

Hydrologic and Climate Assessment

June 19, 2019



**Christine Gelley: Noble County ANR
Extension Educator**

Bill Knapke



Aaron B. Wilson

STATE CLIMATE OFFICE OF OHIO (SCOO)

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

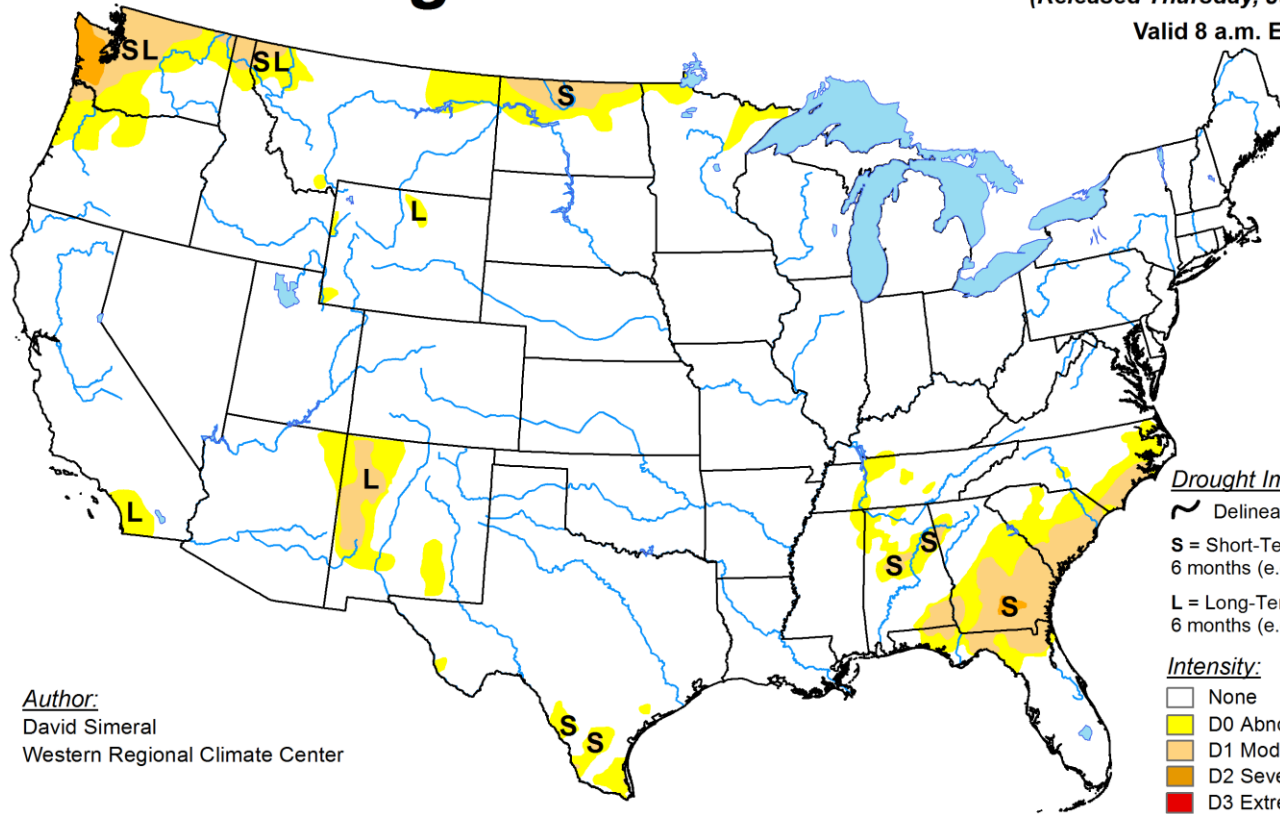
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U.S. Drought Monitor

June 11, 2019
(Released Thursday, Jun. 13, 2019)
Valid 8 a.m. EDT



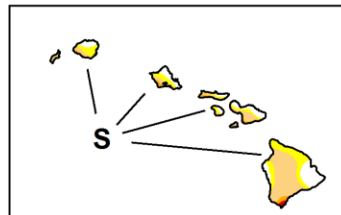
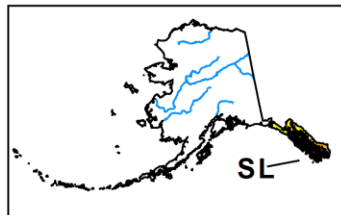
Author:
David Simeral
Western Regional Climate Center

Drought Impact Types:

- ~ Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought



The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.



droughtmonitor.unl.edu



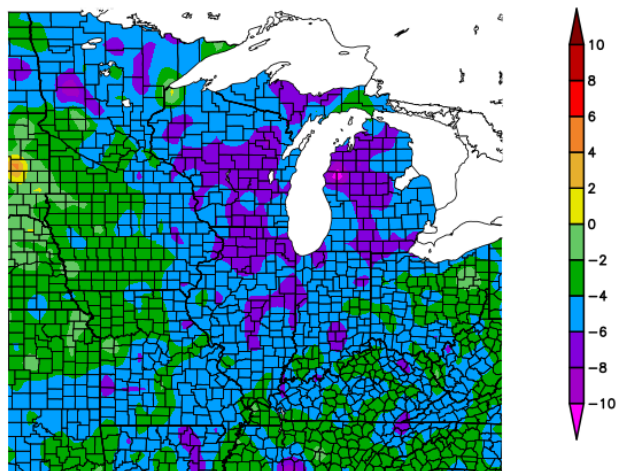
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Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)
6/12/2019 – 6/18/2019

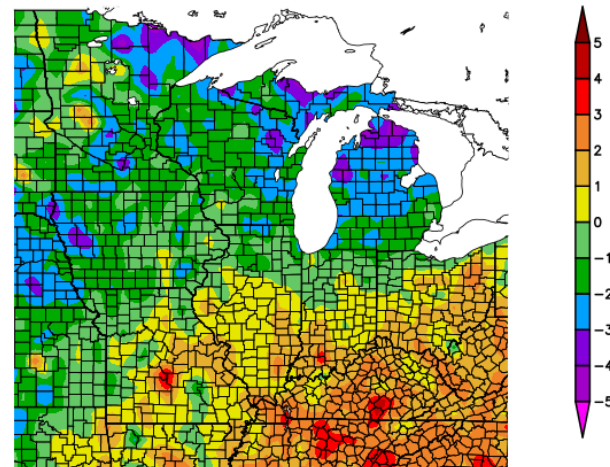


Generated 6/19/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

30-Day

Departure from Normal Temperature (F)
5/20/2019 – 6/18/2019

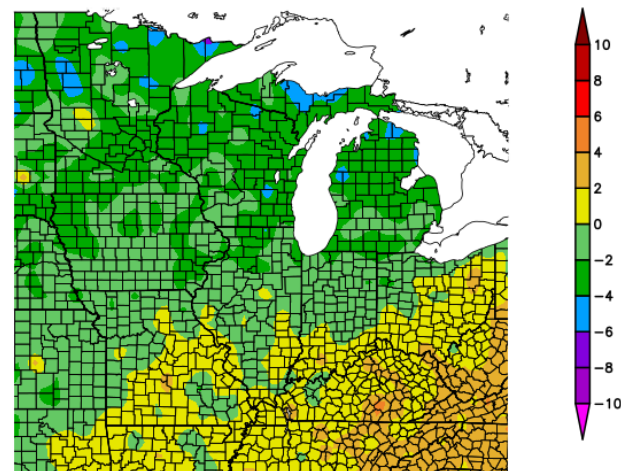


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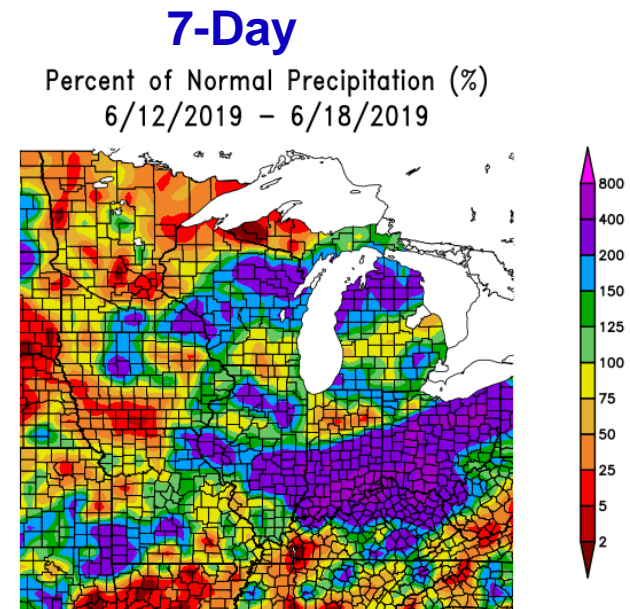
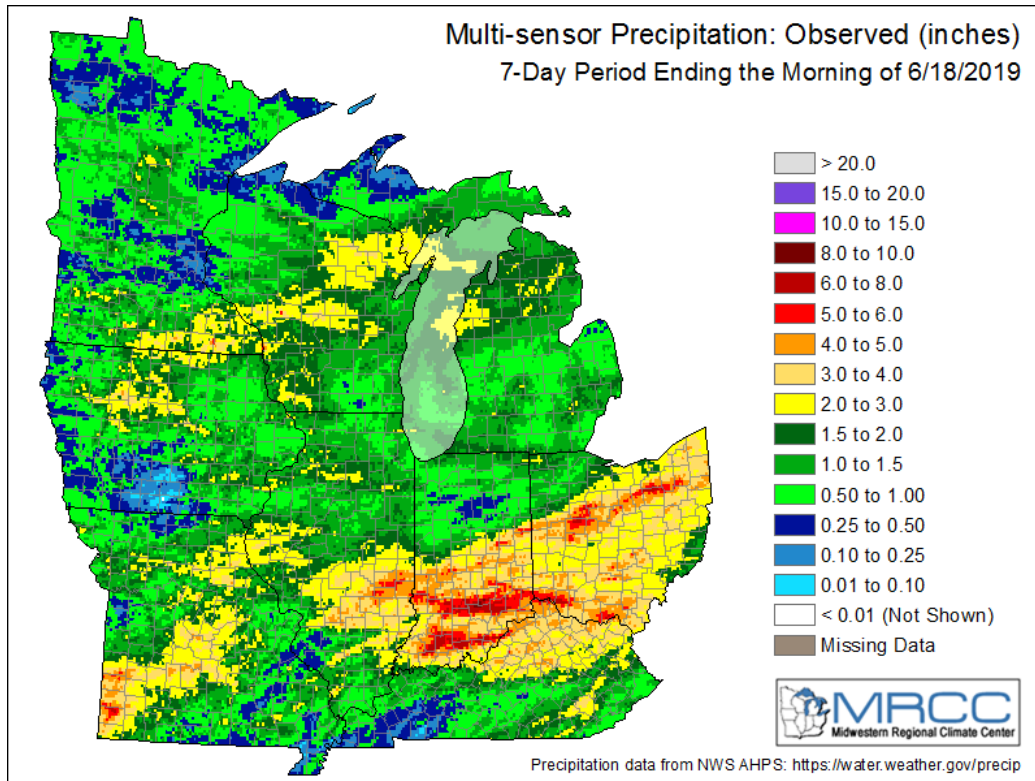
NOAA Regional Climate Centers

60-Day

Departure from Normal Temperature (F)
4/20/2019 – 6/18/2019



This Week's Precipitation



Generated 6/19/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

NATIONAL
INTEGRATED
DROUGHT
INFORMATION
SYSTEM



Drought.gov
U.S. Drought Portal



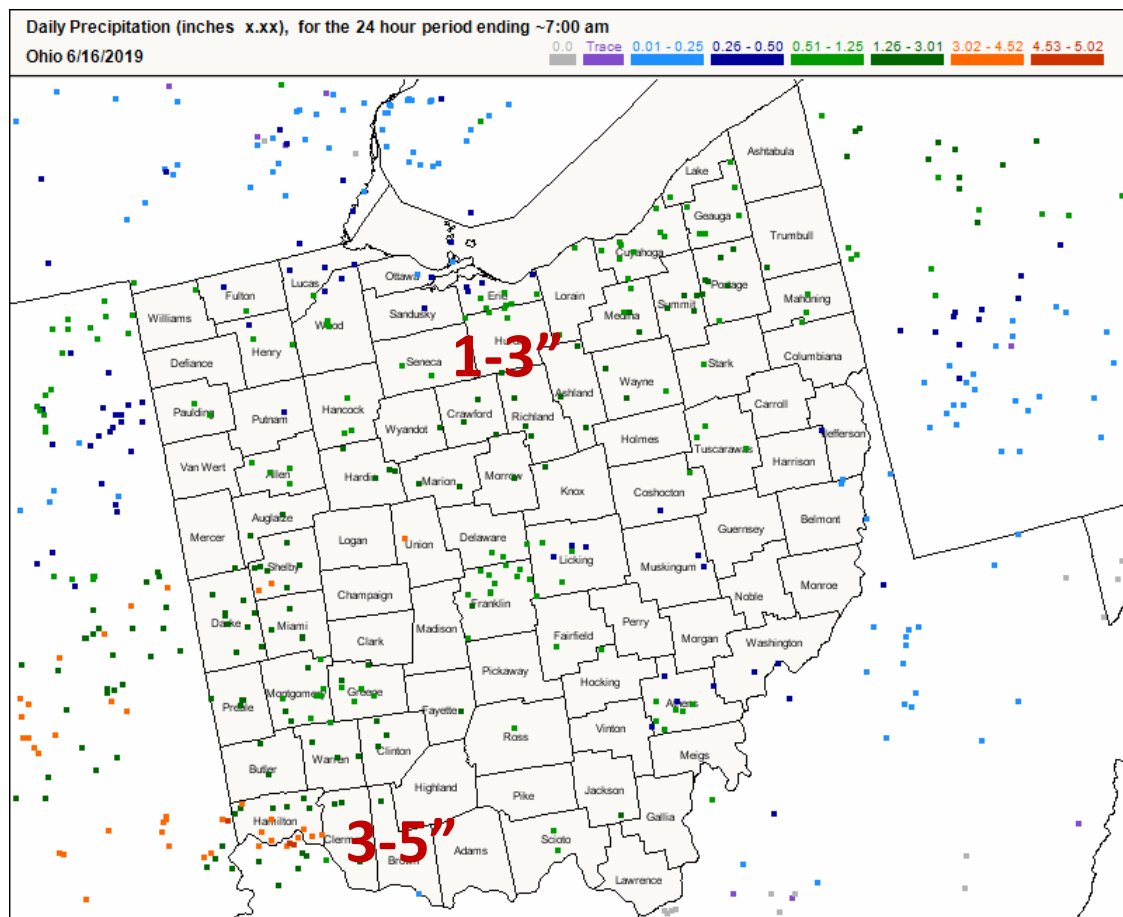
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CoCoRaHS

Since April 1

Cheviot: 37.45" since Jan 1



<https://cocorahs.org/>

CoCoRaHS Name	Total Precip (inches)
St. Marys 2.9 S	22.02
Greenville 1.6 NNW	21.30
Amelia 0.3 SSW	20.62
Canfield 0.5 N	19.58
Cherry Grove 0.4 NW	19.56
Lexington 0.9 NW	19.28
Anna 3.1 NNW	19.15
Mogadore 4.7 SE	18.65
Lima 2.7 NE	18.46
Shelby 0.6 NNE	18.46



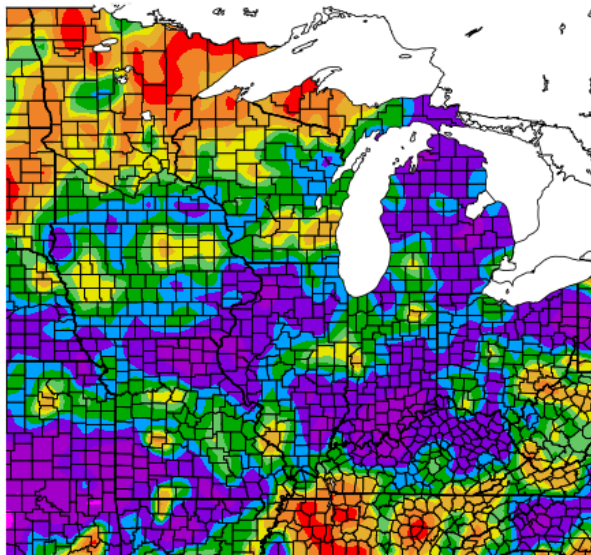
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Precipitation Differences Compared to Average (1981-2010)

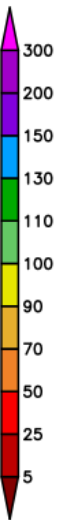
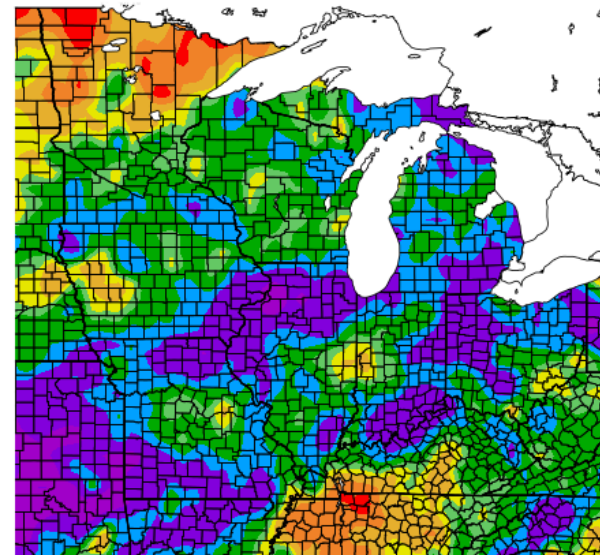
30-Day

Percent of Normal Precipitation (%)
5/20/2019 – 6/18/2019



60-Day

Percent of Normal Precipitation (%)
4/20/2019 – 6/18/2019



Generated 6/19/2019 at HPRCC using provisional data.

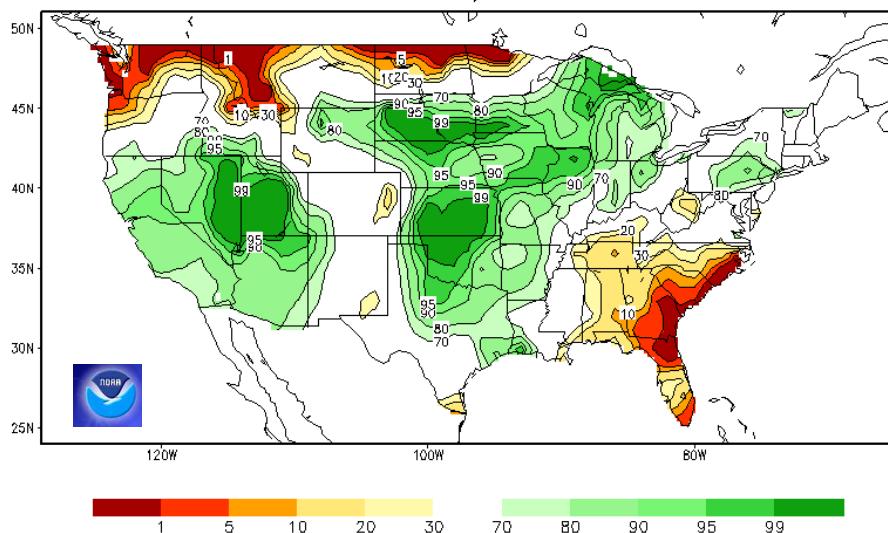
NOAA Regional Climate Centers

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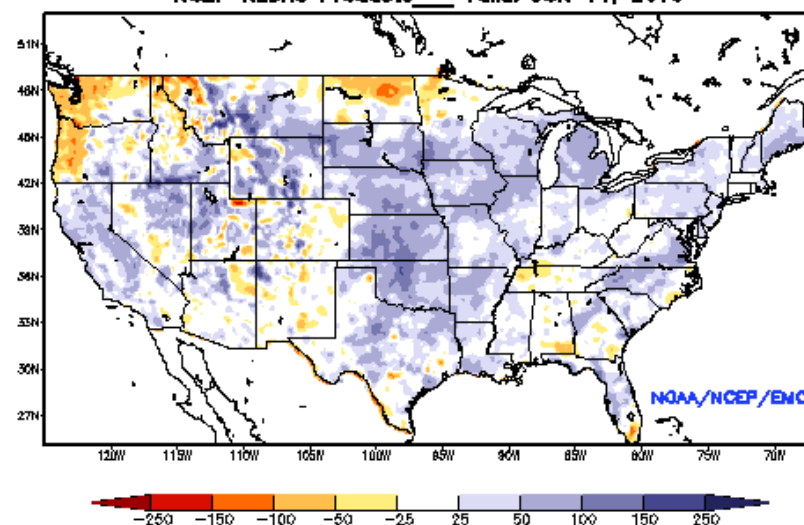
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Soil Moisture

Calculated Soil Moisture Ranking Percentile
JUN 18, 2019



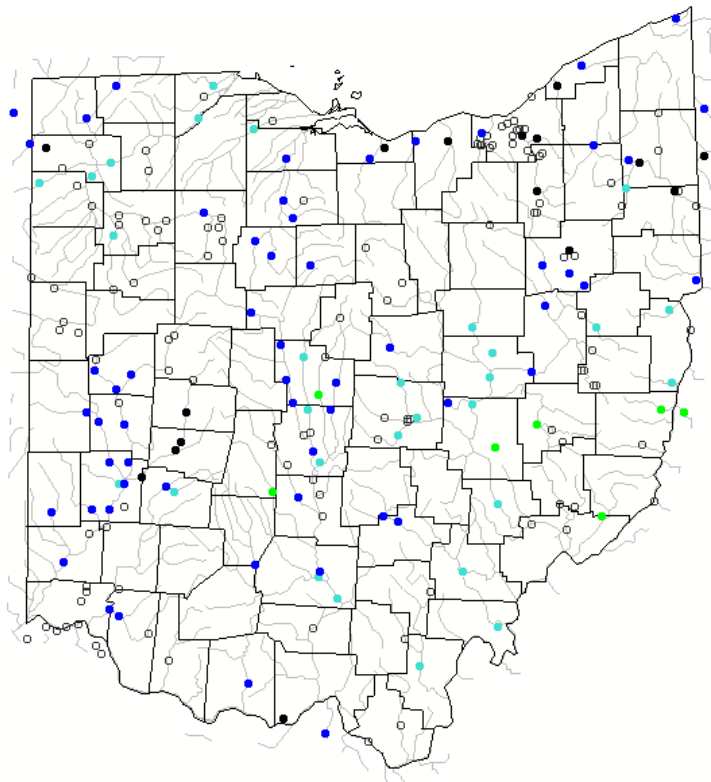
Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JUN 14, 2019



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7-DAY



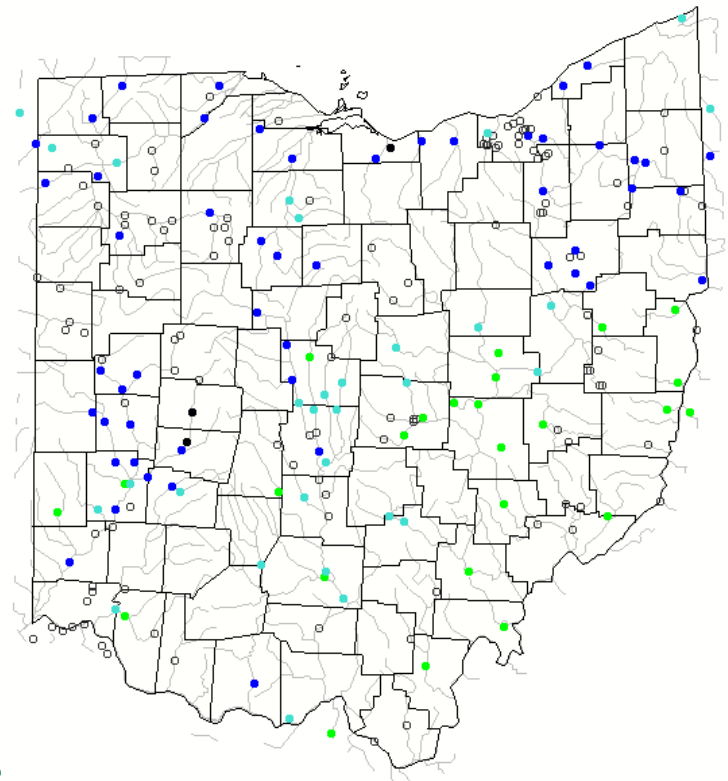
Explanation - Percentile classes

Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Average streamflow compared to historical streamflow for the day of the year

USGS Streamflow

28-DAY



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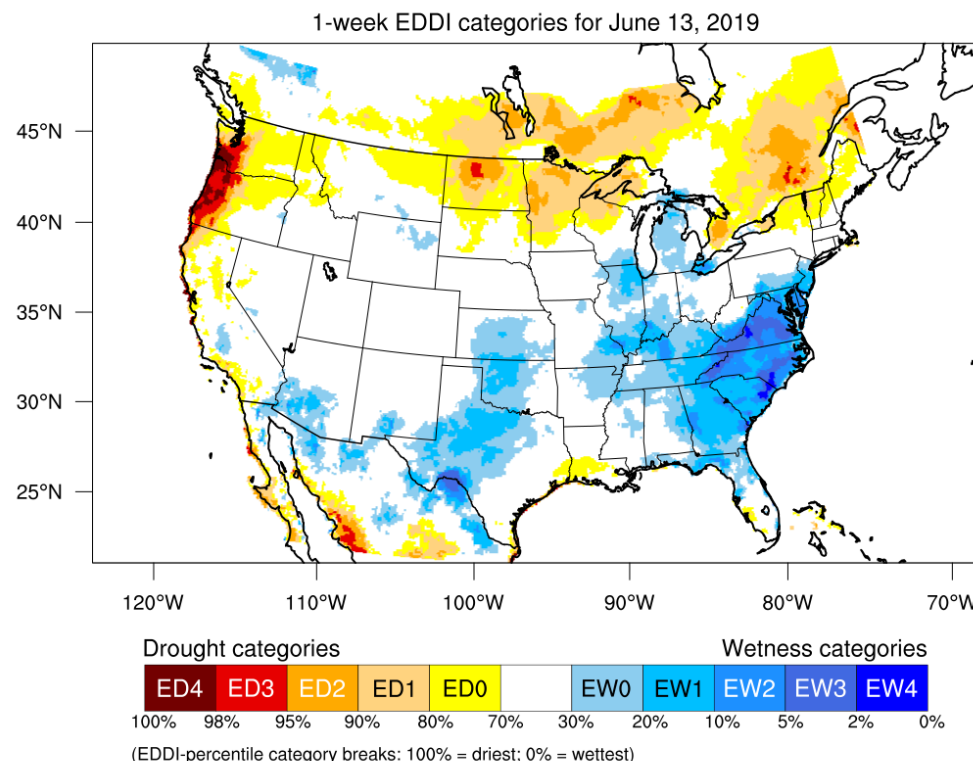
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Evaporative Demand Drought Index

EDDI can offer early warning of agricultural drought, hydrologic drought, and fire-weather risk by providing near-real-time information on the emergence or persistence of anomalous evaporative demand in a region. A particular strength of EDDI is in capturing the precursor signals of water stress at weekly to monthly timescales, which makes EDDI a strong tool for preparedness for both flash droughts and ongoing droughts.



Generated by NOAA/ESRL/Physical Sciences Division

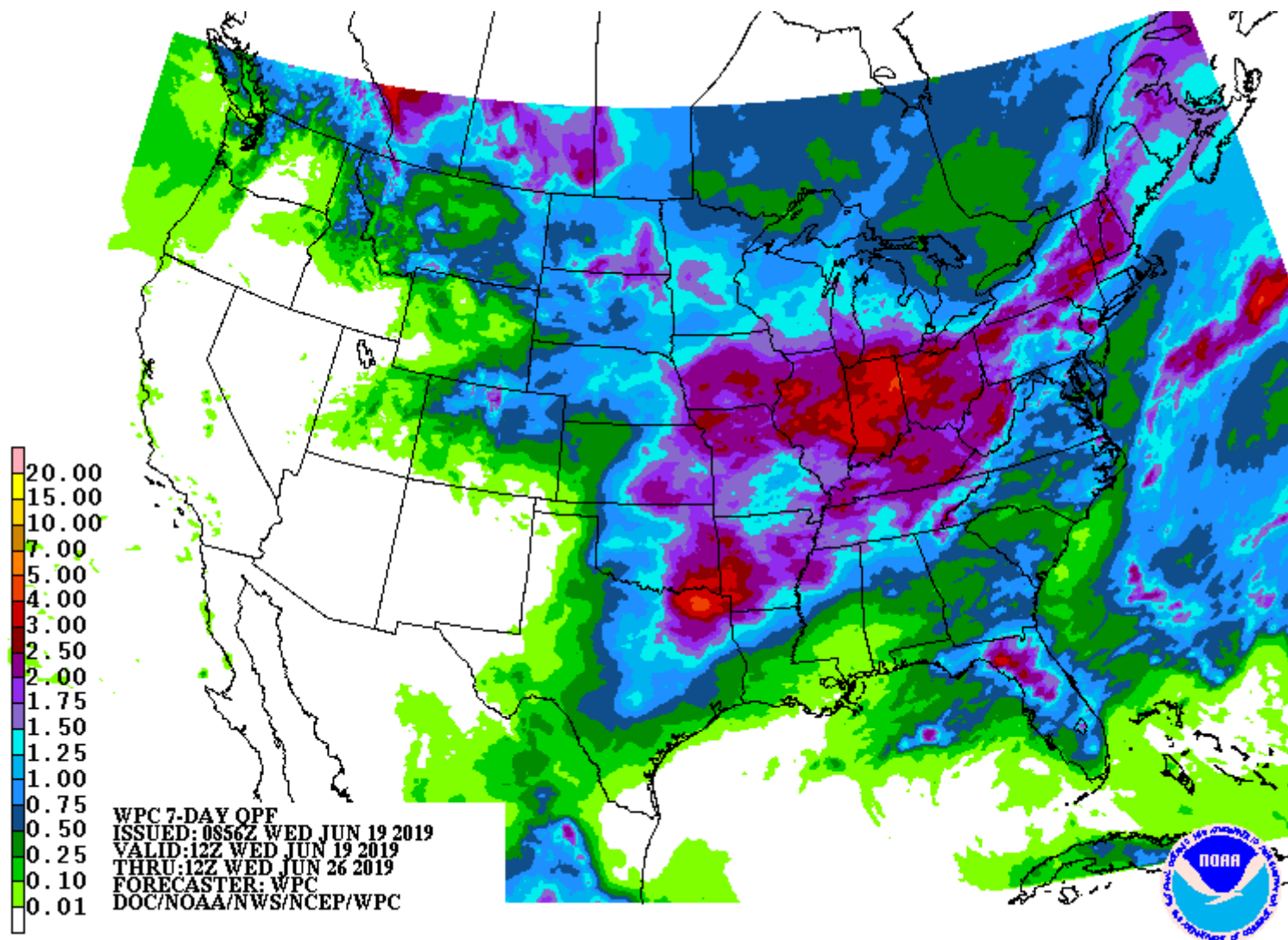
Image provided by the NOAA/ESRL Physical Sciences Division, Boulder, Colorado, from their web site at: <https://www.esrl.noaa.gov/psd/>.



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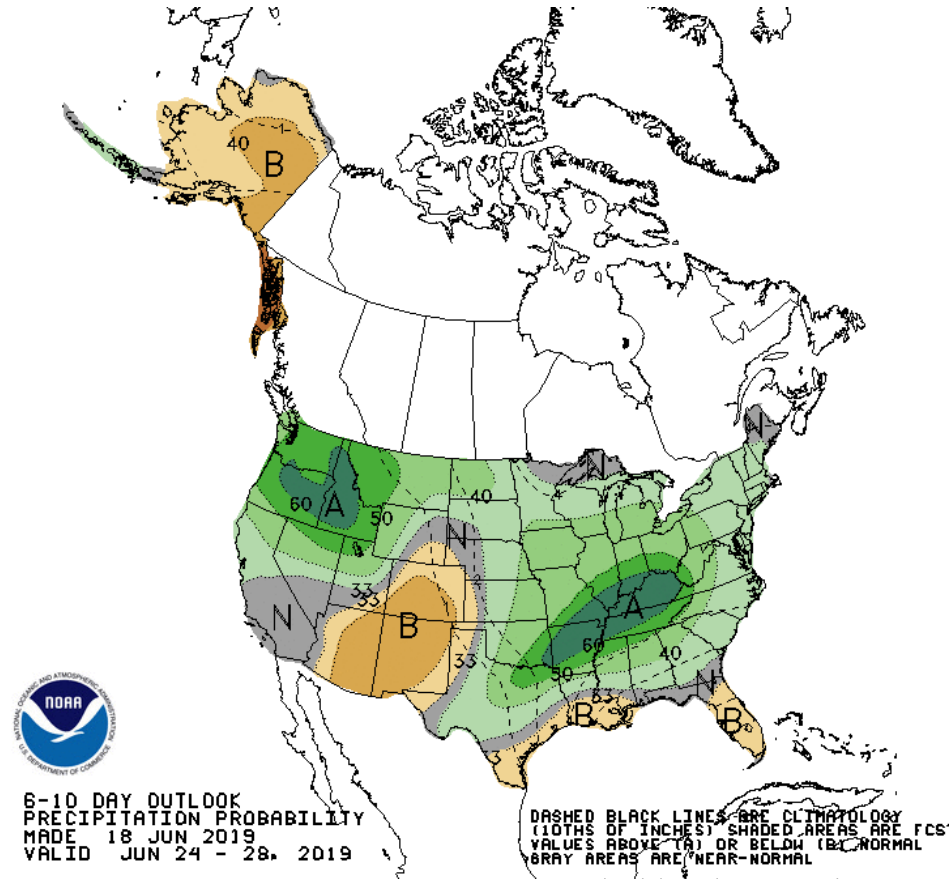
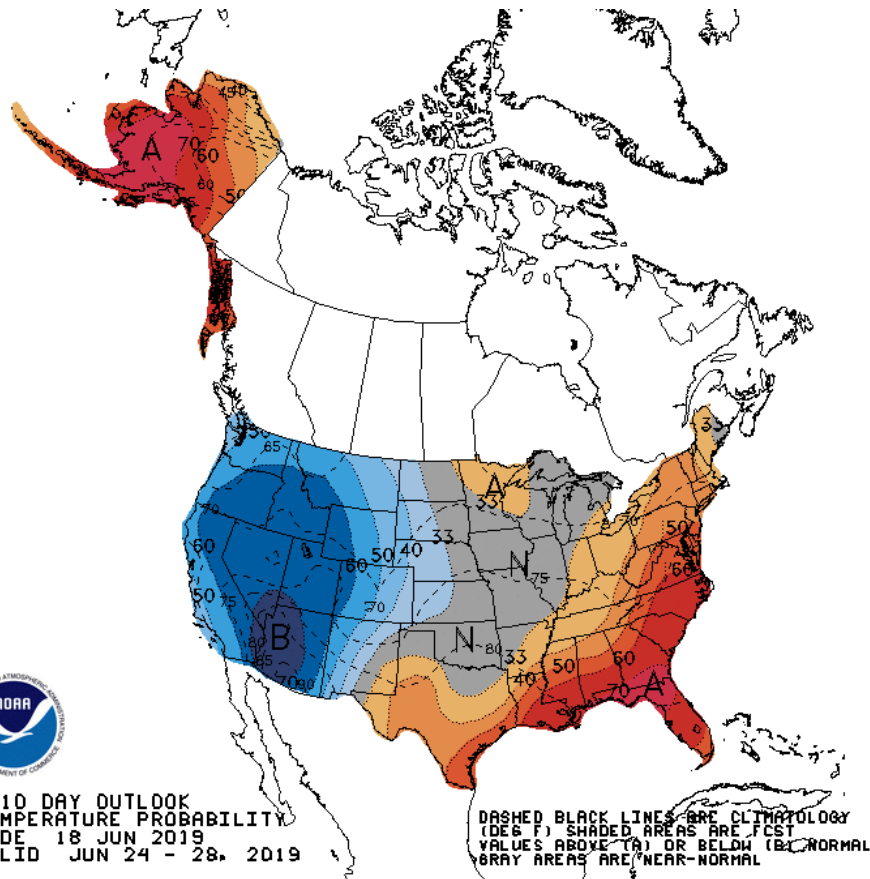
Weather for the Week Ahead



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6-10 Day Outlook



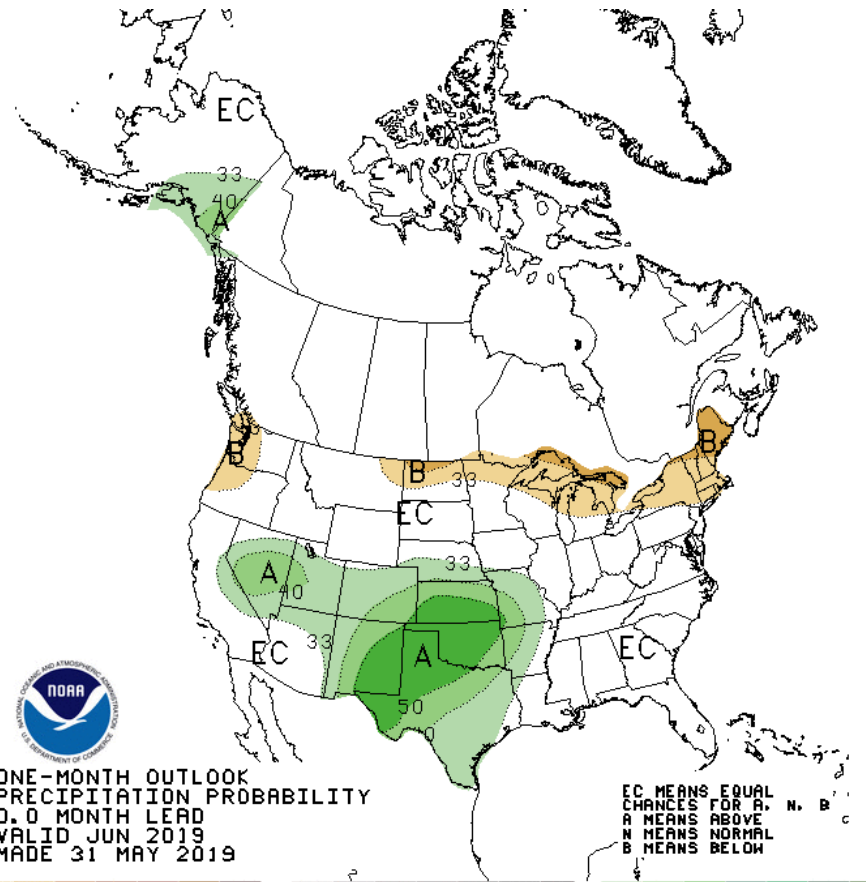
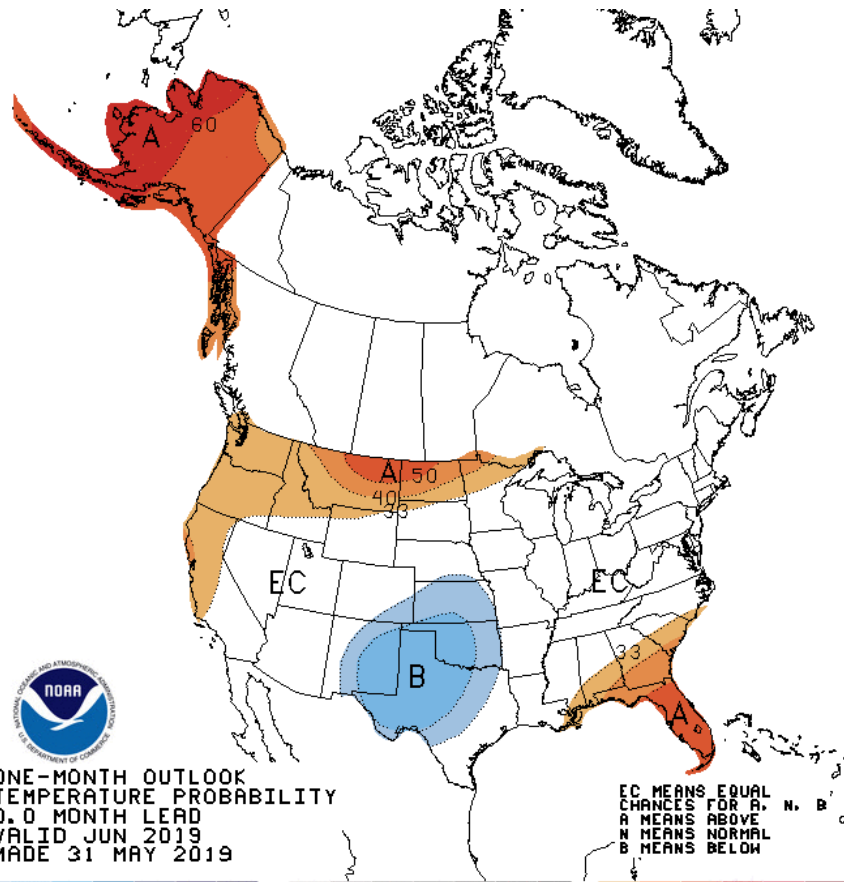
Highs: 80-84°F; Lows: 59-64°F; Precip: 1.05-1.15" (per week)



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June 2019 Outlook



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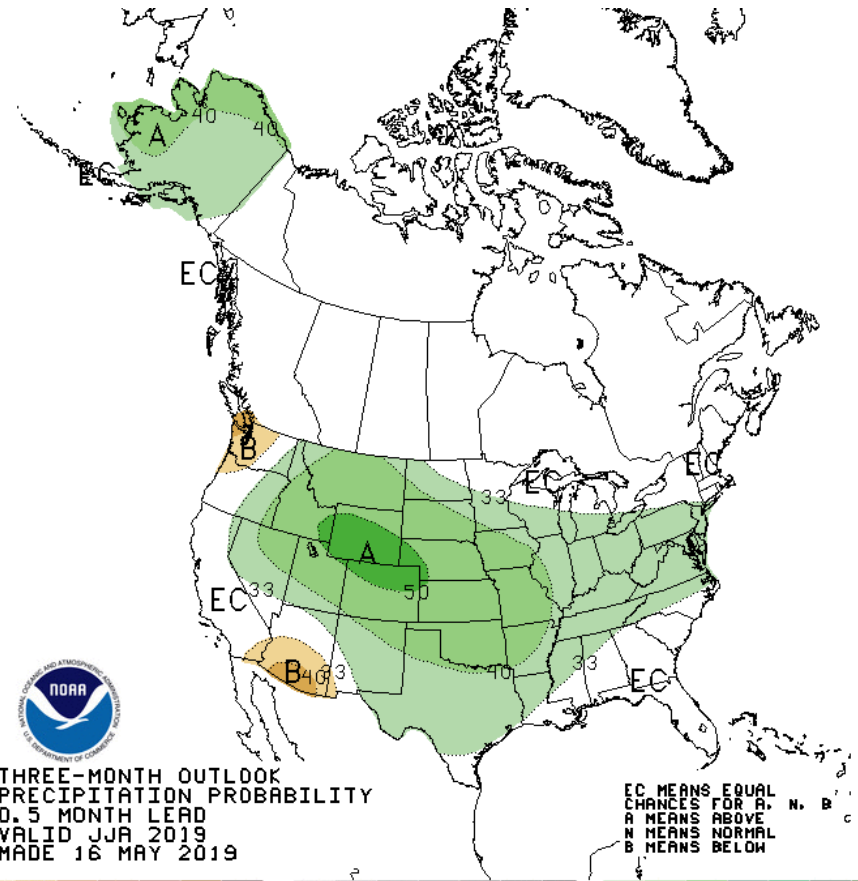
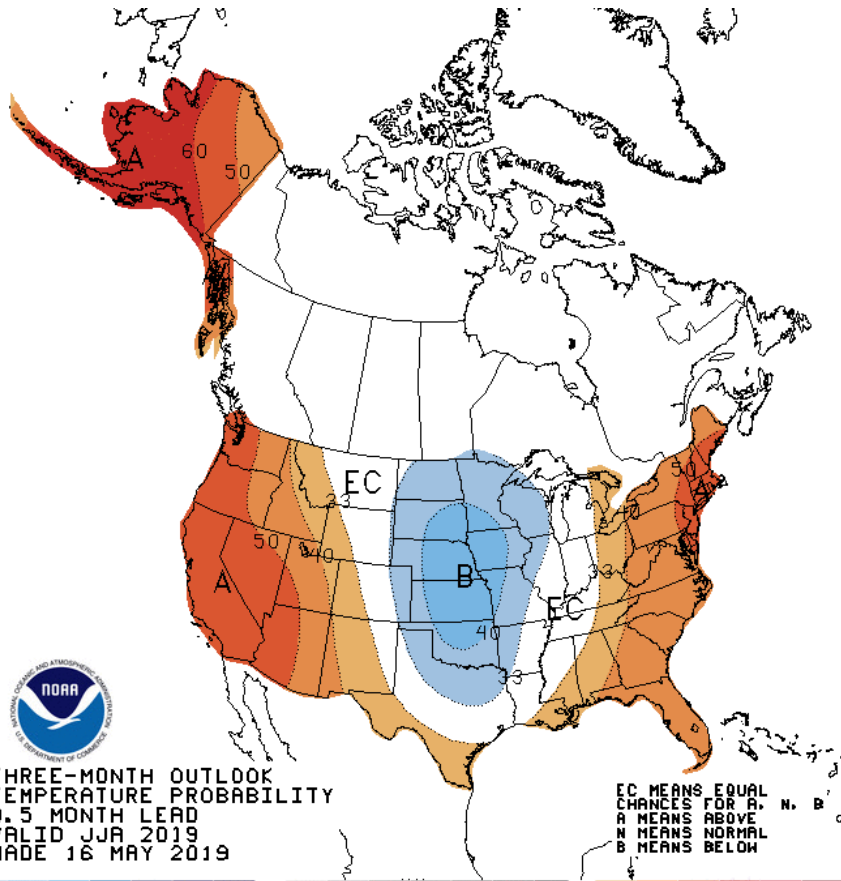
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June – August Outlook



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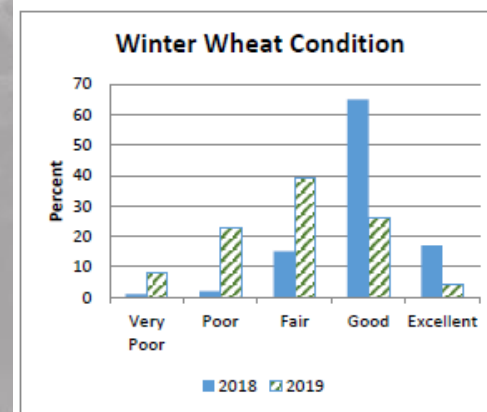
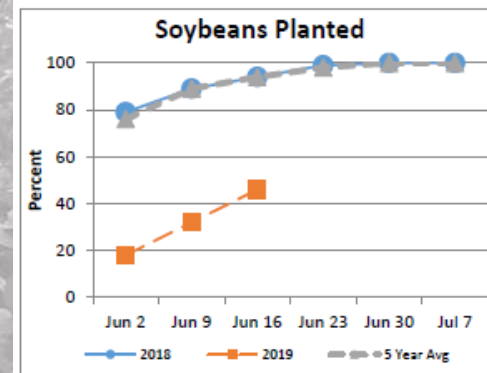
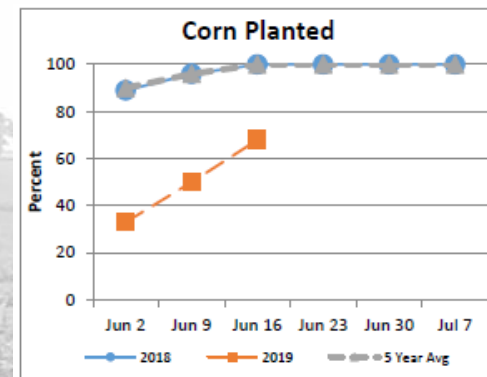
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Ag Highlights

- 2.5 days suitable for fieldwork through June 16
- Corn and soybean planting increased again, but well behind 5-year averages
- Poor conditions to cut hay

NASS: Cheryl Turner –

https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2019/cw1719oh.pdf



Summary of Conditions

Elizabeth Hawkins: OSU ANR Extension
Field Specialist, Agronomic Systems



Drought Monitor: None

Climate Recap: Widespread rainfall across the state this past week; a little drier NW

The week ahead: Wet, few breaks, warm and humid



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**CFAES**

OHIO STATE UNIVERSITY EXTENSION

OSU Extension and the State Climate Office of Ohio present:

CLIMATE SMART: Farming with Weather Extremes

Thursday July 18, 2019 • 8:30 a.m. – 3:00 p.m. • Plain City, Ohio

Join us as we discuss climate impacts on farming in Ohio. Key topics include water management, crop insurance, risk management, conservation, and technology. We are pleased to announce that our keynote speaker will be Tyler Williams, Cropping Systems Extension Educator with the University of Nebraska – Lincoln. He will join us to discuss early lessons from the Spring 2019 Nebraska Flood event.

Agenda is as follows:

- 8:30 Registration & Continental Breakfast
- 9:15 Welcome
- 9:20 Ohio's Changing Climate (Aaron Wilson)
- 10:10 Water Management (Jeff Hattey)
- 11:00 Break
- 11:10 Price and Production Risk (Ben Brown)
- 12:00 Lunch, Networking, & Vendors
- 1:00 Keynote: Nebraska Flooding Spring 2019 (Tyler Williams)
- 2:00 Panel Discussion (Risk, Conservation, Technology, and more)
- 2:55 Program Close and Evaluation

Free to Attend!**RSVP required by July 11,
2019 to receive lunch.****Follow this link to RSVP:
[Go.osu.edu/ClimateSmart](https://go.osu.edu/ClimateSmart)****Contact Information:****Aaron Wilson
wilson.1010@osu.edu
614-292-7930****Der Dutchman Plain City, 445 S.
Jefferson Ave Plain City, OH 43064****Platinum Event Sponsors****Gold Meal Sponsors**climate.osu.edu**THE OHIO STATE UNIVERSITY**
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Partners and Additional Information

- SCOO's Website: <https://climate.osu.edu>
- NOAA's National Climatic Data Center: www.ncdc.noaa.gov
 - Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov
- USDA Midwest Climate Hub:
<https://www.climatehubs.oce.usda.gov/hubs/midwest>
- Climate Portal: www.climate.gov
- U.S. Drought Portal: www.drought.gov
- National Drought Mitigation Center: <https://drought.unl.edu/>
- Midwest Regional Climate Center: <https://mrcc.isws.illinois.edu>
- Community Collaborative Rain Snow Hail Network (CoCoRaHS):
<https://cocorahs.org>
- Intro Song: "To Weather A Storm" by Dan Lebowitz