

Hydrologic and Climate Assessment

August 3, 2018



Aaron B. Wilson

STATE CLIMATE OFFICE OF OHIO (SCOO)

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



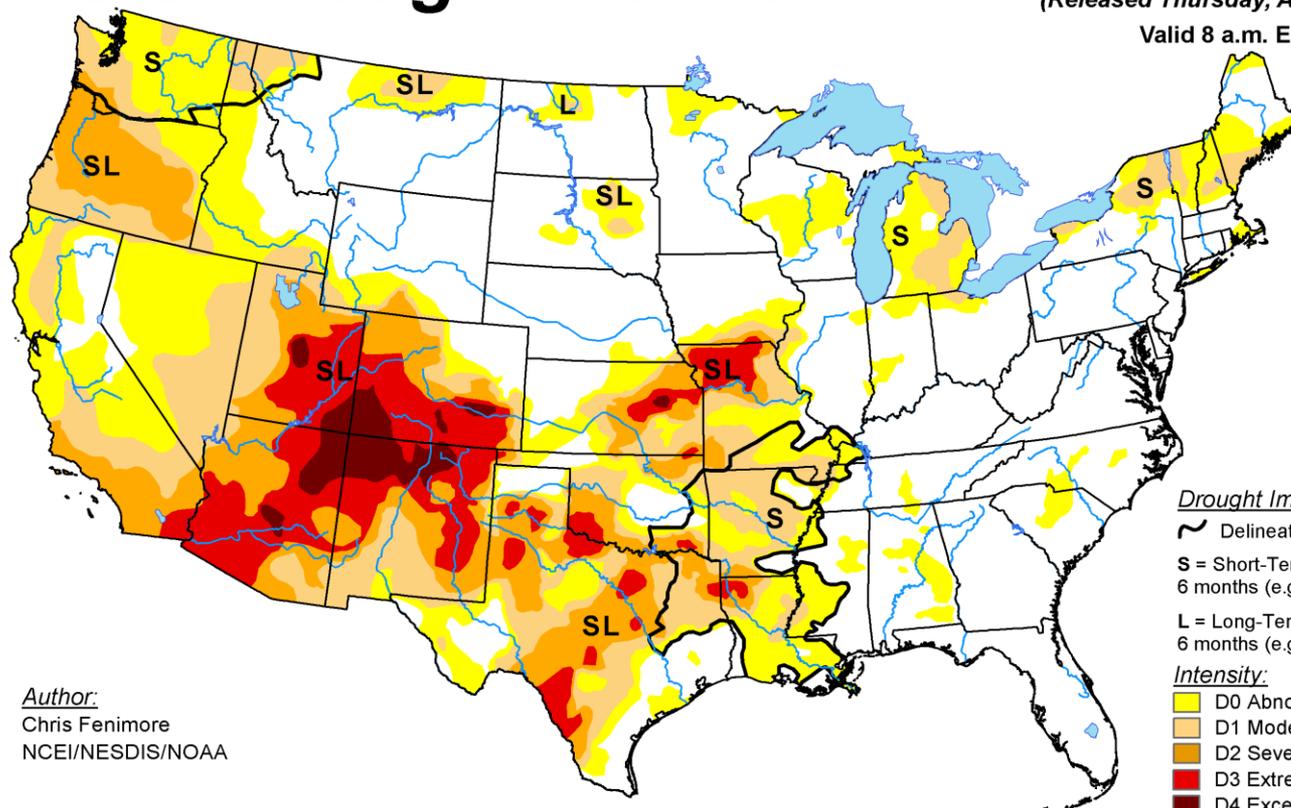
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U.S. Drought Monitor

July 31, 2018

(Released Thursday, Aug. 2, 2018)

Valid 8 a.m. EDT



Author:
Chris Fenimore
NCEI/NESDIS/NOAA

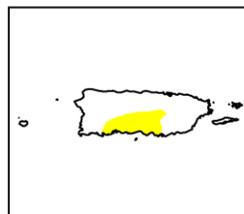
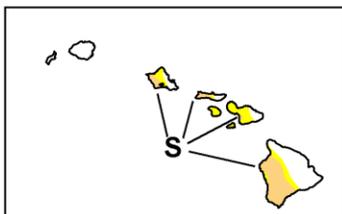
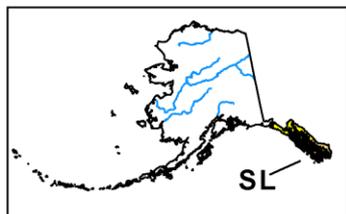
Drought Impact Types:

- ~ 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
- Dark 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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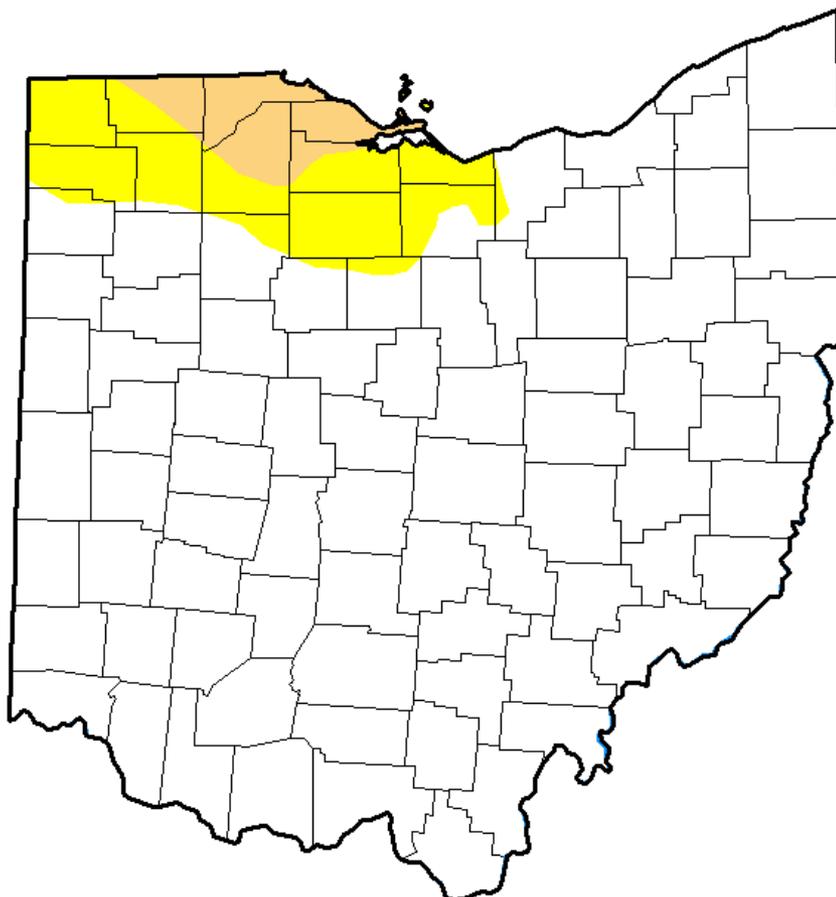
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U.S. Drought Monitor Ohio

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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	88.61	11.39	3.12	0.00	0.00	0.00
Last Week <i>07-24-2018</i>	88.61	11.39	0.57	0.00	0.00	0.00
3 Months Ago <i>05-01-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-02-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year <i>09-26-2017</i>	71.57	28.43	3.85	0.00	0.00	0.00
One Year Ago <i>08-01-2017</i>	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
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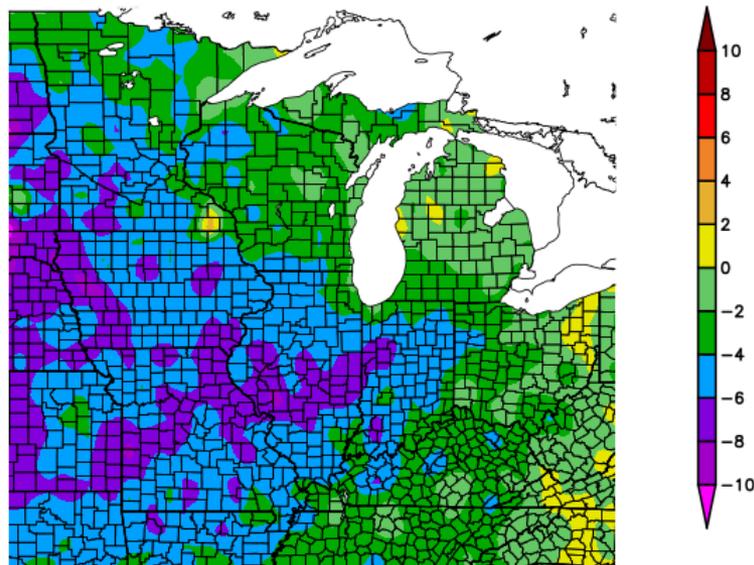


<http://droughtmonitor.unl.edu/>

Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)
7/27/2018 – 8/2/2018



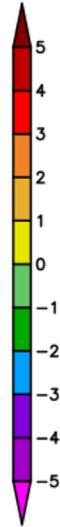
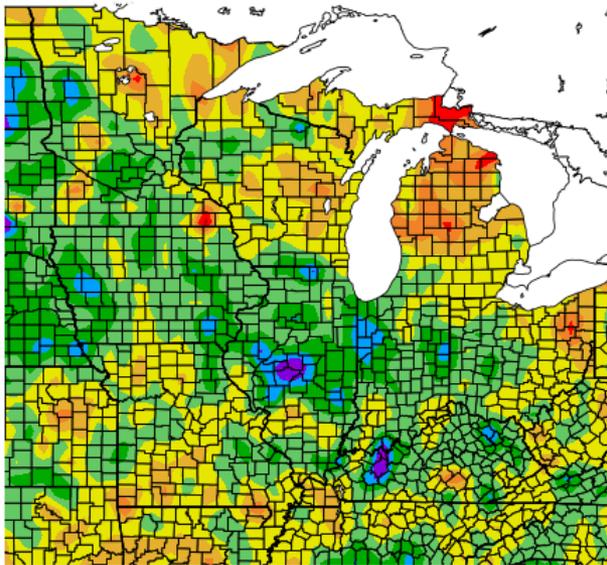
Generated 8/3/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Differences Compared to Average (1981-2010)

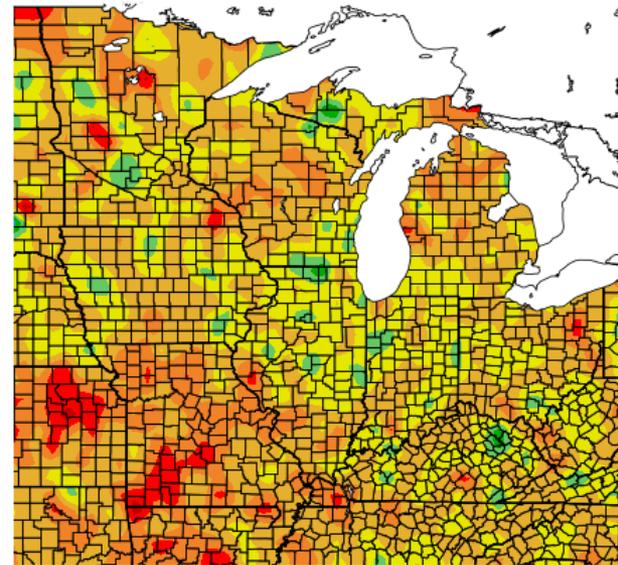
30-Day

Departure from Normal Temperature (F)
7/4/2018 – 8/2/2018



60-Day

Departure from Normal Temperature (F)
6/4/2018 – 8/2/2018



Generated 8/3/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 8/3/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



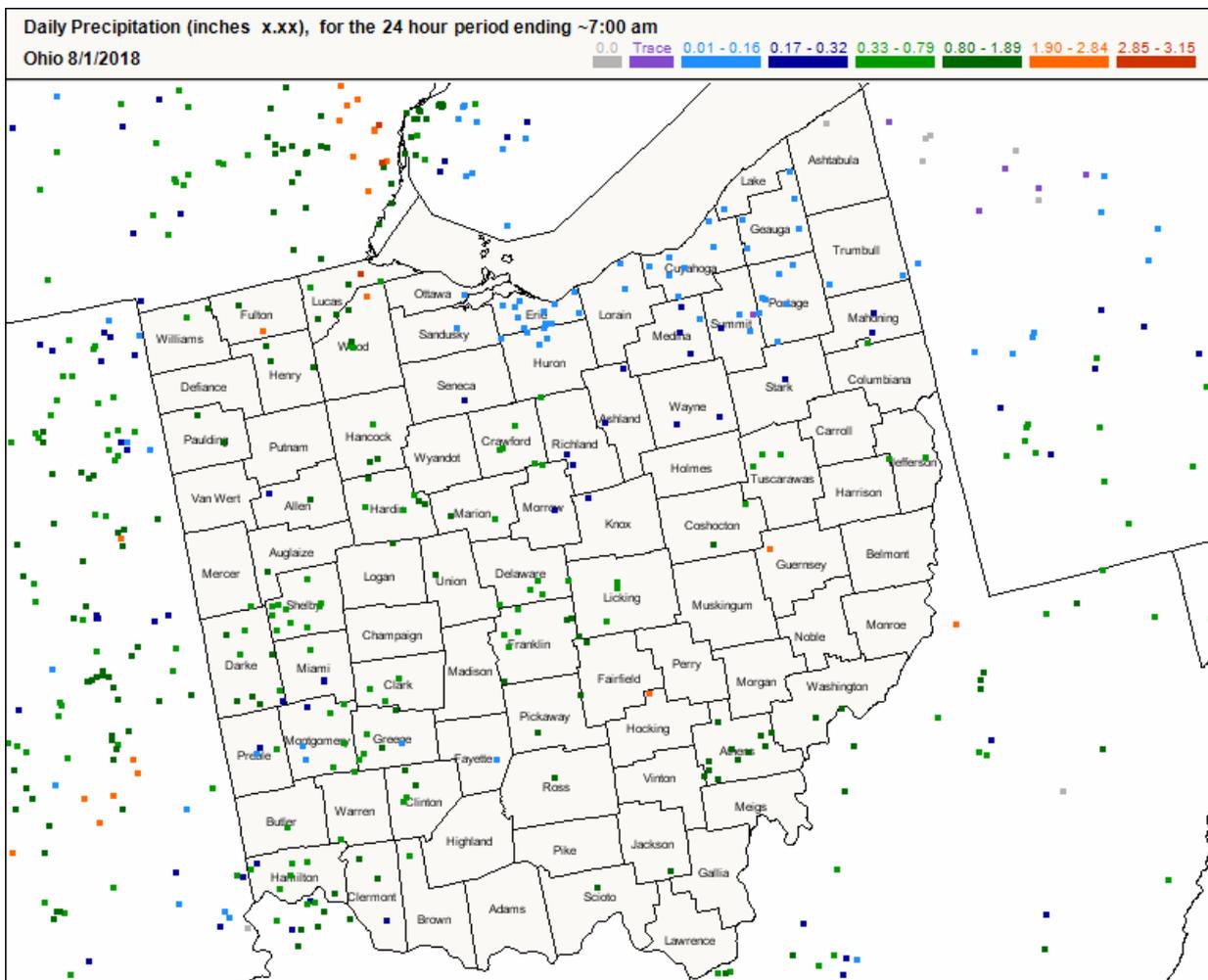
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CoCoRaHS Observed Precipitation:

<http://cocorahs.com/>

August 1



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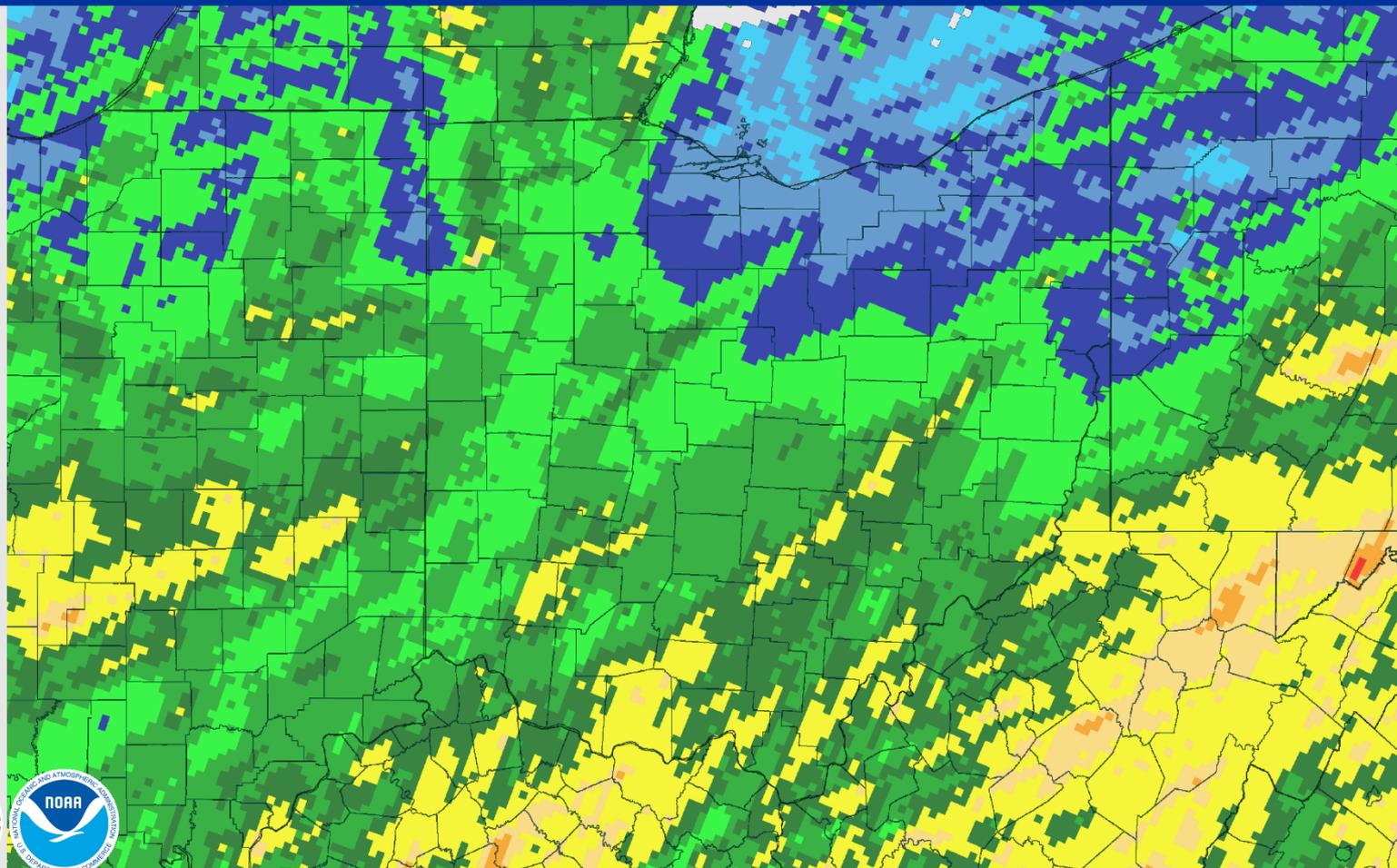
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Previous 7-Day Precipitation: Total

August 03, 2018 7-Day Observed Precipitation

Created on: August 03, 2018 - 19:00 UTC

Valid on: August 03, 2018 12:00 UTC



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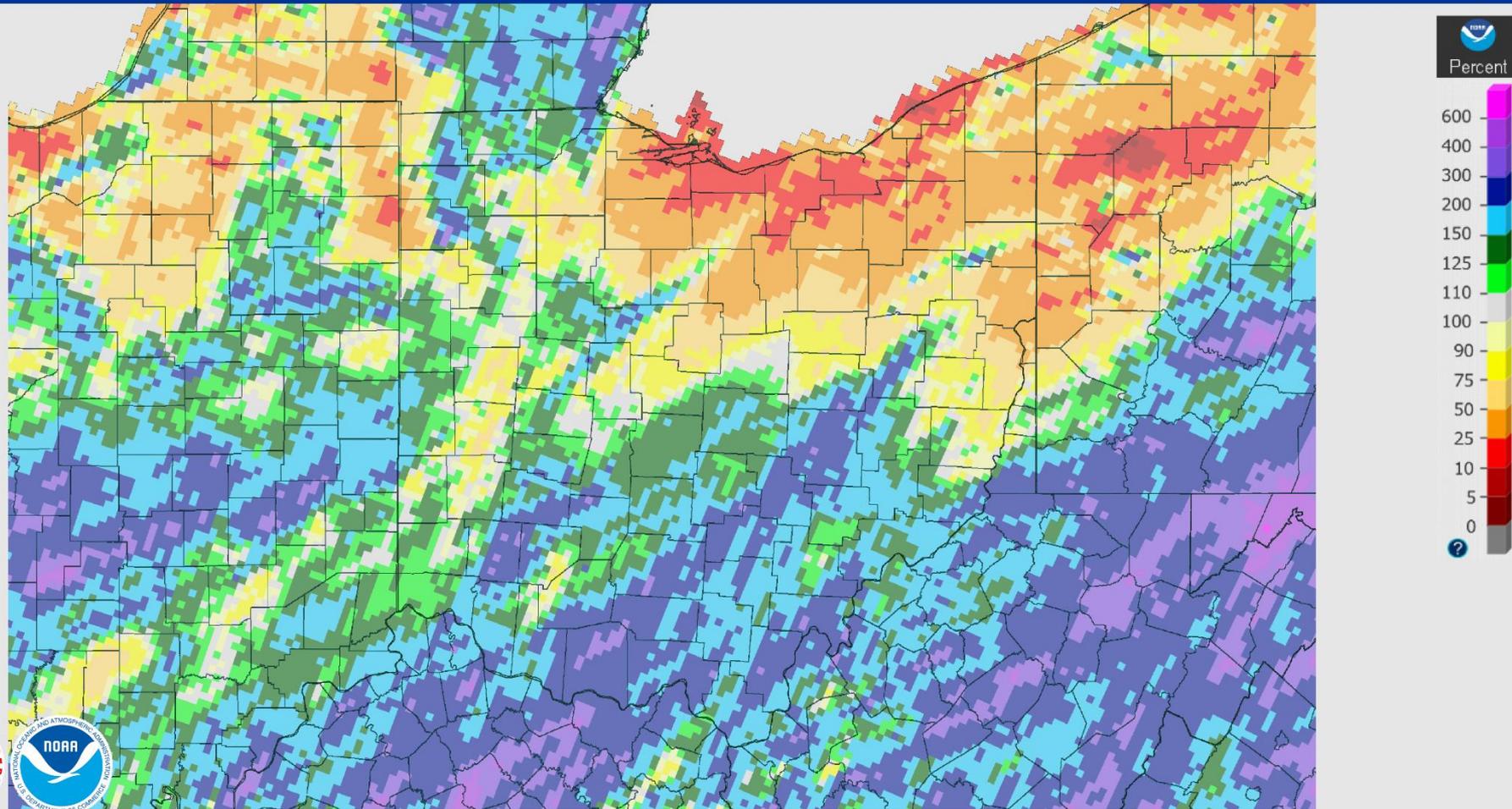
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Previous 7-Day Precipitation: Percent of Normal

August 03, 2018 7-Day Percent Precipitation

Created on: August 03, 2018 - 19:00 UTC

Valid on: August 03, 2018 12:00 UTC



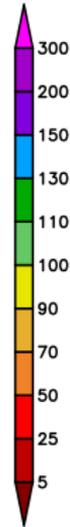
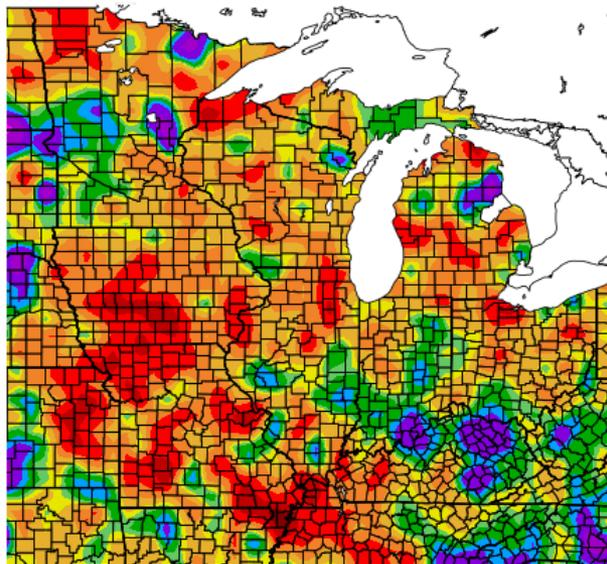
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Precipitation Differences Compared to Average (1981-2010)

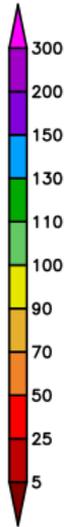
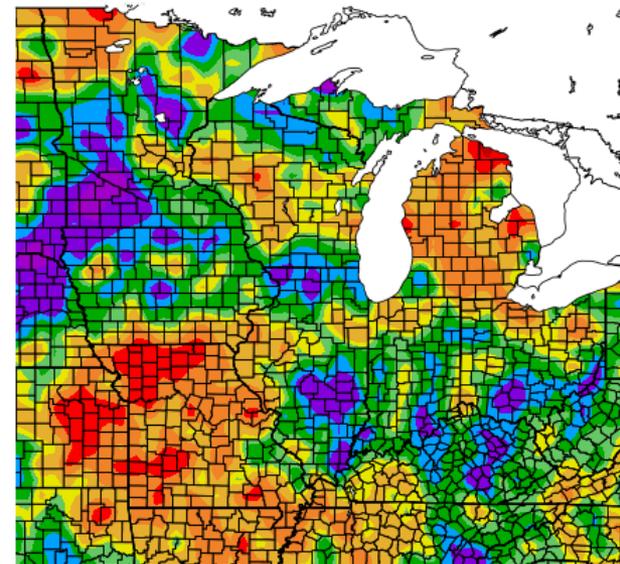
30-Day

Percent of Normal Precipitation (%)
7/4/2018 – 8/2/2018



60-Day

Percent of Normal Precipitation (%)
6/4/2018 – 8/2/2018



Generated 8/3/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 8/3/2018 at HPRCC using provisional data.

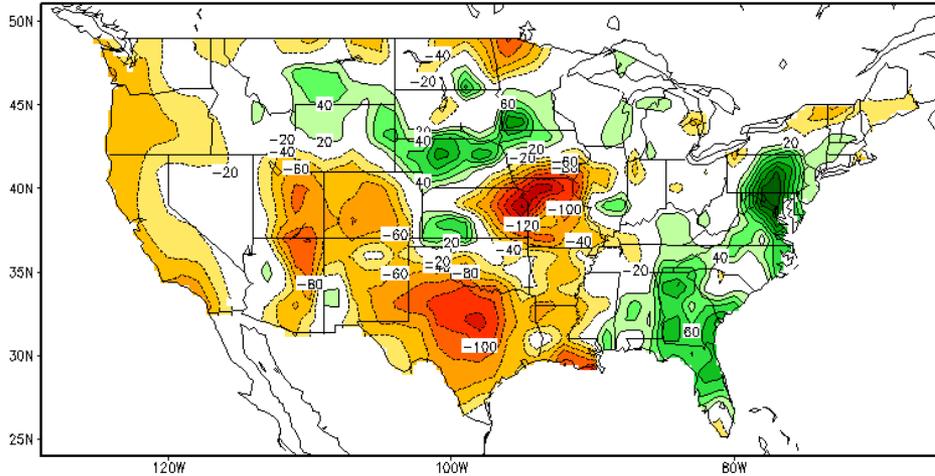
NOAA Regional Climate Centers



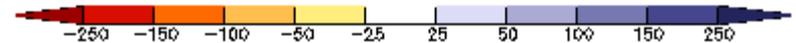
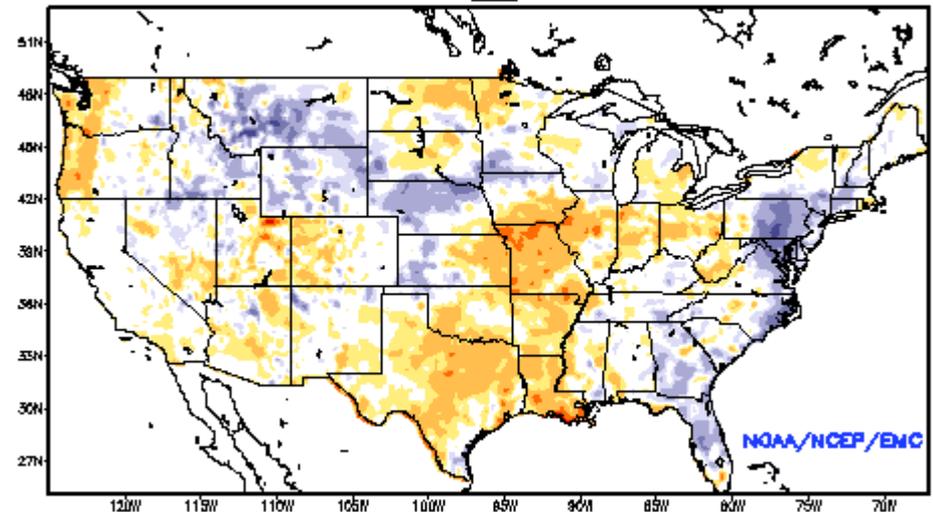
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Soil Moisture

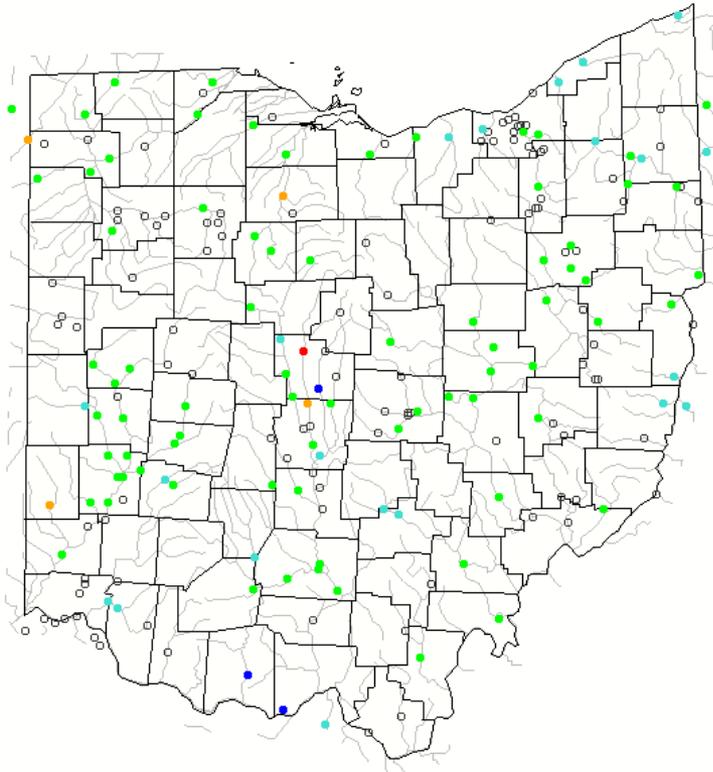
Calculated Soil Moisture Anomaly (mm)
AUG 02, 2018



Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JUL 30, 2018



7-DAY



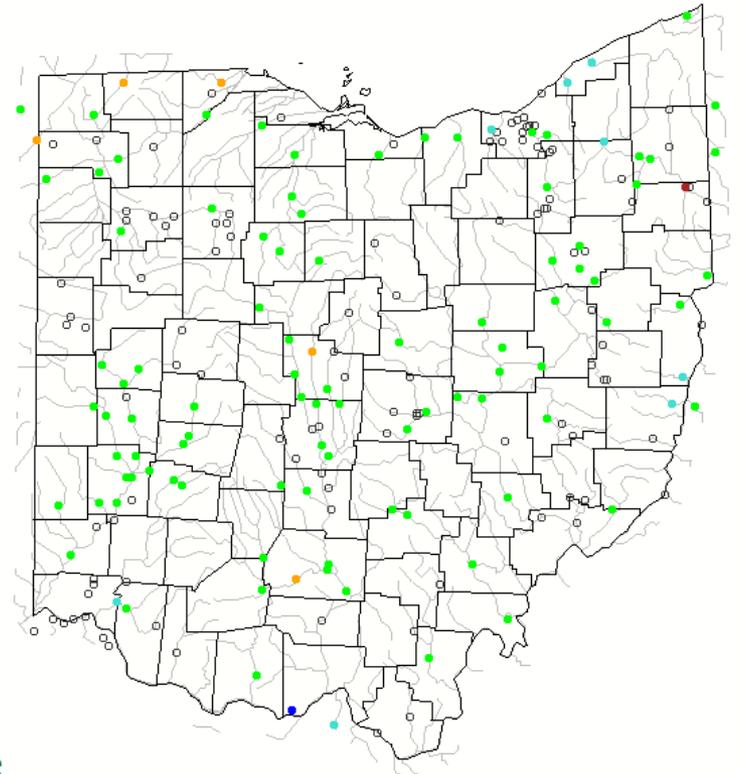
Explanation - Percentile classes

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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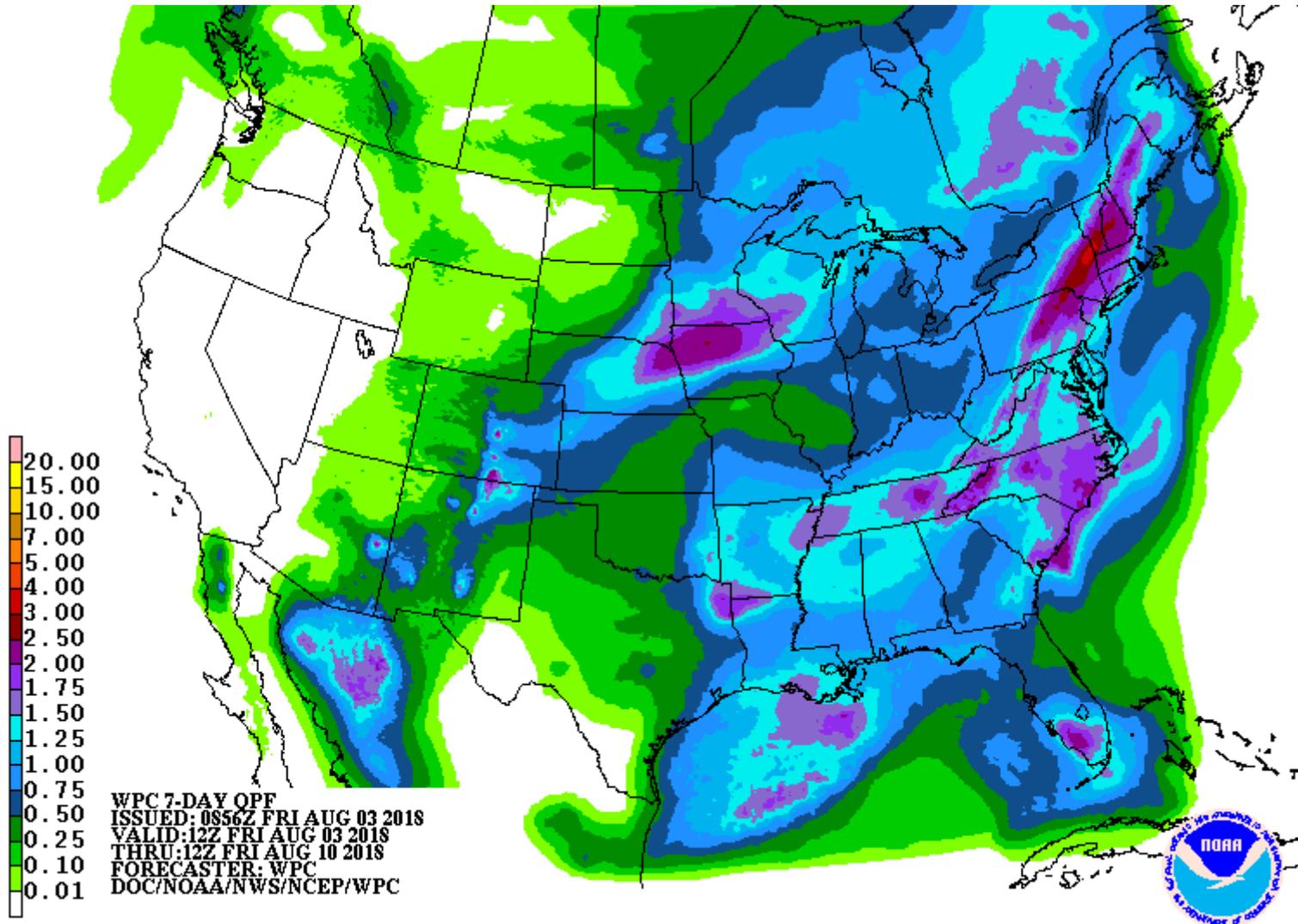
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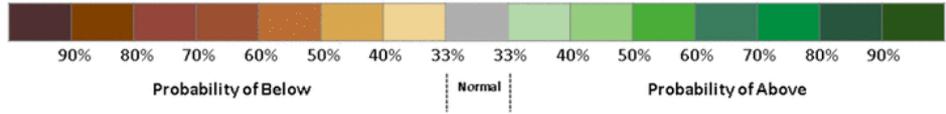
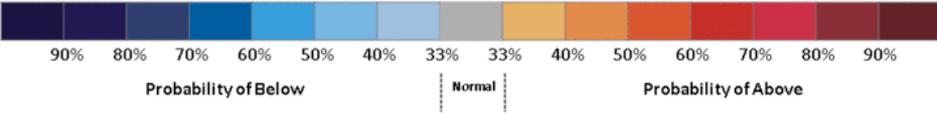
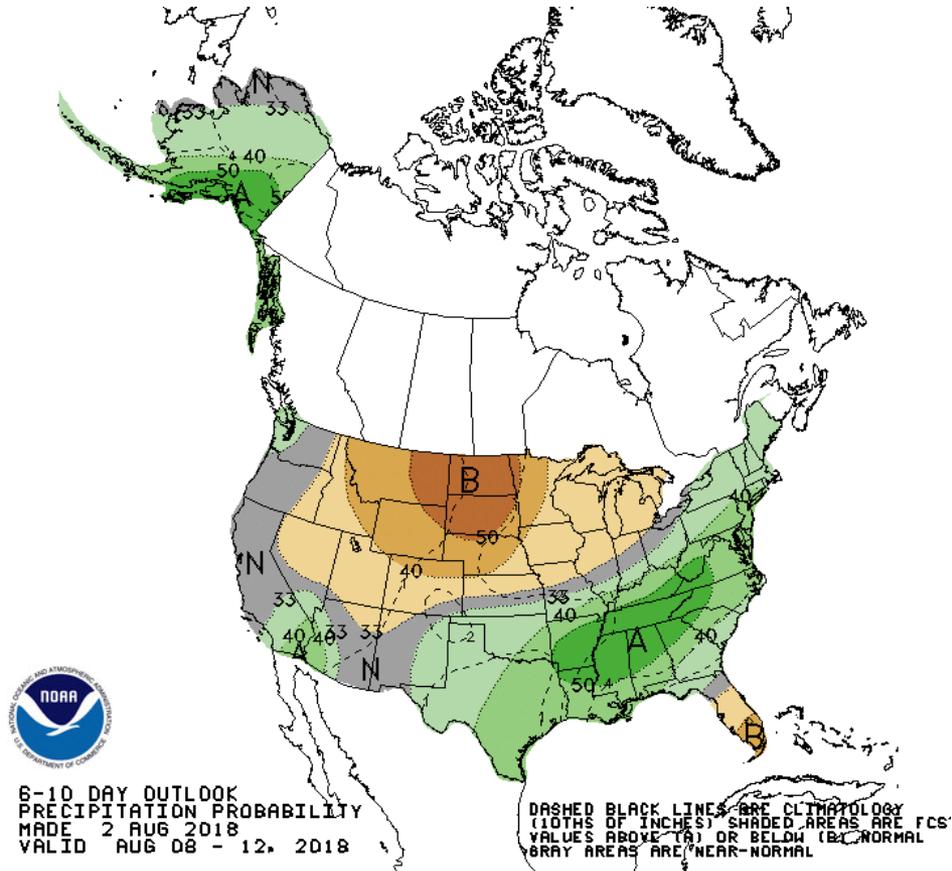
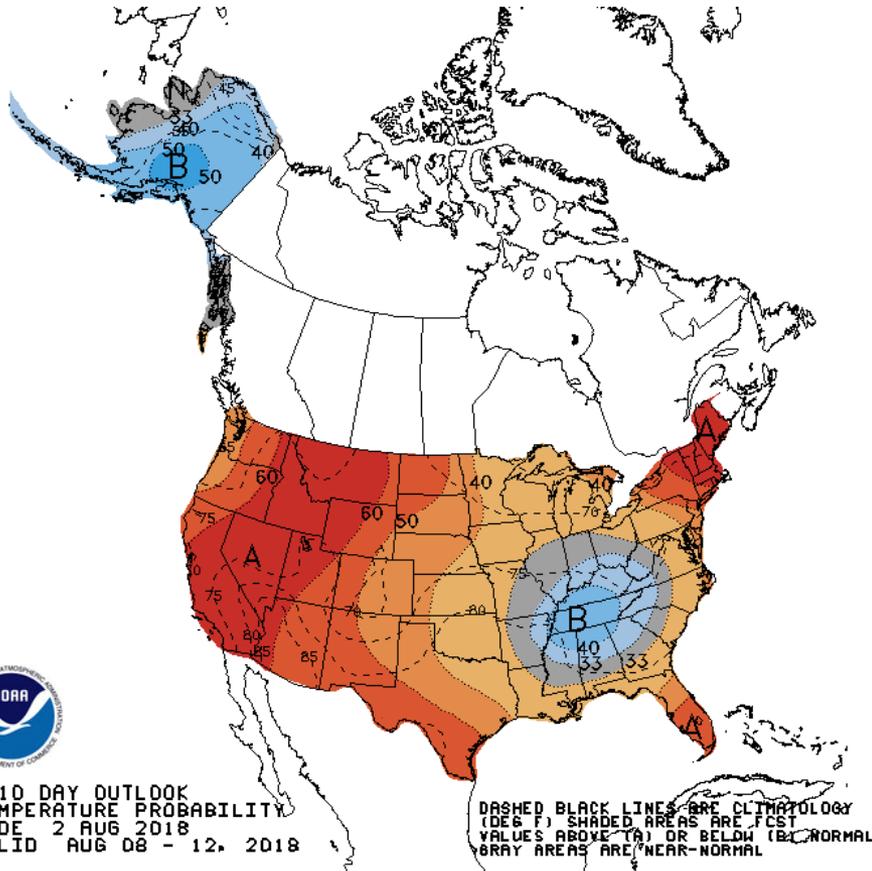
Weather for the Week Ahead



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6-10 Day Outlook



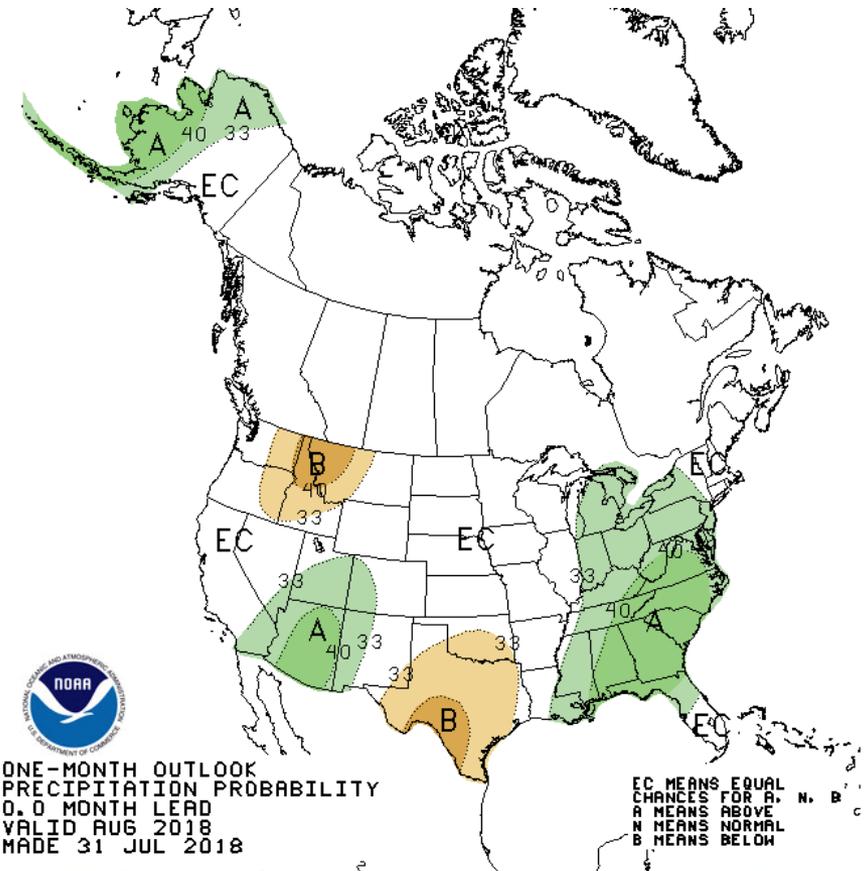
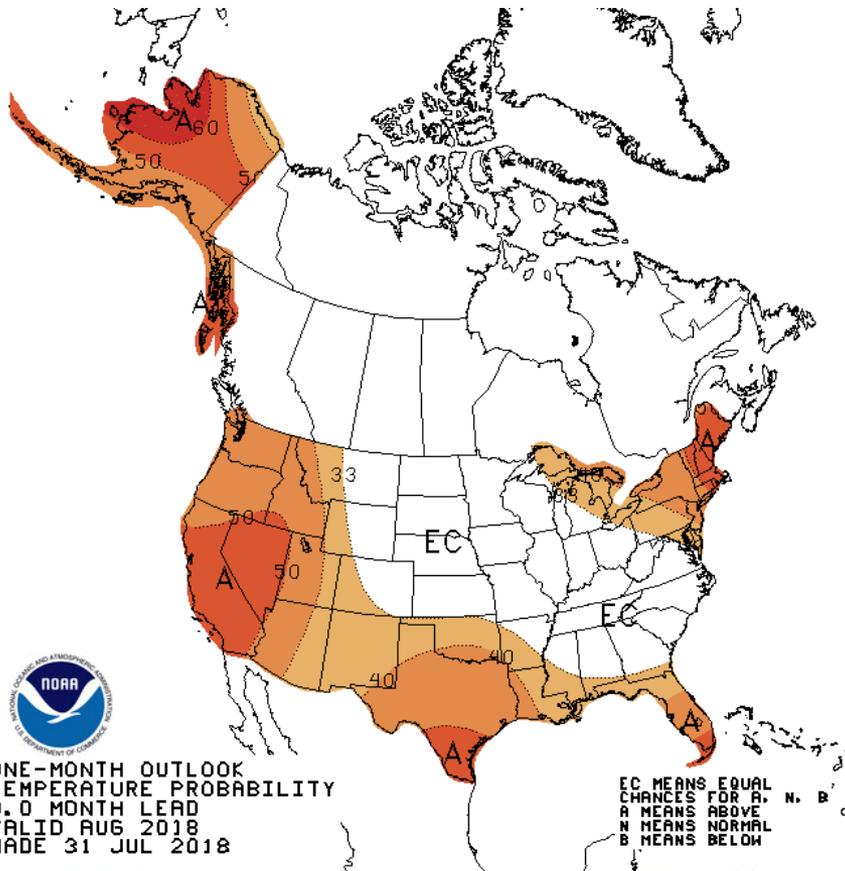
Highs: Low to mid 80s; Lows: Low to mid 60s; Precip: 0.75-1"



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August Outlook



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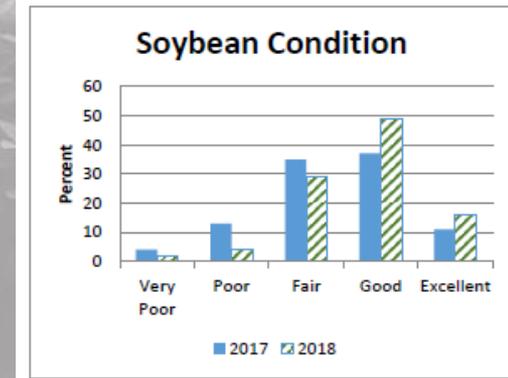
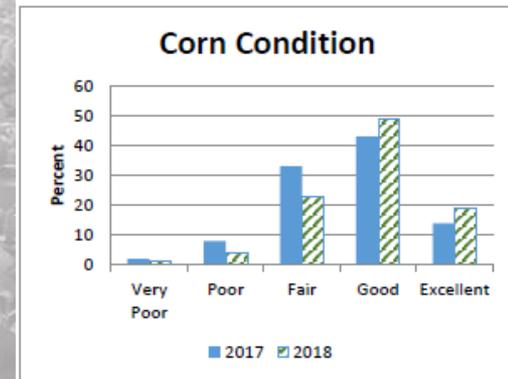
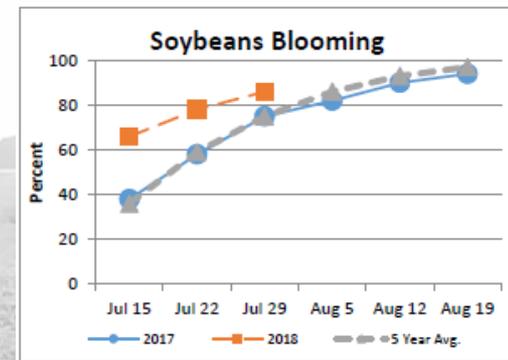
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Ag Highlights

- 5.7 days suitable for work
- Corn and soybean showing some signs of stress where water is lacking
- Continued Hay making



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



Front & Back Cover Photo
Credits: Dan Keck- (@Flickr)

Drought Monitor: Some expansion of D1 conditions into Ottawa, Wood, and Sandusky Counties

30-Day and 60-Day: Cool 30-days; Warm 60-days; Precipitation heaviest in South

The week ahead: Hot dry weekend with shower/storms returning around Tuesday



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