

Hydrologic and Climate Assessment

July 6, 2018



Aaron B. Wilson

STATE CLIMATE OFFICE OF OHIO (SCOO)

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

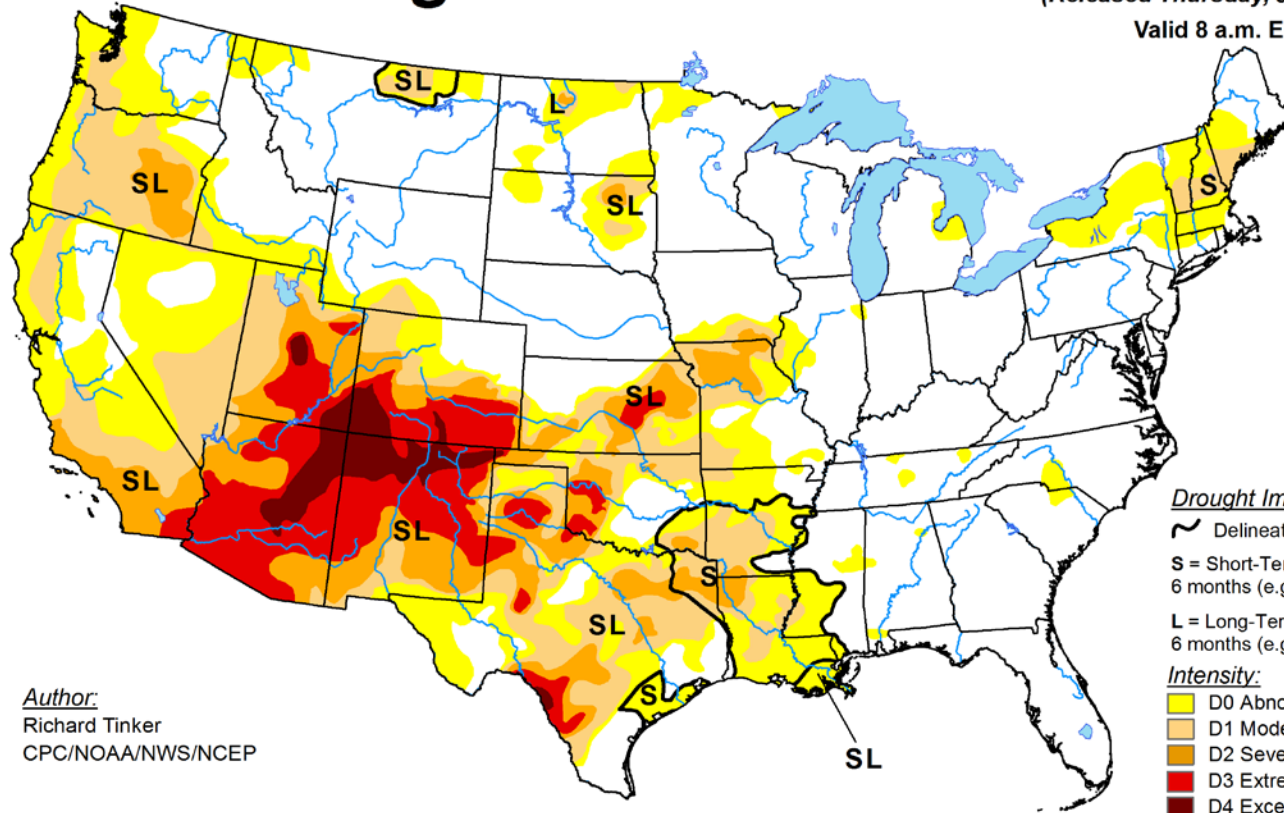
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U.S. Drought Monitor

July 3, 2018
 (Released Thursday, Jul. 5, 2018)
 Valid 8 a.m. EDT



Author:
 Richard Tinker
 CPC/NOAA/NWS/NCEP

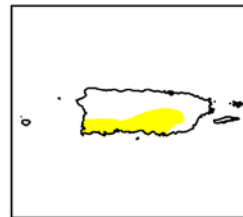
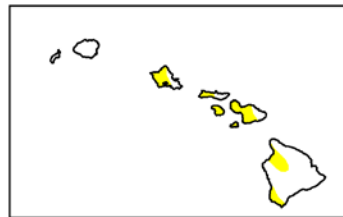
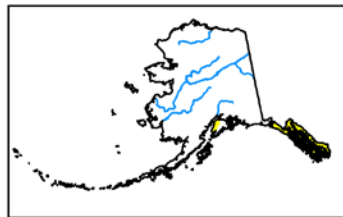
Drought Impact Types:

- ~ 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:

- Yellow: D0 Abnormally Dry
- Light Orange: D1 Moderate Drought
- Orange: D2 Severe Drought
- Red: D3 Extreme Drought
- Dark Red: D4 Exceptional Drought

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



<http://droughtmonitor.unl.edu/>

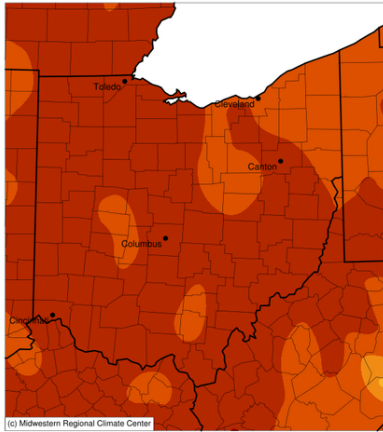


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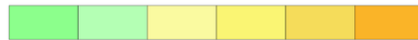
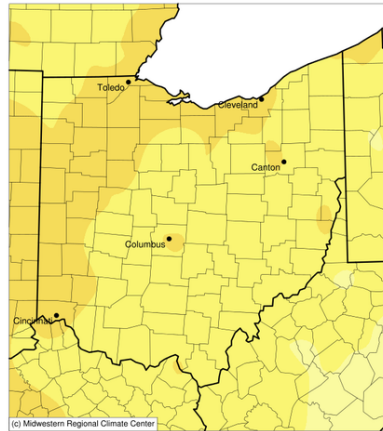
Temperature Differences Compared to Average (1981-2010)

Average Maximum Temperature (°F)
June 30, 2018 to July 06, 2018



75 80 85 90 95 100
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 7/6/2018 9:46:20 AM CDT

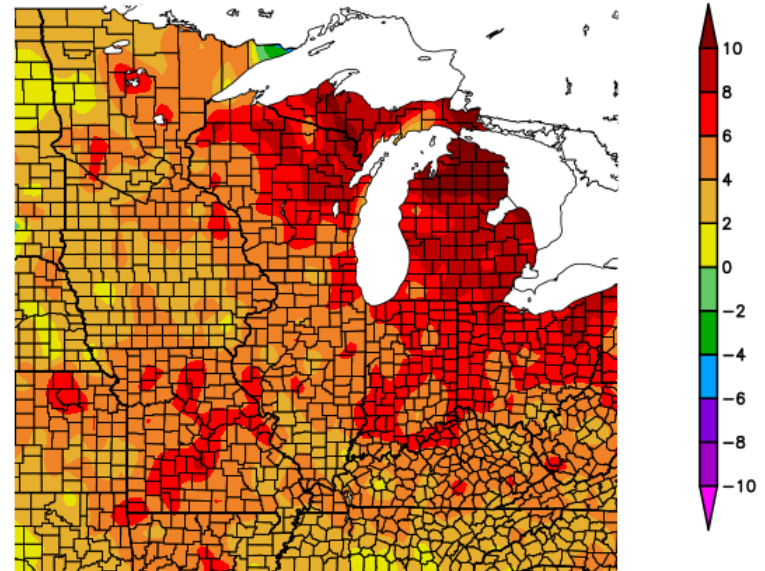
Average Minimum Temperature (°F)
June 30, 2018 to July 06, 2018



55 60 65 70 75
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center
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7-Day

Departure from Normal Temperature (F)
6/29/2018 – 7/5/2018



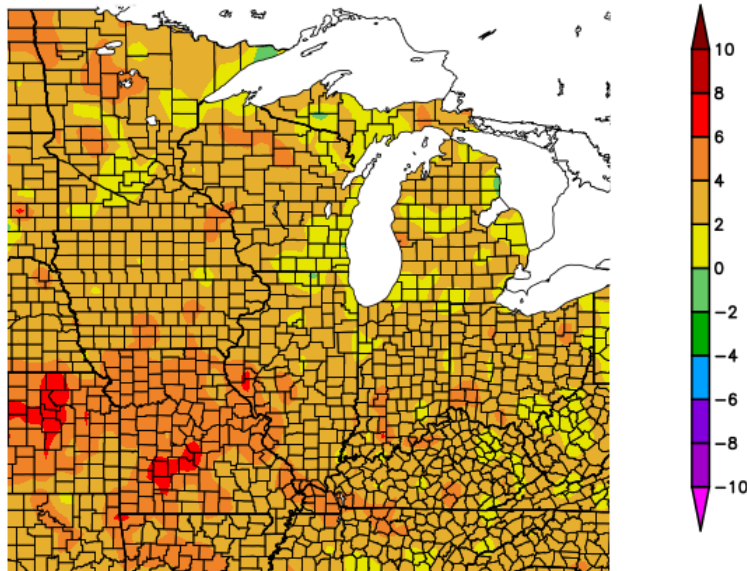
Generated 7/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Differences Compared to Average (1981-2010)

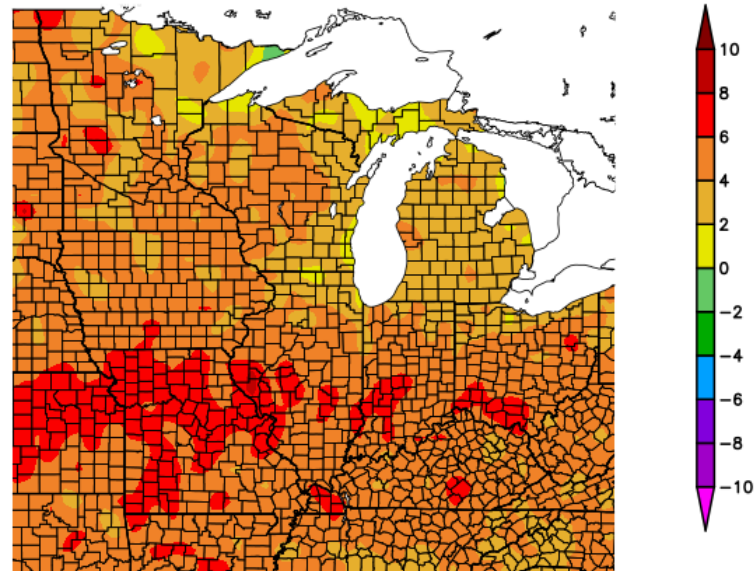
30-Day

Departure from Normal Temperature (F)
6/6/2018 – 7/5/2018



60-Day

Departure from Normal Temperature (F)
5/7/2018 – 7/5/2018



Generated 7/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 7/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

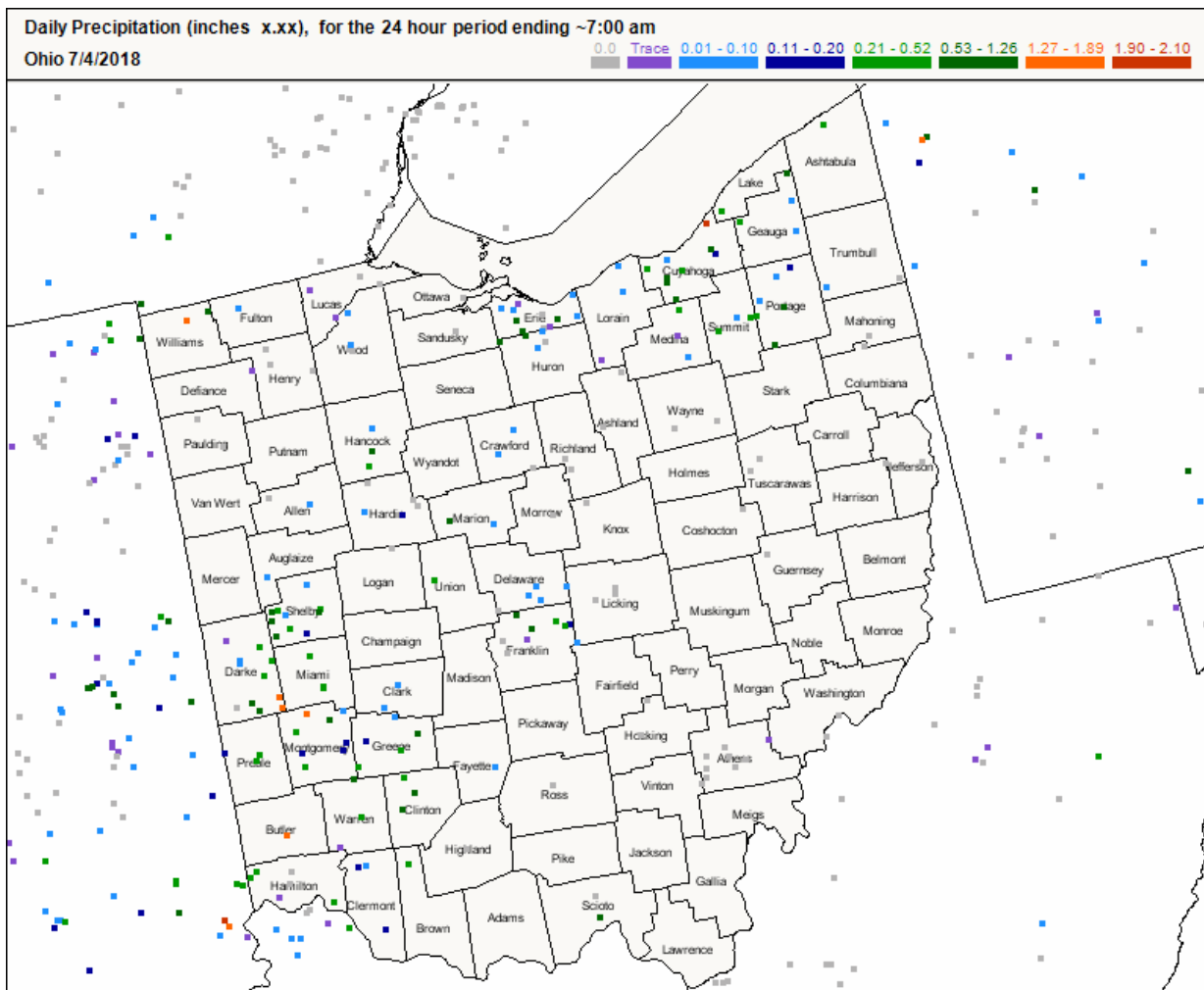


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CoCoRaHS Observed Precipitation:

<http://cocorahs.com/>

July 4



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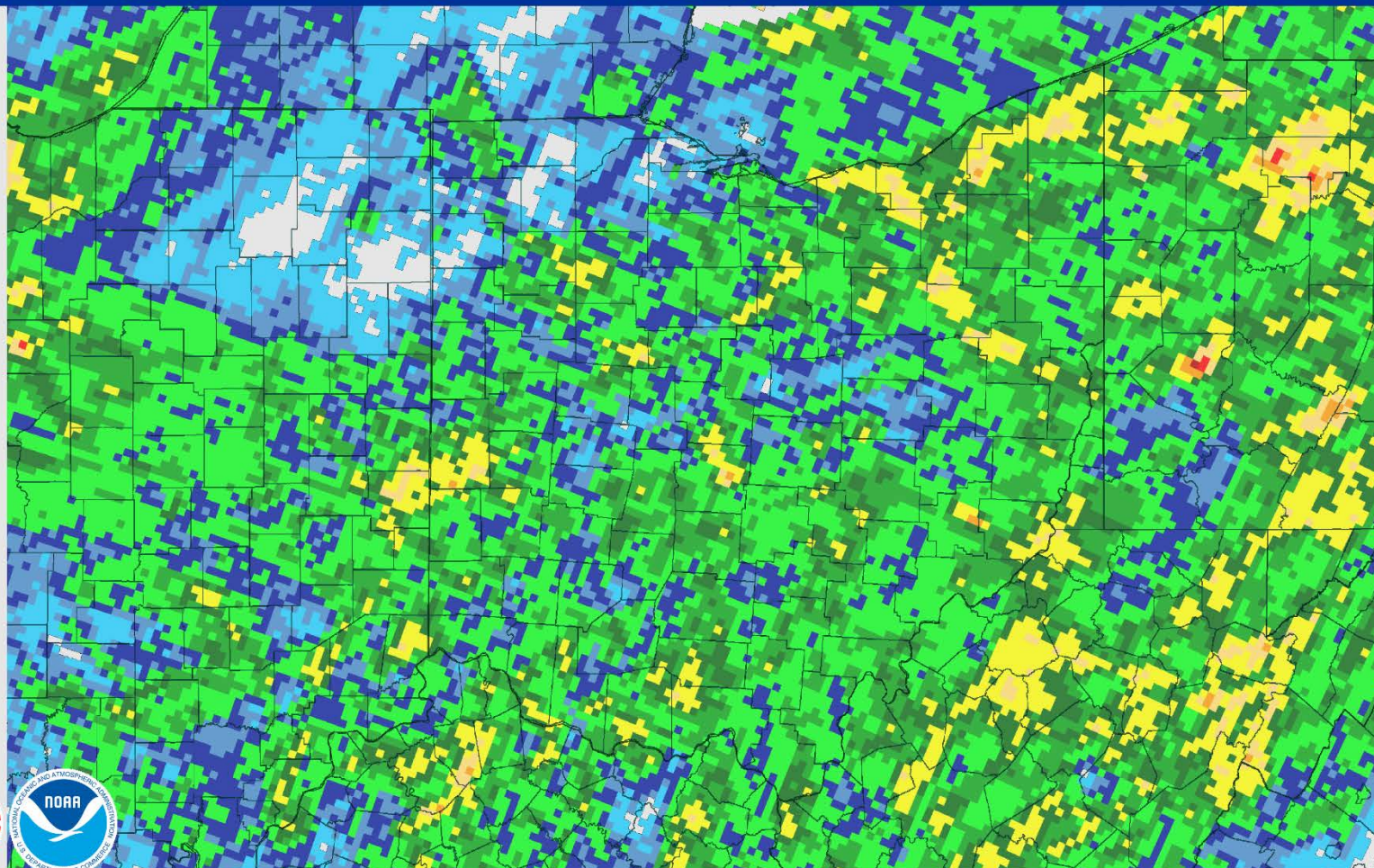
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Previous 7-Day Precipitation: Total

July 06, 2018 7-Day Observed Precipitation

Created on: July 06, 2018 - 14:52 UTC

Valid on: July 06, 2018 12:00 UTC



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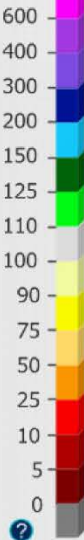
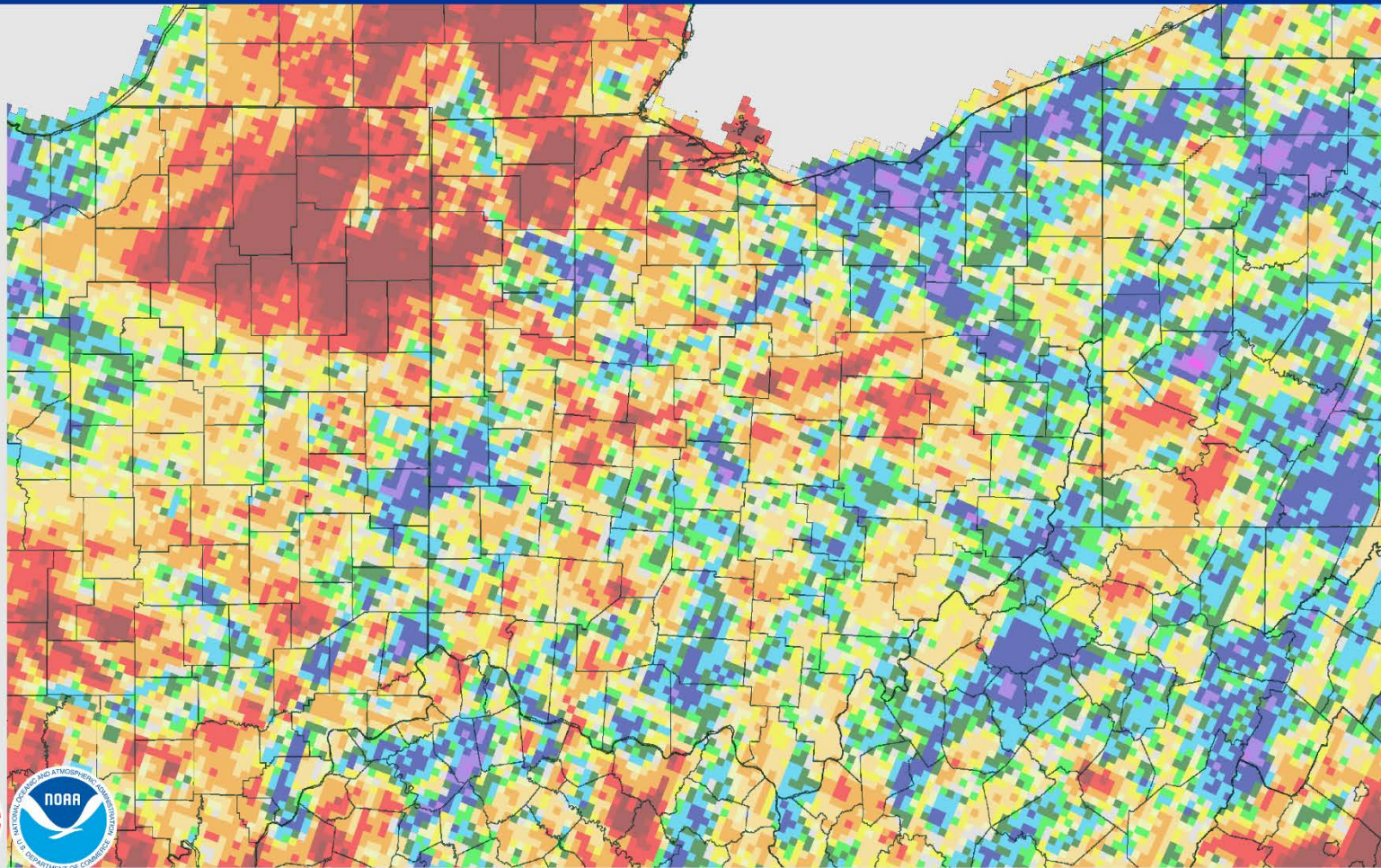
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Previous 7-Day Precipitation: Percent of Normal

July 06, 2018 7-Day Percent Precipitation

Created on: July 06, 2018 - 14:52 UTC

Valid on: July 06, 2018 12:00 UTC



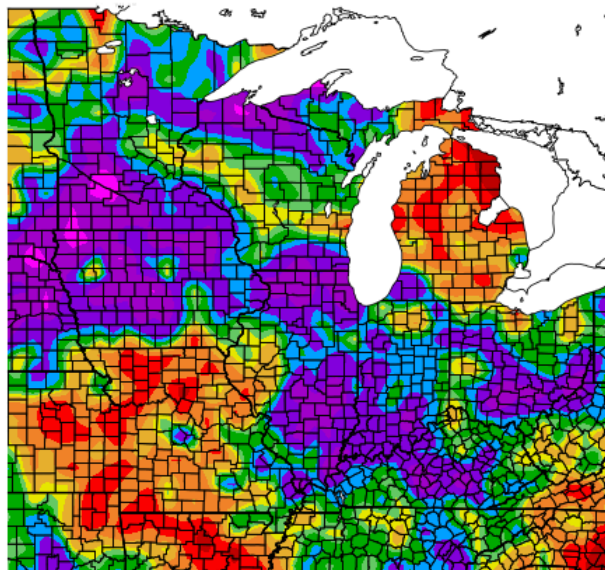
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Precipitation Differences Compared to Average (1981-2010)

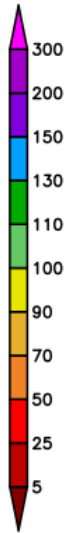
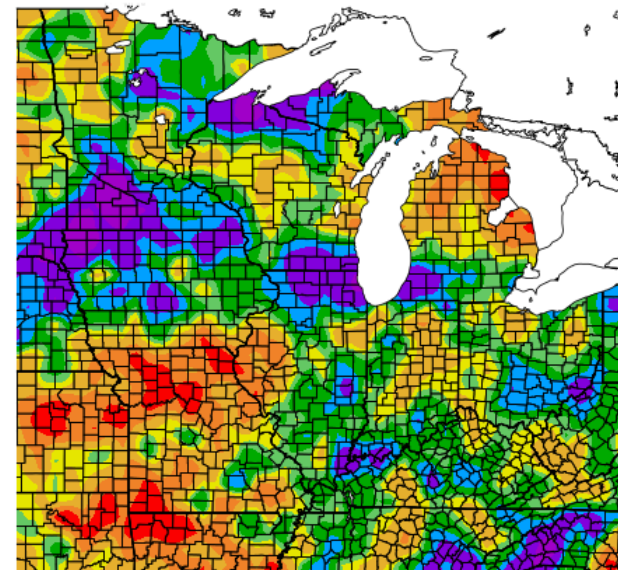
30-Day

Percent of Normal Precipitation (%)
6/6/2018 – 7/5/2018



60-Day

Percent of Normal Precipitation (%)
5/7/2018 – 7/5/2018



Generated 7/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 7/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

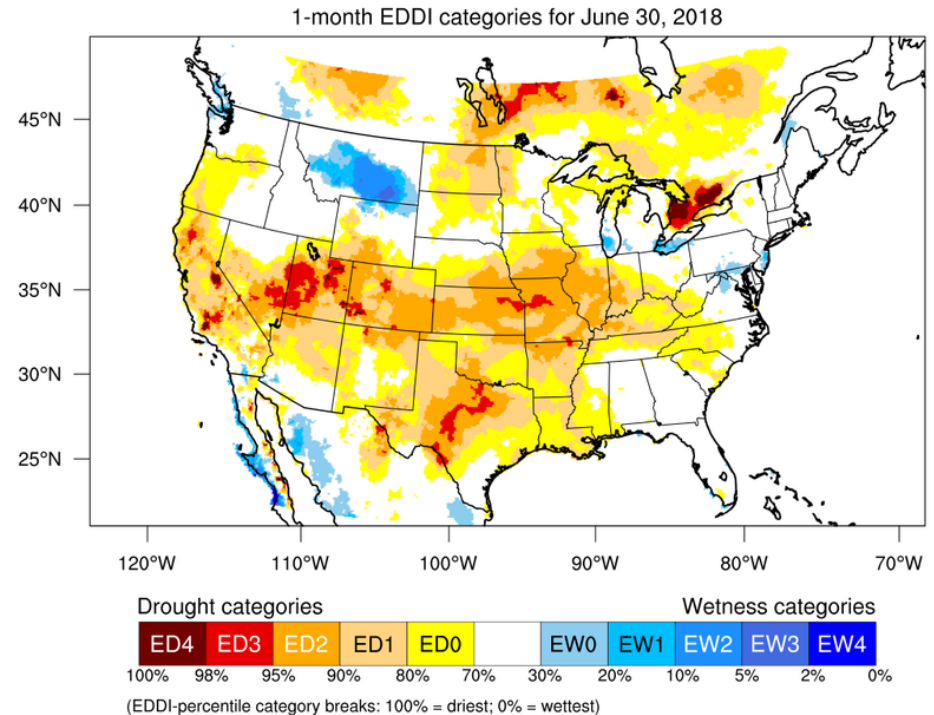


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Evaporative Demand Drought Index

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.

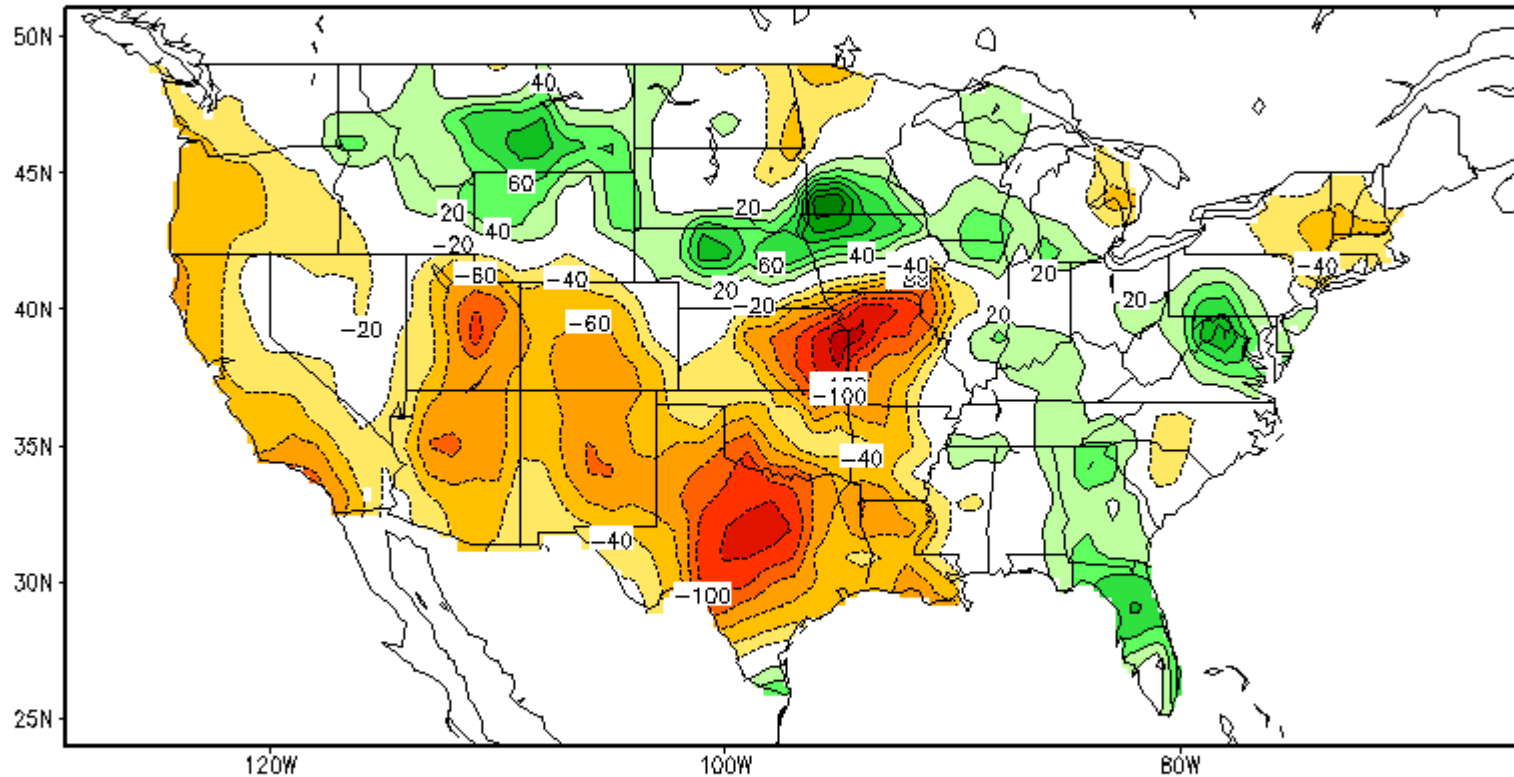
Image provided by the NOAA/ESRL Physical Sciences Division, Boulder, Colorado, from their web site at: <https://www.esrl.noaa.gov/psd/>.



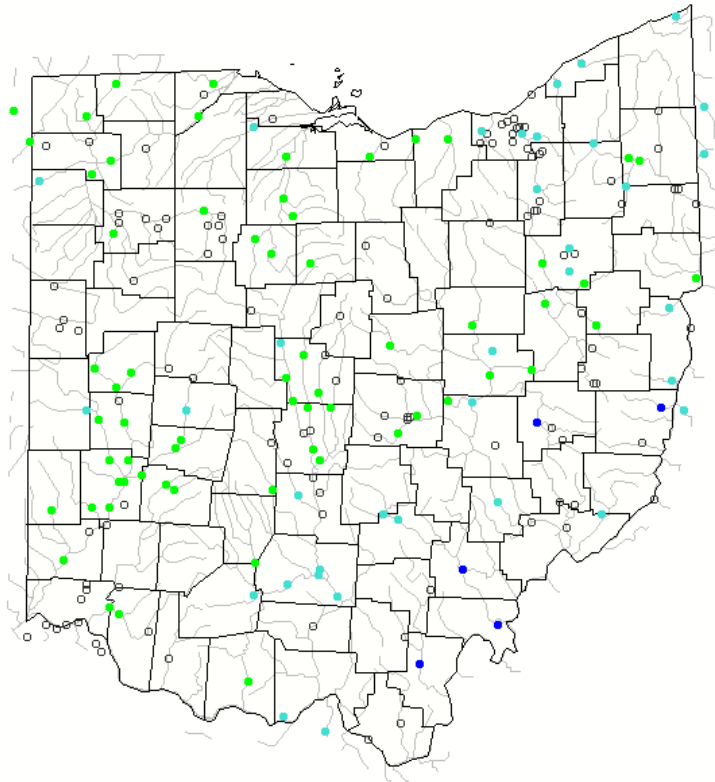
Generated by NOAA/ESRL/Physical Sciences Division

Soil Moisture

Calculated Soil Moisture Anomaly (mm)
JUL 05, 2018



7-DAY



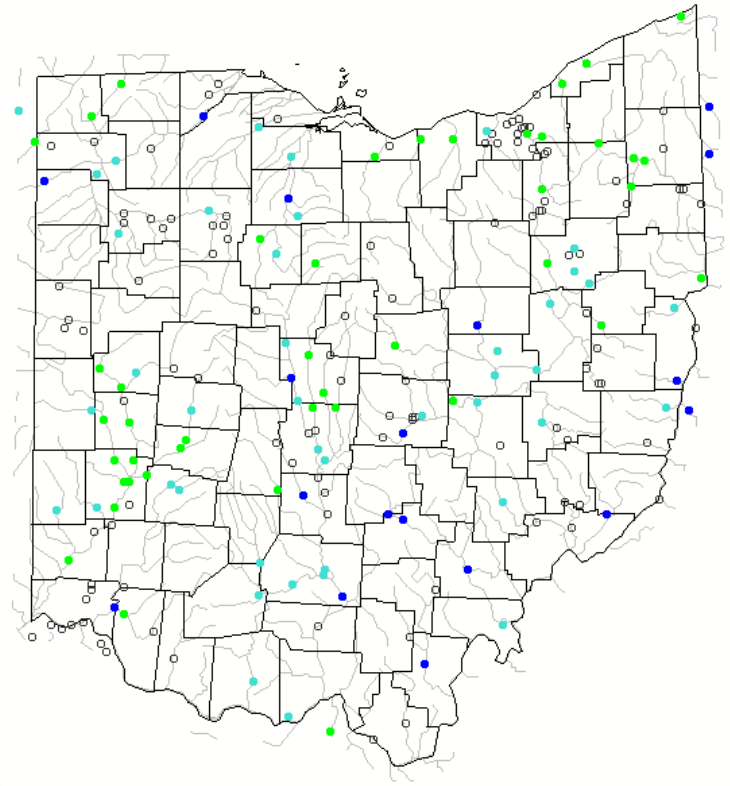
Explanation - Percentile classes

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

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

USGS Streamflow

28-DAY



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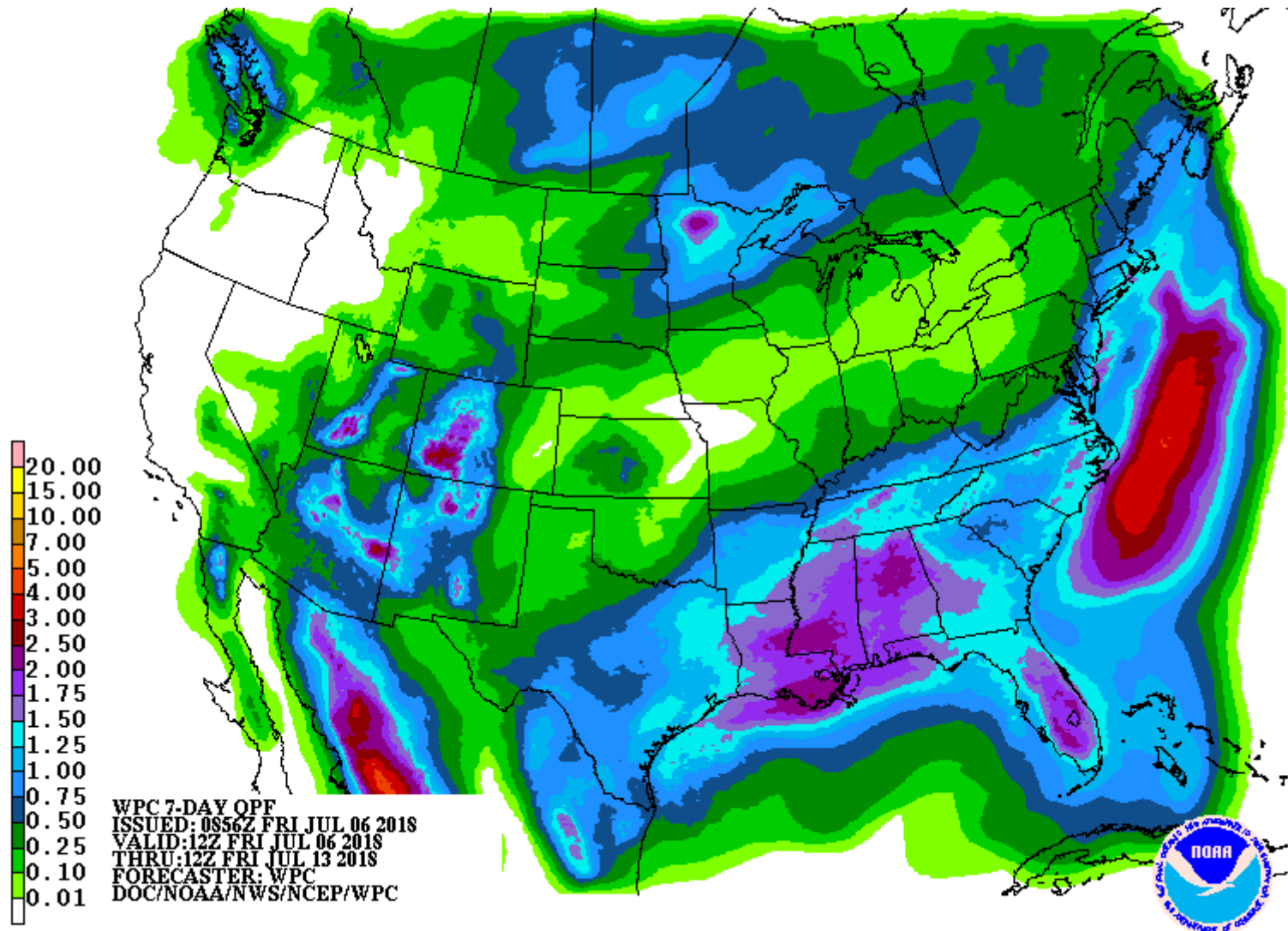
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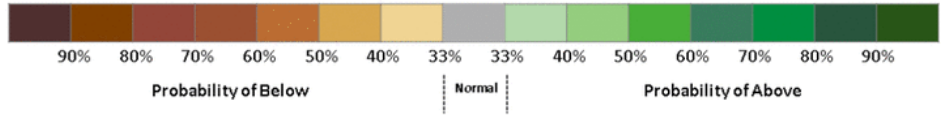
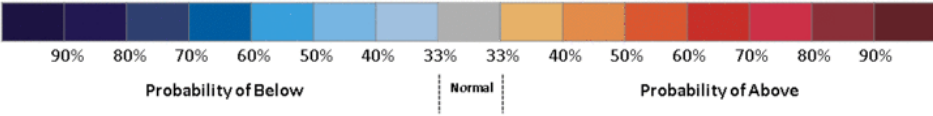
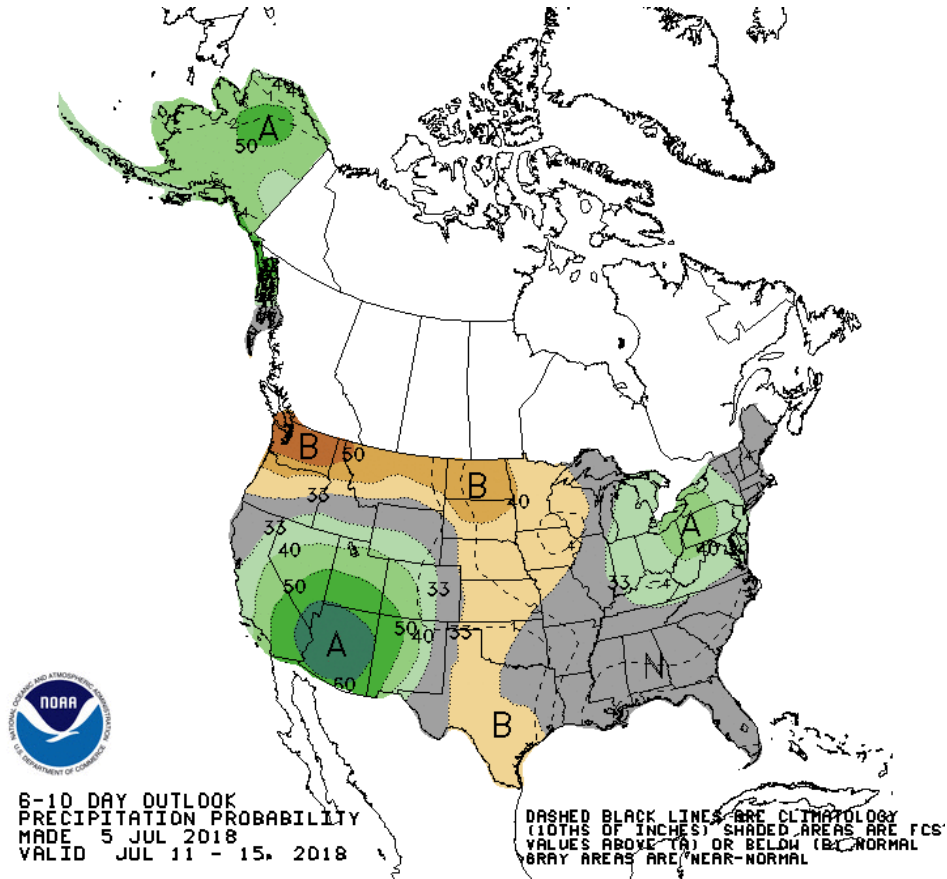
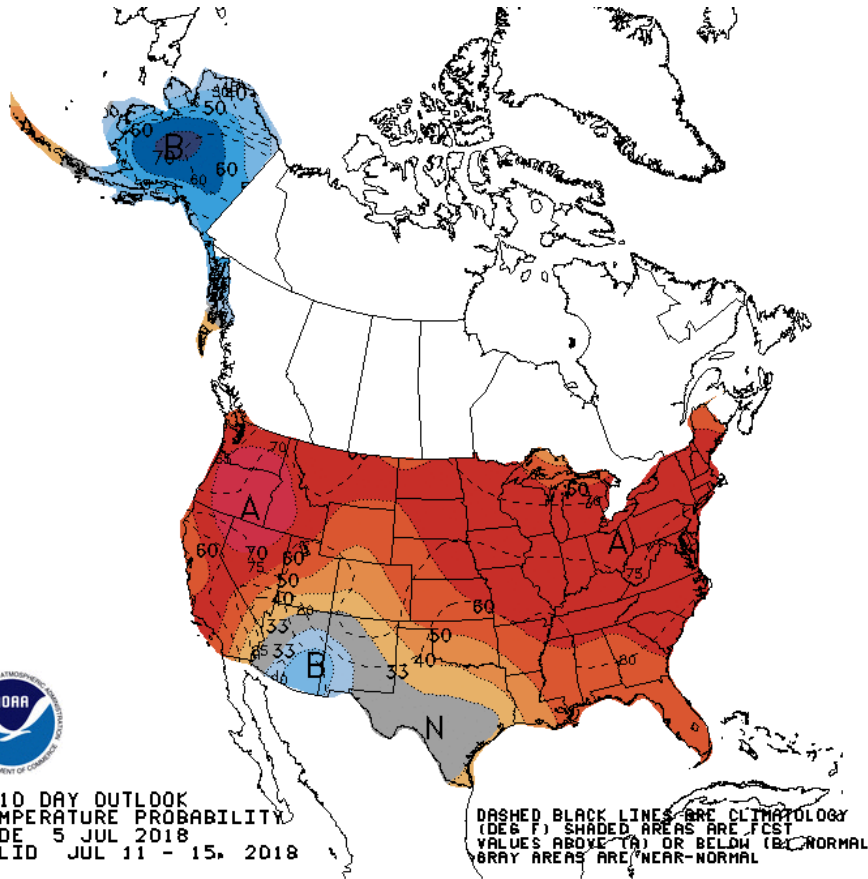
Weather for the Week Ahead



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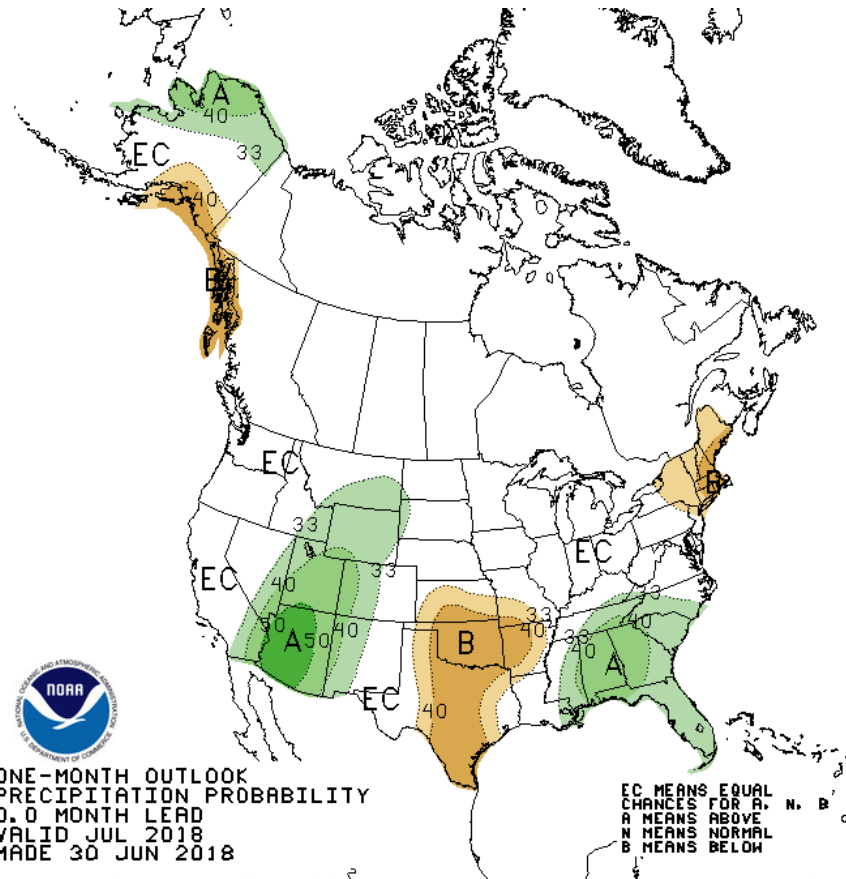
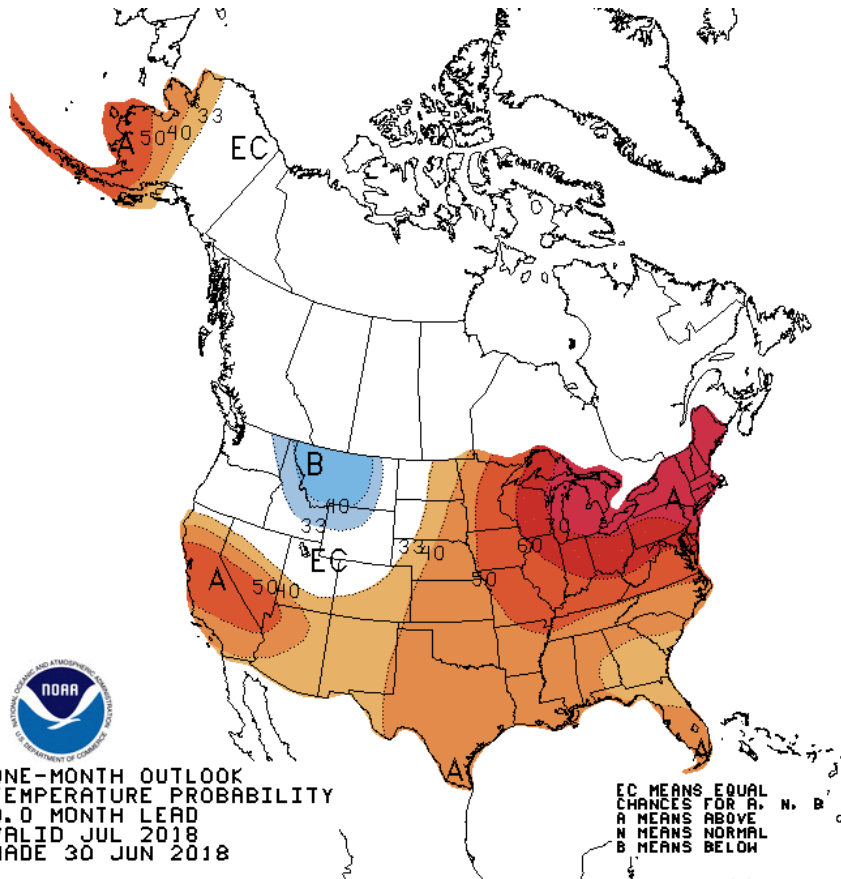
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6-10 Day Outlook



Highs: Low to mid 80s; Lows: Low to mid 60s; Precip: 0.75-1"

July Outlook



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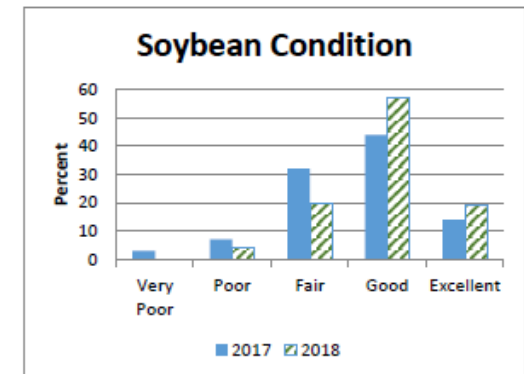
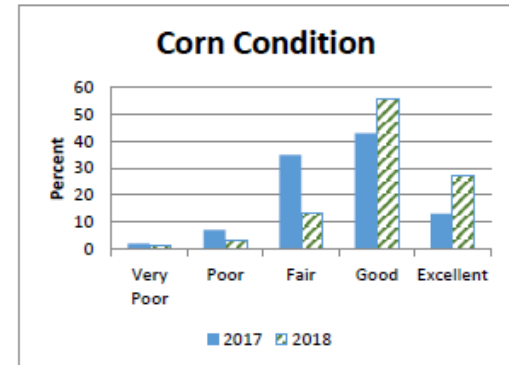
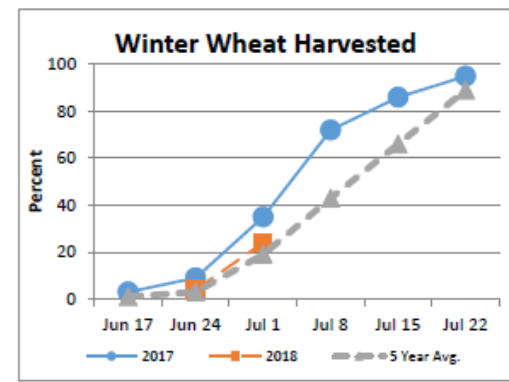
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Ag Highlights

- 4.2 days suitable for work
- Strong haymaking and straw baling progress
- Some isolate standing water causing a few crop issues
- Livestock stressed from heat



NASS: Cheryl Turner –

https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2017/cw3017oh.pdf



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Summary of Conditions



Photo: Jason Hartschuh – Crawford County Extension

Drought Monitor: No Formal drought in Ohio

30-Day and 60-Day: Hot but decent precipitation; drying conditions across the north

The week ahead: A respite from the heat but generally dry conditions



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