

Hydrologic and Climate Assessment

July 13, 2018



Photo: Allen Gahler– Sandusky County Extension

Aaron B. Wilson

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DEPARTMENT OF EXTENSION - CFAES

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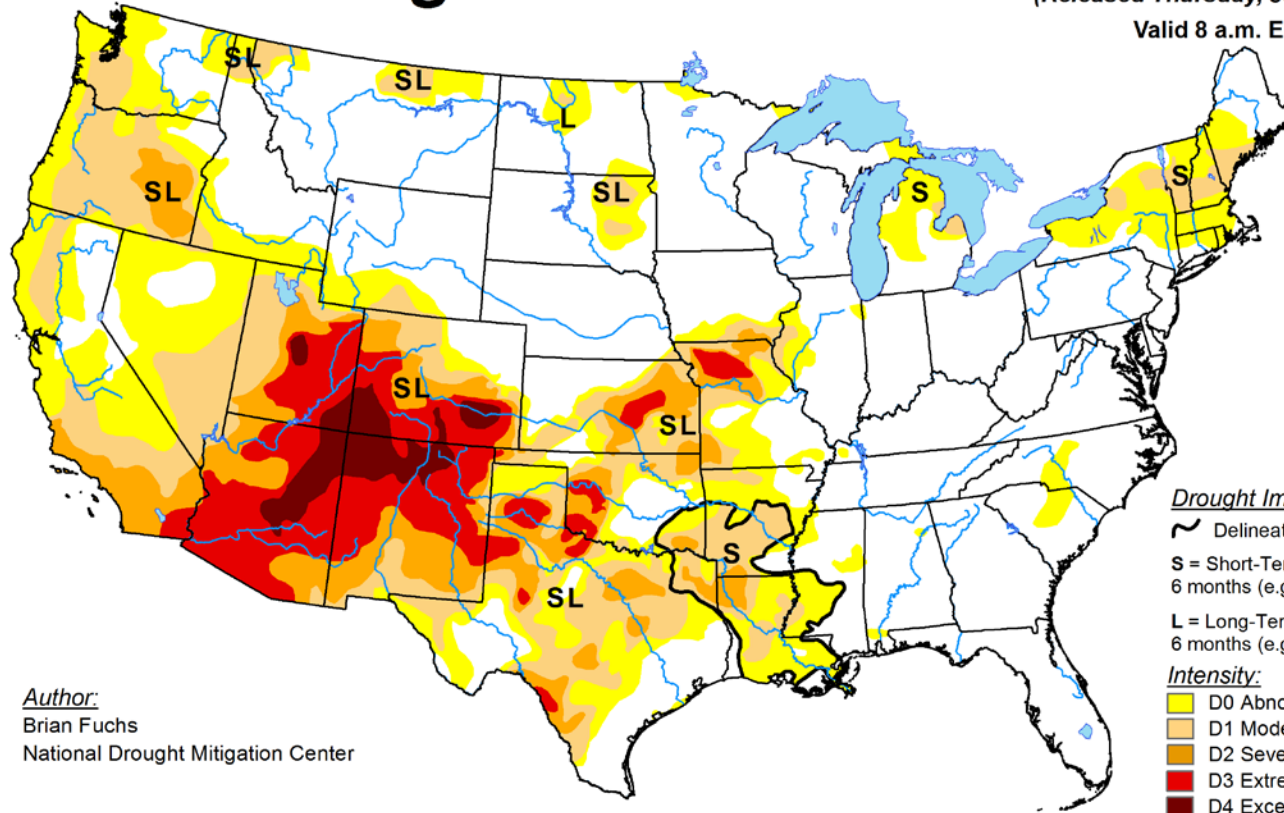
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U.S. Drought Monitor

July 10, 2018
 (Released Thursday, Jul. 12, 2018)
 Valid 8 a.m. EDT



Author:
 Brian Fuchs
 National Drought Mitigation Center

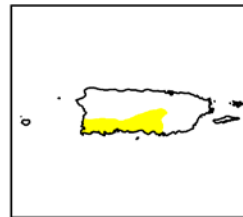
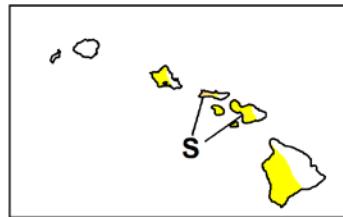
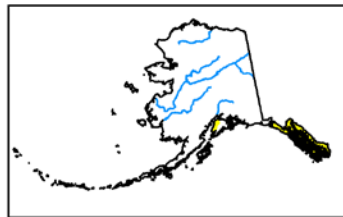
Drought Impact Types:

- ~ 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:

- 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/>



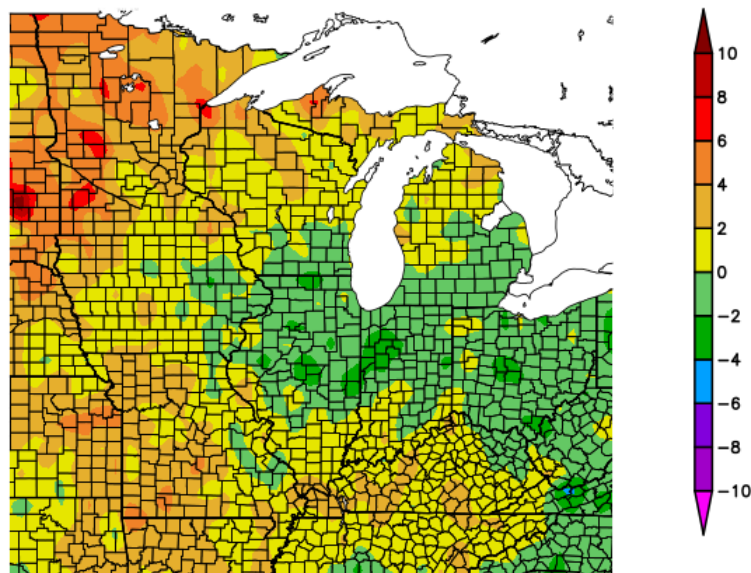
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Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)
7/6/2018 – 7/12/2018



Generated 7/13/2018 at HPRCC using provisional data.

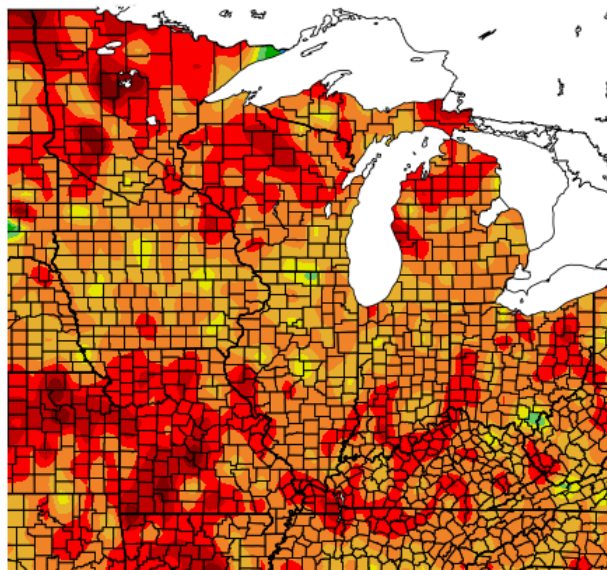
NOAA Regional Climate Centers



Temperature Differences Compared to Average (1981-2010)

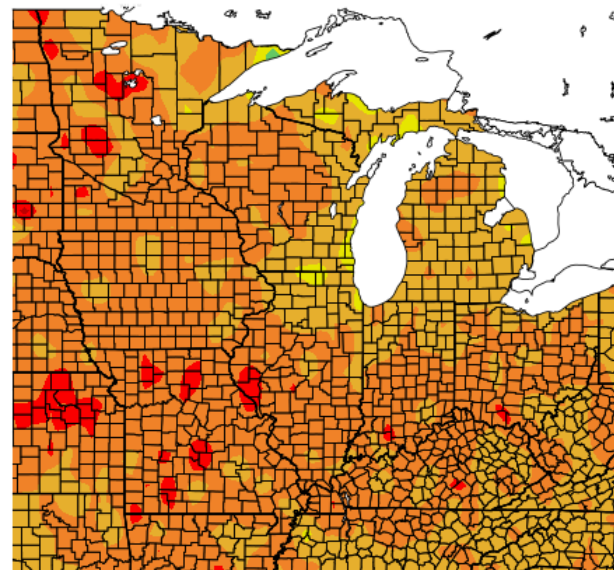
30-Day

Departure from Normal Temperature (F)
6/13/2018 – 7/12/2018



60-Day

Departure from Normal Temperature (F)
5/14/2018 – 7/12/2018



Generated 7/13/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 7/13/2018 at HPRCC using provisional data.

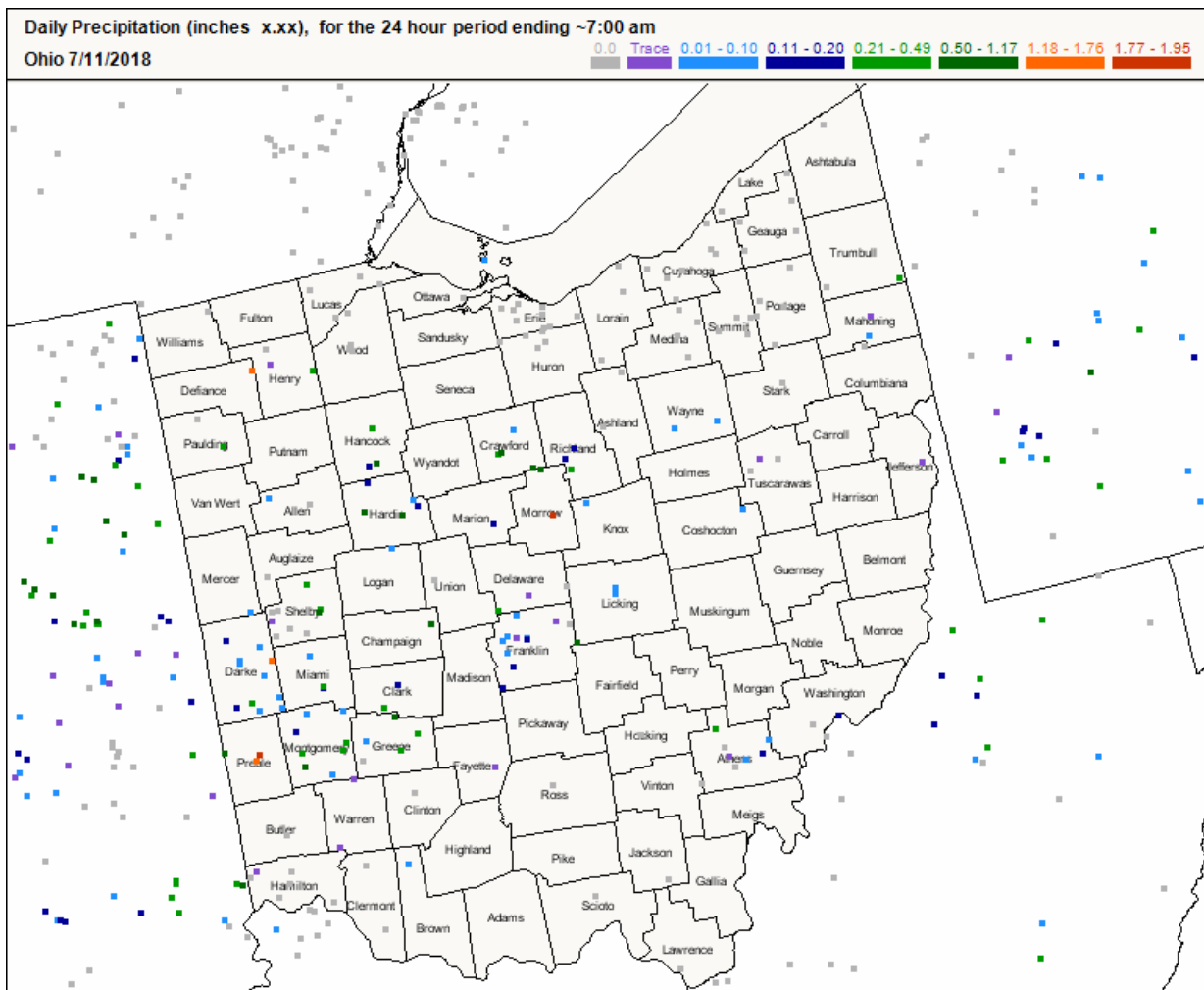
NOAA Regional Climate Centers



CoCoRaHS Observed Precipitation:

<http://cocorahs.com/>

July 11



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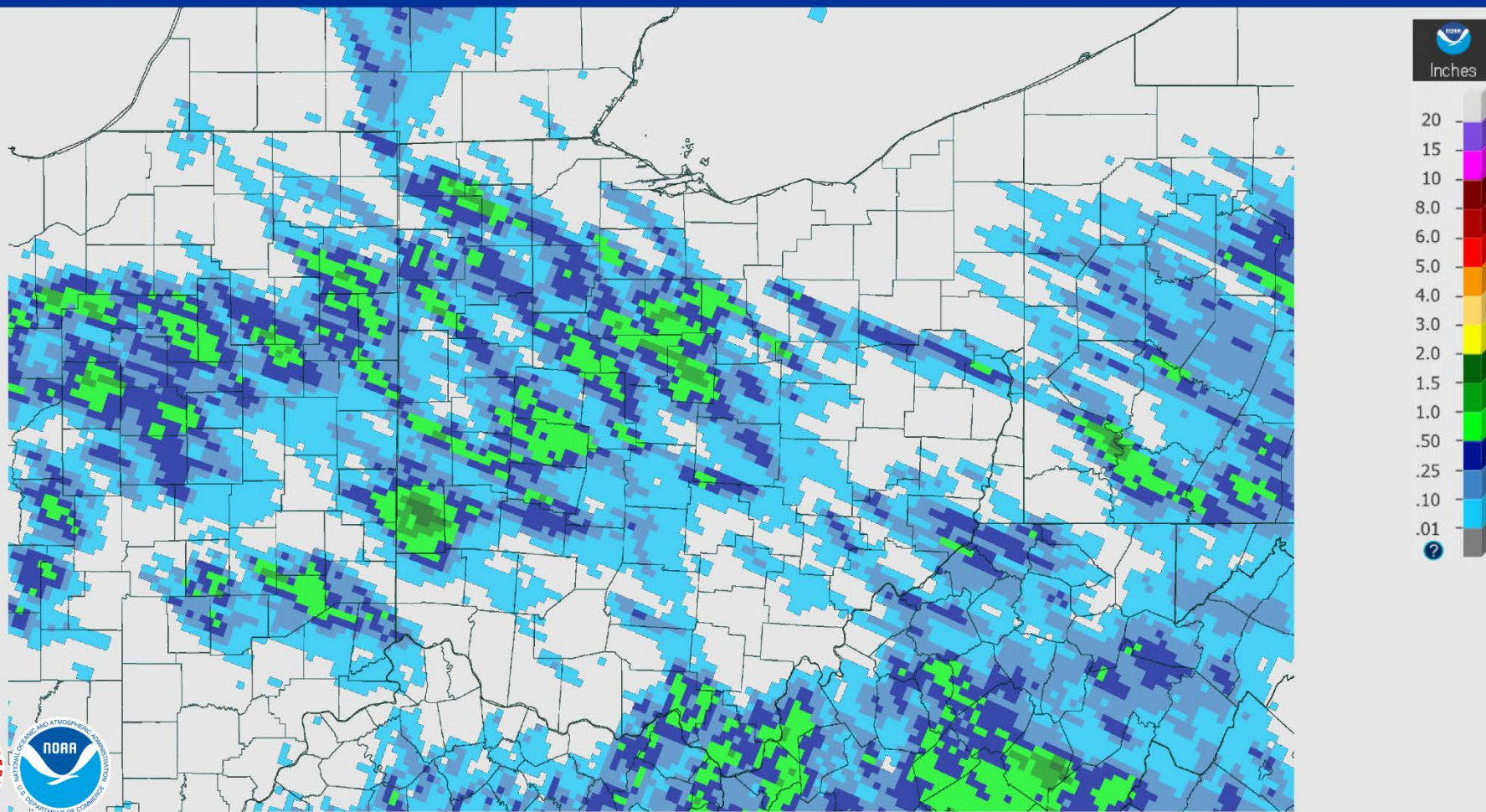
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Previous 7-Day Precipitation: Total

July 13, 2018 7-Day Observed Precipitation

Created on: July 13, 2018 - 15:20 UTC

Valid on: July 13, 2018 12:00 UTC



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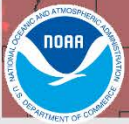
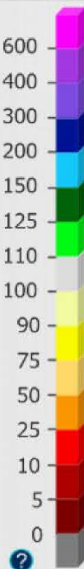
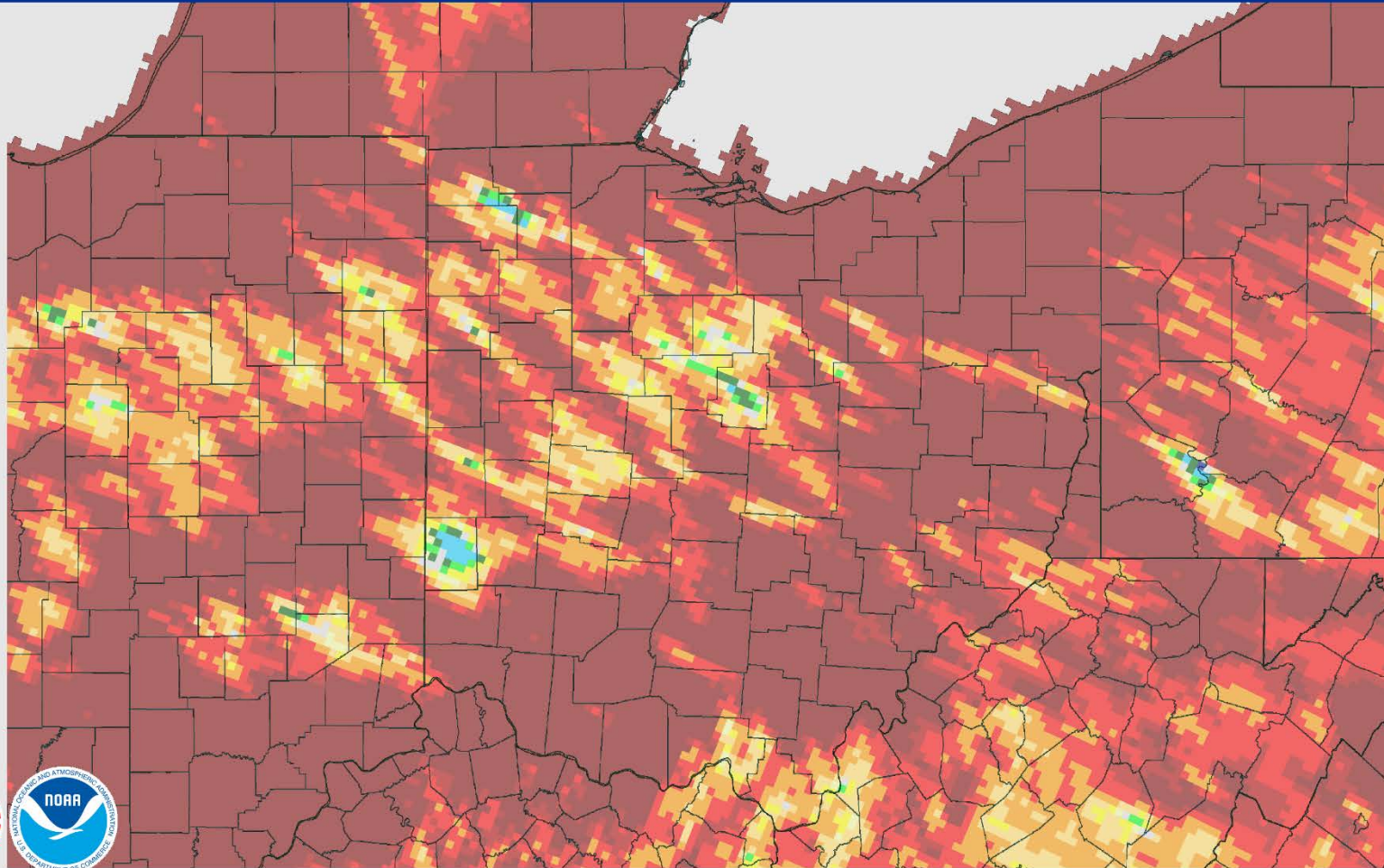
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Previous 7-Day Precipitation: Percent of Normal

July 13, 2018 7-Day Percent Precipitation

Created on: July 13, 2018 - 15:20 UTC

Valid on: July 13, 2018 12:00 UTC



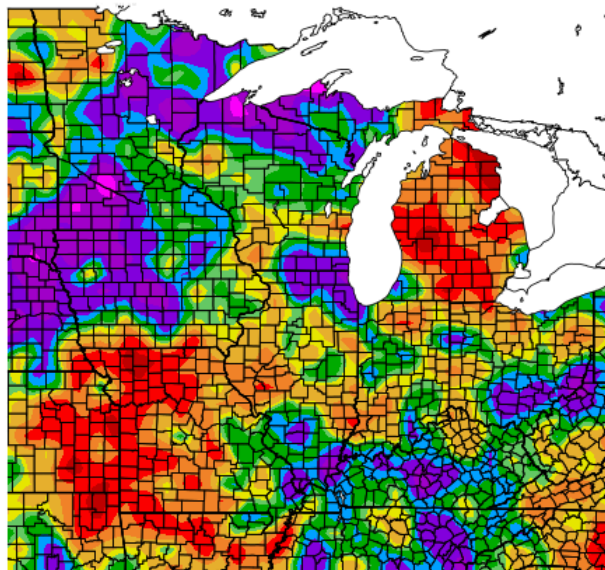
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Precipitation Differences Compared to Average (1981-2010)

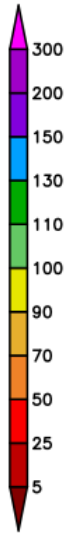
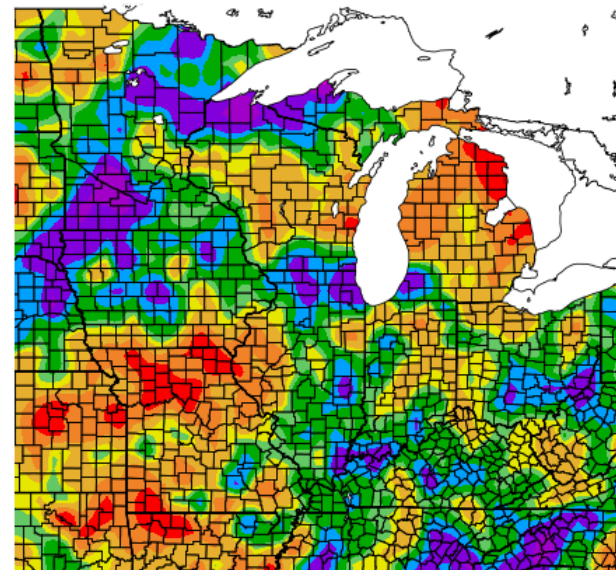
30-Day

Percent of Normal Precipitation (%)
6/13/2018 – 7/12/2018



60-Day

Percent of Normal Precipitation (%)
5/14/2018 – 7/12/2018



Generated 7/13/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 7/13/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

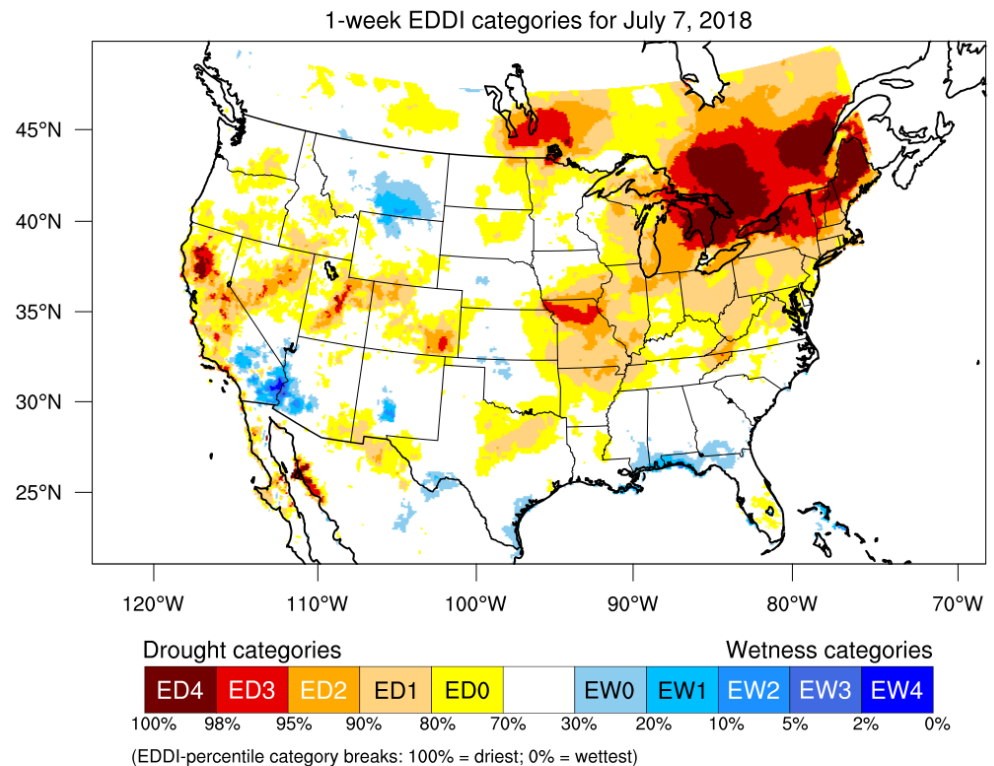


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Evaporative Demand Drought Index

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.

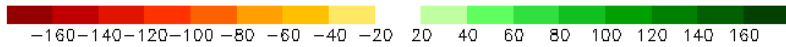
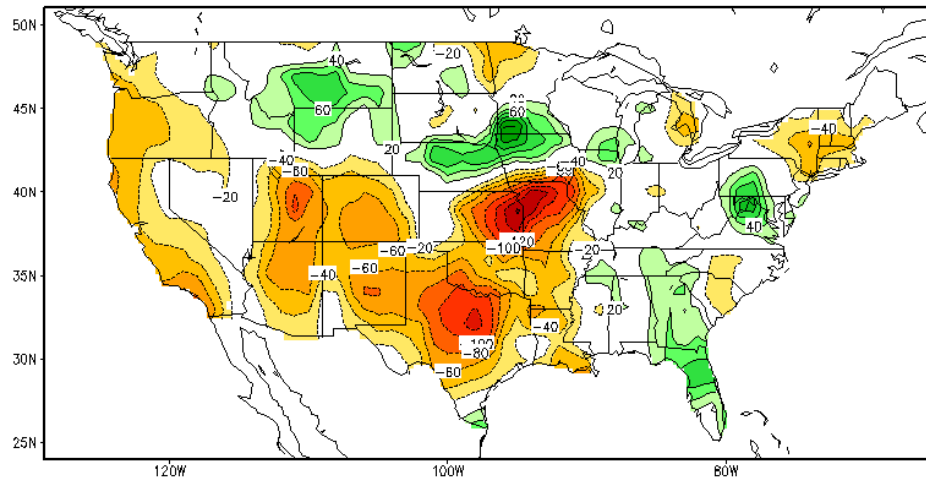
Image provided by the NOAA/ESRL Physical Sciences Division, Boulder, Colorado, from their web site at: <https://www.esrl.noaa.gov/psd/>.



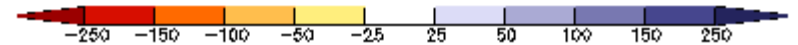
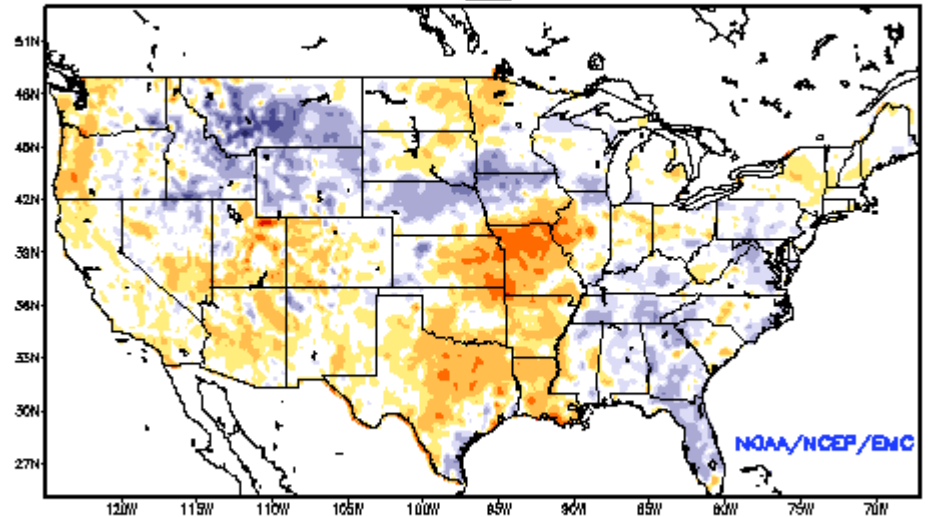
Generated by NOAA/ESRL/Physical Sciences Division

Soil Moisture

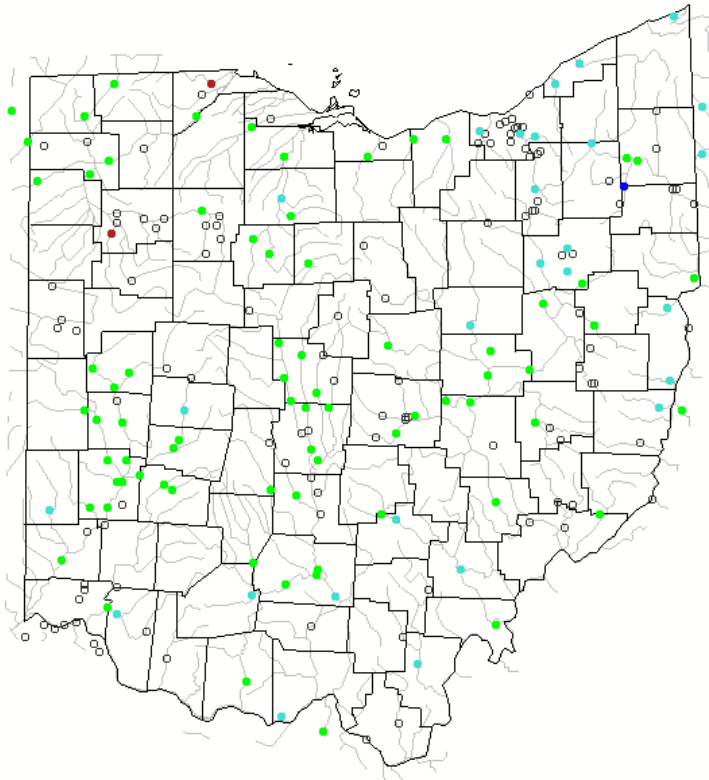
Calculated Soil Moisture Anomaly (mm)
JUL 11, 2018



Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JUL 08, 2018



7-DAY



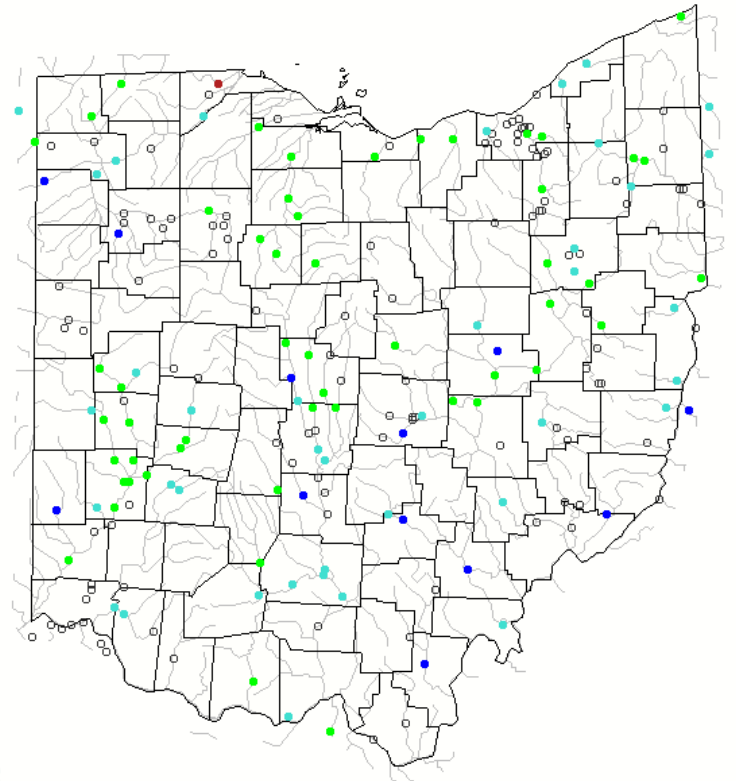
Explanation - Percentile classes

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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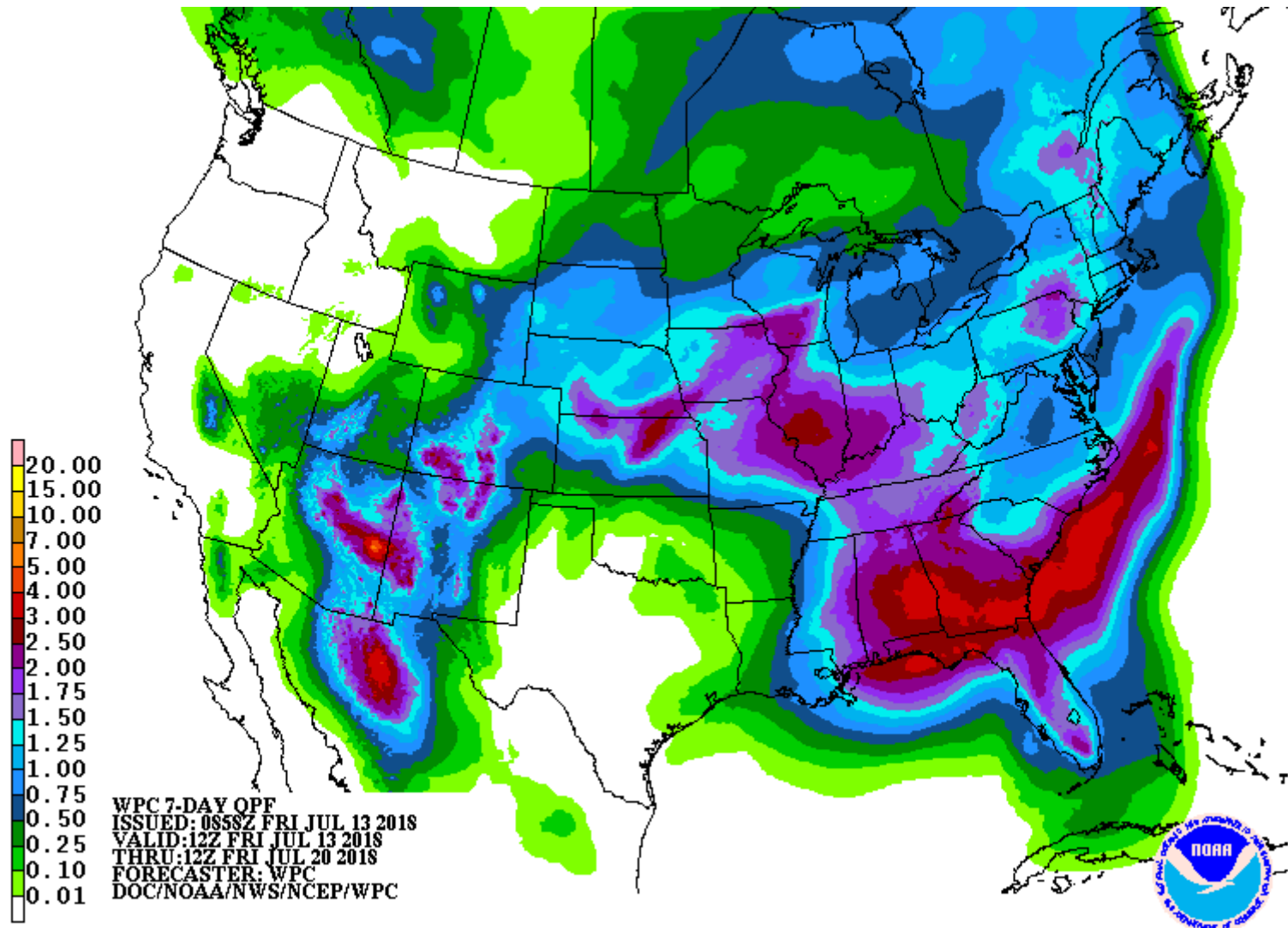
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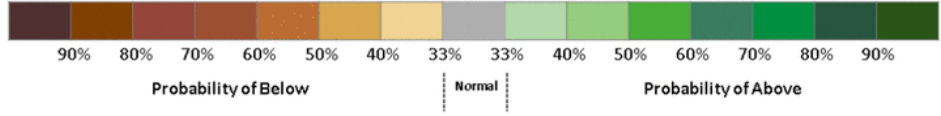
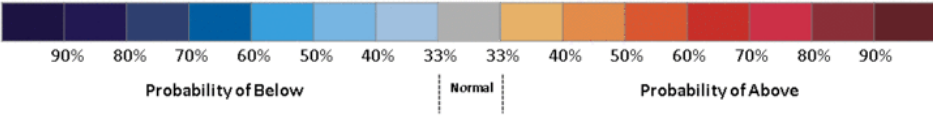
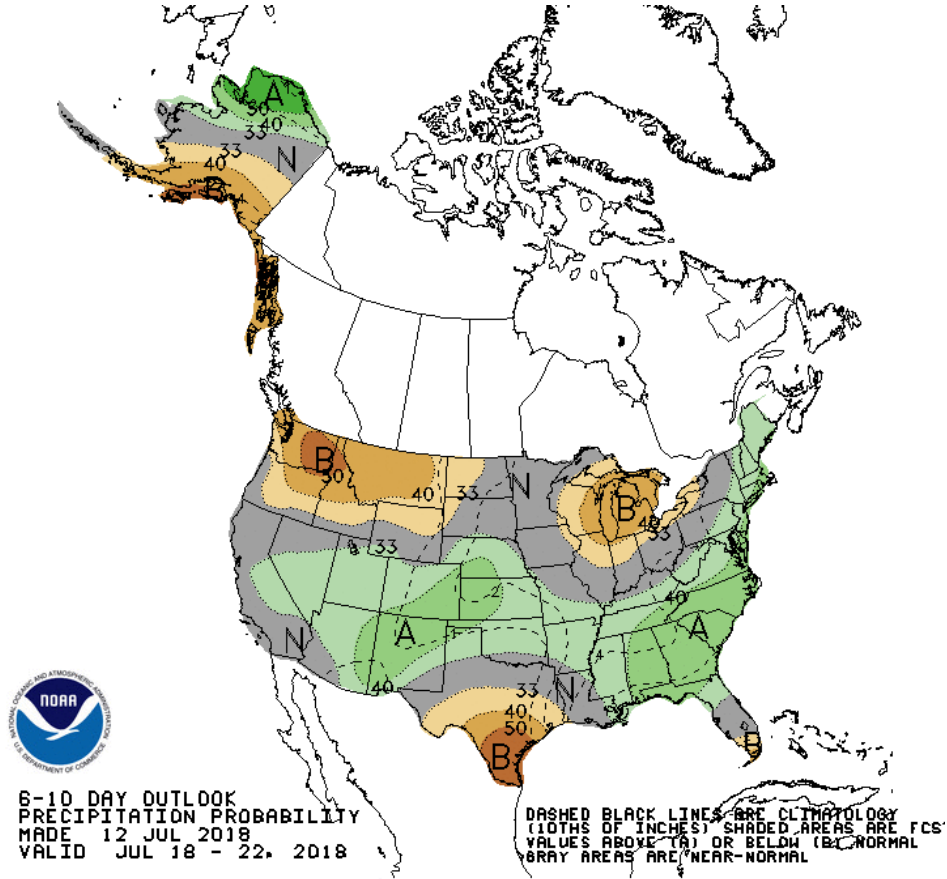
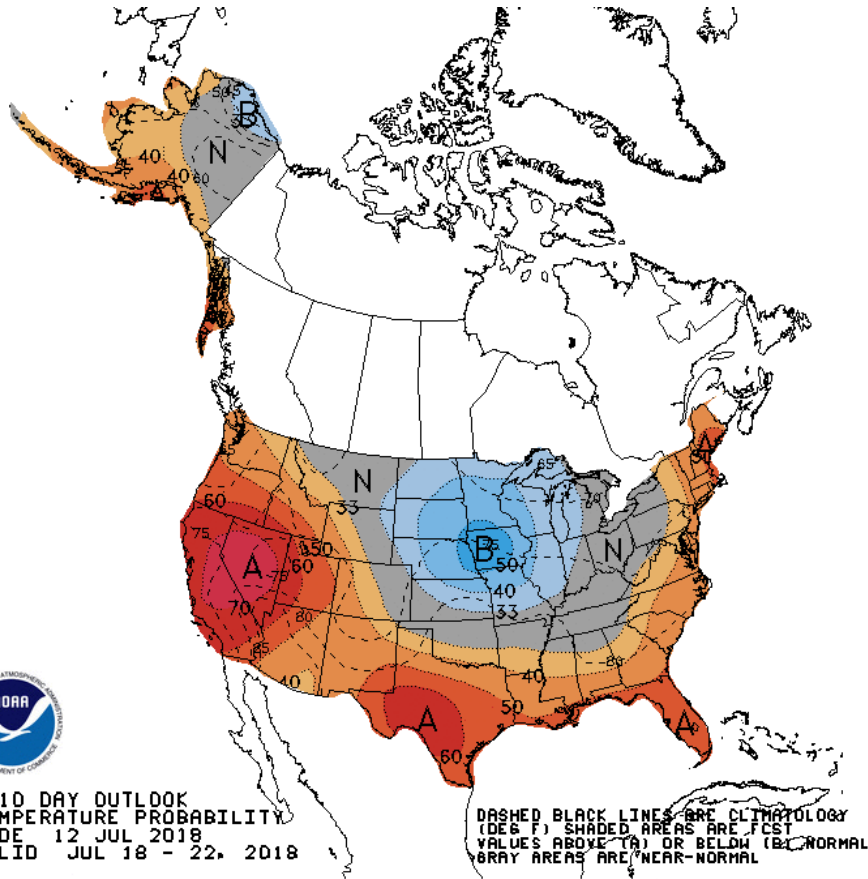
Weather for the Week Ahead



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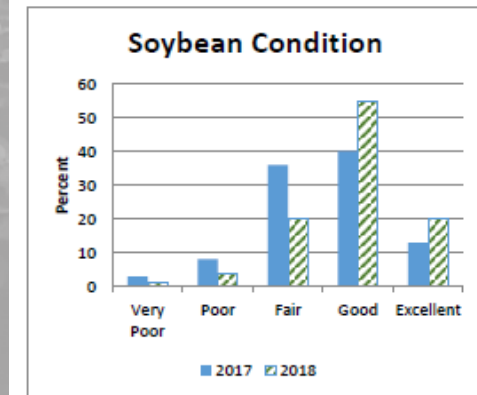
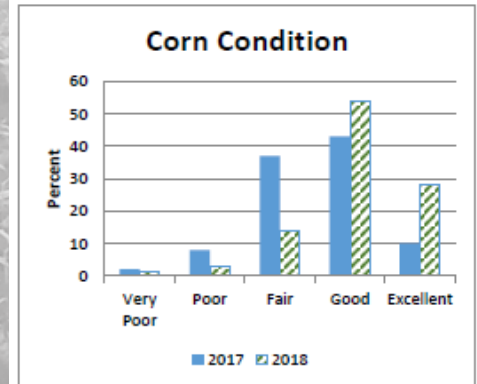
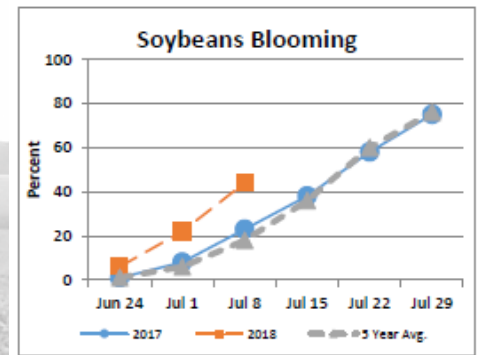
6-10 Day Outlook



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

Ag Highlights

- 5.1 days suitable for work
- Heat pushed wheat maturation and harvest along
- Isolated rainfall creating variety of field conditions



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



Drought Monitor: No Formal drought in Ohio

30-Day and 60-Day: Above average temperatures; drying conditions across the north and west central Ohio

The week ahead: Increased opportunities for rainfall



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