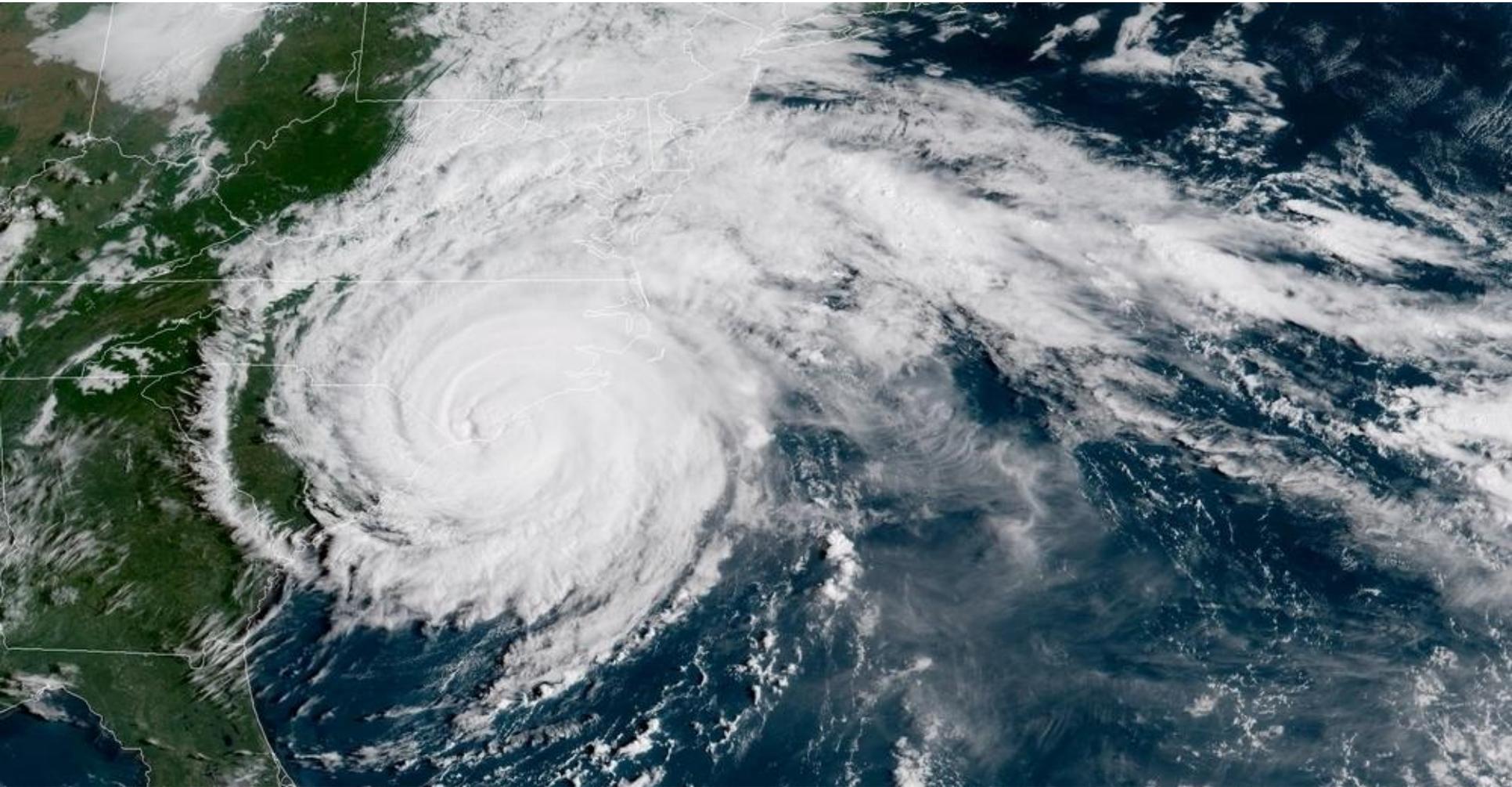


# Hydrologic and Climate Assessment

September 14, 2018



**Aaron B. Wilson**

**STATE CLIMATE OFFICE OF OHIO (SCOO)**

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY

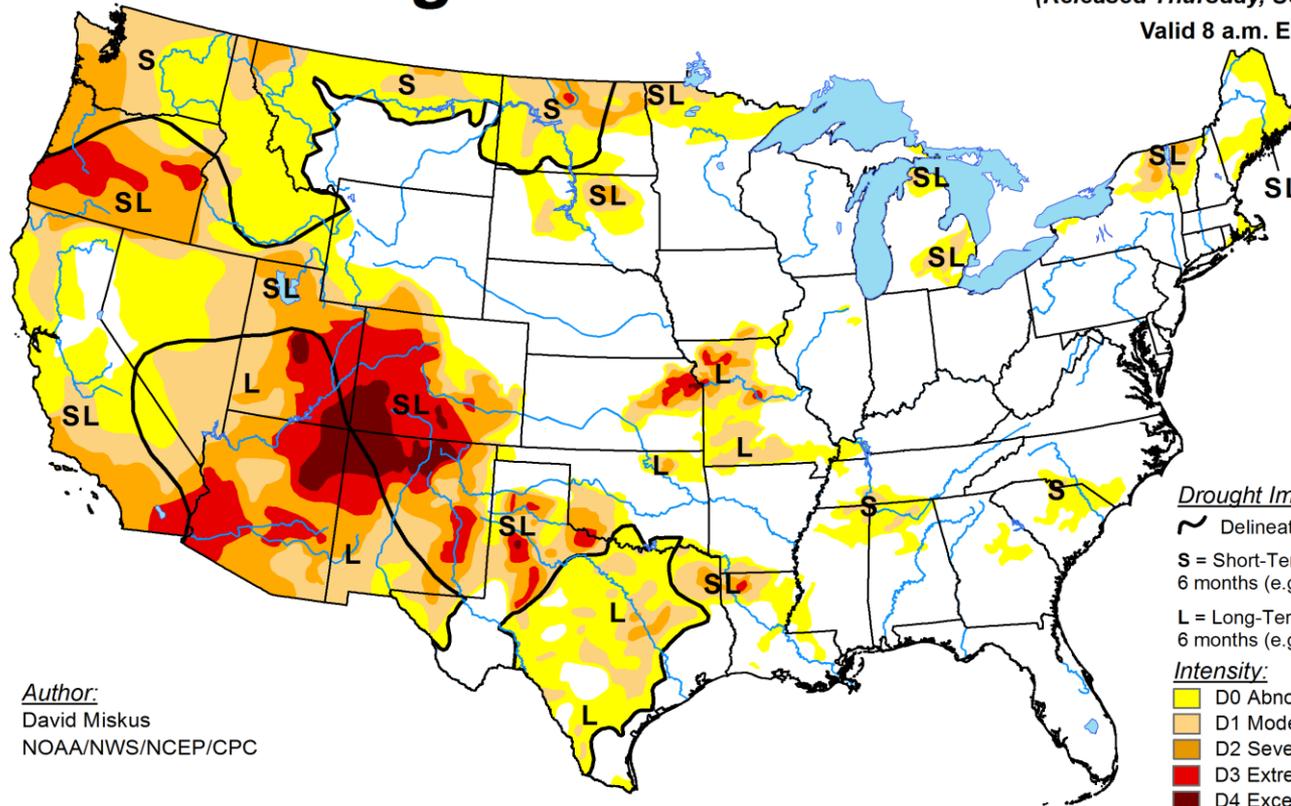


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# U.S. Drought Monitor

September 11, 2018  
(Released Thursday, Sep. 13, 2018)

Valid 8 a.m. EDT



Author:  
David Miskus  
NOAA/NWS/NCEP/CPC

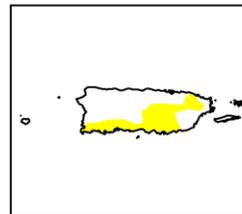
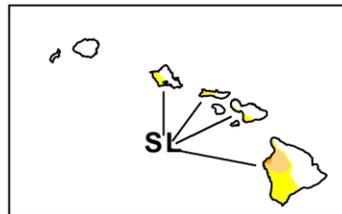
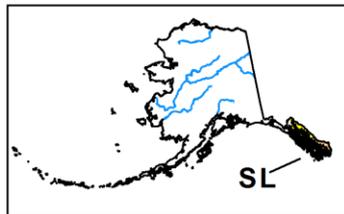
Drought Impact Types:

- ~ 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:

- 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.



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



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# U.S. Drought Monitor Ohio

September 11, 2018

(Released Thursday, Sep. 13, 2018)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week <i>09-04-2018</i>	94.26	5.74	0.00	0.00	0.00	0.00
3 Months Ago <i>06-12-2018</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>09-12-2017</i>	97.47	2.53	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
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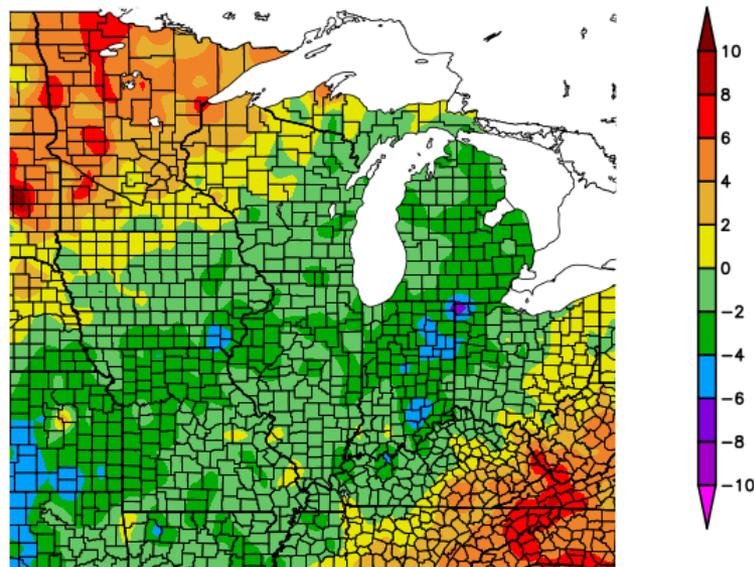


<http://droughtmonitor.unl.edu/>

# Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)  
9/7/2018 – 9/13/2018



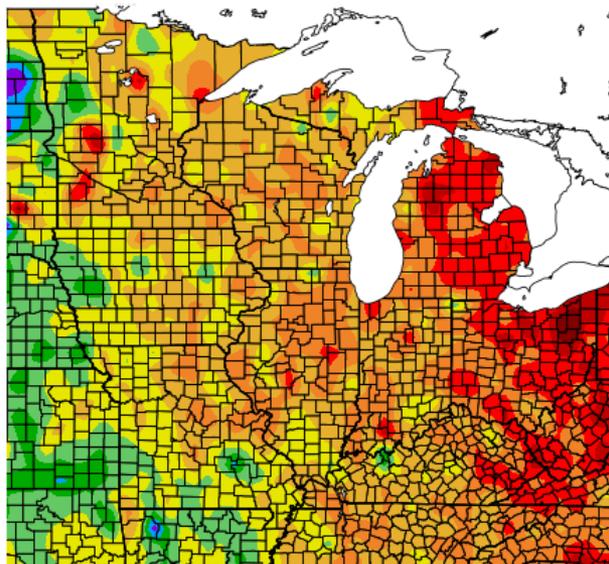
Generated 9/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

# Temperature Differences Compared to Average (1981-2010)

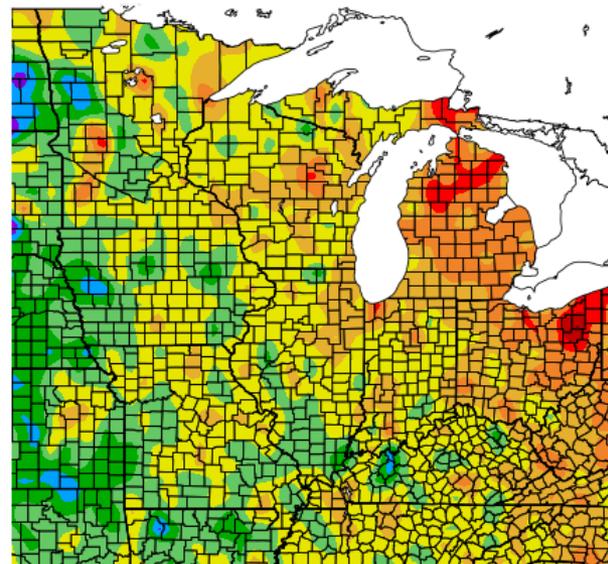
## 30-Day

Departure from Normal Temperature (F)  
8/15/2018 – 9/13/2018



## 60-Day

Departure from Normal Temperature (F)  
7/16/2018 – 9/13/2018



Generated 9/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 9/14/2018 at HPRCC using provisional data.

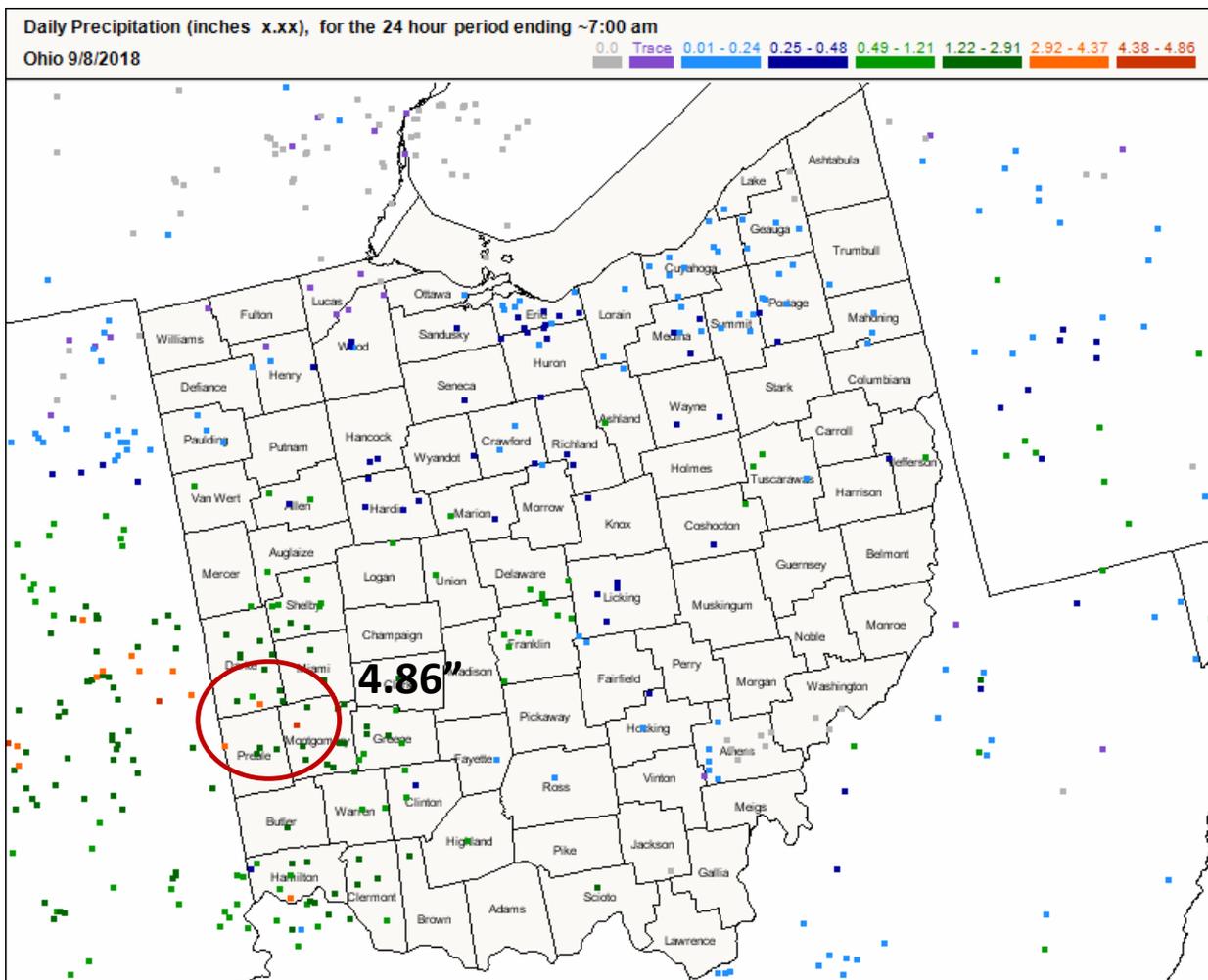
NOAA Regional Climate Centers



# CoCoRaHS Observed Precipitation:

<http://cocorahs.com/>

## September 8



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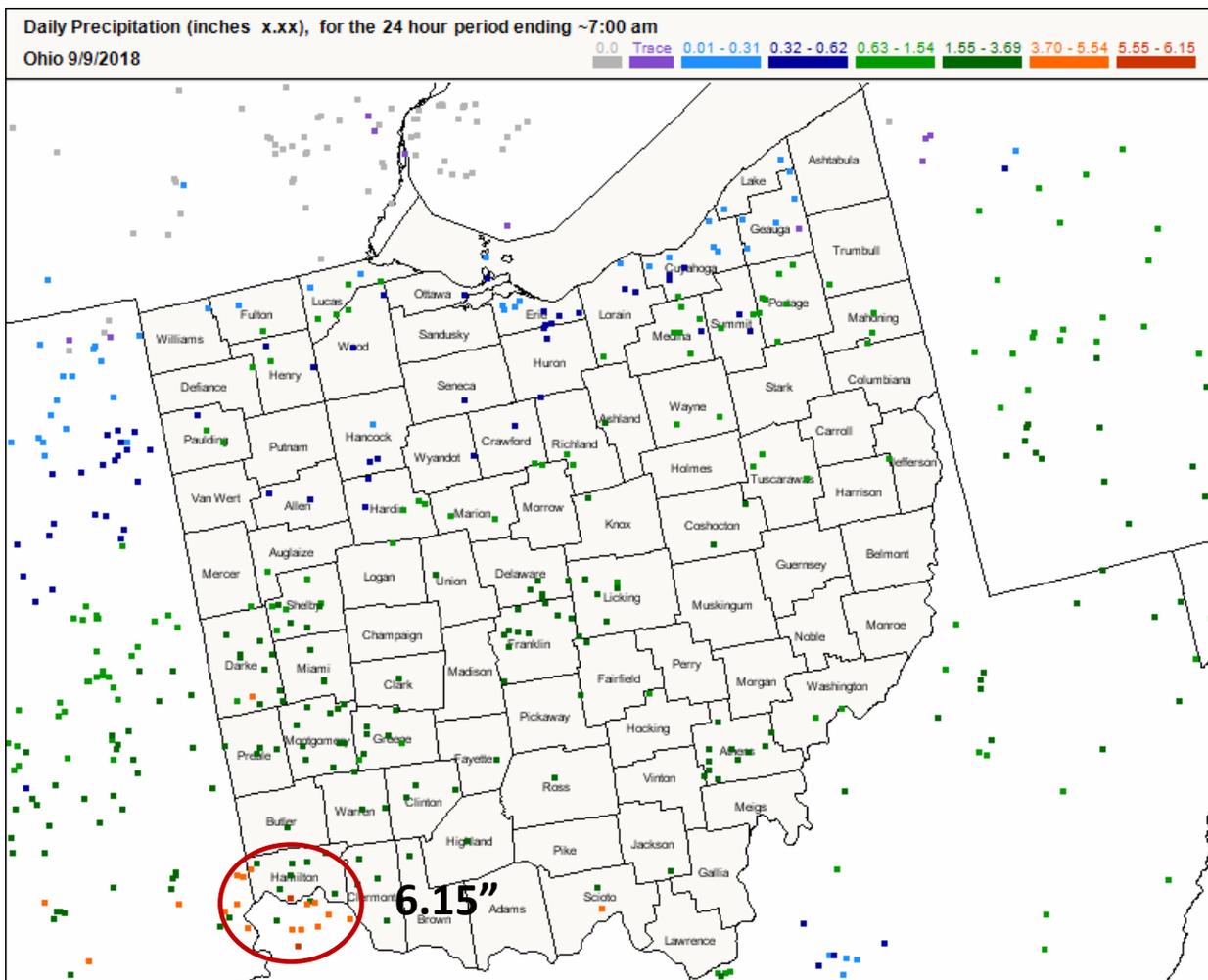


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# CoCoRaHS Observed Precipitation:

<http://cocorahs.com/>

## September 9



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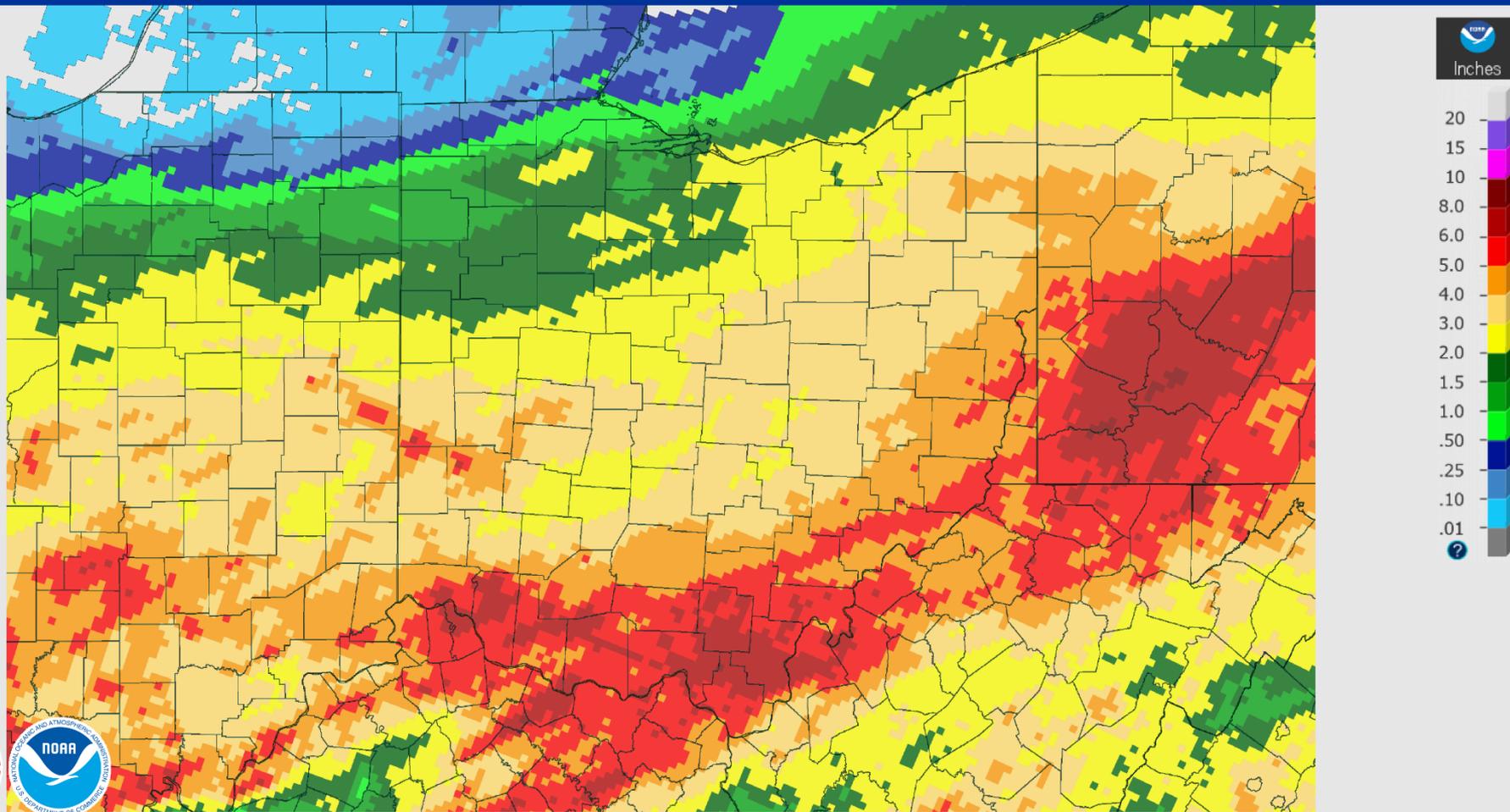
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# Previous 7-Day Precipitation: Total

September 14, 2018 7-Day Observed Precipitation

Created on: September 14, 2018 - 13:56 UTC

Valid on: September 14, 2018 12:00 UTC



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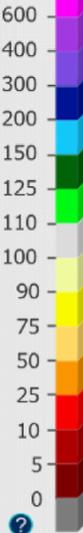
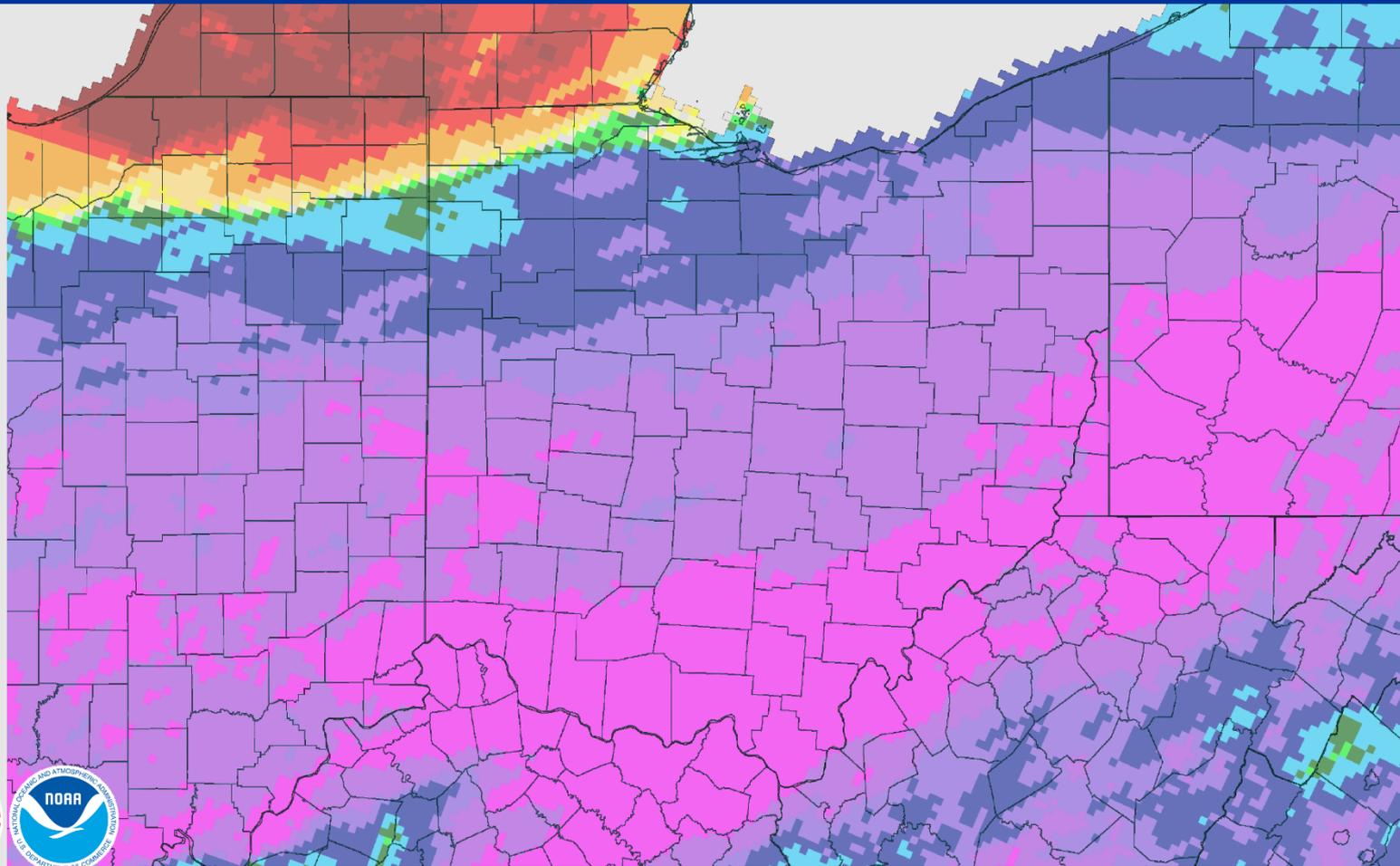
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# Previous 7-Day Precipitation: Percent of Normal

September 14, 2018 7-Day Percent Precipitation

Created on: September 14, 2018 - 13:56 UTC

Valid on: September 14, 2018 12:00 UTC



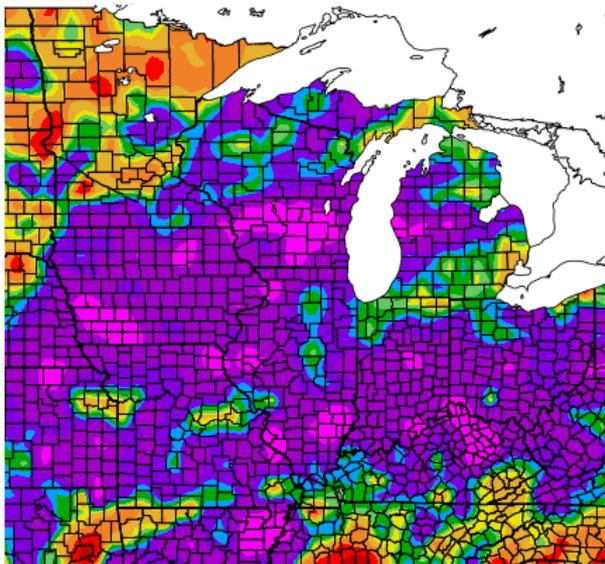
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# Precipitation Differences Compared to Average (1981-2010)

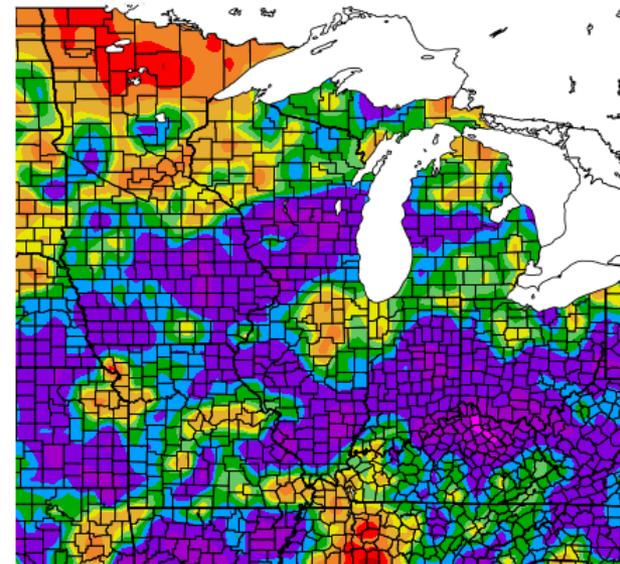
## 30-Day

Percent of Normal Precipitation (%)  
8/15/2018 – 9/13/2018



## 60-Day

Percent of Normal Precipitation (%)  
7/16/2018 – 9/13/2018



Generated 9/14/2018 at HPRCC using provisional data.

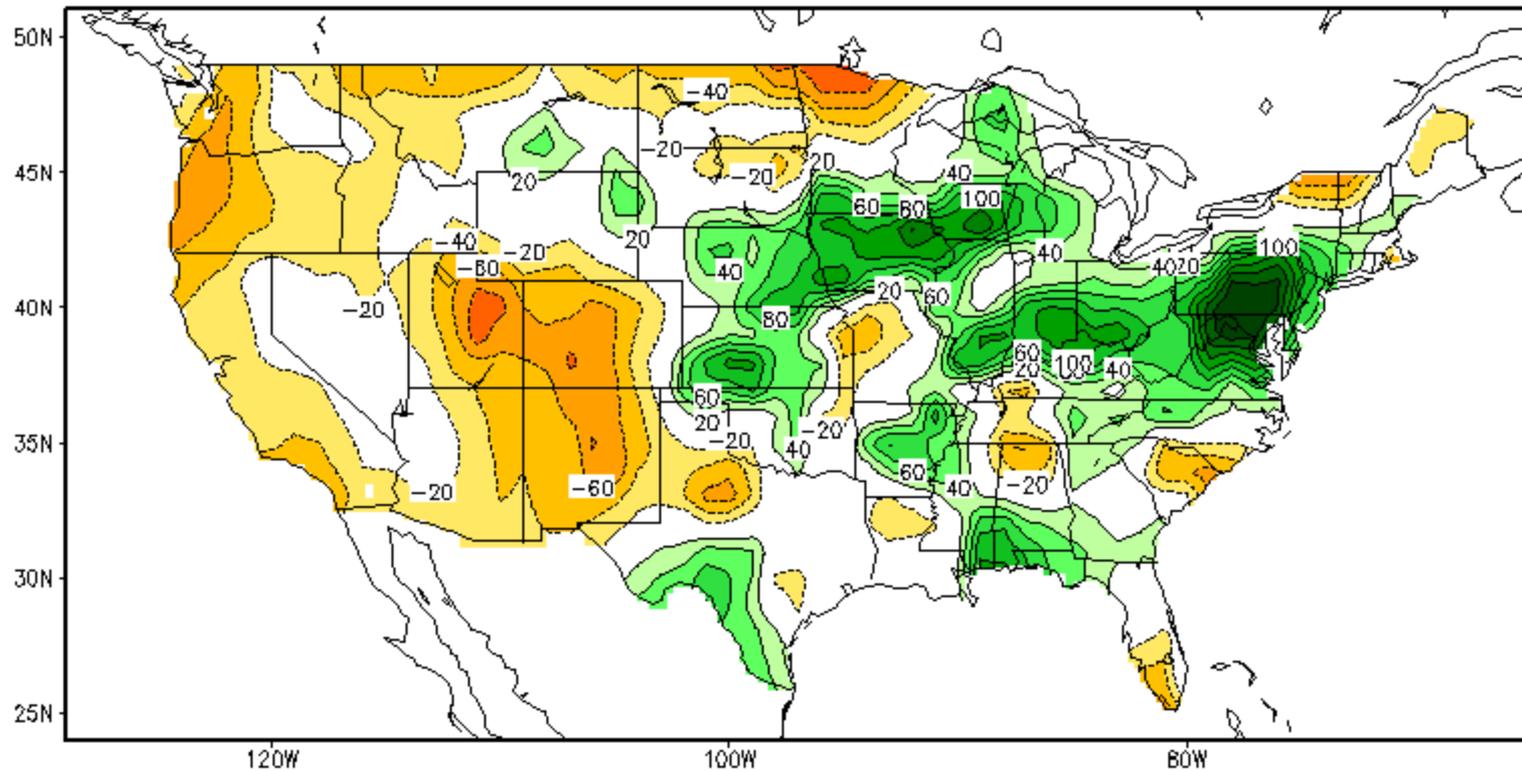
NOAA Regional Climate Centers Generated 9/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

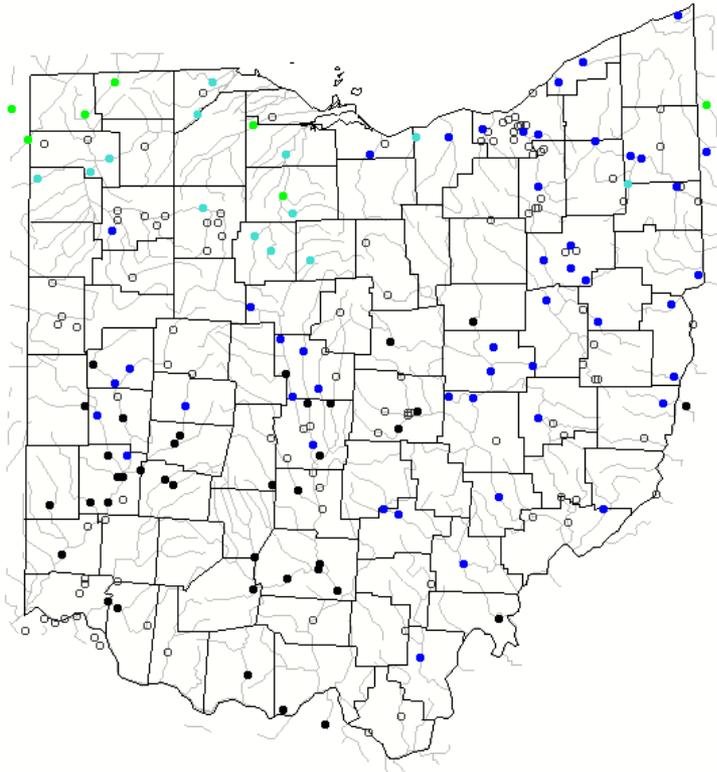


# Soil Moisture

Calculated Soil Moisture Anomaly (mm)  
SEP 13, 2018



7-DAY



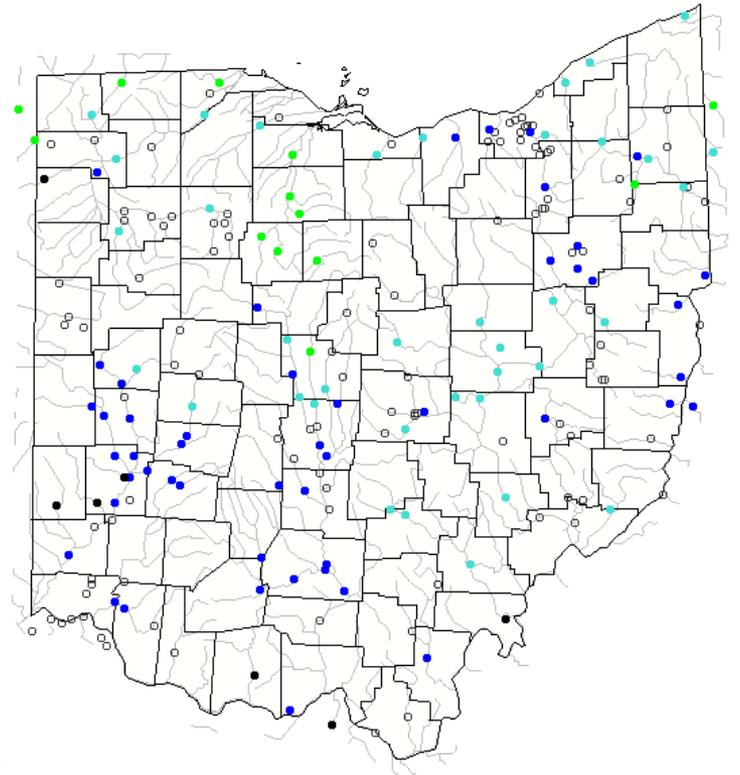
Explanation - Percentile classes

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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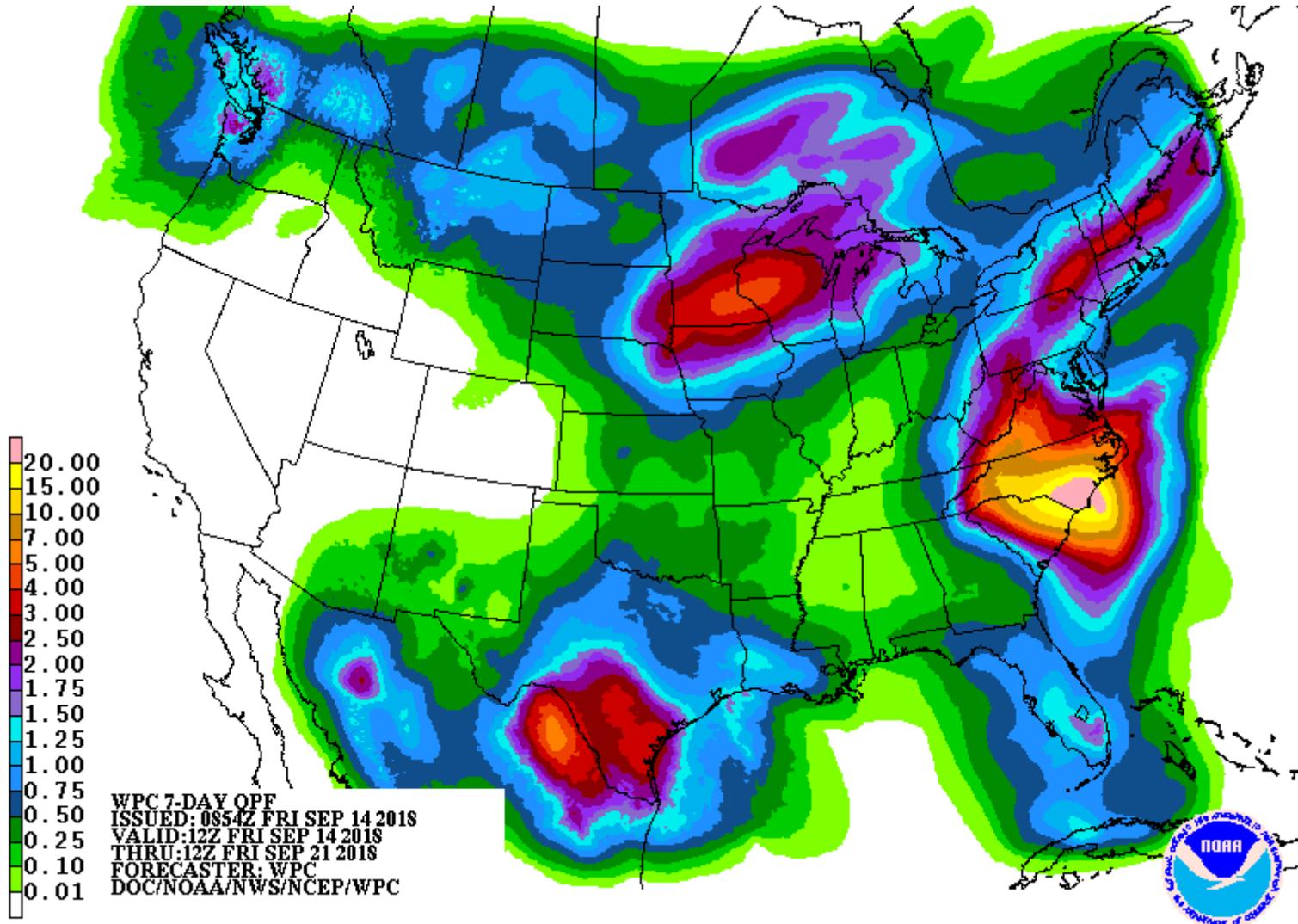
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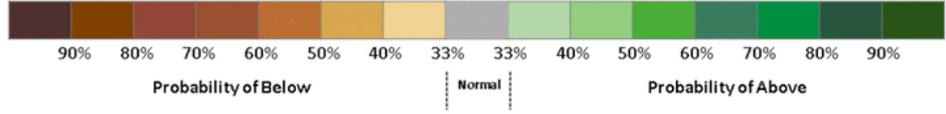
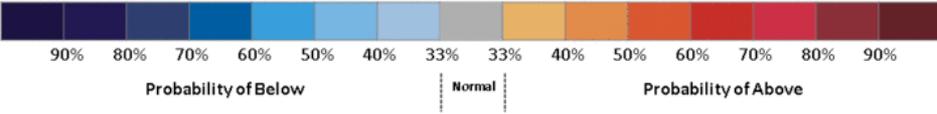
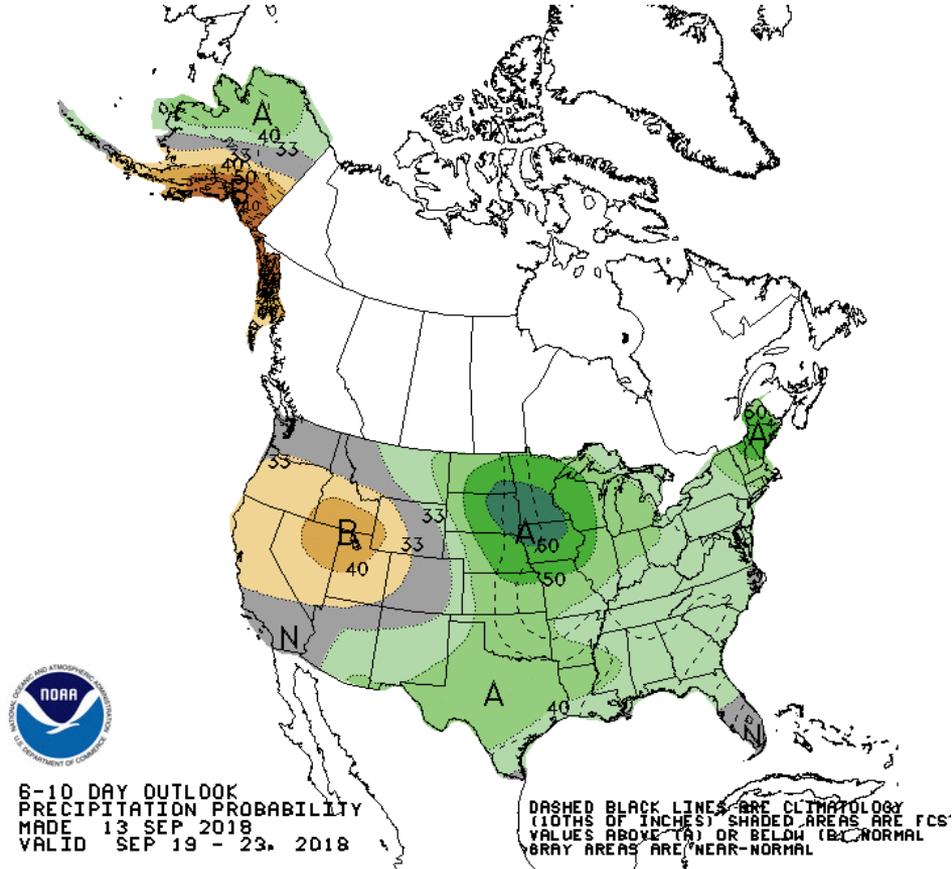
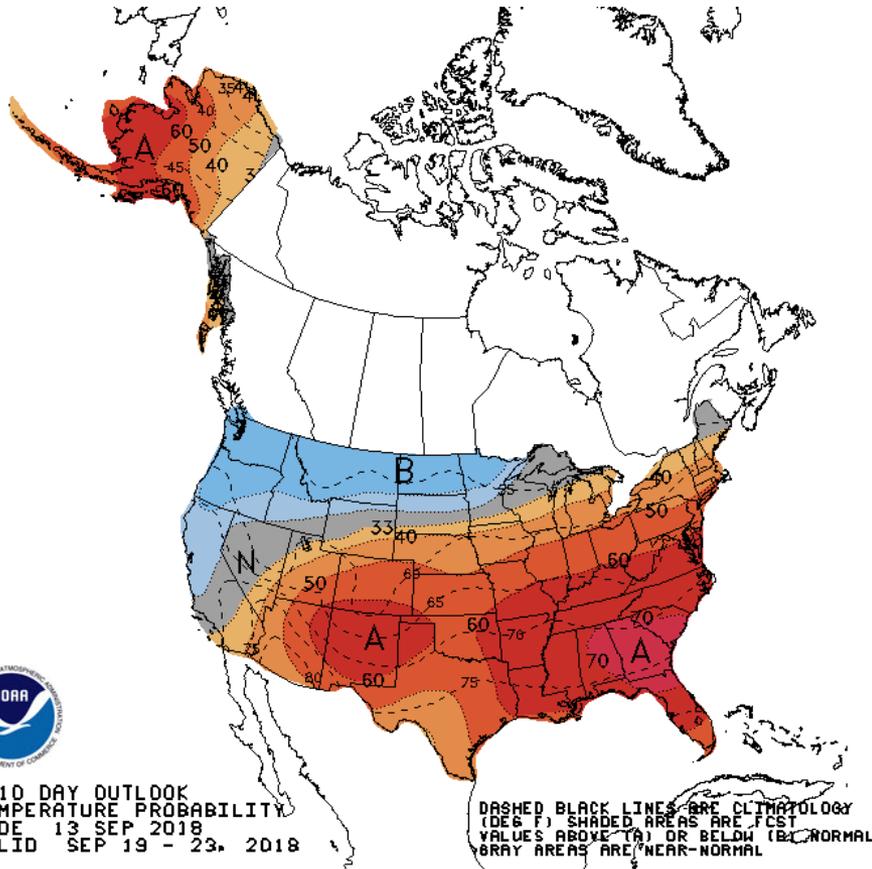
# Weather for the Week Ahead



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# 6-10 Day Outlook



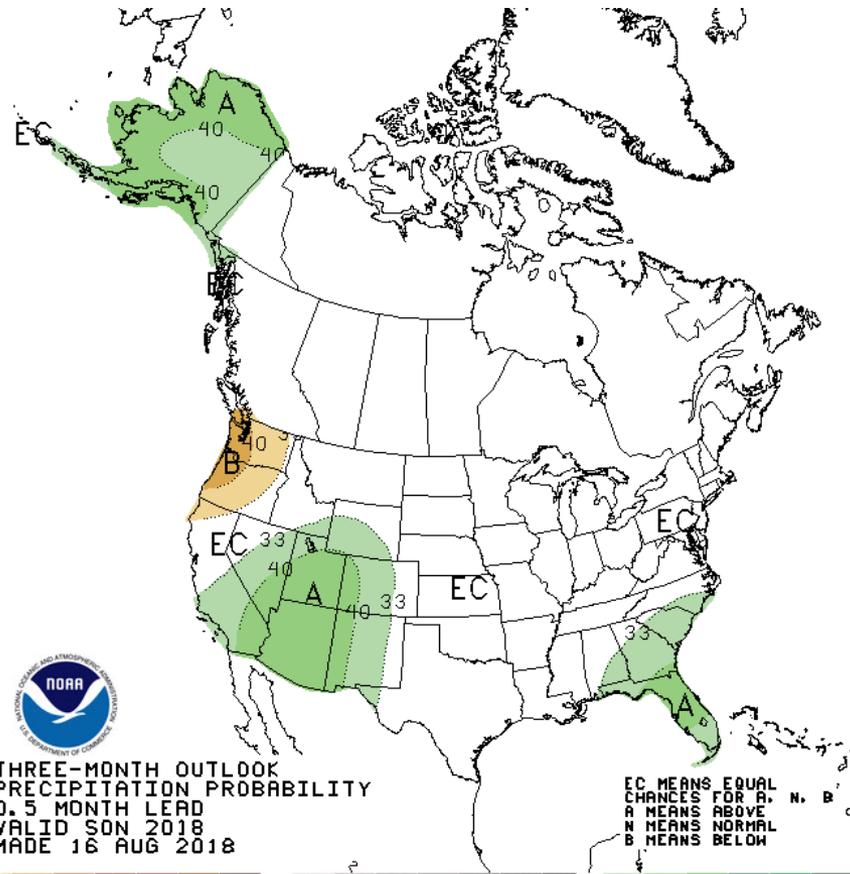
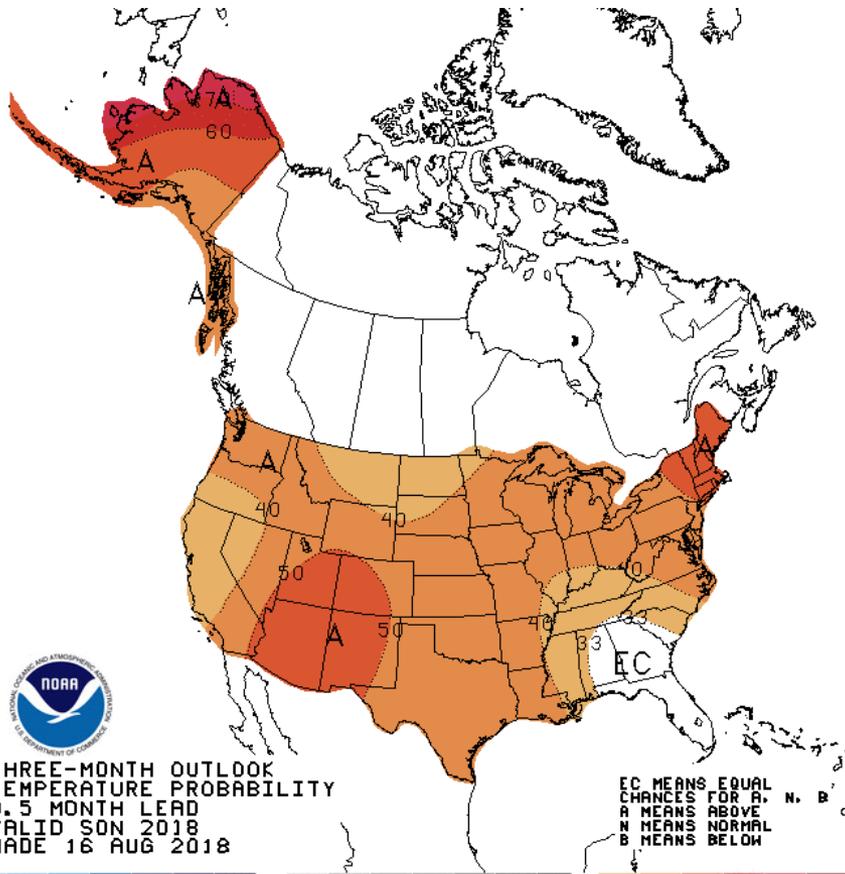
Highs: Mid to upper 70s; Lows: Mid to upper 50s; Precip: 0.75-1"



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# September-November Outlook



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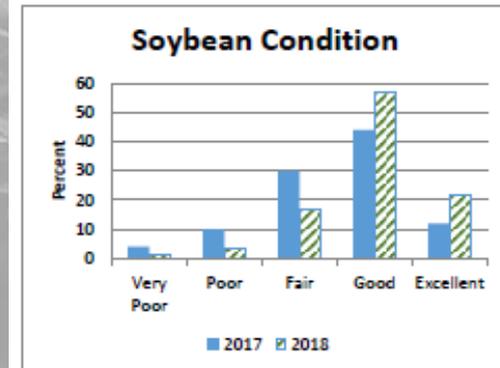
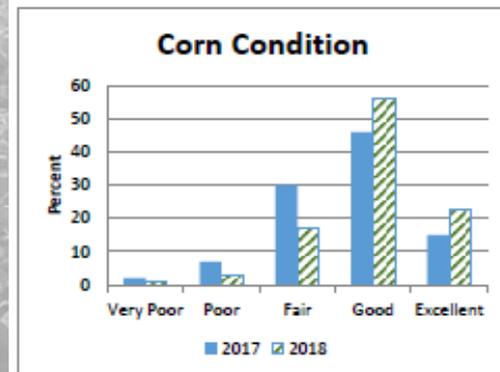
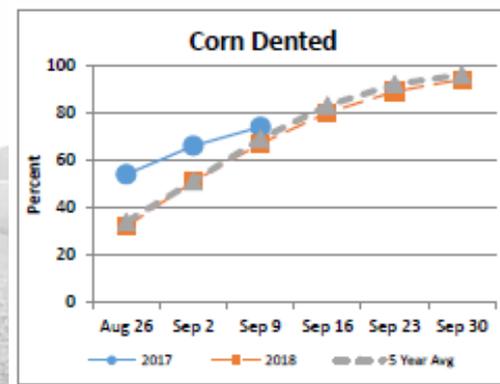
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# Ag Highlights

- 4.4 days suitable for work
- Soybeans dropping leaves
- Pastures and hay received some much needed rain.
- Harvest was delayed in some areas.
- Some flooding.
- Rain delayed livestock and manure management activities.



NASS: Cheryl Turner –

[https://www.nass.usda.gov/Statistics\\_by\\_State/Ohio/Publications/Crop\\_Progress\\_&\\_Condition/2017/cw3017oh.pdf](https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2017/cw3017oh.pdf)



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# Summary of Conditions



<https://climate.osu.edu>

**Drought Monitor:** Dry conditions have been alleviated.

**30-Day and 60-Day:** Recent cooler conditions, but still warmer than average on the long-term perspective.

**The week ahead:** Remnants of Hurricane Florence will skirt the southern and eastern counties of Ohio



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# Field Application Resource Monitor FARM

OSU.EDU Help BuckeyeLink Map Find People Webmail Search Ohio State

**FARM** Field Application Resource Monitor **BETA**

Sign In Statewide Condition Map

**FARM** is a *real-time and historical climate information tool for fertilizer and manure application.*

View as a Guest

Create User Profile

Returning User

Welcome to the **Field Application Resource Monitor (FARM)**. Water quality is important to all Ohioans and we all impact our watersheds. In recent years, Ohio farmers have taken significant positive steps toward limiting the negative impacts on water quality that come from the loss of sediment and nutrients. **FARM** allows users to define their locations of interest and receive 12- and 24-hour precipitation forecasts to aid in the application of fertilizer, manure, and/or pesticides. **FARM** also utilizes a database of historical forecasts allowing users to search previous dates. Users can choose to create accounts with multiple fields, explore statewide conditions in quick-view, and will soon be able to sign-up for text alerts coming in spring 2018.

*This project is made possible through a Connect and Collaborate Grant, a program supporting innovative and scholarly engagement programs that leverage academic excellence of The Ohio State University in mutually beneficial ways with external partners.*

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**FARM** Field Application Resource Monitor **BETA**

Sign In Statewide Condition Map

**FARM Dashboard** [+ Add New Field](#) **1 Field**

Displaying conditions for: Now • Fri Aug 17, 2018 at 1:53 PM EDT

View Historical Date:  [Submit](#) [Current Forecast](#)

**Unnamed Field**



[Fertilizer](#)
[Manure](#)

<p>50% chance of <b>0.22"</b> of rain in <b>12 hours</b> 50% chance of <b>0.36"</b> of rain in <b>24 hours</b></p>	<p><b>Fri</b> Rain</p> <p>79° / 66° 65%</p>	<p><b>Sat</b> Chance of T-Storms</p> <p>79° / 60° 35%</p>	<p><b>Sun</b> Few Clouds</p> <p>81° / -- 5%</p>
--	---	---	---

[+ Add New Field](#)

<https://farm.bpcrc.osu.edu>