

Southwest Michigan Field Crops Updates May 29, 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.

Thinking About Moving Big Equipment on the Road?

As tillage and planting operations are beginning to wind down and sidedress equipment comes out, it is important to remember road safety when transporting large p-p-p-p-plowers over the road. Consider having 1-2 cars drive behind and ahead of the equipment, particularly on hilly roads, to alert approaching vehicles to the big-wheeled wide loads. When a line of cars grows behind you, be considerate and pull over to let them pass when you are able—you will also avoid potential accidents with late-to-work road-rage jerks. Finally, avoid driving at dawn or dusk when possible as it is particularly hard to see during these twilight hours. You're willing to wear a goofy-looking mask to keep yourself and others safe, so take a few extra precautions when driving big equipment down the road to keep everyone safe as well.



[Click here to watch Craig Morgan's "International Harvester"](#)

Thinking About Spraying Dicamba in Xtend Soybeans?



For those who planted Xtend beans and plan to make a POST application, remember that we have a 45-day post-plant window to legally spray one of the three registered dicamba products. Purdue weed specialists published a [good summary of control options](#), and although Indiana has a cutoff date of June 20th for applications made in their state (Michigan does not use a cutoff date, we use the label restrictions only), they include good recommendations that align with those of our own weed specialists. So, for example, for beans planted on May 8, the cutoff would be June 22. Read more about applying these dicamba herbicides

in the [2020 MSU Field Crops Weed Control Guide](#) (pp. 103-104).

Thinking About Rolling Your Soybeans?

Most soybean is now in the ground in our part of the state, and many fields I have seen are somewhere between cracking and V1. We are all too familiar with the fact that the glaciers were not kind to us in depositing more than our fair share of rocks on the landscape, and these can make planting and harvesting a problem and even reduce yield as combine heads need to be raised to avoid rocks. The practice of “rolling beans” has been used in an attempt to push rocks down and, ultimately, increase yields.

When is the best growth stage to roll? Numerous sources—[University of Minnesota Extension](#), [South Dakota State University Extension](#), [OMAFRA](#), [Beck's PFR reports](#), [Farm Journal](#), etc.—cite studies saying between planting and V2 at the latest is the best time to roll beans. Rolling after this tends to increase the risk of damaging plants and hurting yield. The SDSU study says rolling at V3 did not reduce yields, but this finding was not consistent among sources. The taller the plant, particularly taller than 3-4", increased the risk of breakage.

Studies conducted by U-MN Extension and B&M Consulting found that ~4% of plants broke below the cotyledon (below all growing points resulting in plant death) when rolled at V1 and tended to increase at later stages.

In the article, "[Land-rolling soybeans in 2013](#)," MSU Extension soybean educator Mike Staton includes more key considerations for rolling soybeans.

- Roll emerged plants in the afternoon to reduce plant injury [when temps are hot, the plants will be less turgid/stiff and so will tend to bend rather than break]
- Roll erosion-prone fields after the plants reach the V1 growth stage [allowing more anchoring of the soil by young roots]
- Avoid rolling when the plants are wet as they will stick to the drums and be pulled from the soil
- Avoid rolling when the soil is moist to reduce the potential for soil sealing and reducing infiltration rates



These soybeans just over the Indiana border were planted around the first week of April and are approaching V2, a good time to consider rolling. Photo courtesy of Eric Anderson.

Thinking About irrigating in June?

Hopefully those of you with irrigation capability have taken the opportunity to get your equipment up and running already this year ahead of the hot and dry weather that will be coming this month. Many of you may also be thinking about using irrigation to either water in a fertilizer or herbicide application or to assist seedlings in breaking through a crust layer. Lyndon Kelley has put together resources to help with both of these topics as well as provide a checklist of considerations when getting equipment ready for the season. The article, "[Water up and irrigate in](#)", addresses the use of irrigation water for the above applications. Below is a bullet summary of the checklist, but the full discussion on getting equipment ready for the season can be found in his article, "[Kick off the irrigation season with inspections and repairs.](#)"

- Check and test all control and power boxes
- Turn on power supply, using proper safety protocol
- Service pump engines and inspect all fluid levels
- Measure static water levels in wells
- Start the well or pump
- Rock traps, screens and filters
- System leaks and bad sprinklers
- Check sprinkler patterns

- Cornering arm hydro valves
- End gun adjustments
- Check irrigation tires
- Service center drive and final drives on pivots
- Tree trimming and control brush
- Inspect bridge crossings and wheel paths through rough and low areas
- Chemigation valve and fertigation pump power supply
- Stop barricades

Thinking About Eating Chicken?

This probably seems completely out of place in this newsletter, but with even tighter household budgets than usual due to commodity markets and COVID pressures, many families will be looking for ways to reduce spending. Buying a whole chicken rather than individual cuts and then cutting it up yourself could be a good way to do just that. For example, Meijer is currently selling Meijer brand chicken breasts for \$3.99/lb and whole chickens for \$1.19/lb. Of course for those who have the ability to raise chickens at home, costs could be even lower. MSU Extension teams have been working on a myriad of ways to offer timely programming during the pandemic. One member from our Health and Nutrition Institute recently produced a video, "[Cut Up Whole Chicken](#)", to show us how to cut up a whole chicken and save a little money. Enjoy!



Weather and Crop Update

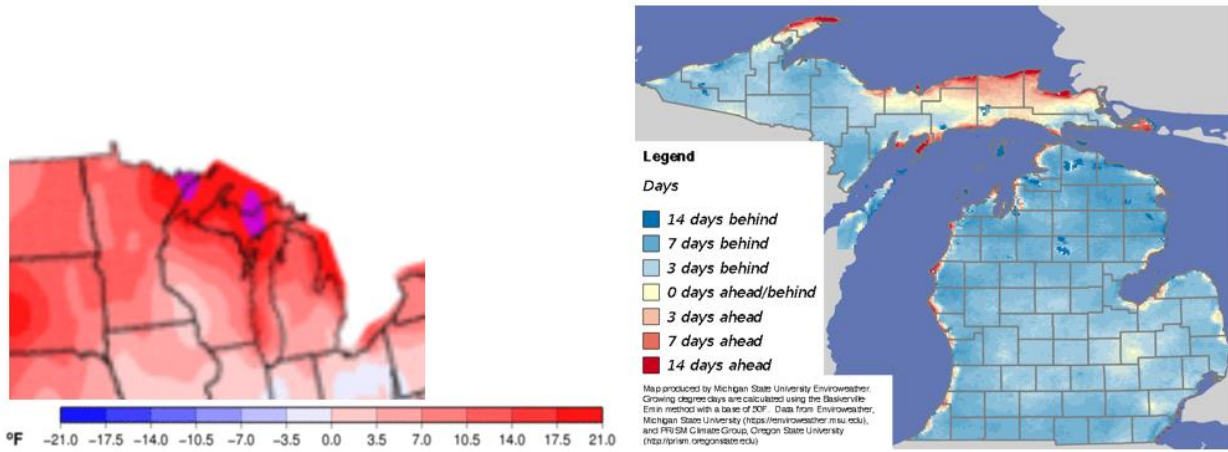
Weather. Heavy rainfall put the brakes on field operations across much of southwest Michigan on May 26-27. Many fields that were under the tropical thunderstorms received short-duration but extremely intense rainfall, causing erosion on long field slopes and rills on steeper slopes. The extreme warm temperatures can lead to increased risk of flooding injury to submerged crops.

A cold front will be moving through the state May 28-29 with another behind that from Canada that will bring cooler than normal temps over the weekend. Temperatures will moderate beginning Monday and will be above normal for the first week of June. Precipitation predictions for the coming week call for only 0.5-1.0" with most of that falling before the weekend. The long-lead outlooks call for warmer and wetter than normal conditions for much of the growing season based on mathematical models.

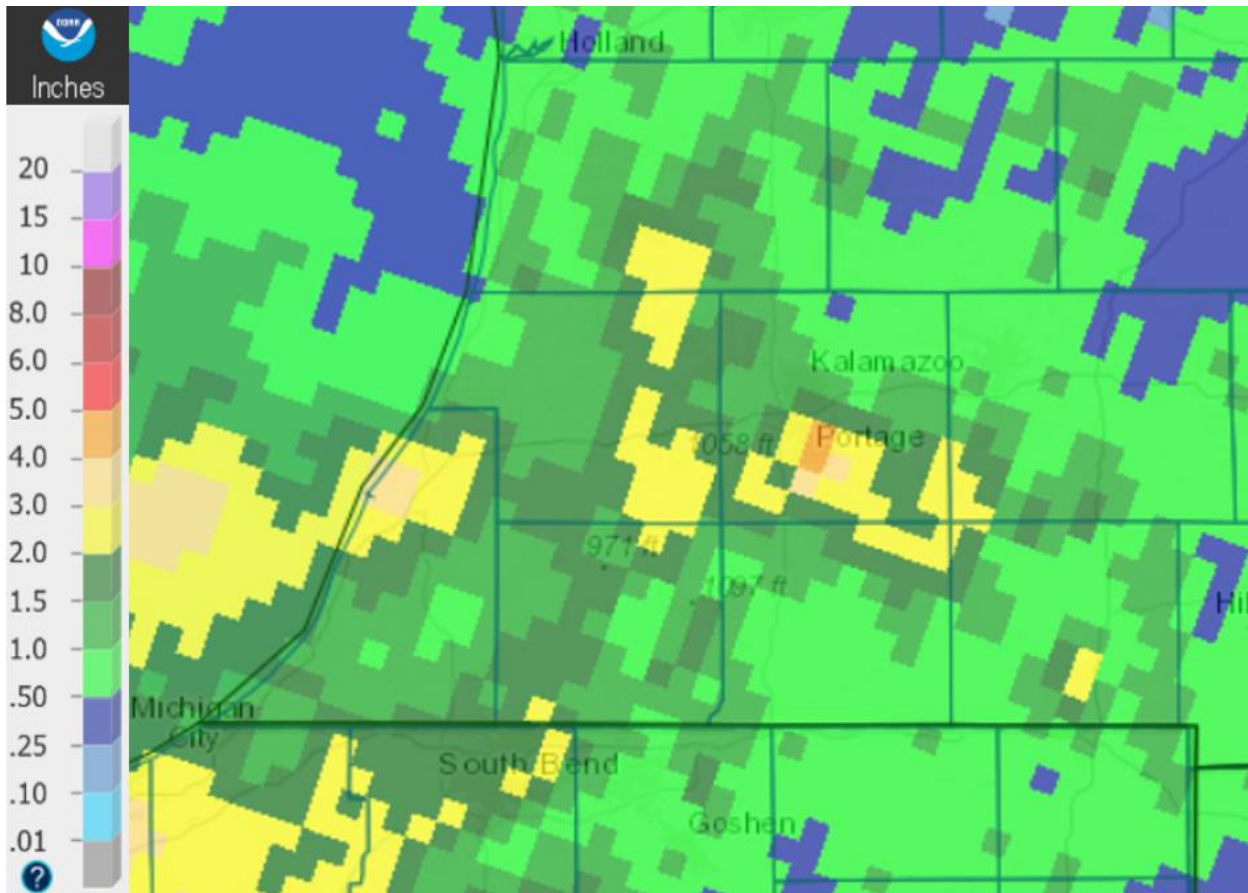
Another concern is the potential leeching loss of nitrate forms of nitrogen (N). Warm temperatures for several days prior to the heavy rainfall could have kicked conversion of ammonium forms of N to nitrates in high gear. Heavy rainfall through saturated soils could remove N, especially on light textured soils. The good news is that there was limited side dress N applied, and there is ample time to re-apply N if you think that your early applications were compromised. Growers can use a pre-sidedress N test (PSNT) to estimate the potential losses of N applied early or by mineralized animal manures.



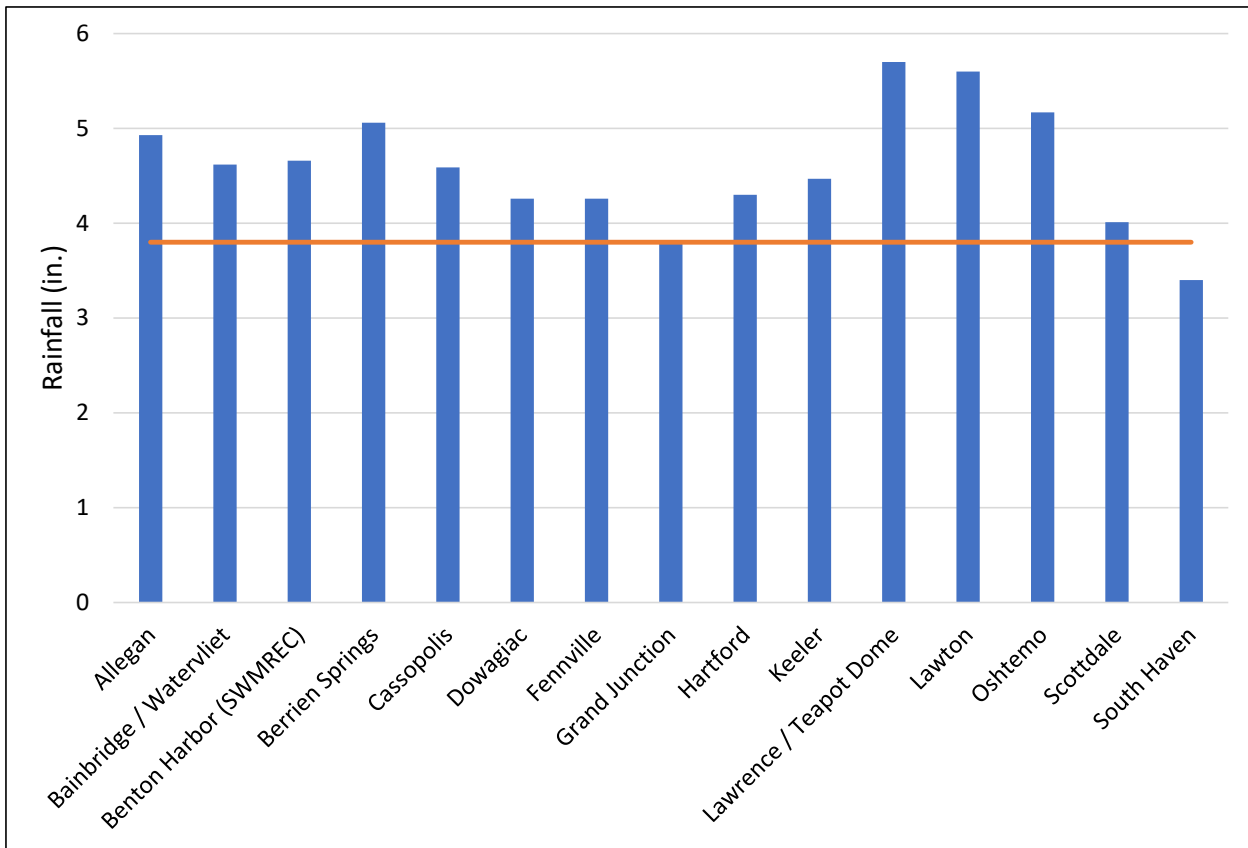
Pop-up thunderstorms brought local flooding with earlier this week with reports of nearly 2" in less than an hour. Photos courtesy of Bruce MacKellar (top) and Eric Anderson (bottom).



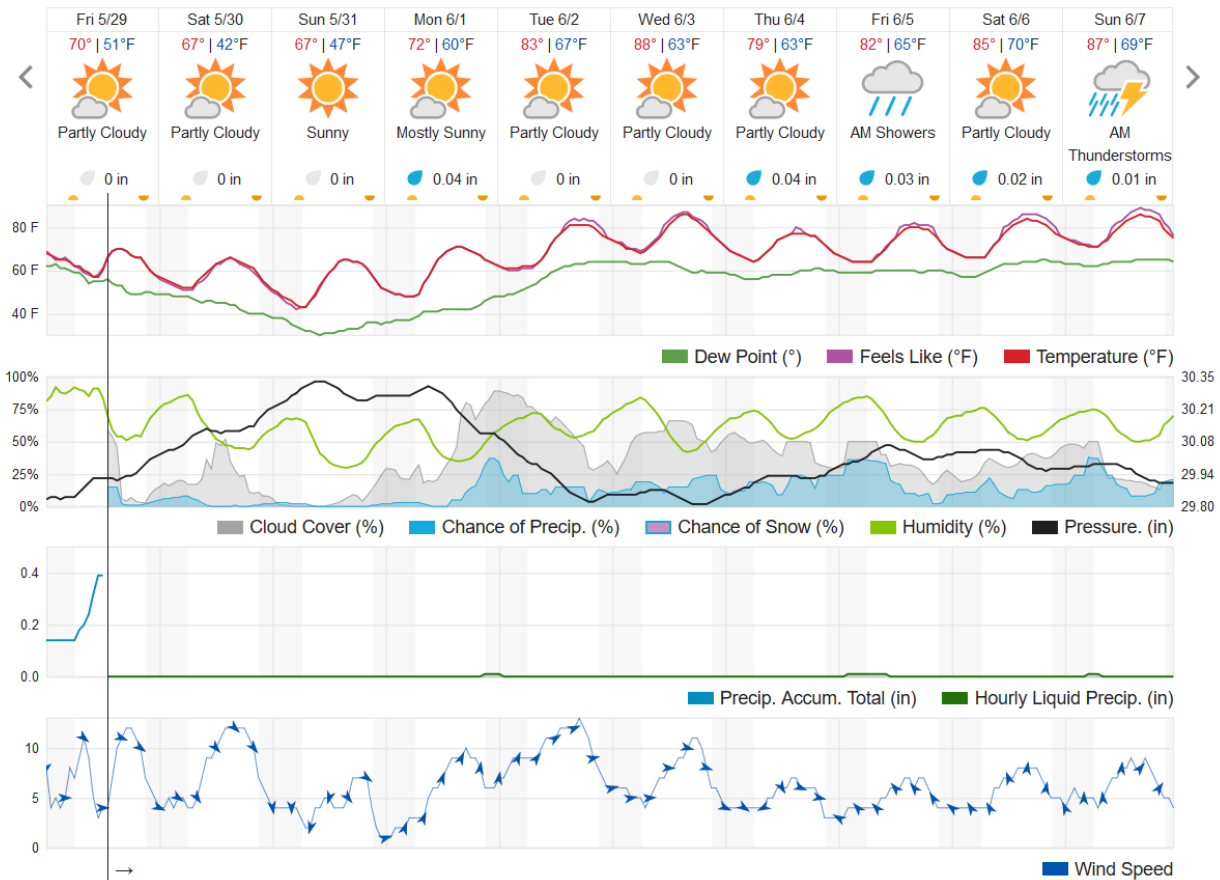
Temperature departures from normal (left) for May 21-28. We picked up approximately 155 GDD's (base 50) which was about 25 GDD's greater than the 5-year average. We're now less than a week behind in heat units (right).



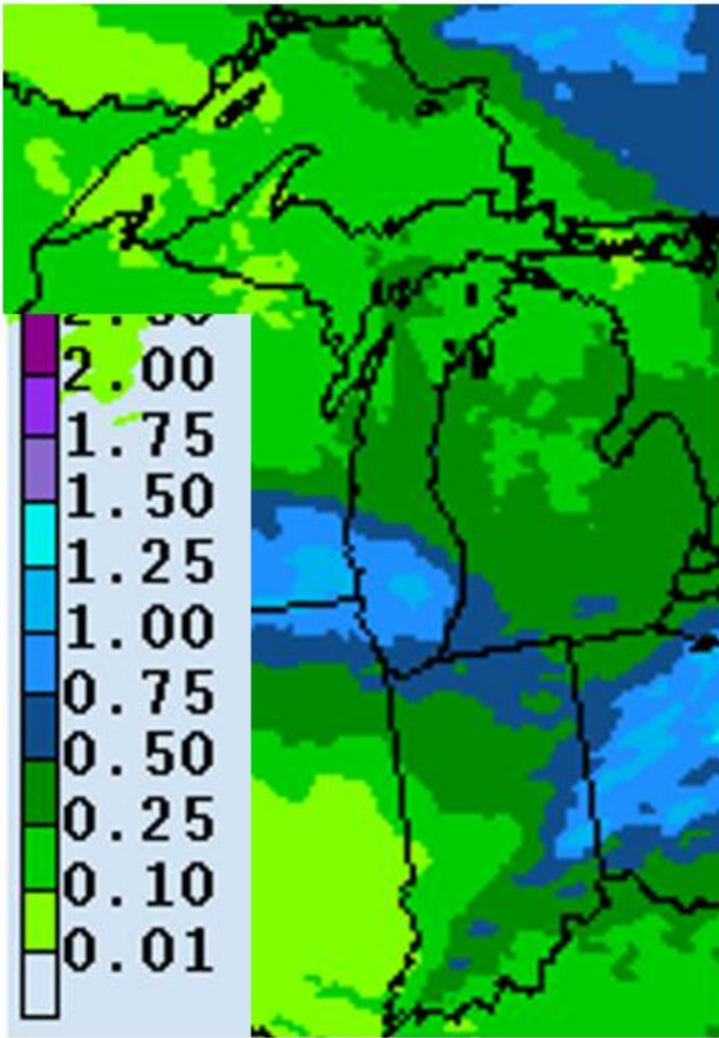
Precipitation over the past 7 days, reported the morning of May 29th. This map can be a bit deceptive at this resolution with the diurnal pop-up showers we have had this past week as reports have come in of over 2" in the rain gauge within an hour.



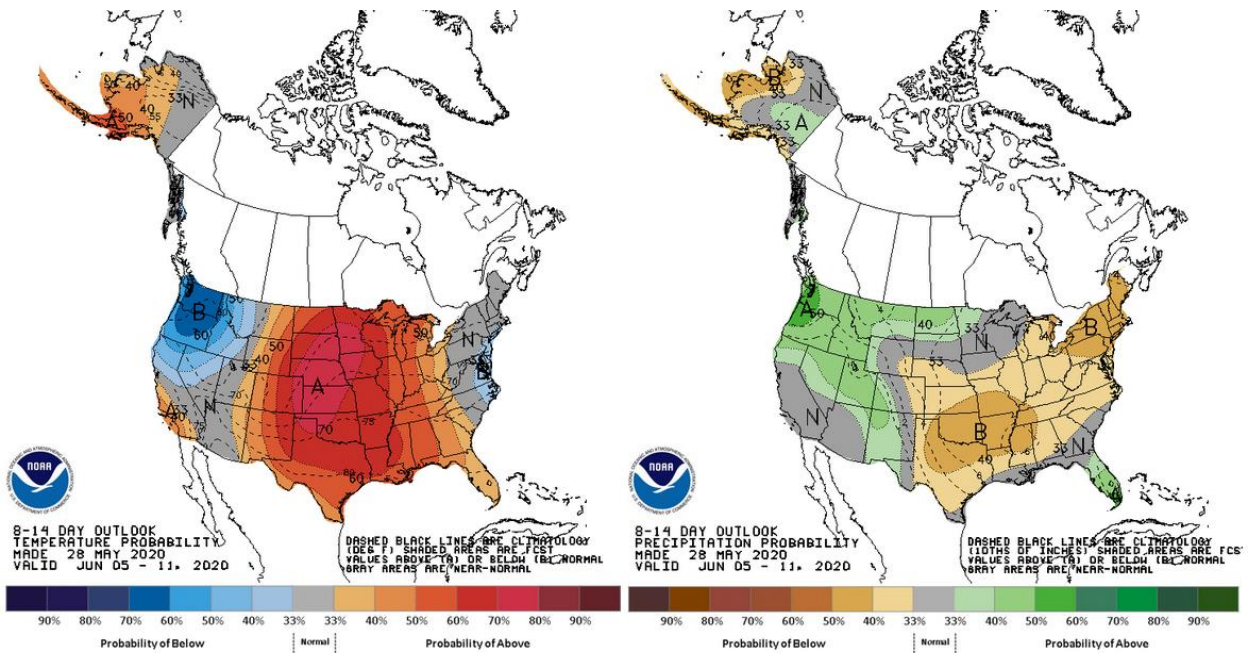
Rainfall measured at Enviroweather stations in southwest Michigan as of the morning of May 28. The orange line is the 5-year average rainfall in Kalamazoo for this time period.



The 10-day forecast for Kalamazoo as of May 29th.



Precipitation forecast for May 29-June 5. Much drier conditions expected for the coming week to get planting finished and take first-cutting hay.



The 8-14 day outlook from June 5-11 for temperature (left) and precipitation (right). The 6-10 day outlook is similar. Warmer and drier conditions should prevail for the first half of June.

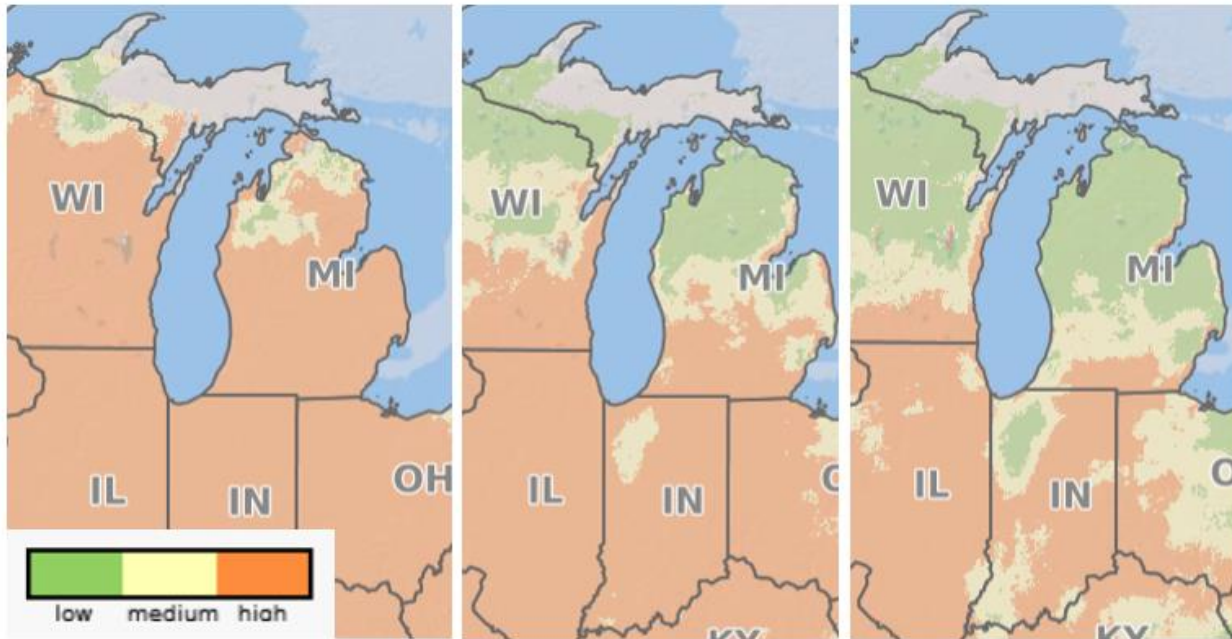
Corn and Soybean. According to the latest USDA Crop Progress report, 70% of the corn and 65% of the soybean in Michigan was planted as of May 24th. Corn emergence is at 28% with most fields being at V1 and soybean is at 25% emerged with a wider range of progress from just poking through to near V2. As usual, these numbers are lower than what we're seeing in the southwest. With the storm systems that started coming through on Tuesday, most activity came to a halt, although a number of planters were still out hoping that the pop-ups would miss them. The front that is making its way through the region Thursday and Friday will bring more widespread rainfall, so most will need to wait until later this weekend or early next week to get into fields again.

Wheat/Small Grains. Wheat is beginning to head out (Feeke's 10.5) in the region, although emerged anthers have not yet been observed. MSU Extension wheat specialist Dennis Pennington said he saw a few anthers emerged at their plots in Mason this week, but we are about 1-2 weeks behind in development due to the cold spring. According to the Crop Progress report, only 4% of Michigan wheat had headed as of May 24th.



Wheat in this field in St. Joseph County has headed out (Feeke's 10.5) but no anthers were seen as of May 27th. Photo courtesy of Eric Anderson.

Although some fields are still a week or more away from Feeke's 10.5.1 (anthers emerged), it is not too early to begin scouting and making plans for a fungicide application for Fusarium head blight, a.k.a. head scab. With the warm and wet weather these past few days, the [Fusarium Risk Tool](#) prediction model shows that much of southern Michigan is at moderate to high risk of head scab. Feeke's 10.5.1—or within 7-10 days after this—is the ideal time to apply a head scab fungicide. As your wheat approaches this key stage, be sure to check the FHB Risk Tool, know your variety's level of susceptibility, and assess when (or whether) a fungicide treatment is warranted. MSU Extension field crops educator Bob Battel wrote [a recent article summarizing the FHB fungicide options](#).

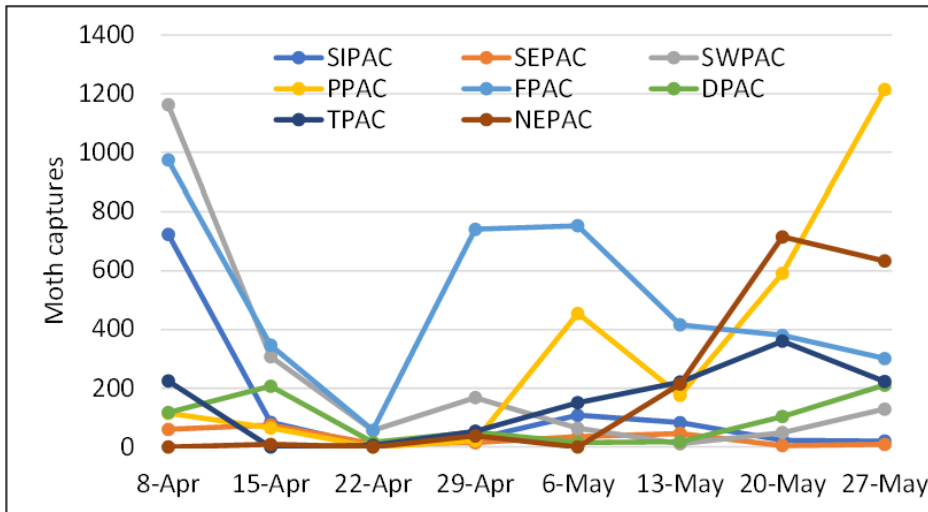


Risk of head scab for susceptible (left), moderately susceptible (center) and moderately resistant (right) wheat varieties according to the [Fusarium Risk Tool](#) as of May 28, 2020.

Alfalfa. First cutting has begun in the region, although this week has made it more than challenging to find enough dry days to harvest. MSU ag climatologist Jeff Andresen says that late weekend or early next week should provide the next best chances to take first cutting.

Weeds. The warm conditions have kicked both crop and weed growth into high gear. Growers should be watching weed sizes carefully to make sure that the maximum size for control is not exceeded. Soil conditions may be too wet for spraying for several days in the hardest hit areas, especially if the expected rainfall today occurs. [The 2020 MSUE Weed Control Guide has maximum weed heights listed in Table 1H for Corn, Table 2H for soybeans.](#)

Armyworm Report. Purdue has ceased its black cutworm trapping, but the current true armyworm trap counts are shown in the graph below. With the storm systems that blew up from the south this past week, the high trap numbers not surprising. Remember, absolute capture numbers are not important, it's the relative number and the timing that is important. MSU Extension educator Paul Gross (near Mount Pleasant) caught over 1000 moths this week with a Hartstack trap (same type that Purdue uses), so we know the moths didn't stop at the border. What is clear is that there are likely to be hotspots for both black cutworms and armyworms across southern Michigan. MSU Field Crops Entomologist Chris DiFonzo says these moths will be laying eggs now, so start scouting in 7-10 days for larvae and signs of feeding. Wheat fields need to be scouted; however, corn fields that have had grassy covers that had been burned down or tilled recently are more likely to have issues with armyworms. Fields that have had winter annual weeds until recently are more likely to have black cutworm issues. Black cutworms are a little trickier to scout for than armyworm. The larvae tend to go underground during the daylight hours. Watch for stands that are going backwards, have signs of clipping or where you see younger corn plants being pulled underground. You may have to check a 2 ft circle around clipped plants to find the larvae. Dr. DiFonzo [wrote an excellent article that addresses black cutworm scouting.](#)



Armyworm captures in Indiana for the week ending on the given date.

Calendar

Titles are clickable links to online content when highlighted and underlined

May 21 [MSU Extension Field Crops Virtual Breakfast](#). 7:00-7:30 AM. [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.

The Virtual Breakfast has become one of our team's flagship outreach programs. Here is the tentative schedule. And remember, [RUP credits are now available for the live sessions](#) (2 sessions = 1 credit). If you can't participate in the live session on Thursdays at 7 a.m., you can view the recorded version at any time. Recordings are closed-captioned and available on the [MSU Extension Field Crops webpage](#) and social media platforms: [Spotify](#), [Apple Podcasts](#), [YouTube](#), [Facebook](#) and [Twitter](#).

June 4 – Alternative forages with Kim Cassida

June 11 – Sugar beet Cercospora and BeetCast with Daniel Bublitz

June 18 – Drainage design considerations with Ehsan Ghane

June 25 – Farm stress with Eric Karbowski

July 2 – Organic field crop production with Vicki Morrone

July 9 – Insects taking flight with Chris DiFonzo

July 16 – Stored grain with special speaker

July 23 – Tar spot and white mold with Martin Chilvers

July 30 – Cover crops after wheat with Dean Baas

Aug. 6 – Irrigation and diseases with Lyndon Kelley and Martin Chilvers

Aug. 13 – Alfalfa autotoxicity with Kim Cassida

Aug. 20 – Grain marketing with Aleks Schaefer

Aug. 27 – Wheat planting with Dennis Pennington

Sept. 3 – Corn silage mycotoxins with Manni Singh

Sept. 10 – Industrial hemp with Kurt Thelen

June 9 [Managing Farm Stress Zoom Workshop](#). 12 - 12:30 p.m. or 7 - 7:30 p.m. EST. Numerous factors may cause stress for farmers. Many face financial problems, price and marketing uncertainties, farm transfer issues, production challenges and more. Farmers may struggle with stress, anxiety, depression, burnout, indecision or suicidal thoughts. Register online for this free webinar.

MSU Extension Digest Briefs

PUBLISHED ON MAY 28, 2020

- **Southwest Michigan field crop update – May 28, 2020** - Warm air from the south pushes tropical rainfall and armyworm moths into Michigan.
- **Alternative forages discussed during Field Crops Virtual Breakfast on June 4** - Participants will get timely information on other potential forages from MSU forage specialist Kim Cassida and a weekly weather update from MSU agricultural meteorologist Jeff Andresen.
- **Weed control considerations before planting dry edible beans** - There are several key points to consider before planting dry beans when controlling weeds.
- **Getting “In the Weeds” on cover crops** - Michigan Field Crops “In the Weeds” podcast fourth series highlights farmer’s stories about cover crop usage.
- **Fungicide options to combat Fusarium head blight** - A new fungicide on the market claims to widen the window for treatment of Fusarium head blight.

PUBLISHED ON MAY 26, 2020

- **Do I always need to replant soybeans after a frost event?** - Patience is the farmer’s biggest virtue when it comes to making replanting decisions due to freeze.

PUBLISHED ON MAY 21, 2020

- **How does flooding affect soybean germination?** - Important information about soybean fields planted prior to the recent heavy rain events.
- **Assessing low temperature injury to soybeans** - Determine if emerged plants that experienced low temperature damage are still viable.
- **Southwest Michigan field crop update – May 21, 2020** - High rainfall totals from this past week have put field work on hold, but warmer weather is on the way to get planted crops up and growing.
- **Get ready for the Tri-State Precision Ag Webinar on June 23** - Join us for the first 2020 Tri-State Precision Ag Day online webinar on June 23 at 6 p.m.

PUBLISHED ON MAY 20, 2020

- **Michigan flood: Resources to assist flood-impacted areas** - Recent flooding has submerged communities and neighborhoods and left many Michigan residents with unanswered questions.

PUBLISHED ON MAY 15, 2020

- **Final organic non-GMO soybean variety trial results are available** - For the eighth year, Michigan State University reports results of non-GMO soybeans grown on certified organic farms.

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