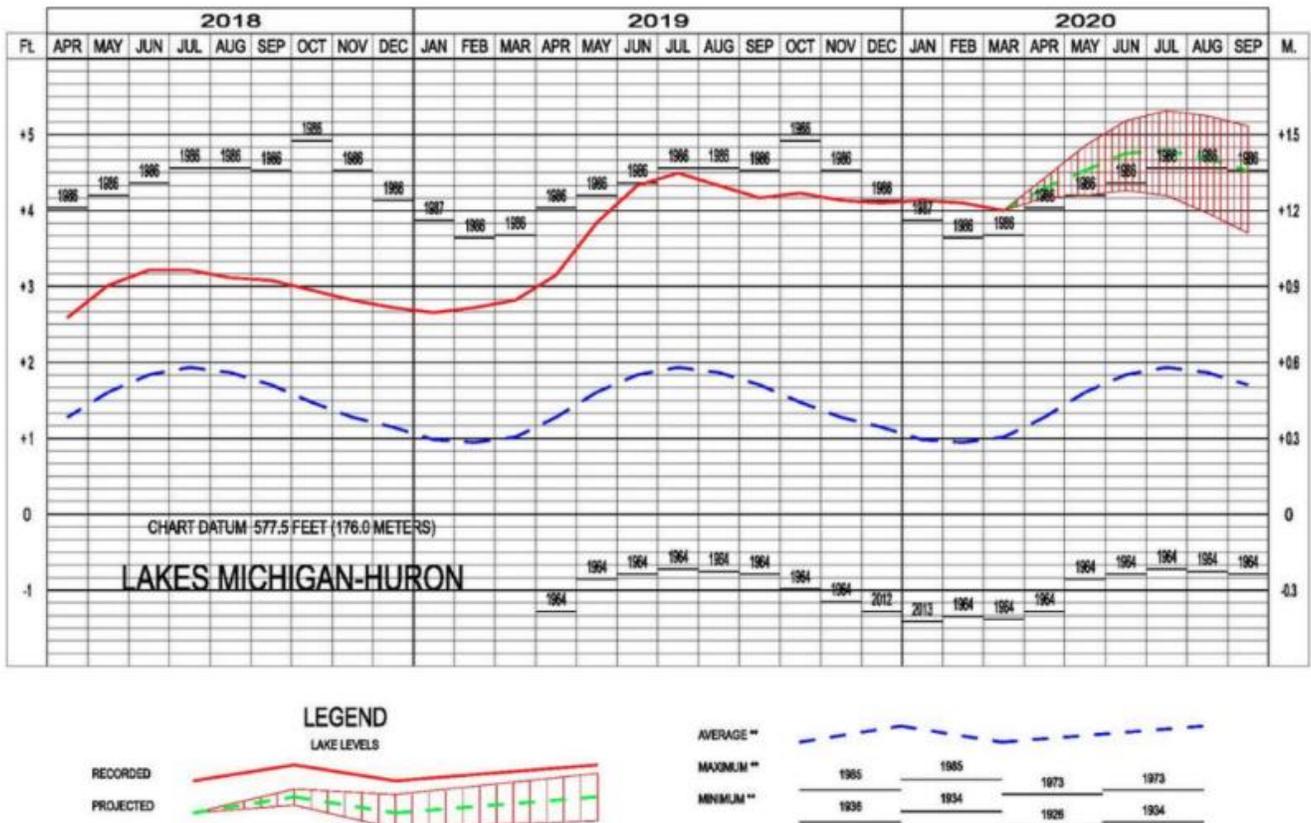
MSU Extension ag climatologist Jeff Andresen shared this map on this week’s Virtual Breakfast session. Soil temps in much of the Corn Belt are perfect for planting, assuming their fields have sufficiently dried out.

Our region received 2-3 times more rain than normal this past week, and fields that were already near field capacity likely won’t be able to be trafficked for at least several days. Fortunately, our next chance for rain is not until later next week. Warm, windy and partly sunny conditions over the weekend will also help dry out fields. The mid-range outlook is a mixed bag with colder than normal but dry conditions predicted for the month of May.

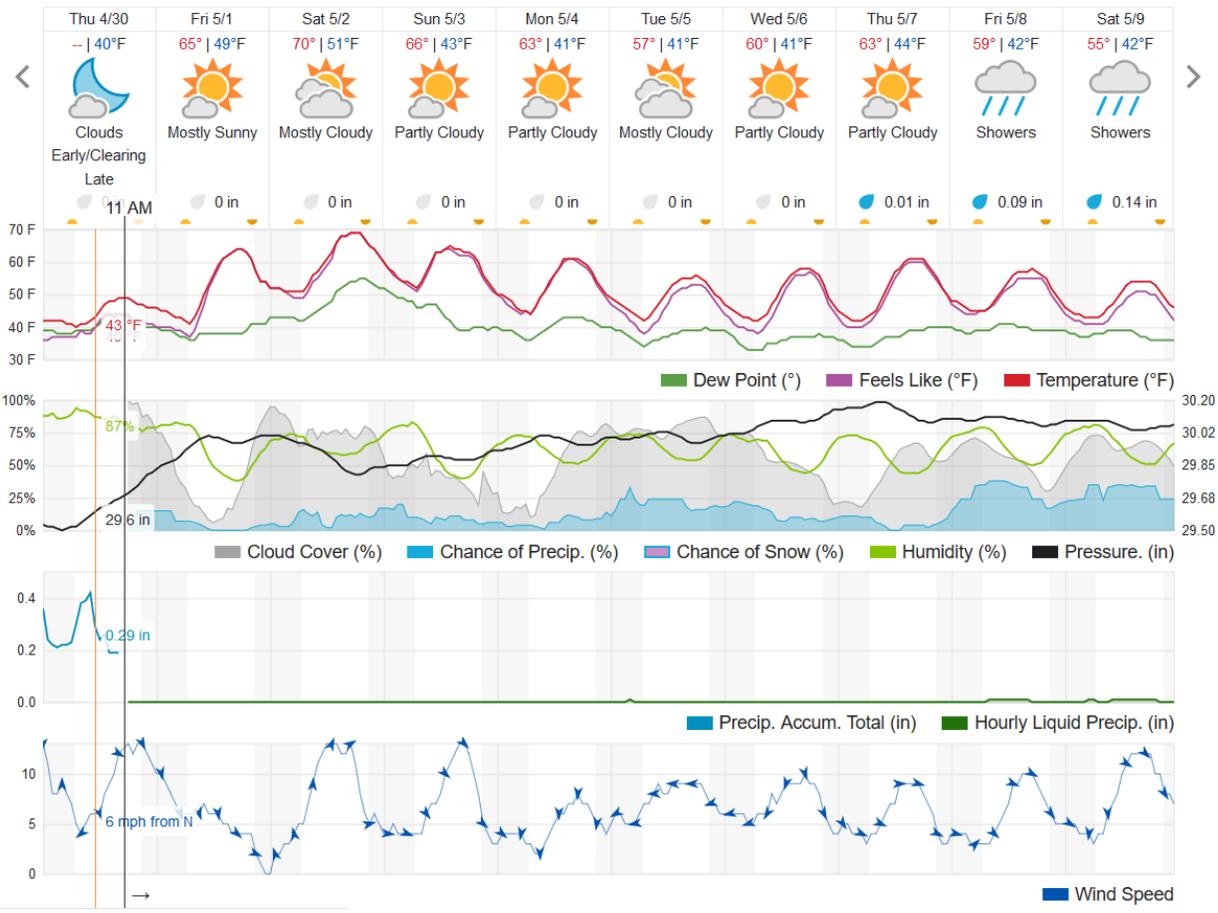
If this proves true, planting progress should pick up in the next week, but emergence will be slower than we would like.



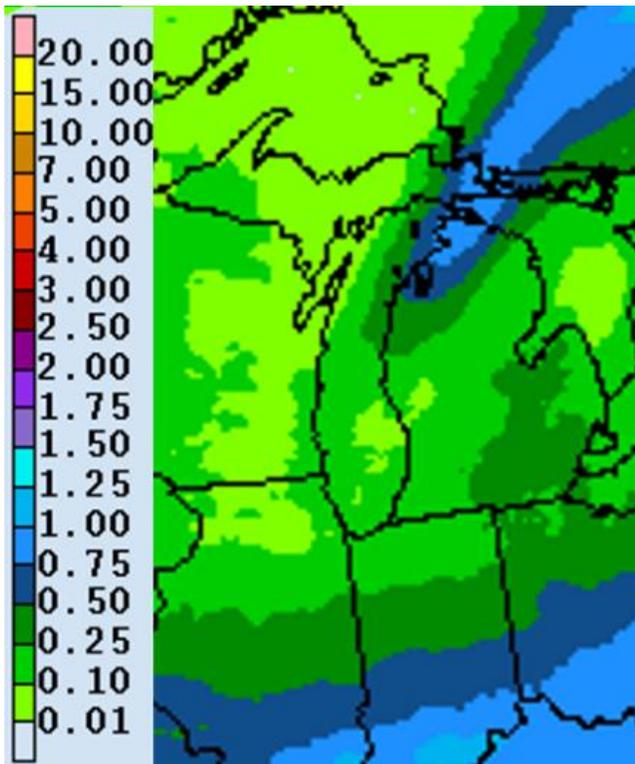
Precipitation over the past 7 days, reported on April 30th in inches (left) and as a percentage of normal (right)...a wet week for the entire region.



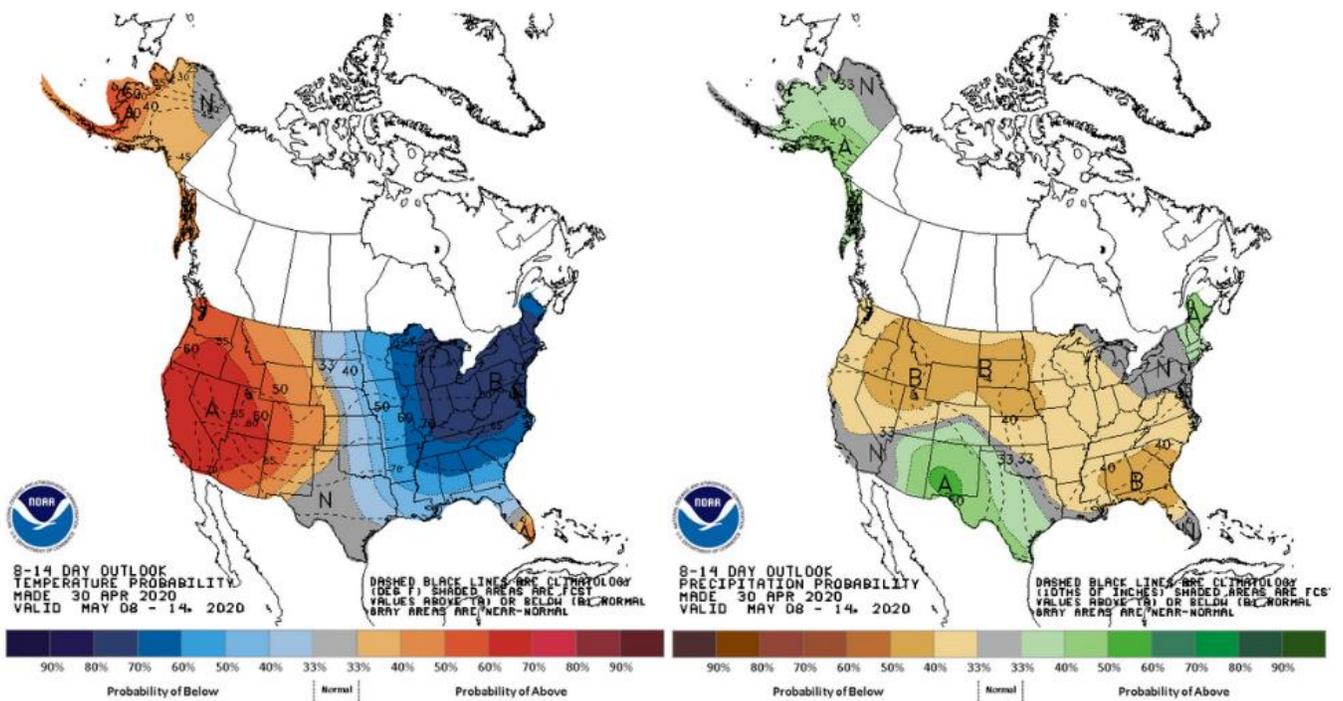
Six-month water level forecast for Lake Michigan. The projection continues to be for near-record or record setting high levels which impacts water tables and stream flows following heavy rain events in the Southwest.



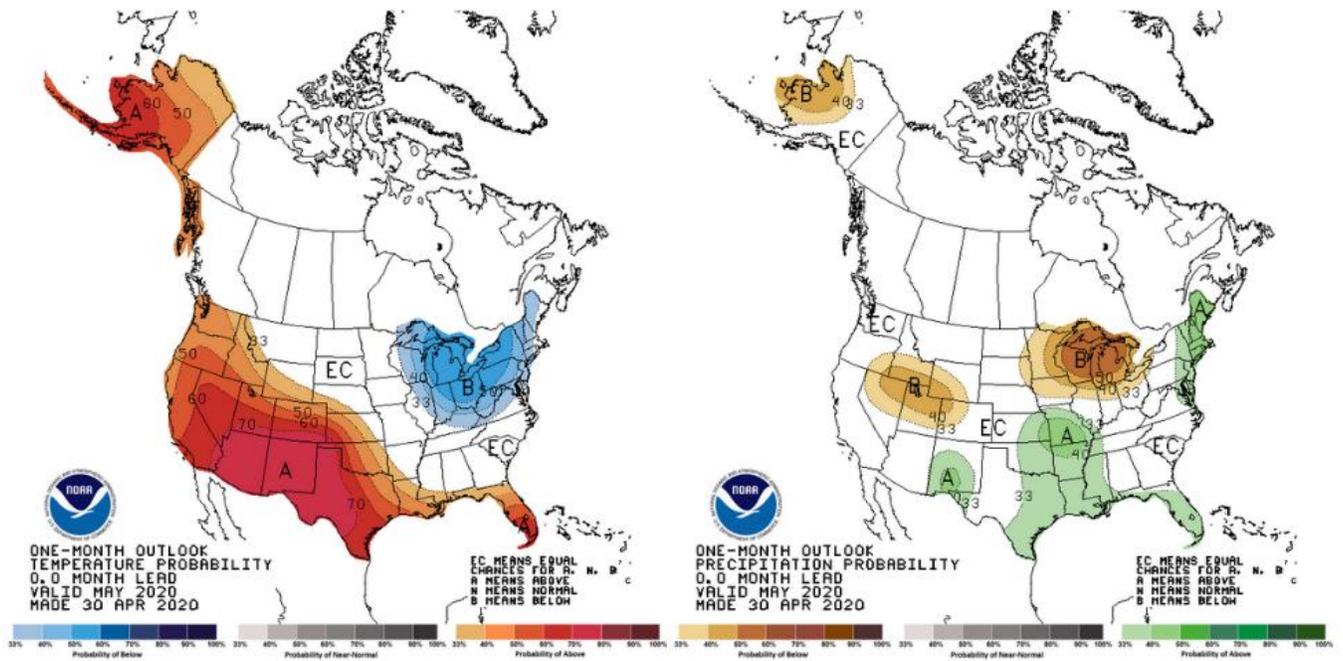
The 10-day forecast for Centreville as of April 30th.



Precipitation forecast for April 30-May 7. Essentially all of this is predicted to fall April 30-May 1 with dry conditions until late next week.



The 8-14 day outlook from May 8 – 14 for temperature (left) and precipitation (right). The 6-10 day outlook is essentially the same.

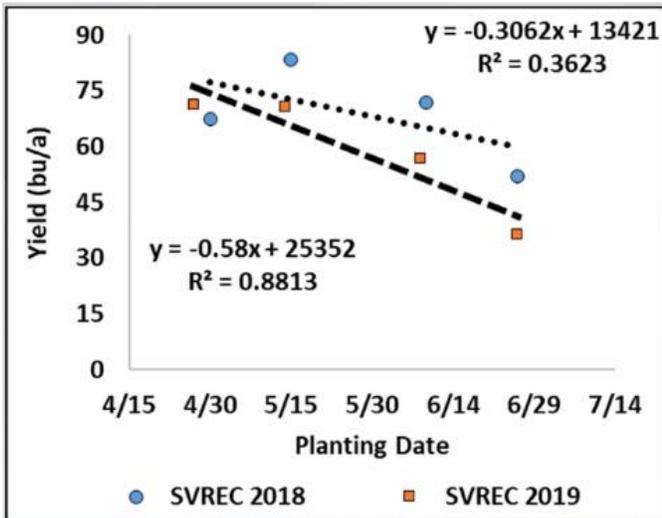


The monthly forecast for May has now changed to lean toward cooler and drier than normal.

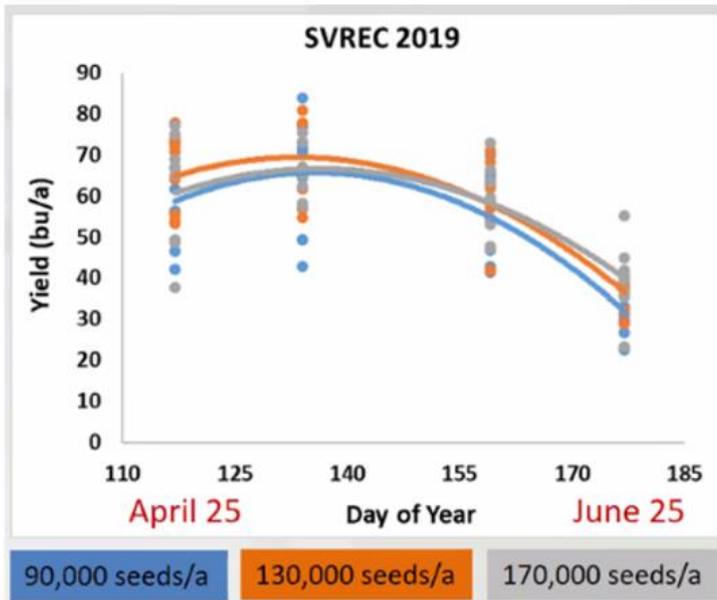
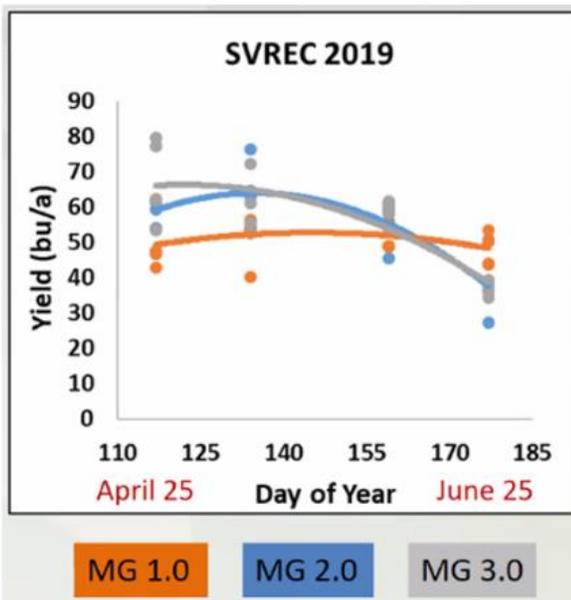
Crop Update

With the work-from-home directive currently in place, I have not been able to get out to visit fields or do any scouting—except for what I can see while driving to and from picking up groceries curbside from Walmart. I do not know how much longer this directive will be in place, but I will be putting in a request for a waiver to do some field scouting. **I would greatly appreciate your help! Please send me a quick email and let me know if you are seeing anything noteworthy, like wheat diseases, cutworm feeding, root rots, etc.**

Only 3% of the corn crop and 4% of the soybean crop in MI has been planted as of April 26 according to the latest USDA Crop Progress report. In the [MSU Extension Field Crops Virtual Breakfast session this week](#), cropping systems agronomist Dr. Manni Singh shared recommendations based on his research over the past few years with soybean planting. I will summarize a few thoughts below, but to view the entire recording, or learn about how to access the podcast, visit the [Field Crops Team website](#).



No surprise, but soybean yields decreased as planting date was extended past late April in this study. This was mainly attributed to lower total sunlight capture.



Choosing a later MG when planting early maximized yield in this study. No statistical differences were detected among these seeding rates until the very late planting date.

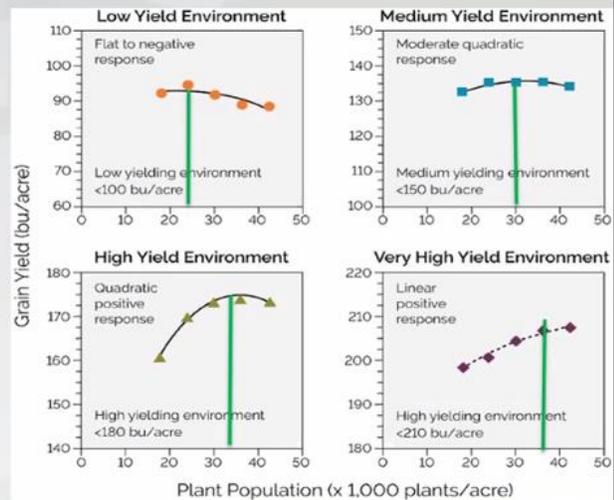
Seeding Rate- Corn

➤ Based on Yield Environment of field

- ~30,000 plants/ac for medium yield environment
- ~34,000 plants/ac for high yield environment

➤ Target Plant Stand vs Seeding rate (5-10% extra)

➤ Agronomic vs Economic optimum rate



Source: Assefa et al., 2016

Though Dr. Singh has not yet conducted corn planting small-plot research, he offered these recommendations based on research from Kansas State—30-34k plants/ac final stand with a seeding rate of 31,500 to 37,400 seeds/ac. A further look at individual hybrid response, field productivity, and economic factors would need to be done to determine the economic optimum seeding rate.

The winter wheat crop continues to look good with 51% rated good or excellent and another 36% rated fair. About a fourth of the crop in the state has reached Feekes 6 (jointing). Note: this stage is the cutoff for applying growth regulatory herbicides like 2,4-D and dicamba in wheat. This is also a good cutoff stage for applying spring nitrogen to avoid injury. Those fields should reach Feekes 7 in another week and the flag leaf (Feekes 8) will be emerging a week or so after that, although with cooler temperatures on the way, growth may be slowed by a day or two. Scouting for armyworm damage and diseases should begin by Feekes 8 if not before, and foliar fungicide applications should be considered to protect the flag leaf at that point.

Calendar

Titles are clickable links to online content when highlighted and underlined

- May 7** [MSU Extension Field Crops Virtual Breakfast Begins](#). 7:00-7:30 AM. “Soil Fertility Issues” with Kurt Steinke. [Participants must sign up](#) to receive an email notification with instructions for joining the Virtual Breakfast. You only need to do this once and you will receive the Zoom link and call-in phone number, as well as weekly reminders every Wednesday.
- May 14** [MSU Extension Field Crops Virtual Breakfast Begins](#). 7:00-7:30 AM. “Postemergence Weed Control” with Erin Burns. [Participants must sign up](#) to receive an email notification with instructions for joining the Virtual Breakfast. You only need to do this once and you will receive the Zoom link and call-in phone number, as well as weekly reminders every Wednesday.
- May 15** [Purdue Corn and Soybean Outlook Webinar](#). 12:30 - 1:30 p.m. EDT. Purdue ag economists Michael Langemeier and James Mintert will provide an update on the crop outlook following USDA's *World Ag Supply & Demand Estimates* (WASDE) report along with a COVID-19 update on implications for corn and soybeans. Register online.

May 21 MSU Extension Field Crops Virtual Breakfast Begins. 7:00-7:30 AM. “Wheat Issues for 2020” with Dennis Pennington. [Participants must sign up](#) to receive an email notification with instructions for joining the Virtual Breakfast. You only need to do this once and you will receive the Zoom link and call-in phone number, as well as weekly reminders every Wednesday.

May 28 MSU Extension Field Crops Virtual Breakfast Begins. 7:00-7:30 AM. “Dry Bean Planting” with Scott Bales. [Participants must sign up](#) to receive an email notification with instructions for joining the Virtual Breakfast. You only need to do this once and you will receive the Zoom link and call-in phone number, as well as weekly reminders every Wednesday.

MSU Extension Digest Briefs

PUBLISHED ON MAY 1, 2020

Farmers facing isolation – stay connected, it’s good for you - The inherent nature of the agricultural occupation is independent. Isolation is often linked to impacts on mental health and loss of life by suicide.

PUBLISHED ON APRIL 30, 2020

- **Farm resilience starts with a solid financial foundation** - Handling low profits means you need to manage the financial risks affecting your operation.
- **Integrated management strategies for improved soybean cyst nematode control** - Evaluation of rotation, compost, chemicals and cover crops to manage soybean cyst nematode populations.
- **Early season weed control in corn** Plan now for successful 2020 weed control in corn.
- **Creating a weed management plan for hemp** - Weed control in hemp will require careful planning.

PUBLISHED ON APRIL 29, 2020

- **Specialty Crop Irrigation: A video alternative to educational meetings** - With the growing interest in vegetable production, whether a truck farm, an integrated local goods production program or a new alternative crop like hemp, irrigation is a major factor in success.
- **Farm safety: COVID-19 health screening requirements for essential employees** - New health screening requirements for essential employees will help keep our farms safe and ensure that they can keep running during this pandemic.
- **Early season disease management: It’s time to start scouting for wheat diseases** - Scouting your fields early in the season will put you ahead of the game in the fight against wheat diseases.
- **Field Crops Virtual Breakfast: Sharpening the pencil on the 2020 nutrient budget** - Join the Field Crops Virtual Breakfast on May 7 to discuss soil fertility issues with finances in mind with Kurt Steinke.

PUBLISHED ON APRIL 27, 2020

Designing a better system for broadcast interseeding - New video shares research from MSU designing a broadcast interseeding system for cover crops that improves seed-soil contact.

PUBLISHED ON APRIL 24, 2020

Field Crops Virtual Breakfast series now has RUP credits for live participants - In cooperation with the Michigan Department of Agriculture and Rural Development, private and commercial applicators will be eligible for weekly RUP credits during live Field Crops Virtual Breakfast sessions.

Eric Anderson
Michigan State University Extension
Field Crops Educator - St. Joseph County
612 E. Main St., Centreville, MI 49032
eander32@msu.edu
(269) 467-5510 (Office)

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