

**Southwest Michigan Field Crops Updates**  
**July 12, 2019**

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.

**Upcoming Local Meetings**

MSU Extension will be hosting two local meetings in August. On Friday, Aug. 2<sup>nd</sup>, from 8:30am-1pm, we will host “**Tools for Navigating a Challenging Farm Economy**”. The meeting will be held at GreenStone FCS in Schoolcraft, and GreenStone will be sponsoring the lunch. Topics will include: FSA updates; Crop insurance options (prevented planting and other considerations); Finding Financial Success in Uncertain Times; and Weathering the Storm – managing farm stress in stressful times. The registration link is found in the event calendar below.

On Friday, Aug. 16<sup>th</sup>, from 8:30am-1pm, we will host “**Southwest Michigan Crop and Irrigation Management Field Day**”. The meeting will be held north of Sturgis on N. Centreville Rd. 1/2-mile south of Featherstone Rd. The meeting is sponsored by the Michigan Soybean Promotion Committee and includes a free lunch. Topics include: Old and New Tools for Irrigation Scheduling and Soil Moisture Monitoring; Corn Leaf Wetness and Tar Spot in Corn; Irrigation Uniformity Check – Taco Bell or Eye in the Sky?; Soybean Nodulation and Crop Development Research; and Soybean Production in a Late-Planted Season. The registration link is found in the Events Calendar below.

**Deadline Extended to Report Spring-Seeded Crops**

USDA is extending the deadline to report acres for agricultural producers in states impacted by flooding and heavy moisture. This new July 22 deadline applies to producers in Arkansas, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, North Dakota, Ohio and Wisconsin for reporting spring-seeded crops to FSA county offices and crop insurance agents.

Filing a timely crop acreage report is important to maintaining eligibility for USDA conservation, disaster assistance, safety net, crop insurance, and farm loan programs. A crop acreage report documents all crops and their intended uses and is an important part of record-keeping for your farm or ranch.

Producers filing reports with FSA county offices are encouraged to set up an appointment before visiting the office. Producers who set up appointments before the July 22 deadline are considered timely filed, even if the appointment occurs after the deadline.

Producers not in these select states must file spring-seeded crops by the original July 15 deadline.

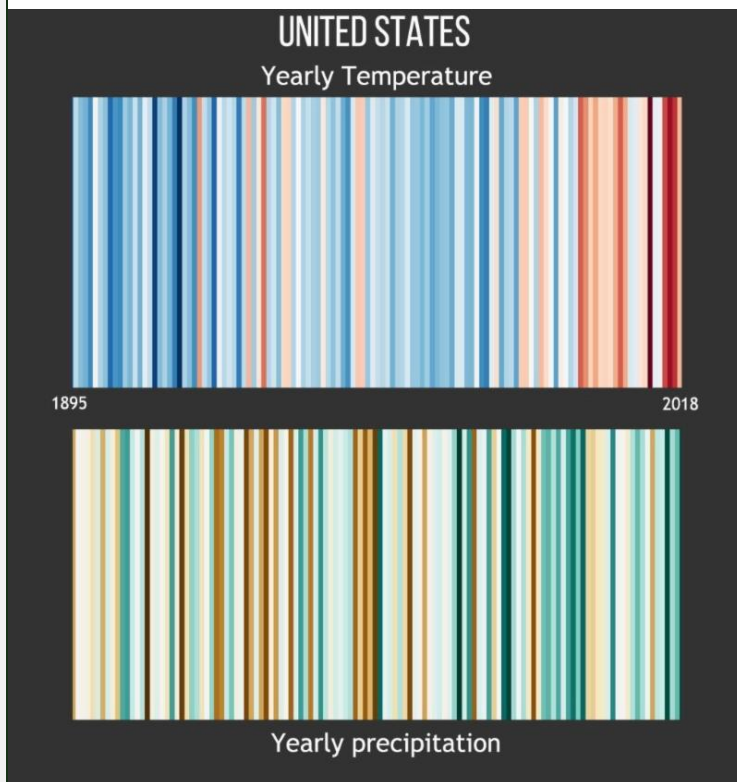
USDA has taken additional steps to help impacted producers, including:

- Updating the haying and grazing date for producers who have planted cover crops on prevented plant acres;
- Offering special sign-ups through the Environmental Quality Incentives Program for assistance to plant cover crops; and
- Extending the deadline to report prevented plant acres in certain places.

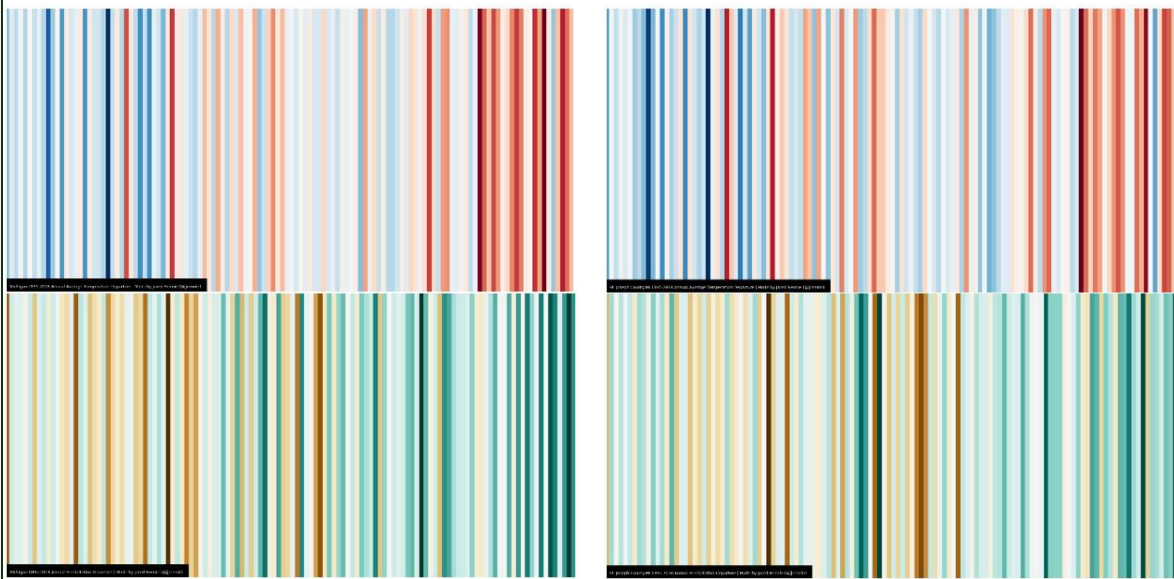
For more information, visit our [Prevented or Delayed Planting webpage](#). To learn more, contact your [FSA county office](#) or visit [fsa.usda.gov](http://fsa.usda.gov) or [farmers.gov/prevented-planting](http://farmers.gov/prevented-planting).

## "Climate Stripes" Graphics Show U.S. Trends by State and County

The "stripes" graphics below depict yearly temperature and precipitation conditions since 1895 shown as a simple row of colored stripes without dates or numbers. U.S. climate conditions each year from 1895–2018 compared to the twentieth-century average. Our country's early climate record shows natural variability from cooler-than-average temperatures (blues) to warmer-than-average temperatures (reds). Recent decades are dominated by reds. The U.S. is also growing wetter over time; the precipitation graphic is dominated by greens in recent decades. These and other graphics are available for further investigation on [NOAA's Climate.gov website](#).



Temperature and precipitation "stripes" for the U.S. from 1895 to 2018. Darker shades indicated highest and lowest values while lighter shades indicate values closer to the average. Red=hot, blue=cold, green=wet, brown=dry.



Temperature (top) and precipitation (bottom) stripes for Michigan (left) and St. Joseph County (right) from 1895 to 2018.

### Industrial Hemp Educational Opportunities

Three recent and upcoming educational opportunities exist for those interested in learning more about industrial hemp production in Michigan.

1. Recordings from the recent Industrial Hemp Production Basics and Irrigation webinar are [currently accessible here](#) and will soon be linked on [MSU's Hemp Production website](#).
2. An [upcoming webinar series](#) on Thursdays from July 18<sup>th</sup> through August 8<sup>th</sup> hosted by MSU Extension—Industrial Hemp Production 101—will focus on the potential for Michigan greenhouse-grown industrial hemp but will provide information applicable to field-grown hemp as well. See the Events Calendar below for registration information.
3. The iHempMichigan group will be hosting “Hemponomics 101” events in Lansing (Aug. 8) and Grand Rapids (Aug. 13). Cost is \$50. Visit [their website](#) for more information and to register.

### Moth Trapping 2019 Part II-Western Bean Cutworm

Realizing that a lot of corn is still only a foot tall...it's time to start monitoring for western bean cutworm. Purdue has been trapping for three weeks already, and numbers started to climb this past week in Lake (12), Fulton (23), and Elkhart (28) Counties. Chris DiFonzo, MSU's field crop entomologist, has a trap on campus but hasn't caught any yet. I will be placing traps this next week. Stay tuned for weekly updates.

### Weather Update

**Corn:** Corn fields are anywhere from under a foot tall to shoulder height, so everything from sidedress timing to water requirements to pest scouting will be widely spread out this year. Non-irrigated corn in many areas has received timely rains, but the crop in other areas receiving little to no rain during our “popcorn thunderstorm” rally will be struggling to find water with shorter root systems. Purdue’s corn agronomist Bob Nielsen [recently wrote](#) about this “floppy corn” problem with nodal roots trying to grow through dry soil. Unfortunately, there is nothing we can do about this without irrigation, but being able to better estimate the water and nutrient demands of a stunted crop may allow you to save money on inputs or at least wait on N applications until the crop is better able to take it up.

**Soybeans:** The crop overall appears to still be lagging behind projected development models, but reports of beginning flowering (R1) in the region in earlier-planted fields have come in. I was introduced to a free online crop phenology (development and timing of growth stages) and irrigation scheduling model called [SoyWater](#) from the University of Nebraska. Though its main usefulness is in irrigation scheduling, it can also be a handy guideline for when the crop will reach certain key growth stages, similar to the [U2U \(Useful to You\) app in corn](#). In the program, you drop a pin on a map in the field of interest and the program identifies the soil type and closest Enviroweather station from which to pull weather data. You then input planting or emergence date and maturity group and it will generate a table like the one below. In my case, it predicted the crop to advance quicker than it has, and I need to play with the program to see if it allows me to enter “ground truth” points. Tools like this could make it easier to allocate labor for fungicide applications, time watering to minimize white mold risk, etc.

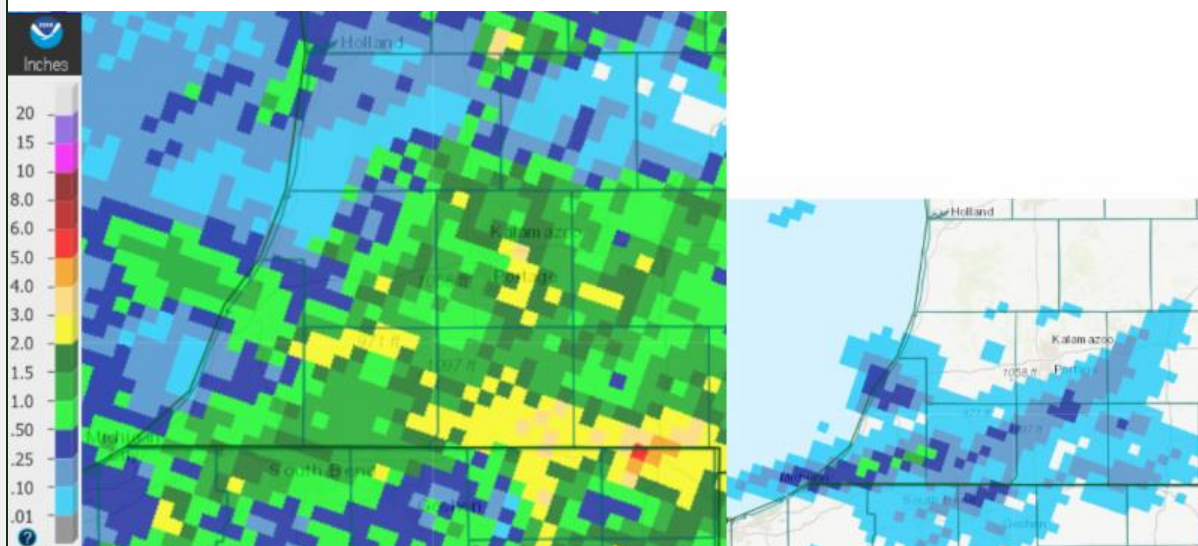
Date	Vegetative Stage	Reproductive Stage	Historical Daily Crop Water Use	Cumulative Historical Daily Crop Water Use	Actual (to date) + Historical (thereafter) Daily Crop Water Use	Cumulative (to date) + Historical (thereafter) Daily Crop Water Use	Cumulative Historical Rainfall at the Weather Station	Actual (to date) Rainfall at the Weather Station	Rainfall at the User's Field	Cumulative Rainfall at the User's Field	Irrigation at the User's Field	Cumulative Irrigation at the User's Field	Cumulative Water Input (Rain + Irr)	Cumulative Effective Water Input	Cumulative Soil Water Depletion for this Texture
Date	V	R	WU <sub>H</sub>	WU <sub>hc</sub>	WU <sub>a</sub>	WU <sub>ac</sub>	R <sub>hc</sub>	R <sub>ws</sub>	R	R <sub>c</sub>	I	I <sub>c</sub>	TotW	WU <sub>efc</sub>	Dep
06-26-2019	V4 p		0.08	0.91	0.13	1.17	780.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17
06-27-2019			0.09	1.00	0.14	1.31	805.42	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1.31
06-28-2019			0.10	1.10	0.16	1.47	830.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
06-29-2019	V5 p		0.09	1.19	0.18	1.65	855.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65
06-30-2019			0.11	1.30	0.17	1.82	880.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82
07-01-2019			0.10	1.40	0.13	1.95	905.96	0.28	0.00	0.00	0.00	0.00	0.00	0.00	1.95
07-02-2019	V6 p		0.13	1.53	0.18	2.13	931.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	2.13
07-03-2019		R1 p	0.12	1.65	0.18	2.31	956.58	0.24	0.00	0.00	0.00	0.00	0.00	0.00	2.31
07-04-2019			0.16	1.81	0.15	2.46	981.67	0.14	0.00	0.00	0.00	0.00	0.00	0.00	2.46
07-05-2019	V7 p		0.15	1.98	0.22	2.68	1,008.72	0.22	0.00	0.00	0.00	0.00	0.00	0.00	2.68
07-06-2019			0.15	2.11	0.24	2.92	1,031.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92
07-07-2019			0.15	2.26	0.25	3.17	1,056.98	0.04	0.00	0.00	0.00	0.00	0.00	0.00	3.17
07-08-2019			0.15	2.41	0.23	3.40	1,082.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	3.40
07-09-2019		R2 p	0.18	2.59	0.00	3.40	1,107.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40
07-10-2019	V8 p		0.17	2.76	0.17	3.57	1,132.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.57
07-11-2019			0.19	2.95	0.19	3.76	1,157.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.76
07-12-2019			0.19	3.14	0.19	3.95	1,182.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.95
07-13-2019			0.17	3.31	0.17	4.12	1,183.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.12
07-14-2019	V9 p		0.10	3.50	0.10	4.31	1,183.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.31

Sample output table from the SoyWater online crop development and water need program.

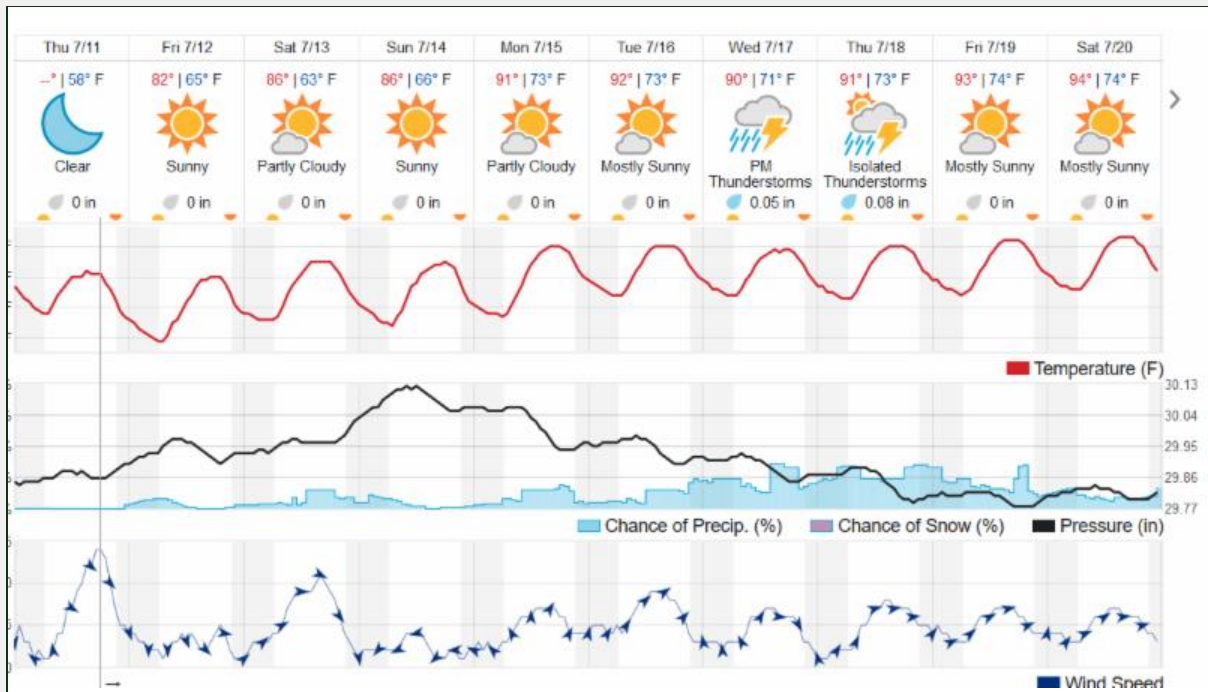
**Wheat:** Some fields have heads at the milk stage (Feekes 11.1) with physiological maturity (11.3) not being far behind. Reports have come in of the first field in Allegan

County being harvested with the plan to dry the grain and double-crop soybean. I have sat in on conversations about feeding the wheat straw to dairy cattle, and the concern was raised that the mycotoxin can be found to some degree in the straw. MSU's field crop pathologist Marty Chilvers confirmed that there are studies being done on this issue.

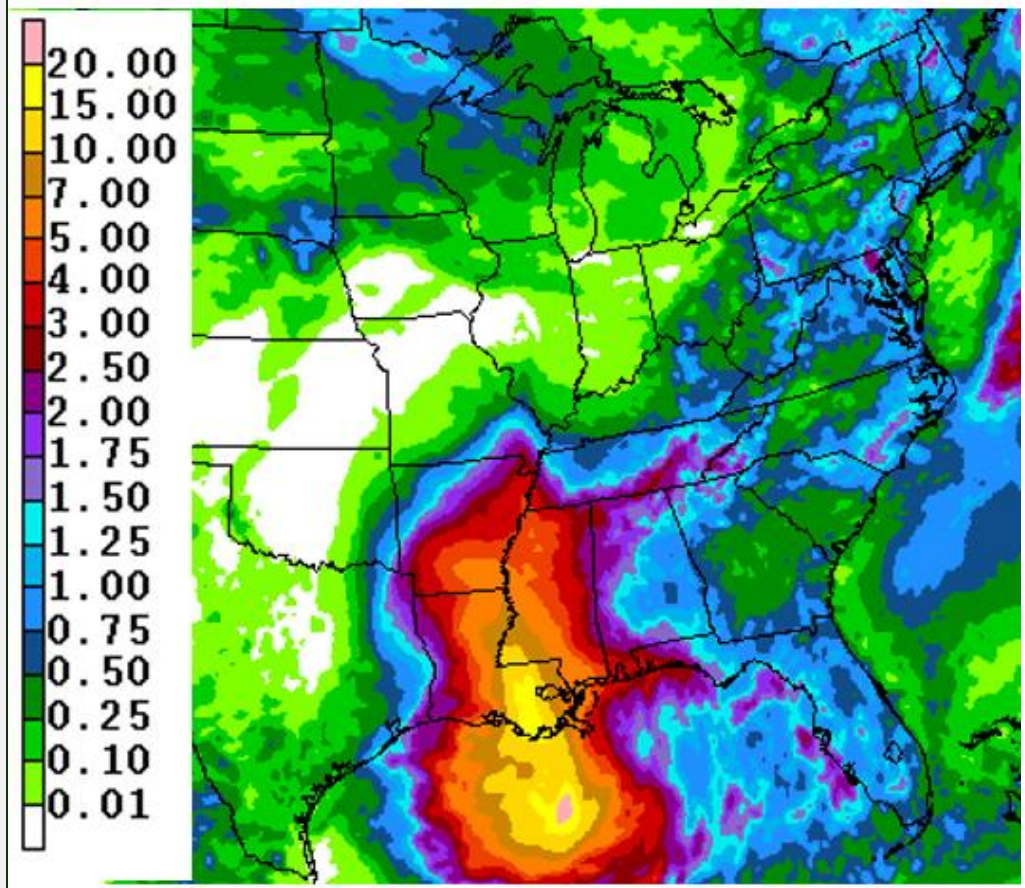
**Weather:** We have all noticed the change in the weather these past two weeks compared with late spring, and this has been due to a change in the upper air patterns over North America. It has been much warmer than normal and drier for most of the state, and that pattern is forecast to continue for the next two weeks. That being said, localized thunderstorms last week dropped as much as 5+ inches of rain in a short time, especially closer to the Indiana border. Current pET (potential evapotranspiration rates) are 0.2" per day causing pivots to be needed even after brief rainstorms. Hot and dry conditions can severely impact crops as late planting, cooler air temperatures this spring, and waterlogged soils can cause root systems to be underdeveloped and not as able to find deeper moisture in the soil. Temperatures next week will be near 90 every day, nighttime lows will be above 70, and humidity will be high, with only hit-and-miss chances of precipitation in the middle of the week. Hurricane Barry should make landfall in Louisiana sometime Saturday, and if one of the models is correct, some of that moisture could make its way to Michigan by late next week. The outlook for the rest of July is for above-normal temperatures and a slight chance of above-normal precipitation, although MSU's ag climatologist Jeff Andresen said there is a chance of a cooling trend at the end of the month.



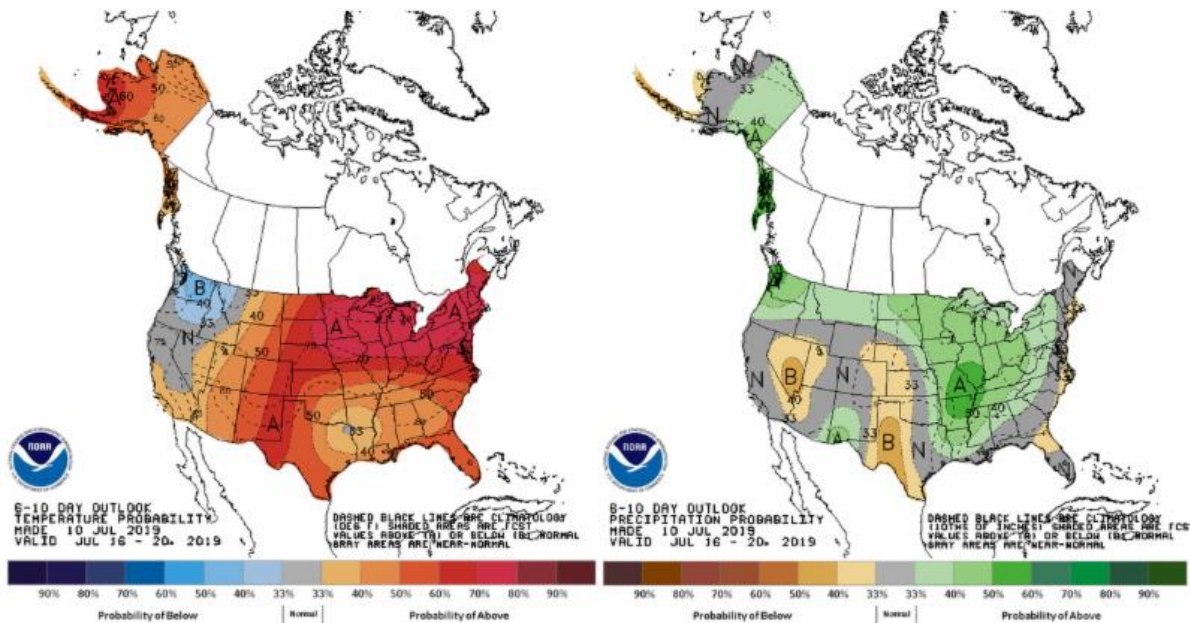
Precipitation totals for week ending July 11, 2019 (left) and the 1-day total from Wednesday night (right). Rainfall totals at Enviroweather stations in the region ranged from 0 in Charlotte to 2.61 inches in Constantine with an average of 0.77 inches.



The 10-day forecast for Centreville according to wunderground.com. Hot and dry this next week with more of the same pop-up possibilities.



Forecast for precipitation totals for the week of July 11-16, 2019. We won't see more than 0.25" without the isolated pop-ups next week, or if some of the models for "Hurricane Barry" come to fruition for late next week.



National Weather Service 6-10 day outlook (July 16-20) for temperature (left) and precipitation (right). The 8-14 day outlook (July 18-24) is similar.

## Calendar

Titles are clickable links to online content when highlighted and underlined

**Jul 18** [Field Crops Virtual Breakfast Free Webinar](#). Thursdays 7:00-7:30 AM. This week: "Cover Crop Management" with Dean Baas. Join via computer or mobile device (audio and video, <https://msu.zoom.us/j/552324349>) or by phone (audio only, **669-900-6833** and enter meeting ID **552-324-349**). To receive a weekly reminder of the Virtual Breakfast, sign up at <http://eepurl.com/gm-PIv>.

**Jul 18-Aug 8** [Industrial Hemp Production 101 Webinar Series](#). Thursdays 12:30-2pm. Join MSU Extension for a webinar series to cover the basics of growing industrial hemp, particularly but not exclusively geared toward greenhouse considerations. Register online, cost is \$20.

**Jul 22** **Deadline for FSA Acreage Reporting**. The deadline to file crop acreage reports to FSA county offices and federal crop insurance agents for spring-seeded crops is extended for agricultural producers in Michigan impacted by flooding and heavy moisture. Contact your local FSA office for details.

**Jul 26** [Ag Innovation Day - Focus on Precision Technology That Pays](#). 8:30am-5:00pm, MSU Research Farm, East Lansing, MI. Day will be split into

morning and afternoon tours with a free lunch. Attendees are asked to register beforehand to help with logistics and food ordering.

**Jul 31**     **[Clean Sweep Pesticide Disposal in Benton Harbor](#)**. Available to all MI residents. Collections are for any unwanted pesticides in MI (not fertilizers). Registration is required, forms can be found online or at MSUE and CD offices in Berrien, Cass and Van Buren Counties.

**Jul 31**     **[Forage Research Field Day](#)**. 9am-2pm. MSU Agronomy Farm, 4450 Beaumont Road, East Lansing, MI. Join the MSU Forage Research Team to learn about completed and ongoing forage research from our field tour and demonstration stations. Event is free but you must register online by July 22<sup>nd</sup> to reserve space and the free lunch.

**Aug 2**     **[Tools to Navigate a Challenging Farm Economy](#)**. 8:30am-1:00pm. GreenStone FCS, 225 W. Lyons Street, Schoolcraft, MI. Topics include FSA updates, Crop insurance options, Finding Financial Success in Uncertain Times, Weathering the Storm-managing farm stress. Cost is free, register online by July 31<sup>st</sup> to reserve space and lunch.

**Aug 16**     **[SW MI Crop and Irrigation Management Field Day](#)**. 8:30am-1pm. N. Centreville Rd. ½-mile south of Featherstone Rd., Sturgis, MI. Join MSU crop and irrigation educators and specialists for several talks highlighting ongoing research and current recommendations in irrigated corn and soybean. Cost is free, register online by Aug. 14<sup>th</sup> to reserve space and lunch (registration should be live by next week).

**Aug 20-21**   **[2019 Bridging the Experience Gap](#)**. Saginaw Valley Research and Extension Center, 3775 S Reese Rd, Frankenmuth, MI. This program provides a platform for professionals to gain experience, network with their peers and ask questions from knowledgeable instructors without fear of rejection or criticism. Cost is \$350, supplies and lunches included, register online.

**Sep 5**       **Cass MAEAP Field Day**. 4-7pm. Crane Pond DNR office, 60887 M-40, Jones, MI. Managing for Forestry Health and Profit. Program offers 2 RUP credits. Co-sponsored by SWMLC, DNR, SWxSW CISMA & MAEAP. Dinner provided to registrants. Call 269-445-8641 x 5 to RSVP.

## MSU Extension Digest Briefs

### **[MSU Agriculture Innovation Day takes place July 26 in Lansing, offers RUP, CEU credits](#)**

**PUBLISHED ON JULY 11, 2019**

Producers can learn to use technology that increases their farm's bottom line through data-based decisions and planning.

### **[Soybean aphids: Do I have to throw insecticides in the tank?](#)**

**PUBLISHED ON JULY 11, 2019**

The current recommended economic threshold is 250 aphids per plant with 80% of the plants infested.



[Using cover crops in preventative planted acres for forage and cover crop choices following wheat](#)

**PUBLISHED ON JULY 8, 2019**

Join the MSU Extension Field Crops Virtual Breakfast on July 18 as Dean Baas discusses how cover crops planted in preventative planted acres can be used as a forage and cover crop choices following wheat.

[Exploring opportunities: Growing industrial hemp in Michigan](#)

**PUBLISHED ON JULY 8, 2019**

Industrial hemp was legalized by the 2018 Farm Bill and is a new opportunity for Michigan growers. Join a four-part webinar series on growing industrial hemp, especially in greenhouse production.

[MSU Extension to offer beginning grazing school in August](#)

**PUBLISHED ON JULY 4, 2019**

Learning how to manage pastures using some form of rotational grazing can help improve your overall farm income.

[Online tool estimates corn growth and development and projects when crop will mature](#)

**PUBLISHED ON JULY 3, 2019**

The online Corn GDD Decision Support Tool can help growers understand the probability that a later planted field would be better suited for harvest as grain or corn silage.

[A better way to store silage](#)

**PUBLISHED ON JULY 2, 2019**

Protect feed quality and reduce environmental risk.

[Irrigation provides option for nitrogen application following late wet spring](#)

**PUBLISHED ON JULY 2, 2019**

Irrigators have options for managing nitrogen application in wet conditions and late-planted crops.

[Wet year irrigation decisions](#)

**PUBLISHED ON JULY 2, 2019**

At some point, precipitation falls short of crop needs and the crop starts to deplete the soil moisture reserve, signaling the start of irrigation season.

[Foliar fertilizer applications to soybeans are rarely profitable](#)

**PUBLISHED ON JULY 1, 2019**

Results from the on-farm soybean foliar fertilizer trials conducted in Michigan over the past 10 years. Unless visible manganese deficiency symptoms are present, applying foliar fertilizers to soybeans is not recommended.

[Emergency hay and silage forage crops](#)

**PUBLISHED ON JULY 1, 2019**

What can you plant late in the season to boost your forage supply?

**[Update on corn and soybeans as cover crops following prevented planting](#)**

**PUBLISHED ON JUNE 28, 2019**

Michigan State University Extension updates recommendations on using corn and soybeans as cover crops for prevented planting.

**[Agronomic guidelines for late planted silage corn](#)**


**PUBLISHED ON JUNE 28, 2019**

Management adjustments are needed when planting silage corn late in the growing season.


**[Livestock winter forage supplies may be short this year](#)**

**PUBLISHED ON JUNE 27, 2019**

Hay carryover from last year is low, and with the current delayed hay harvest, that trend could continue, do not wait until you need the forage, make plans now!



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