

## Southwest Michigan Field Crops Updates June 15, 2021

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.

### Pesticide Applicator Certification Deadline and Important Note

For those whose Michigan pesticide applicator credentials expired in 2019 or 2020, the deadline to recertify (via continuing education credits or re-testing) is **June 30, 2021**. According to an email sent out recently from Metro Institute—the third-party company contracted by MDARD to administer computer-based pesticide testing—“you must complete the certification/registration process by submitting a paper Pesticide Applicator Certification/Registration Application and application fee to MDARD. Without submitting a completed MDARD application and fee [\$50 Private, \$75 Commercial], you are NOT considered certified and will not receive a credential from MDARD.” If you have misplaced your renewal notice, contact MDARD (800-292-3939 or [gravesl@michigan.gov](mailto:gravesl@michigan.gov)) for a duplicate copy. For more information, visit the [MDARD Pesticide Examination Process and Instructions website](#).

### USDA to Begin Loan Payments to Socially Disadvantaged Borrowers

The U.S. Department of Agriculture Farm Service Agency (FSA) [published the first notice of funding availability \(NOFA\)](#) (PDF, 242 KB) announcing loan payments for eligible borrowers with qualifying direct farm loans under the American Rescue Plan Act Section 1005. USDA expects payments to begin in early June and continue on a rolling basis. A subsequent notice addressing guaranteed loan balances and direct loans that no longer have collateral and have been previously referred to the Department of Treasury for debt collection for offset, will be published within 120 days.

Section 1005 of the American Rescue Plan Act of 2021 (ARPA) provides funding and authorization for USDA FSA to pay up to 120 percent of direct and guaranteed loan outstanding balances as of January 1, 2021, for socially disadvantaged farmers and ranchers as defined in Section 2501(a) of the Food, Agriculture Conservation, and Trade Act of 1990 (7 U.S.C. 2279(a)). Section 2501(a) defines a socially disadvantaged farmer or rancher as a farmer or rancher who is a member of a socially disadvantaged group, which is further defined as a group whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. Qualifying loans as part of today's announcement are certain direct loans under the Farm Loan Programs (FLP) and Farm Storage Facility Loan Program (FSFL).

For much of the history of the USDA, socially disadvantaged farmers and ranchers have faced discrimination—sometimes overt and sometimes through deeply embedded rules and policies—that have prevented them from achieving as much as their counterparts who do not face these documented acts of discrimination. Over the past 30 years, several major civil rights lawsuits have compensated farmers for specific acts of discrimination—including Pigford I and Pigford II, Keepseagle, and the Garcia cases. However, those settlements and other related actions did not address the systemic and cumulative impacts of discrimination over a number of decades that the American Rescue Plan now begins to address.

To learn more about the loan payments to socially disadvantaged farmers and ranchers, visit [www.farmers.gov/americanrescueplan](http://www.farmers.gov/americanrescueplan).

## Weed Management Pre-recorded Webinar Series

The [Take Action website](#) now includes a series of webinars recorded by weed management specialists from numerous land grant universities addressing topics including temperature inversions, cover crops and marestail, herbicide-soil interactions, and others. There are also topics on resistance and other issues with other types of pesticides. Recordings are generally about 25 minutes long.

## Great Lakes Wheat Yield Enhancement Network

During the annual wheat field day earlier in June, Michigan Wheat executive director Jody Pollok-Newsom announced the inauguration of an international collaboration to improve wheat yields. The Great Lakes Yield Enhancement Network (YEN) is one of a global series of YENs that help local farmers better understand their yield potential and learn what is limiting that potential. The goal of the YEN is to connect agricultural organizations, extension specialists, academics, agronomists, and farmers who are striving to improve crop returns by unlocking the potential of the field by closing the gap between potential yield and actual yield. The Great Lakes YEN is currently focused on winter wheat and covers the geographic area of the Province of Ontario, Canada, and the Great Lakes region of the USA.

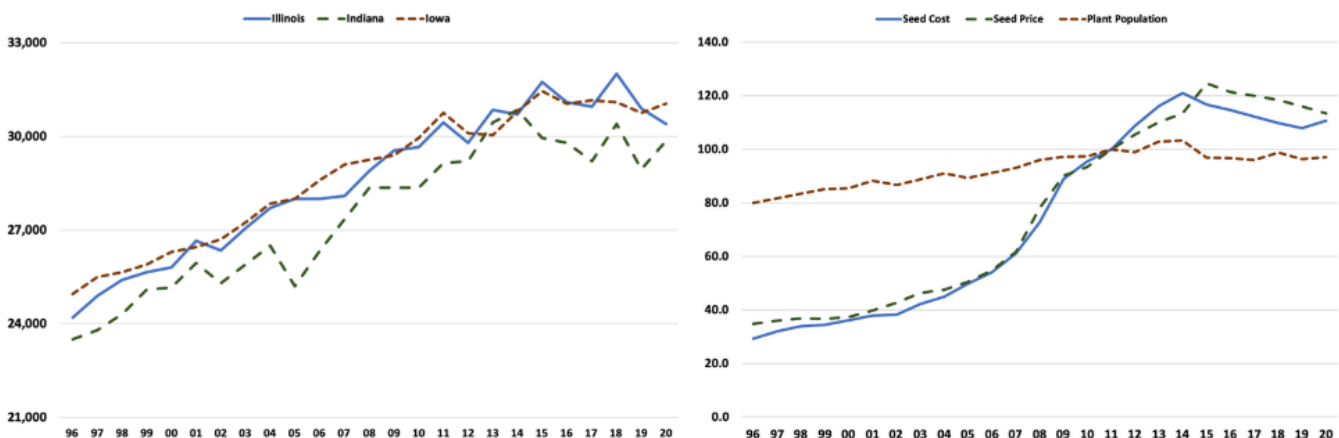
Farmers participating in the Great Lakes YEN will agree to:

- Collect soil, tissue, and grain samples at specific times throughout the duration of the project and send them to a lab for analyses.
- Keep a record of all crop inputs, track crop growth stages, and enter field data by established deadlines.
- Download software and/or an app and use it for data entry.
- Participate in the year-end meeting.
- Accept and arrange third-party verification of yield.

The Great Lakes YEN will be accepting 50 applications from U.S. Great Lakes growers starting July 5 and closing August 15, 2021 and we will be notifying farmers of their acceptance by August 30, 2021. You can submit your email address on the [YEN website](#) to receive notification of when applications are open.

## Corn Planting Populations Change Over Time

In a recent article by Purdue agricultural economist Michael Langemeier, "[Trends in Corn Plant Populations](#)," corn populations were tracked over the past 25 years in an effort to determine whether there was a correlation between planting rates and seed cost. The analysis showed that plant population accounted for only 18% of the variability in seed cost over that time period. Planting rates have leveled off in the past five years, and projected plant populations in 2021 are 32,410 in Iowa, 32,570 in Illinois, and 31,287 in Indiana.



Corn planting populations in Illinois, Indiana and Iowa (left) and correlation between seed cost, seed price and plant populations (right) over the past 25 years. Graphic courtesy of Michael Langemeier, Purdue agricultural economist.

# Weather and Crop/Pest Update

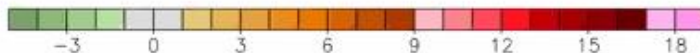
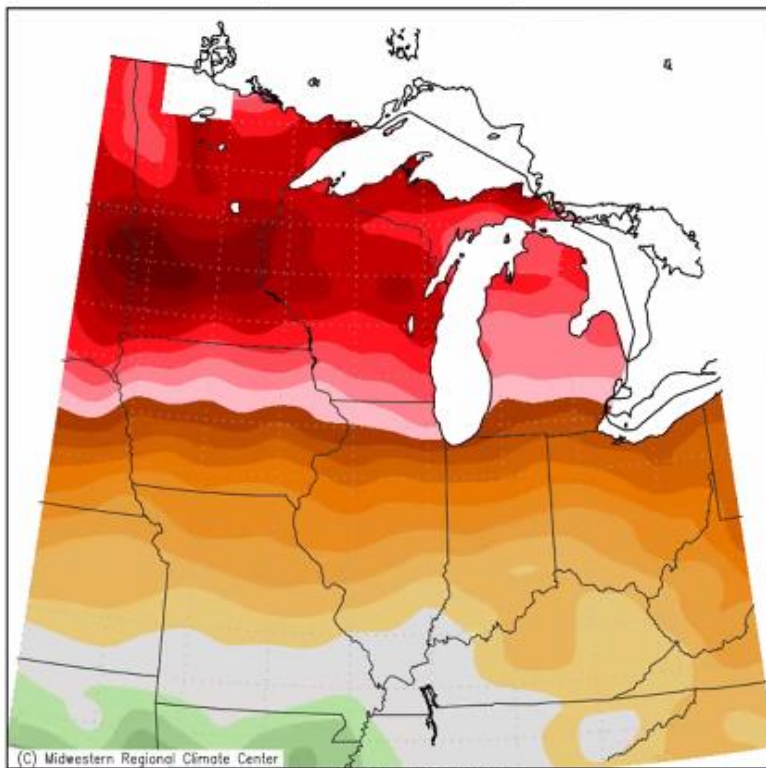
## Weather

As predicted, temperatures so far this month have been reminiscent of mid-August rather than early June. We were 7 to 10 degrees warmer than normal during the first week of June in southwest and south central Michigan. The upper atmosphere trough feature and a tropical air mass from the Gulf of Mexico—along with high dew points and particularly unpleasant humidity levels—moved out of the region over the weekend and temperatures are moderating to normal levels this week.

Dry conditions persist, and the current version of the US Drought Monitor shows D2 Drought conditions covering 30 percent of Michigan, a considerable increase from the last version. It can get boring looking at the same graphics each week to hear the same bad news, so MSU Extension agricultural climatologist Jeff Andresen updated another graph depicting the rankings of just how dry things are compared with the past 129 years. This year is in the top ten for driest years since 1893. The situation does not look like it will improve in the coming week with daily high temperatures predicted to be in the 80's. Although nighttime lows will drop back down to 50's to lower 60's, daily moderate winds and the warm daytime temperatures will result in a weekly forecasted reference evapotranspiration (FRET) rate of near 1.6 inches which equates to daily demands of just under 0.25 inch.

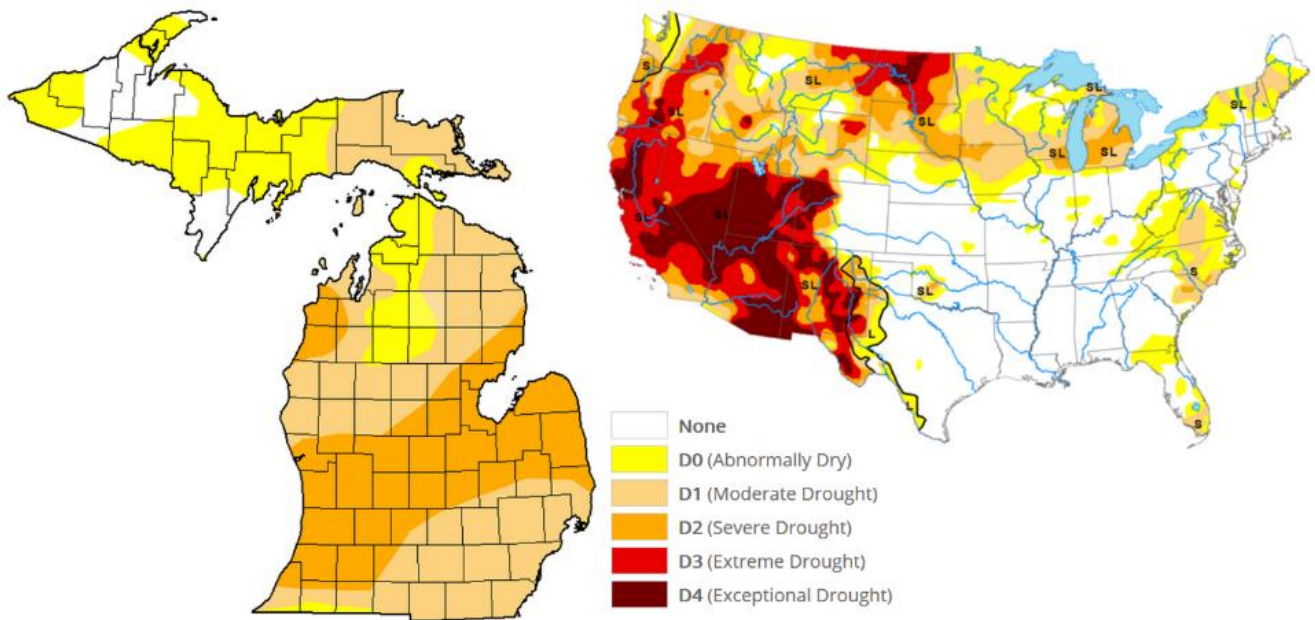
There have definitely been winners and losers with the scattered showers that fell across the state this past week. There are good chances of rain this Friday and then again Sunday through Monday. Predictions from NOAA are calling for as much as 2 inches over the coming week, but other models predict less than an inch, so we'll hope for the best. The 6-10 day and 8-14 day outlooks show some question as to whether temperatures will be normal or possibly below normal, but both predict above-normal precipitation for the last week of June.

Average Temperature (°F): Departure from Mean  
June 2, 2021 to June 8, 2021

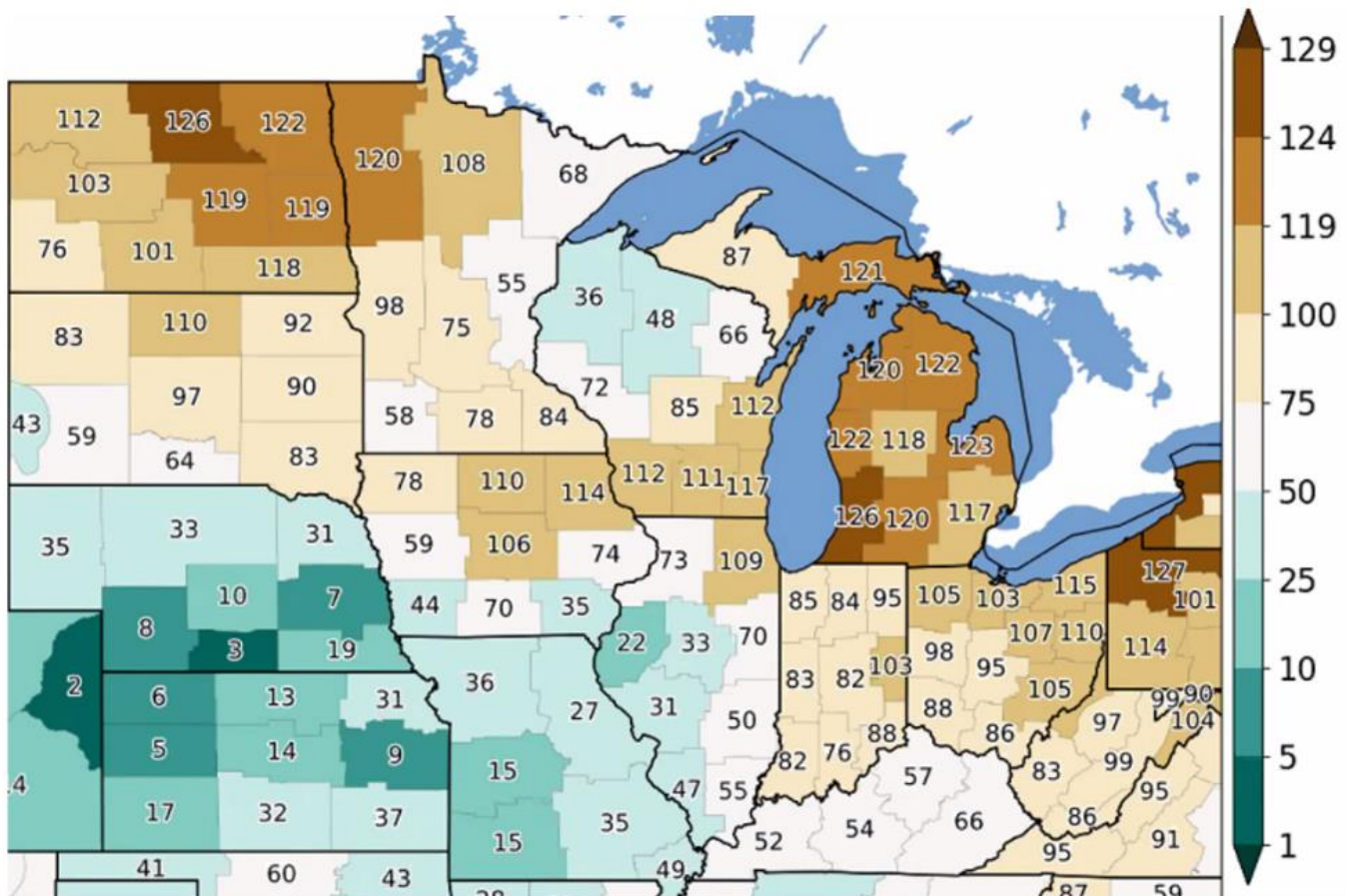


Average temperature departure from normal for June 2-8, 2021.

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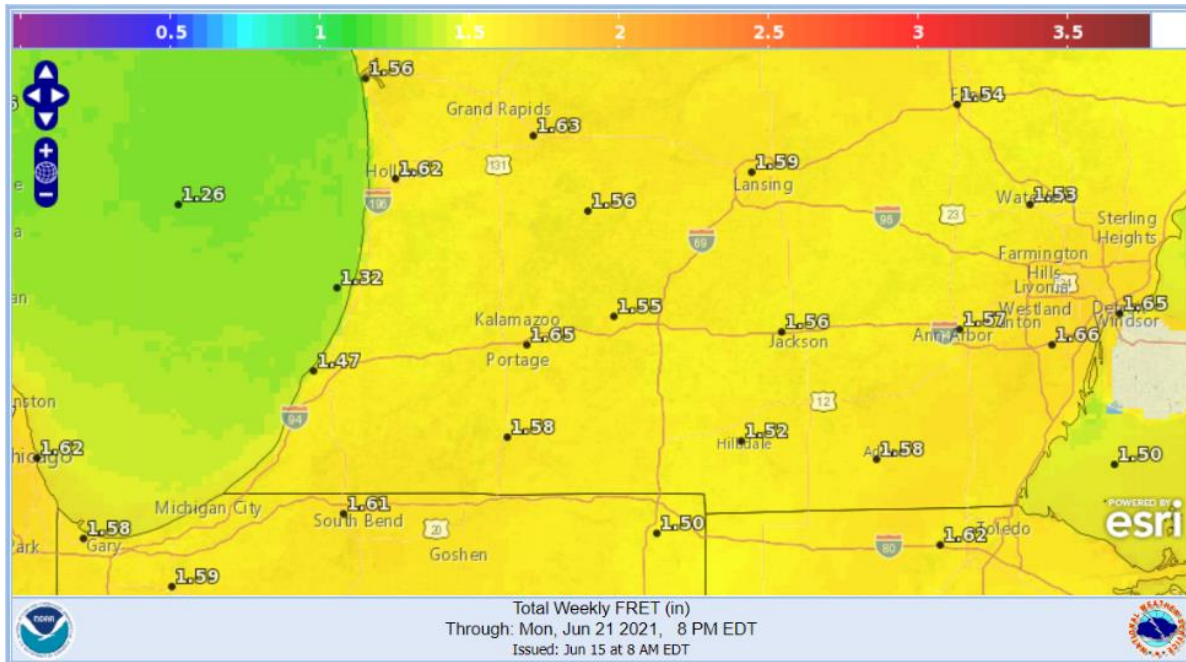


The U.S. Drought Monitor released June 10, 2021.

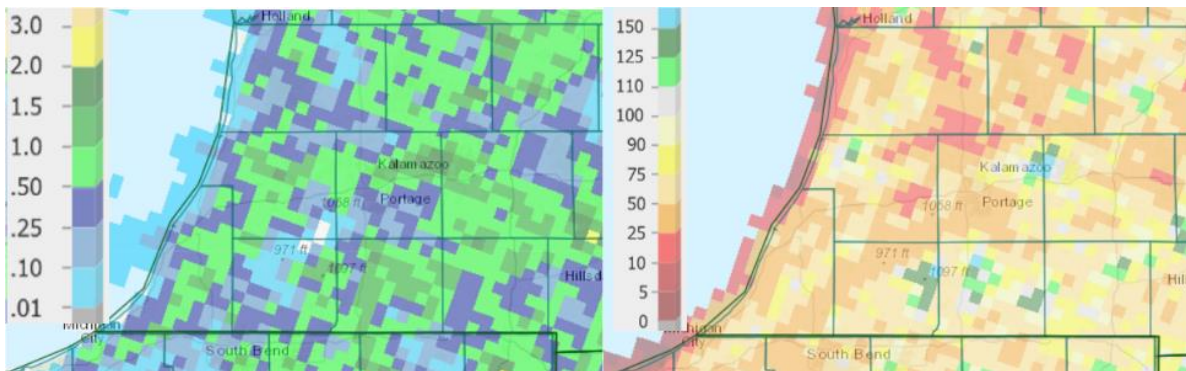


Total precipitation ranks from Jan. 1 through May 31, 2021 based on 129 years of precipitation data back to 1893. Graphic courtesy of Jeff Andresen.

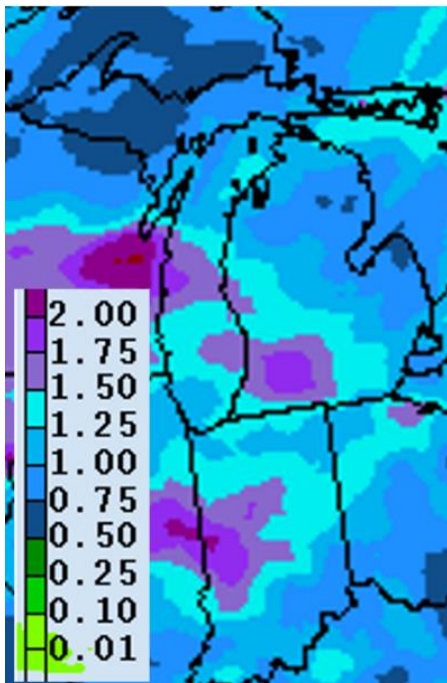
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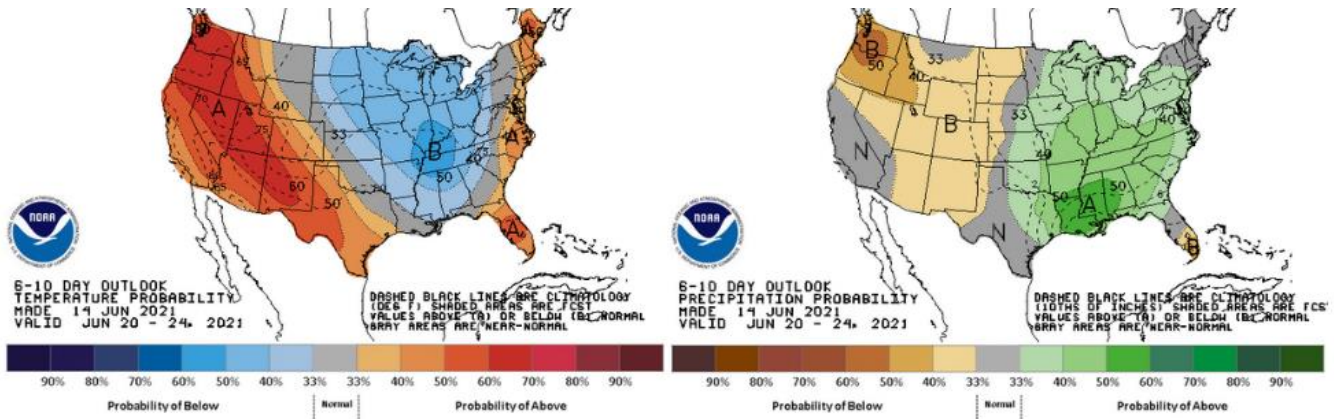
Total weekly forecasted reference evapotranspiration (FRET) June 15-21.



Precipitation totals for the past 7 days (left) and percentage of normal for the past 14 days (right) as of June 15.



Precipitation forecast for June 15-22.



The 6-10 day outlook (June 20-24) for temperature (left) and precipitation (right). The 8-14 day outlook is similar although no direction on temperature.

### Crops and Pests

**Wheat** has finished flowering and has progressed to beginning kernel fill (Feekes 10.5.4). The threat of head blight is mostly passed, and no new foliar diseases have been seen thus far. Now the crop just needs favorable weather during grain fill. Non-irrigated wheat has been hit by the dry conditions reasonably hard. Lower canopy leaves have fired in some cases, although the upper leaves are the most important for filling grain. MSU Extension wheat specialist Dennis Pennington says the hot temperatures will impact grain fill to some extent, but with a return to cooler temperatures this week we should be in good shape. Now we just need adequate moisture as the crop will require 1.75 inches water this coming week. MSU and Purdue Extension irrigation educator Lyndon Kelley says most producers he has talked with who irrigate applied an inch and hoped for rain this week, but the soils at depth are very dry which means higher irrigation amounts are needed to get this crop through the dry weather to harvest. According to USDA: “The yield forecast of 80 bushels is down 2 bushels from last month but up 5 bushels from last year. If realized, the expected yield would be the 3rd highest on record.”



Wheat has finished flowering and has now progressed to kernel development. Photo taken in St. Joseph County on June 8, courtesy of Eric Anderson.



Lower leaves “firing” in drought-stressed wheat. Photo courtesy of Eric Anderson.



Soil moisture is adequate past 18 inches in a well-watered wheat field (left) but soils are dry below 12 inches in a rainfed wheat field that received 0.7 inch of rain earlier this week (right). Photos courtesy of Eric Anderson.

**Alfalfa** still waiting first cutting is currently in the full-flower stage. MSU Extension forage educator Phil Kaatz says alfalfa that's harvested late can be fed to any kind of livestock, but it is recommended to feed lower quality forage to growing heifers and beef cows that don't require as high a quality feed as dairy cows or horses. Weevil feeding is not prevalent in the smaller fields scouted recently. Harvest conditions for first cutting have been very good with all the dry conditions and sunshine. Although the yields are down, harvest quality should have been very good. The timely showers that many have received should help the re-growth to get started. Keep an eye out for potato leafhoppers, which can impact 2<sup>nd</sup> cutting alfalfa with lower numbers—threshold is 20 per 100 sweeps on 3-inch alfalfa.



Alfalfa fields in the area are currently at late-flower stage. Photo courtesy of Eric Anderson.

**Corn** planting has just about finished up in Michigan with 97 percent emerged according to the June 14 USDA Crop Progress report. The stress from too little water in most of the state and too much water in parts of the central region caused ratings to be somewhat low for this time of year with only 55 percent of the crop rated as good or excellent and an additional 36 percent rated as fair.

Early planted fields are V7 while later planted fields are all over the board as folks waited for some rainfall to help bring the plants up. No-till fields did conserve moisture which helped. Corn at V6 will use 0.67 inch this coming week and corn at V8 will use 0.96 inch. Plants at this stage are determining row number in the ears. Drought stress will begin to have more of a potential impact on yields as we progress through the vegetative growth stages and will peak at around pollination. Watch for weed growth and be prepared to clean up pre-emergence weed escapes. Side-dress time is often when we notice uneven plant growth due to **Asiatic garden beetle** white grub feeding (as we are out in the fields and see much more area). Make note of areas that have unexplained poor or uneven growth. MSU Extension field crops entomologist Chris DiFonzo says white grub feeding is coming to an end as larvae are getting ready to pupate, so we shouldn't have issues with root feeding moving forward this season.

**Soybean** was 95 percent emerged, and crop condition ratings were essentially identical to those for corn. Early planted fields look reasonably good and later planted fields benefited from the recent rainfall. With dry conditions expected to continue, be prepared to spray postemergence programs early enough to keep weeds from becoming competitive. Insects have not been an issue thus far. One thing to keep in mind in dry seasons is that we can have increases in both soybean aphids and spider mites. Both of these pests benefit from dusty conditions that tend to keep pathogenic fungi from effectively controlling their populations. DiFonzo said spider mites don't generally start to flare up until around July 4<sup>th</sup>.

**True armyworm** (TAW) and **black cutworm** (BCW) moth traps last week once again produced goose eggs and traps were retired for the season. DiFonzo affirms that we are past the point of concern for larval damage from these pests.

DiFonzo also caught her first European corn borer moths on campus this past week. According to her Fast Fonz Facts update, "Using this first catch as a 'biofix'—a point to start degree day (DD) accumulation—egg hatch is estimated in 212 GDDs or roughly June 18-23 in central Michigan. Second and third stage larvae, which feed in the midrib and shothole the whorl, are predicted roughly from June 23 - July 7. Mid-June thru early July is thus the time frame for scouting non-Bt corn for first generation corn borer damage in mid-Michigan, since first to third instars are the target for an insecticide spray. A quick threshold: 50% of plants have whorl feeding & live larvae are still present in the whorl. Older larvae tunnel into the plant and are not controlled by sprays."



## Calendar

Titles are clickable links to online content when highlighted and underlined

- Jun 17** [Field Crops Virtual Breakfast](#). 7-8am. Hay Markets with Kim Cassida. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jun 24** [Field Crops Virtual Breakfast](#). 7-8am. Sugar Beet Cercospora – BeetCast with Jaime Willbur. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jun 24** [Carbon Markets for U.S. Row Crop Producers](#). 12:30pm. Purdue ag economists Carson Reeling, Nathanael Thompson and James Mintert will discuss the opportunities and challenges of the carbon markets in U.S. agriculture for row crop producers. Cost is free, register online for access to live webinar and recording.
- Jun 25** [MSU Small Grains for Brewing and Distilling Field Day](#). 1-4pm, Kellogg Biological Station (KBS), 9701 N 40th St., Hickory Corners. Attendees will have the opportunity to view multiple winter rye and spring and winter barley plots and hear speakers covering a variety of topics. Cost is free, register online.
- Jun 30** [Pesticide Applicator License Extension Deadline](#). Pesticide applicators with expired licenses in 2019 and 2020 must renew by this date to maintain credentials.
- Jun 30** [MSU Weed Tour](#). MSU Agronomy Farm, 4450 Beaumont Rd., Lansing. Check-in 8:30am, tour 9:30-11:30 and concludes with lunch. Cost is \$30, includes tour booklet and boxed lunch. All activities will be conducted outside. Pre-registration is required and will close on June 27.
- Jul 1** [Field Crops Virtual Breakfast](#). 7-8am. Cover Crops after Wheat with Dean Baas. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jul 8** [Field Crops Virtual Breakfast](#). 7-8am. Farm Stress with Eric Karbowski. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jul 15** [Field Crops Virtual Breakfast](#). 7-8am. Drainage Water Quality with Ehsan Ghane. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jul 22** [Field Crops Virtual Breakfast](#). 7-8am. Tar Spot and White Mold with Marty Chilvers. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jul 29** [Field Crops Virtual Breakfast](#). 7-8am. Pricing Corn, Soybeans and Wheat with Matt Gammons. One RUP and one CCA credit available for each live session. No cost to you, register online once for whole season.
- Jul 12&13** [Large Truck and Tractor Tire Collections](#). 9am-12pm (12<sup>th</sup>) and 4-7pm (13<sup>th</sup>). Van Buren County Building & Grounds, 753 Hazen Street, Paw Paw. The Van Buren Conservation District is hosting large truck and tractor tire collections this year at no direct cost to you. Sign up at the link above, you will hear from the recycling coordinator, Emily Hickmott, by phone or email with more details closer to the event. You can also email her at [resourcerecovery@vanburencd.org](mailto:resourcerecovery@vanburencd.org) with any questions.

## MSU Extension Digest Briefs

### **BEGINNING FARMERS, WE'VE GOT NEWS FOR YOU!**

PUBLISHED ON JUNE 11, 2021

New and beginning farmers can sign up to receive a new monthly newsletter catered to their needs.

### **SHOULD YOU PLANT DOUBLE CROP SOYBEANS IN MICHIGAN?**

PUBLISHED ON JUNE 10, 2021

The high soybean price has increased interest in planting double crop soybeans after wheat harvest this summer. Producers need to understand and manage the risks of this practice.

### **CONSIDER DROUGHT-MOTIVATED IRRIGATION PURCHASES CAREFULLY**

PUBLISHED ON JUNE 8, 2021

Hot, dry summers sometimes result in quick irrigation investment decisions that may be regretted

### **2021 A CHALLENGING YEAR FOR FORAGES TOPIC FOR JUNE 17 FIELD CROPS VIRTUAL BREAKFAST**

PUBLISHED ON JUNE 8, 2021

The Field Crops Virtual Breakfast on June 17, 2021, will feature MSU Extension forage specialist Kim Cassida discussing current challenges for forage production imposed by drought, high grain prices and other factors.

### **PANDEMIC COVER CROP PROGRAM OFFERS CROP INSURANCE DISCOUNTS – DEADLINE JUNE 15**

PUBLISHED ON JUNE 7, 2021

The USDA Risk Management Agency's Pandemic Cover Crop Program offers a discount of \$5 per acre on a farmer's 2021 crop insurance premium.

### **WHEAT WATCHERS REPORT – JUNE 7, 2021**

PUBLISHED ON JUNE 7, 2021

Fieldwork is mostly done around the state.

### **WATER QUALITY FARMING “THE BAY WAY”**

PUBLISHED ON JUNE 3, 2021

Learn how a farmer-to-farmer network aims to accelerate nutrient management adoption in the Saginaw River Watershed.

### **CLASSIC WEATHER PATTERN FOR POTATO LEAFHOPPER OUTBREAK IS HERE**

PUBLISHED ON JUNE 2, 2021

Second cutting alfalfa should be scouted early after regrowth appears.

### **IN-PERSON SMALL GRAINS FOR BREWING AND DISTILLING FIELD DAY TO HIGHLIGHT RESEARCH AT KELLOGG BIOLOGICAL STATION**

PUBLISHED ON JUNE 1, 2021

The W.K. Kellogg Biological Station will host an in-person small grains for brewing and distilling field day to showcase multiple variety and management trials on June 25, 2021.

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