

Southwest Michigan Field Crops Updates July 6, 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.

COVID-19 Hazard Assessment and Mitigation Program (CHAMP) e-Tool Released

A team of MSU Extension professionals have been working to develop a tool to support the agriculture industry as they address workplace safety protocols that mitigate the risk of COVID-19 infection and develop pandemic preparedness plans (required by [Executive Order 2020-70](#)). The CHAMP Lite tool is an Excel-based spreadsheet tool specifically designed with the various different agricultural sectors in mind. You can read the recent news article, [Michigan State University Extension releases COVID-19 Hazard Assessment and Mitigation Program \(CHAMP\) e-tool to support the agriculture industry](#), for more information.

A live virtual training opportunity will be available via Zoom for this tool. Register by clicking on the link for the session on [July 9, 2020 from 10 a.m. – 12 p.m.](#) A recorded webinar will also be made available for those unable to attend a live virtual session. To accompany the recorded sessions, two Q&A sessions have been scheduled: Session 1 [July 14, 2020 from 1 p.m. - 2 p.m.](#) or Session 2 [July 16, 2020 from 10 a.m. -12 p.m.](#) The recorded webinar and tool will be made available on the [MSU Extension Rapid Response for Agriculture](#) page, these resources will be posted in the following week and made available for clientele.

Contact [Melissa Millerick-May](#) (MSU Farm Safety, Hazard Assessment and Control) or [Beth Ferry](#) (MSU Extension swine educator) for more information.

MSU Extension Resources for COVID-19 Financial Assistance Programs

The MSU Extension FIRM team has created an Excel spreadsheet with a listing of available COVID-19 financial assistance programs for farmers in Michigan. The goal is to help Michigan producers understand the numerous and confusing programs available. The objective is for the information to be fluid and updated as current information becomes available. Current and updated versions will be housed on the [MSU Extension FIRM Team website](#).

The most relevant programs to most farmers are items:

- 1. Emergency Economic Injury Disaster Loan Program – EIDL
- 2. Economic Injury Disaster Loan Program – EIDL
- 4. PPP (Payroll Protection Program) Self-employed with no employees qualifies
- 11. CFAP (Coronavirus Food Assistance Program)

MSU Extension Virtual Field Days

Summer is normally the time when farmers and agribusiness professionals would be attending various field days to learn more about crop production, pest management, and research study findings. The pandemic has altered our lives in many ways, and this year it is impacting our ability to hold in-person events such as field days. Several MSU Extension specialists, educators, administrators, and support staff are working on making virtual field days (VFD's) available for many different groups involved in agriculture. Below is a calendar for a selection of VFD's pertinent to field crops

producers in southwest Michigan. The wheat field day was the first such program, and the recordings from that VFD are available on the [Michigan Wheat website](#). More details and registration information on these and other VFD's can be found on the [MSU Extension Virtual Field Days website](#).

- July 21 – Manure Management Virtual Field Day
- July 29 – Bay Area Vegetable Trials Virtual Field Days
- August 5 – Root Crop Research Update Virtual Field Day
- August 26 – Soybean Virtual Field Day
- September 2 – Cover Crops Virtual Field Day
- September 9 – Corn Virtual Field Day
- October 7 – Pork Virtual Field Day

CLEAR30 – First USDA Program to Offer 30-year Signup

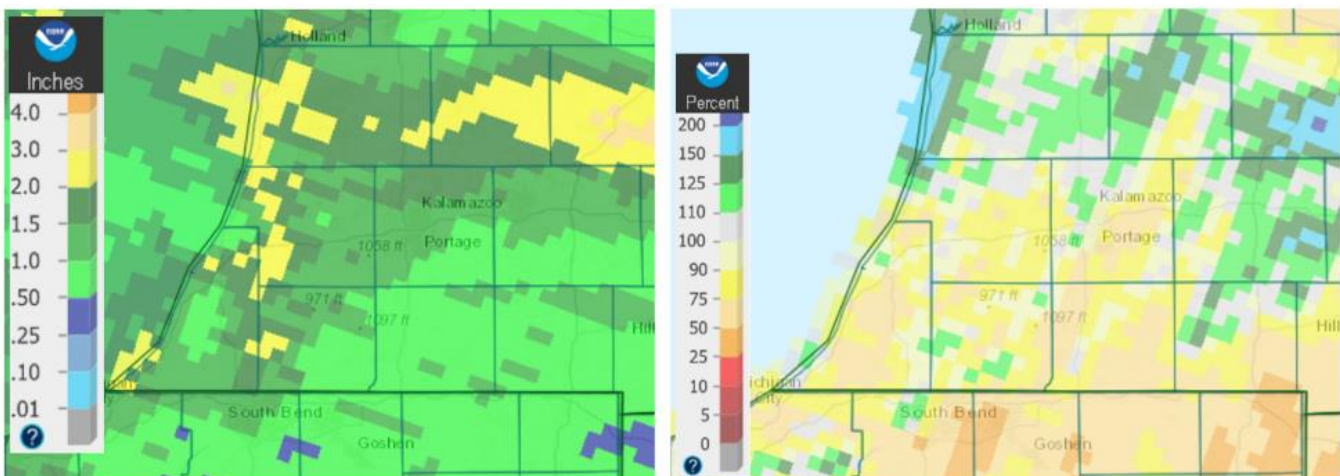
CLEAR30 is a new pilot program that offers farmers and landowners an opportunity to enroll in a 30-year Conservation Reserve Program (CRP) contract. This pilot is available to farmers and landowners with expiring water-quality practice CRP contracts in the Great Lakes and Chesapeake Bay regions. The program signup period is July 6 to Aug. 21, 2020.

Eligible producers must have expiring Clean Lakes, Estuaries and Rivers (CLEAR) initiative contracts, including continuous CRP Cropland contracts with water-quality practices or marginal pasturelands CRP contracts devoted to riparian buffers, wildlife habitat buffers or wetland buffers. The longer contracts will help ensure that practices remain in place for 30 years, which will help reduce sediment and nutrient runoff and help prevent algal blooms. Traditional CRP contracts run from 10 to 15 years.

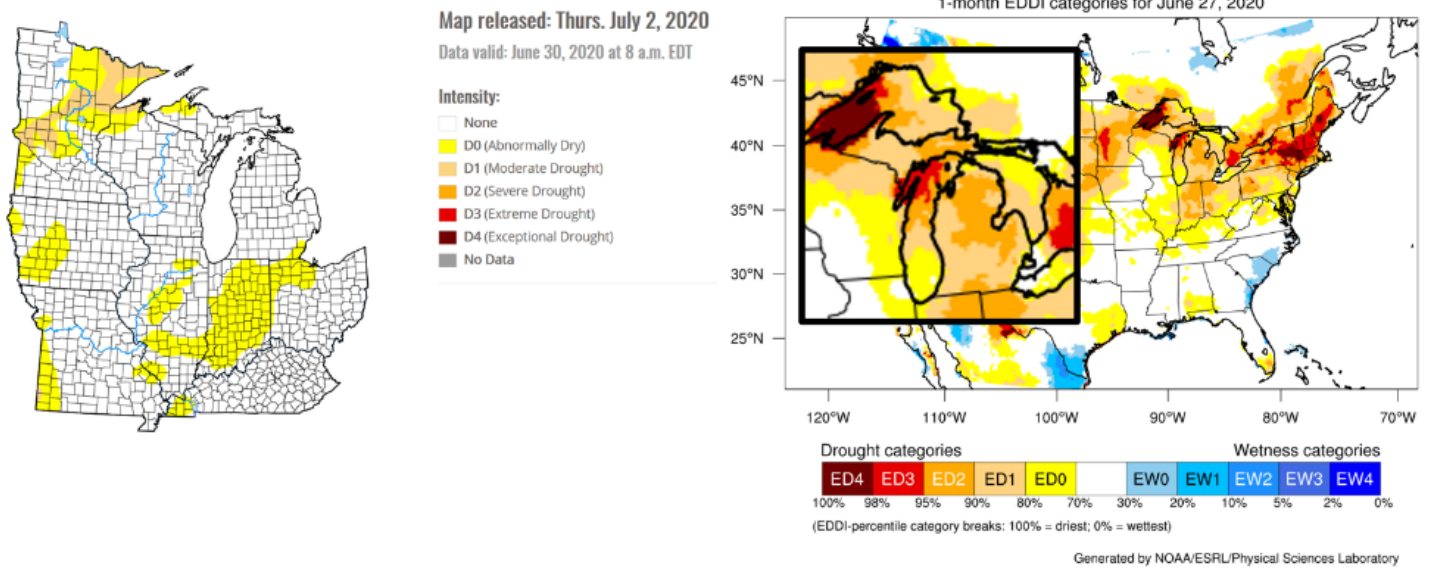
Annual rental payment for landowners who enroll in CLEAR30 will be equal to the current Continuous CRP annual payment rate plus an inflationary adjustment of 27.5 percent. Another unique program feature is that FSA will help producers maintain CLEAR30 contract acreage. Contact your local FSA office for more information.

Weather and Crop Update

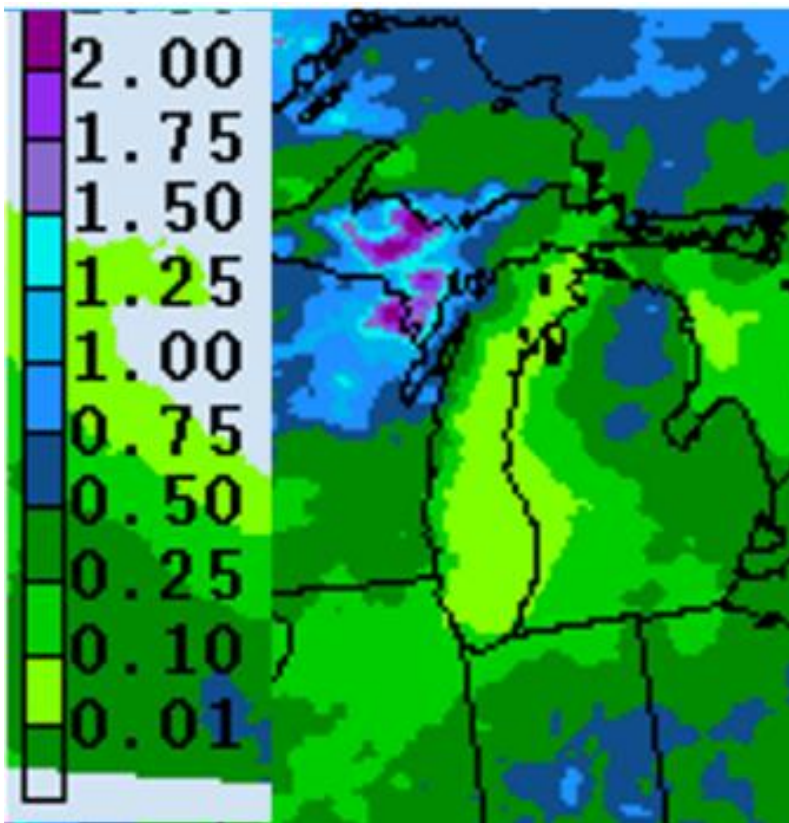
Weather. June was drier than normal for most parts of southwest Michigan and some parts of the south central region. Although scattered and isolated thundershowers brought high rainfall amounts locally, the region overall received 3.0” rainfall on average as recorded at Enviroweather stations. With greater than 90% chance of having daily highs > 90 °F for the next week, the daily evapotranspiration rates are expected to be high (see section on Irrigation below). And, with little precipitation expected in the coming week, and above-normal temperatures predicted for at least the first half of the month, July may end up being a challenging time for crop growth for those without irrigation. Crops planted early enough to develop adequate roots and access soil moisture this spring will be better able to weather this hot and dry period. MSU Extension soybean educator Mike Staton says that soybeans are able to slow down shoot growth while maintaining root growth to access deeper moisture when faced with such conditions.



Rainfall totals for the past 7 days (left) and the percent of normal over the past 30 days (right). Overall, June was an unusually dry month for most of the region.

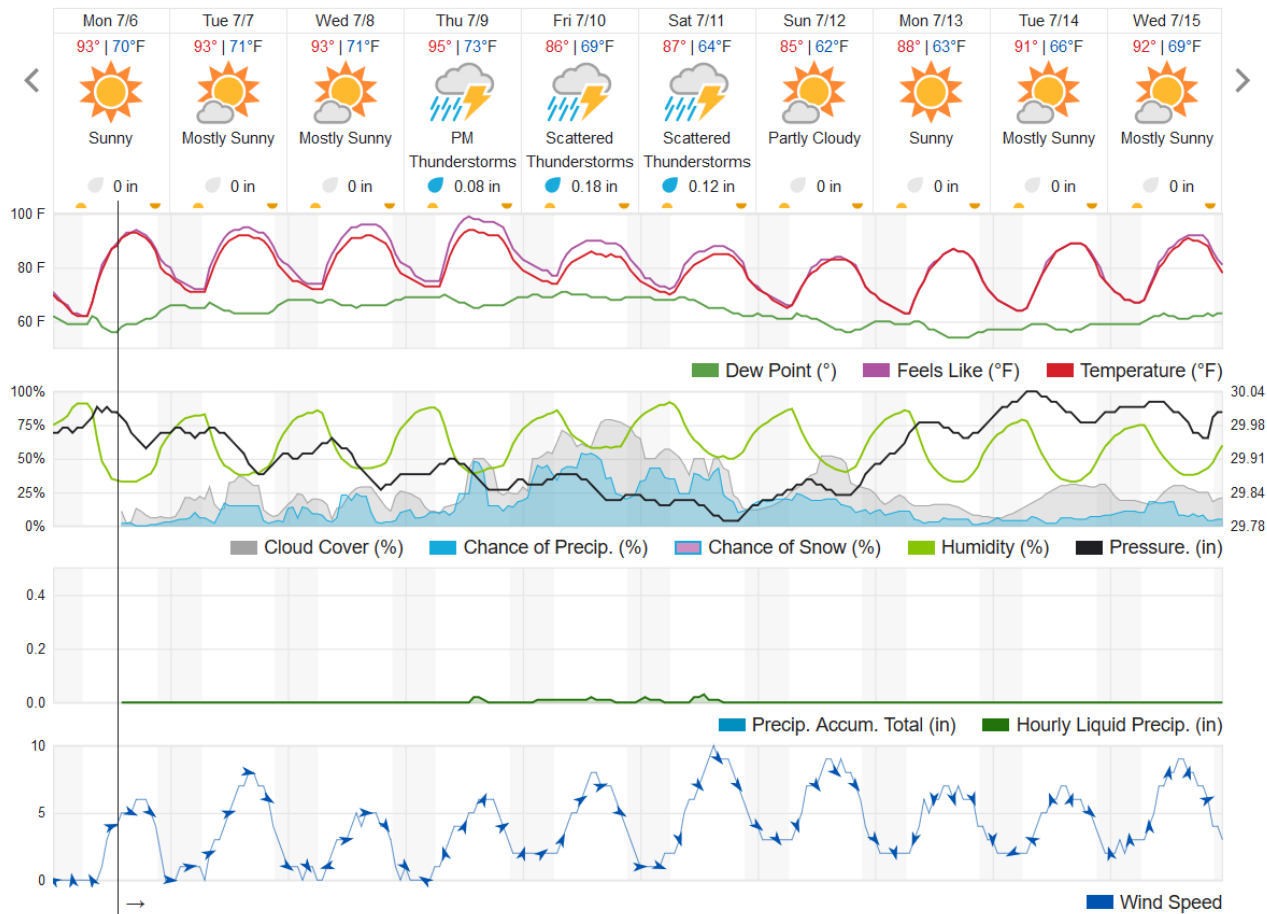


The U.S. Drought Monitor index (left) and the Evaporative Demand Drought Index (right). Hot and dry conditions mean the “thirst” of the atmosphere is high with potential crop water stress resulting.

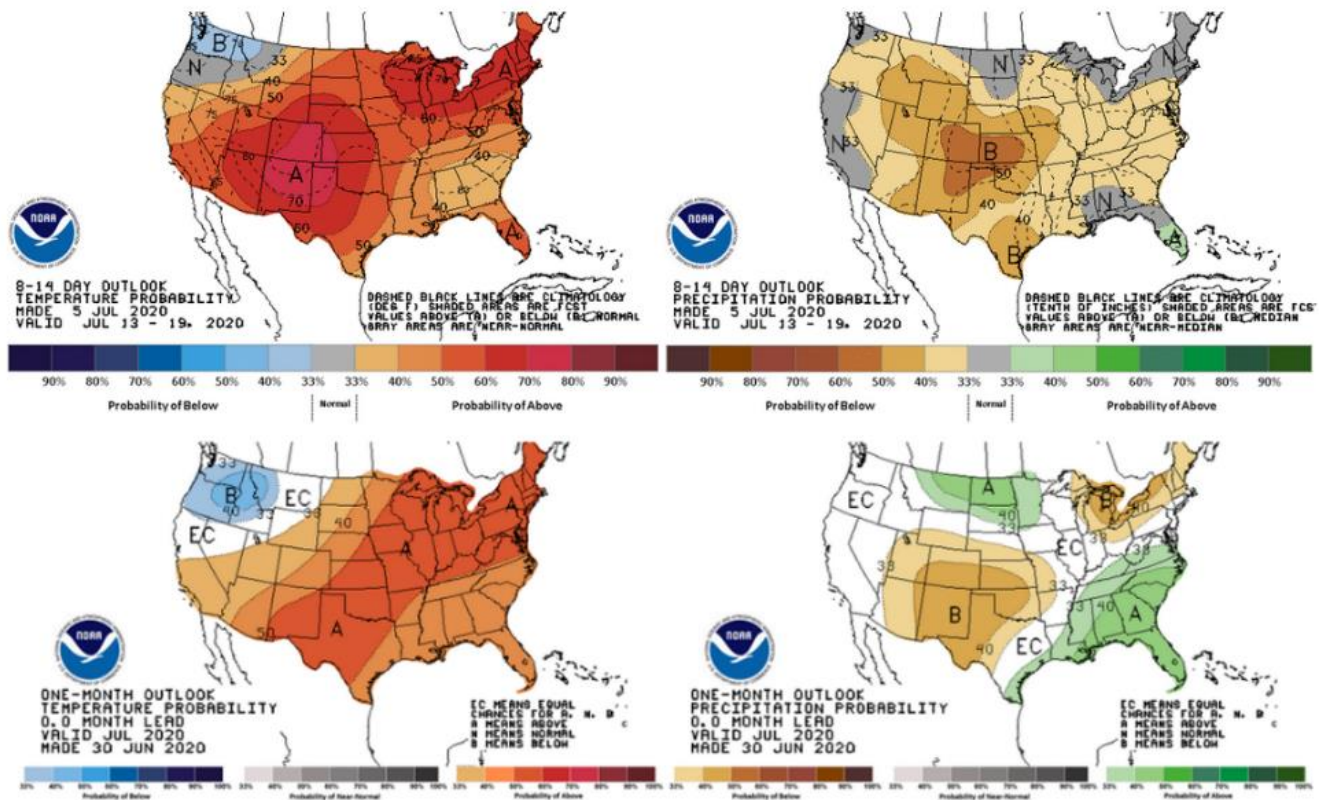


Precipitation forecast for July 6-13, 2020. Not much relief from dry soil conditions is expected.

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The 10-day forecast for Kalamazoo as of July 6, 2020.



The 8-14 day (top, July 13-19) and 1-month (bottom) outlooks for temperature (left) and precipitation (right) as of July 6, 2020.

Corn. The corn crop in the region is at V10 for early-planted to V4 for late-planted. We have not received reports of widespread problems with this year's crop. MSU Extension field crops pathologist Marty Chilvers says the hot and dry conditions will likely delay symptoms this year but not prevent the onset of the disease. Western bean cutworm trapping has begun in Indiana and Michigan, and we will keep you informed of moth counts as the summer progresses. Numbers from Purdue traps are still in the single digits.

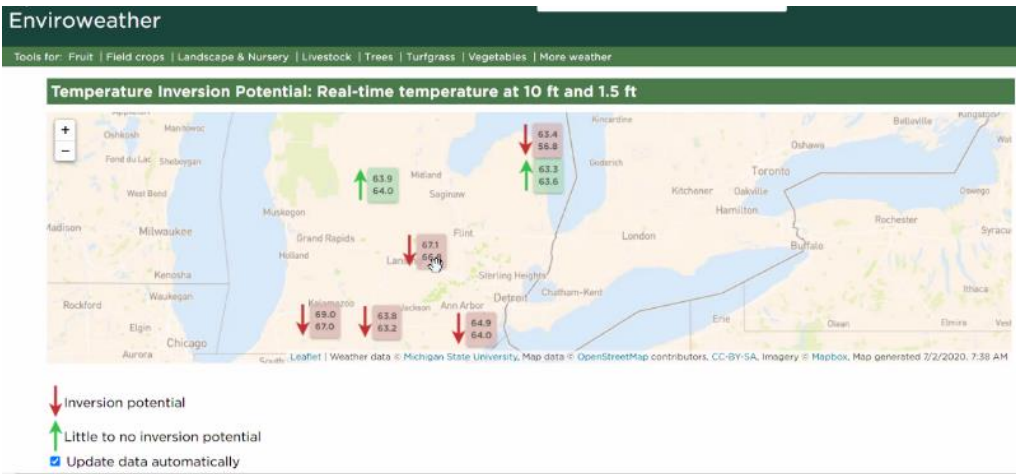


A reminder of what to look for when scouting for western bean cutworm: adult female moths laying eggs, usually on the ear leaf or a nearby leaf (left); the egg mass (center); and the larvae from a recent hatching (right). Photos courtesy of Eric Anderson.

Soybean. Soybeans are between V2 and V6 with reports in mid-Michigan of some fields reaching R2 already. MSU Extension soybean educator Mike Staton says the risk of white mold is low under hot and dry conditions except as canopies close with tight row spacing and high plant populations under irrigation. MSU Extension field crop entomologist Chris DiFonzo cautions to be on the lookout for signs of spider mite injury along field borders as they thrive under hot and dry conditions due to low pressure from pathogenic fungal species. Herbicide applications should be nearing completion. MSU Extension field crop weed specialist Christy Sprague says to pay close attention to the presence of temperature inversions, which are expected almost on a daily basis with the upper air system we will have for the next week or more, and avoid spraying until the potential for an inversion exists. MSU Extension agriculture climatologist Jeff Andresen says these usually dissipate by around 8:00AM as temperatures increase, but checking the [Temperature Inversion Potential tool](#) on the [MSU Enviroweather website](#) is recommended before spraying.



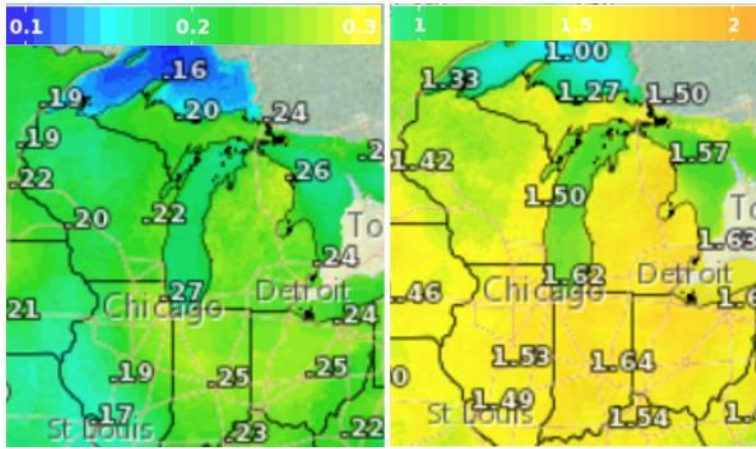
Spider mite damage in soybean. Picture taken August 10, 2017. Photo courtesy of Eric Anderson.



The [Temperature Inversion Potential tool](#) on the [MSU Enviroweather website](#) gives real-time predictions of the possibility of inversions for several locations in southern Michigan.

Wheat. The crop in the southwest is on track for harvest to begin this week. With 62% of the winter wheat crop rated as good or excellent and another 27% as fair, projections are for a strong yield this season.

Irrigation. With high temperatures reaching into the mid-90's this week, daily reference potential evapotranspiration rates (rPET) are expected to be 0.2" to 0.25". It is important to know how much water the crop in each field needs based on its stage of development. To calculate current crop water need, multiply the rPET by the crop coefficient (K_c). For example, for a corn crop at V8, the water need would be 1.6" (estimated from National Weather Service map above) * 0.56 = 0.9" water per week. For soybean at V3, water need would be 1.6" * 0.3 = 0.48" per week. You can find rPET information for the closest [MSU Enviroweather](#) station by selecting "Field crops" from the main page and then scrolling down to "Water-use tools." You can even sign up to receive daily text messages with rPET data for the previous three days and estimated values for the current day and 7 days into the future for the stations you choose.



Daily (left) and weekly (right) reference potential evapotranspiration rates (rPET) as of July 2, 2020.

Crop Stage	K _c	Rooting Depth	% Growing Season
V2	0.2	6	10
V4	0.20	10	15
V6	0.39	15	20
V8	0.56	20	27
V10	0.76	23	34
V12	1.0	26	50
V14	1.1	28	55
V16-VT	1.2	30	60

Crop Stage	Crop coefficient K _c	Root Depth (in)	% of Growing Season
V0 Cotyledon	0.2	6	0
V1 1st Node	0.3	9	4
V2 2nd Node	0.5	12	8
V3 3rd Node	0.6	16	11
R1 Begin Bloom	1.0	24	26
R2 Full Bloom	1.1	24	32

Crop water use coefficients for corn (above) and soybean (below) at various growth stages. Taken from “[Soil Water Balance Sheet](#).”

Calendar

Titles are clickable links to online content when highlighted and underlined.

July 9+ [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. [RUP credits are now available for the live sessions](#) and ****NEW**** we were able to get approved to offer 1 credit for each live session. 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](#).

Jul. 9 – Drainage design considerations with Ehsan Ghane

Jul. 16 – Insects taking flight with Chris DiFonzo

Jul. 23 – Tar spot and white mold with Martin Chilvers

Jul. 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

Sep. 3 – Corn silage mycotoxins with Manni Singh

Sep. 10 – Industrial hemp with Kurt Thelen

July 9 [CHAMP e-Tool Online Training](#). 10:00 AM – 12:00 PM. The COVID-19 Hazard Assessment and Mitigation Program (CHAMP) e-tool supports the agriculture industry as they address workplace safety protocols that mitigate the risk of COVID-19 infection and develop pandemic preparedness plans. Register by clicking on the link.

July 14/16 CHAMP e-Tool Q&A Session. A recording of the July 9 CHAMP training webinar will be made available on the [MSU Extension Rapid Response for Agriculture](#) page. To accompany the recorded session, two Q&A sessions have been scheduled: Session 1 [July 14, 2020 from 1 p.m. - 2 p.m.](#) or Session 2 [July 16, 2020 from 10 a.m. -12 p.m.](#)

July 15 [Deadline to report spring-seeded and CRP acreage](#). This includes corn, soybeans, sugar beets, spring-seeded wheat or hay, and most vegetable crops, among others. Deadline for processing beans (planted 6/1 - 7/20) is August 15. Contact your local FSA office for details.

July 17 [Prepare your Farm for Tax Season Now - Online Workshop](#). 12:00–1:00 PM. This webinar is designed for farmers that do not have a good recordkeeping system in place yet, but are not ready to buy an accounting software. It is designed for those that hate computers, and for those that are spreadsheet wizards. This will be the first of a series of webinars. Register online.

July 21 [MSU Extension Manure Management VFD](#). 10:00 AM – 12:00 PM. More details and registration information on these and other VFD's can be found on the [MSU Extension Virtual Field Days website](#).

July 29 [Berrien, Cass, and Van Buren Clean Sweep](#). Benton Harbor, MI. Clean Sweep is a free, safe disposal option for unwanted agriculture pesticides. Clean Sweep is open to all Michigan farmers, greenhouses, golf courses, pesticide retailers, and individuals. Participants must register at least one week prior to the event. The next closest Clean Sweep collection program site is in Kalamazoo. Contact the [Kalamazoo County Household Hazardous Waste Collection Center](#) for more information.

August 28 [CFAP Application Deadline](#). USDA's Coronavirus Food Assistance Program (CFAP) provides direct payments to offset impacts from the coronavirus pandemic. The application and a payment calculator are [now available online](#), and USDA's Farm Service Agency (FSA) staff members are available via phone, fax and online tools to help producers complete applications.

MSU Extension Digest Briefs

Published on July 2, 2020

- [Southwest Michigan field crops update – July 2, 2020](#) - Summer has definitely arrived and the hot and dry weather is expected to advance, and in many cases stress, crop growth and development.

Published on July 1, 2020

- [Collaborating with farmers to help protect streams and rivers in Michigan](#) - The MSU Institute of Water Research provides research, tools and partnerships that help farmers with environmentally safe water management.
- [Combating corn tar spot](#) - MSU field crops pathologist Martin Chilvers examines management strategies, impacts for emerging plant disease
- [Drainage design considerations to be discussed on July 9 Field Crops Virtual Breakfast](#) - Join the Field Crops Virtual Breakfast on July 9, 2020, as Ehsan Ghane talks about important decisions to make when designing a new drainage system

- [Tar spot in the spotlight](#) - Learn more about corn tar spot and its recent history in Michigan, the 2020 outlook and management options.
- [Studying the effectiveness of conservation drainage practices](#) - MSU Extension drainage specialist works with Michigan farmers to balance crop yield with environmental and water protections.
- [MSU researcher finds new ways to support global crop production](#) - Ajit Srivastava develops solar technologies for drip irrigation systems and tractors powered by solar energy to help smallholder farmers in Burkina Faso increase crop production.

Published on June 25, 2020

- [Are foliar fungicides plus insecticide tank mixture applications to soybeans profitable?](#) - On-farm research results collected from 2017 to 2019 can help soybean producers decide if they should apply foliar fungicide and insecticide tank mixtures in 2020.
- [Poison hemlock identification and control](#) - Poison hemlock is a potentially dangerous weed found in Michigan, and identifying it is the first step in controlling it.

Published on June 24, 2020

- [First true armyworm outbreak in wheat since 2010](#) - Fields with high levels of armyworm pressure could still yield 50% to 60% of their full potential.

Published on June 23, 2020

- [Corn injury from preemergence residual herbicides in 2020 MSU corn herbicide trials](#) - Check out the Michigan State University corn herbicide trials on your computer, cell phone or tablet.
- [Working women, the backbone of family farms](#) - The role of women in farming continues to evolve. The added stress of working off the farm while balancing traditional responsibilities can be difficult to manage.
- [Wheat harvest: Make sure to calibrate your yield monitor](#) - Accurate calibration provides accurate data. Farmers located in the Eastern Lake Erie Basin can qualify for funds and have their yield monitors calibrated by MSU Extension.

Published on June 22, 2020

- [Online farm stress training is free and open to the public](#) - Online course will better equip farmers, their families and the agricultural community with tools and resources to help in stressful times.

Published on June 18, 2020

- [Organic field crop production topic of June 25 Field Crops Virtual Breakfast](#) - Join the Field Crops Virtual Breakfast on June 25 as Vicki Morrone discusses organic field crops.

Published on June 16, 2020

- [New research on yield response to wheat leaf architecture](#) - Michigan State University research is looking at the relationship between plant leaf architecture, seeding rates and yield.

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