

# Hydrologic and Climate Assessment

October 16, 2019



Photos Courtesy of Sam Custer



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**Aaron B. Wilson**

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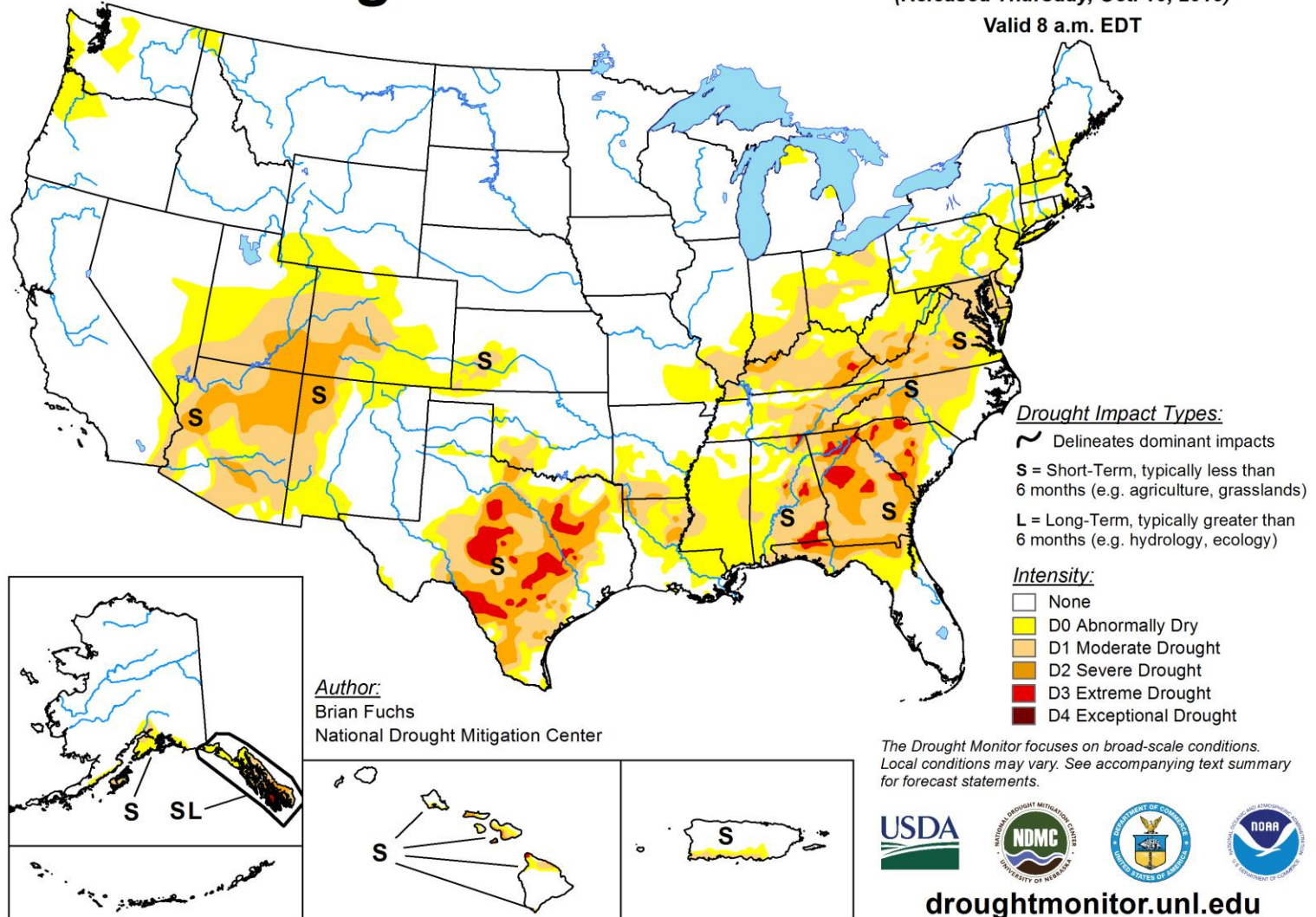
DEPARTMENT OF EXTENSION - CFAES

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# U.S. Drought Monitor

October 8, 2019  
(Released Thursday, Oct. 10, 2019)  
Valid 8 a.m. EDT

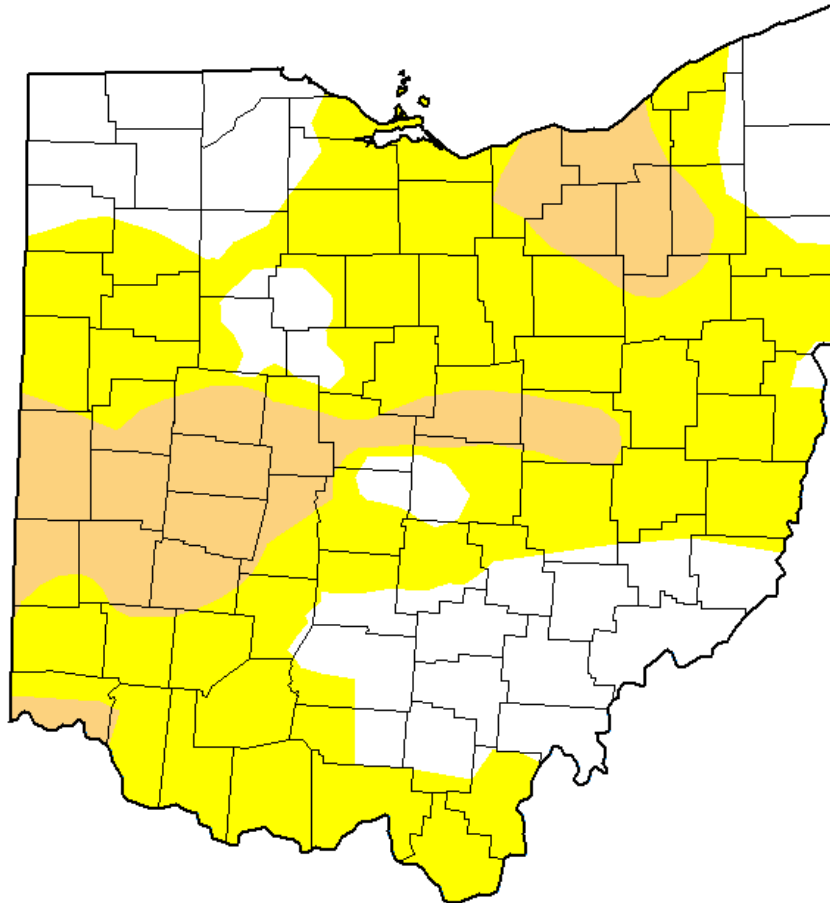


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# U.S. Drought Monitor Ohio

**October 8, 2019**  
(Released Thursday, Oct. 10, 2019)  
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*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	28.52	71.48	18.22	0.00	0.00	0.00
<b>Last Week</b> <i>10-01-2019</i>	19.41	80.59	12.37	0.00	0.00	0.00
<b>3 Months Ago</b> <i>07-09-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>01-01-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>10-01-2019</i>	19.41	80.59	12.37	0.00	0.00	0.00
<b>One Year Ago</b> <i>10-09-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00

## Intensity:

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

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

## Author:

Brian Fuchs  
National Drought Mitigation Center



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)



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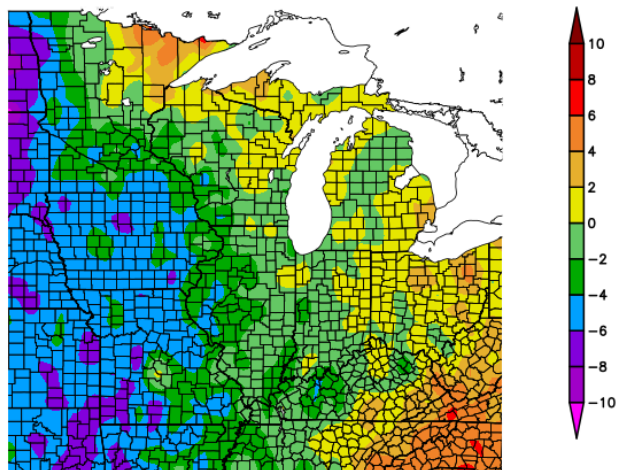
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# Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)  
10/8/2019 – 10/14/2019

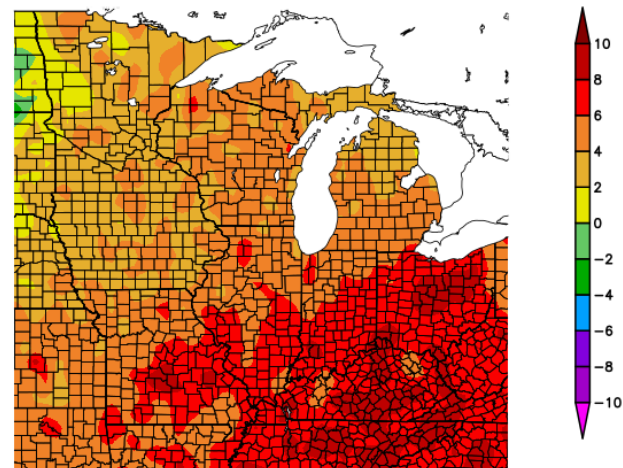


Generated 10/15/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

30-Day

Departure from Normal Temperature (F)  
9/15/2019 – 10/14/2019

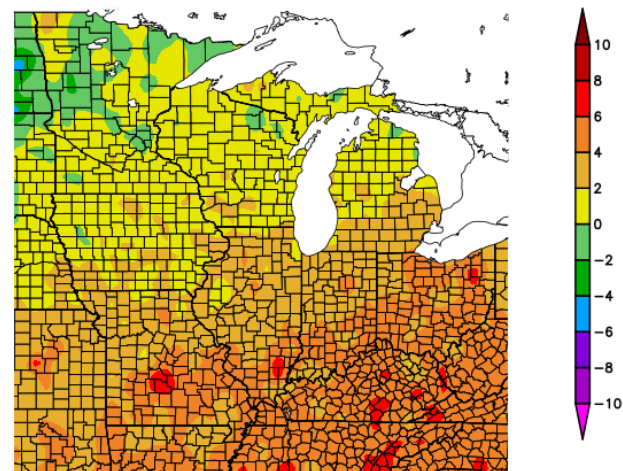


Generated 10/15/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

60-Day

Departure from Normal Temperature (F)  
8/16/2019 – 10/14/2019



NATIONAL  
INTEGRATED  
DROUGHT  
INFORMATION  
SYSTEM



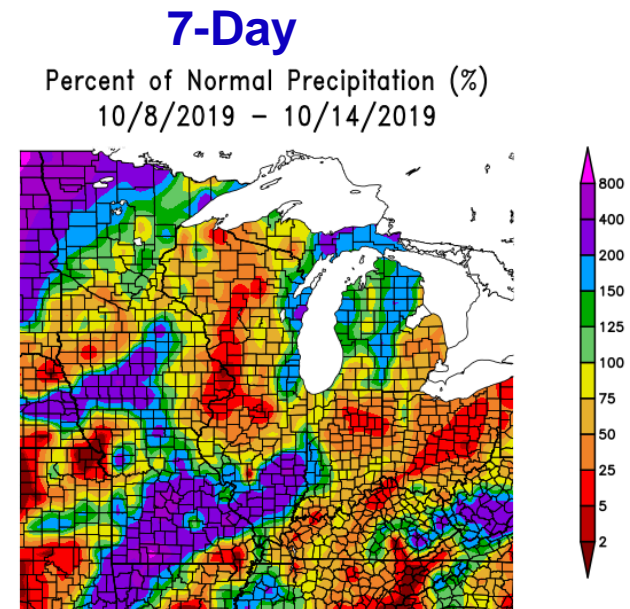
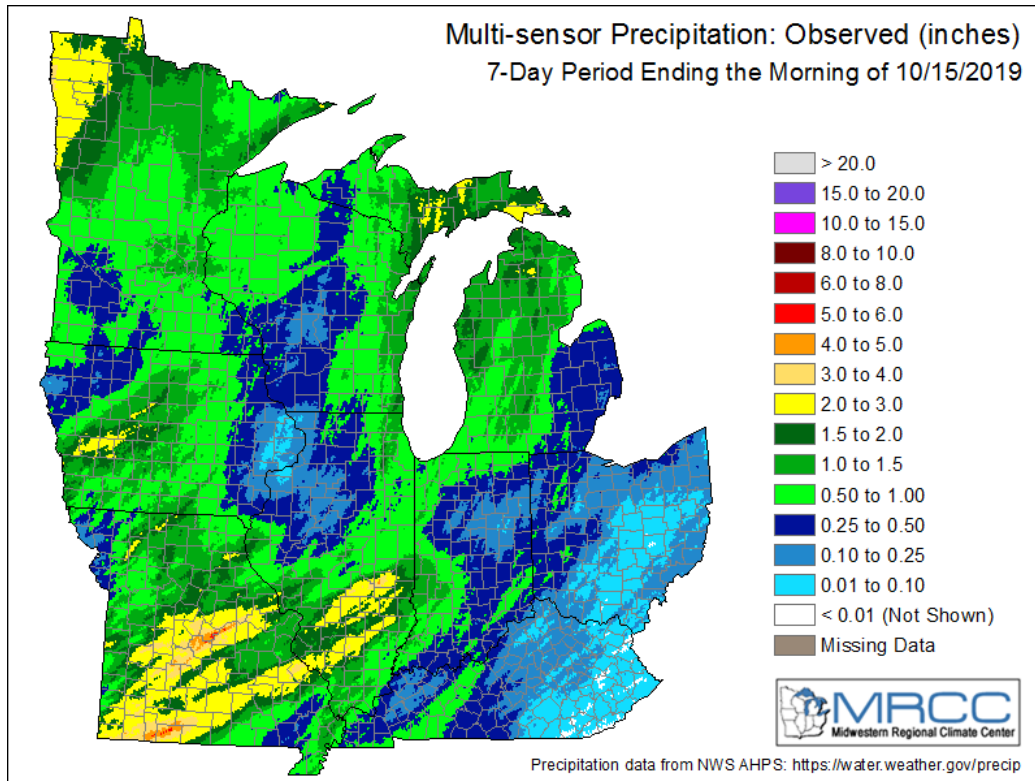
Drought.gov  
U.S. Drought Portal



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# This Week's Precipitation



Generated 10/15/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

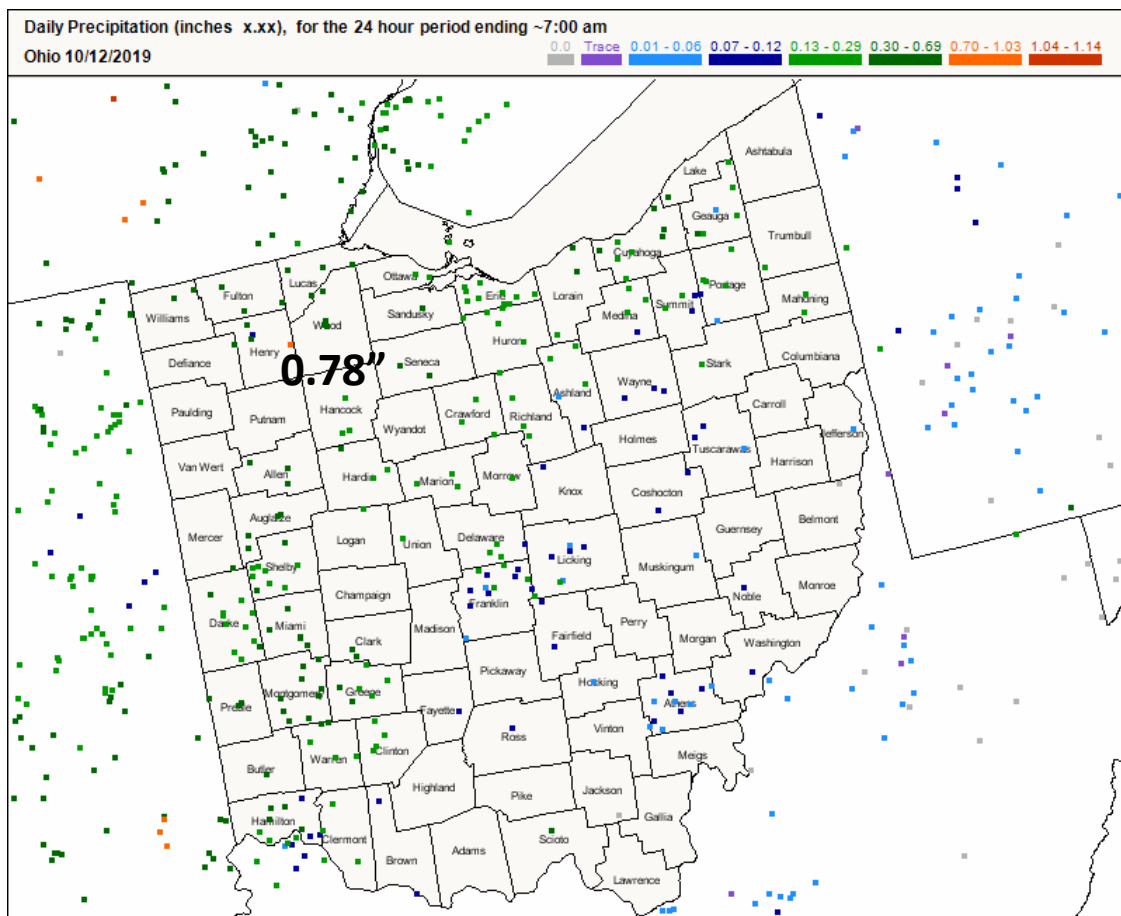


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# CoCoRaHS

**Cheviot: 53.96" since Jan 1**



<https://cocorahs.org/>

## Driest since July 1

CoCoRaHS Name	Total Precip (inches)
Greenville 1.6 NNW	4.59
Piqua 0.8 SSE	5.38
Huber Heights 1.8 NNW	6.02
Bradford 2.3 NW	6.1
Raymond 3.5 NW	6.27
Greenville 4.5 N	6.32
Versailles 1.6 WSW	6.51
Potsdam 2.6 WSW	6.52
Sidney 5.4 SW	6.86
Eaton 1.1 WSW	6.89



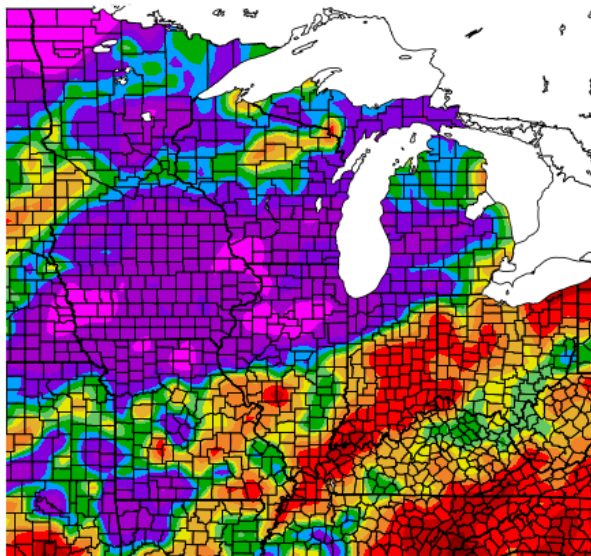
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# Precipitation Differences Compared to Average (1981-2010)

## 30-Day

Percent of Normal Precipitation (%)  
9/15/2019 – 10/14/2019

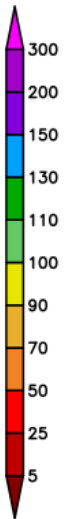
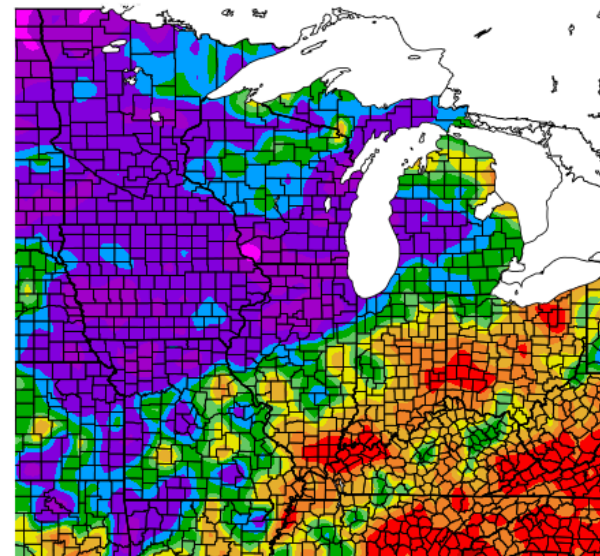


Generated 10/15/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

## 60-Day

Percent of Normal Precipitation (%)  
8/16/2019 – 10/14/2019

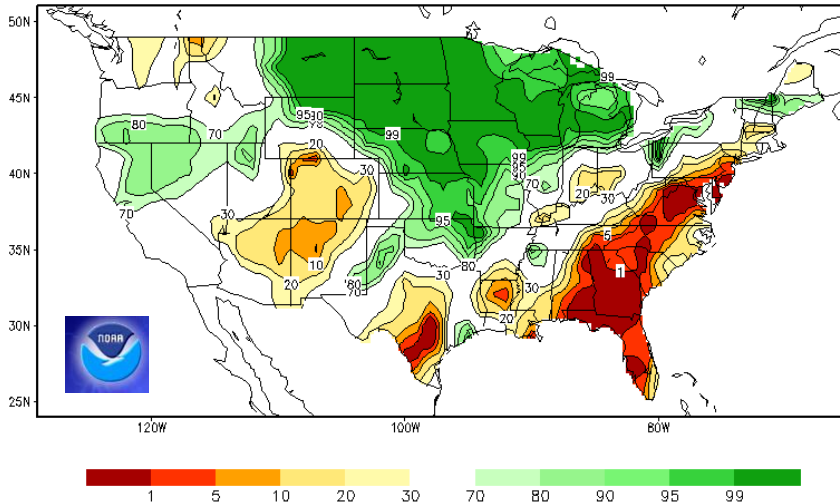


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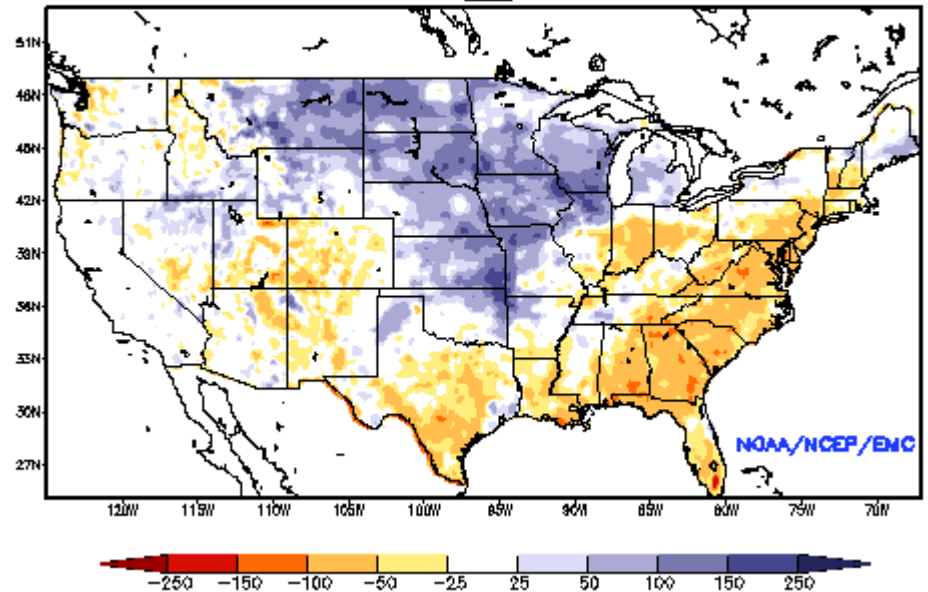
NOAA Regional Climate Centers

# Soil Moisture

Calculated Soil Moisture Ranking Percentile  
OCT 14, 2019



Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)  
NCEP NLDAS Products Valid: OCT 11, 2019



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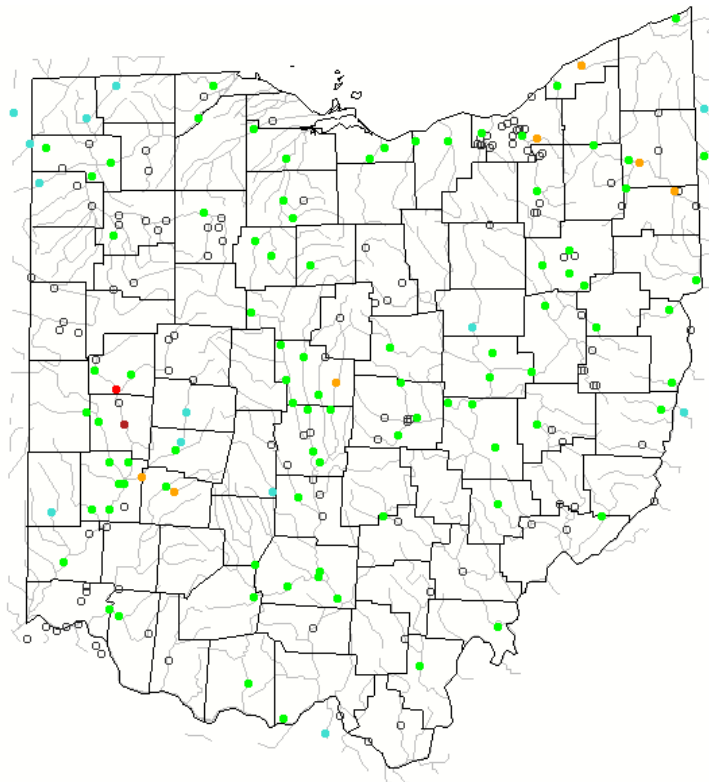
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7-DAY



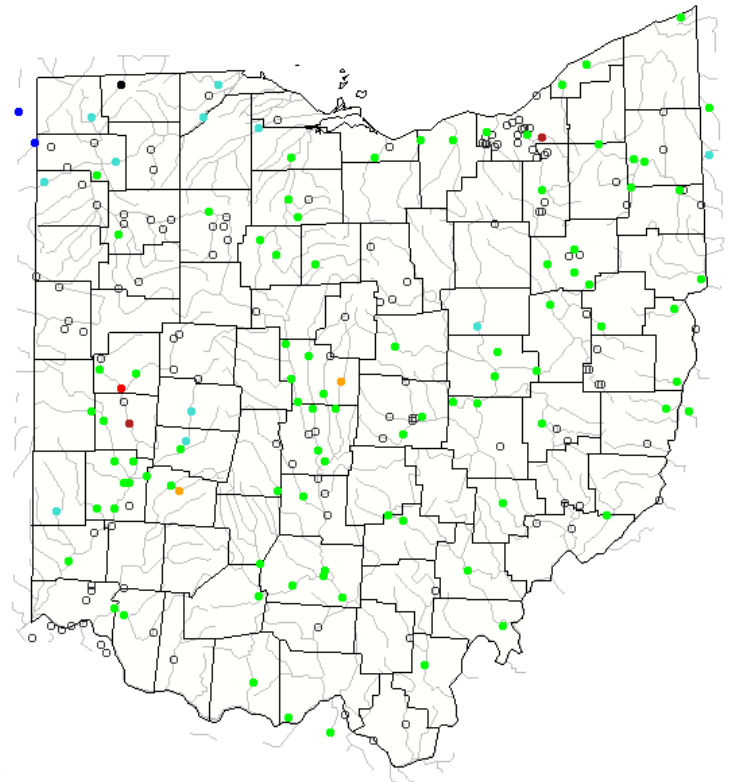
Explanation - Percentile classes

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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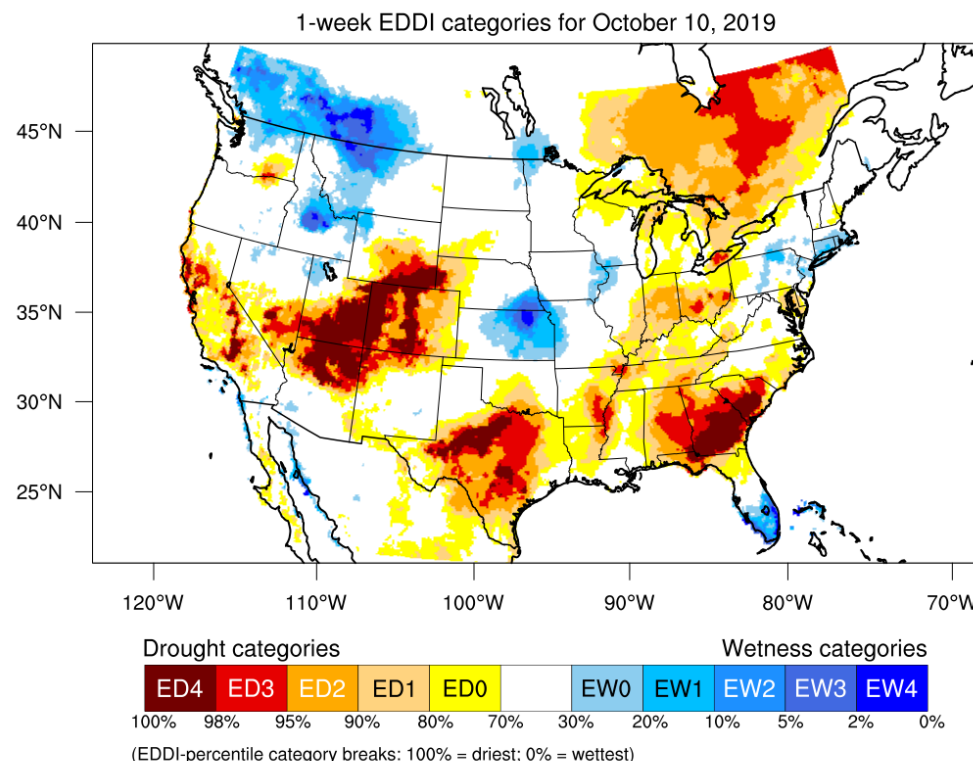
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# Evaporative Demand Drought Index

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

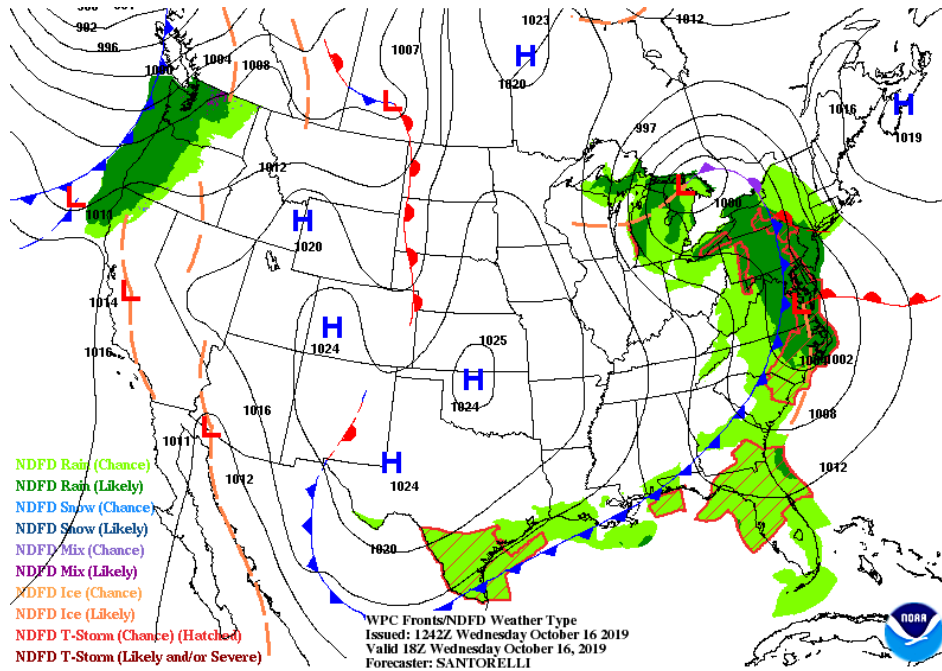
Image provided by the NOAA/ESRL Physical Sciences Division, Boulder, Colorado, from their web site at: <https://www.esrl.noaa.gov/psd/>.



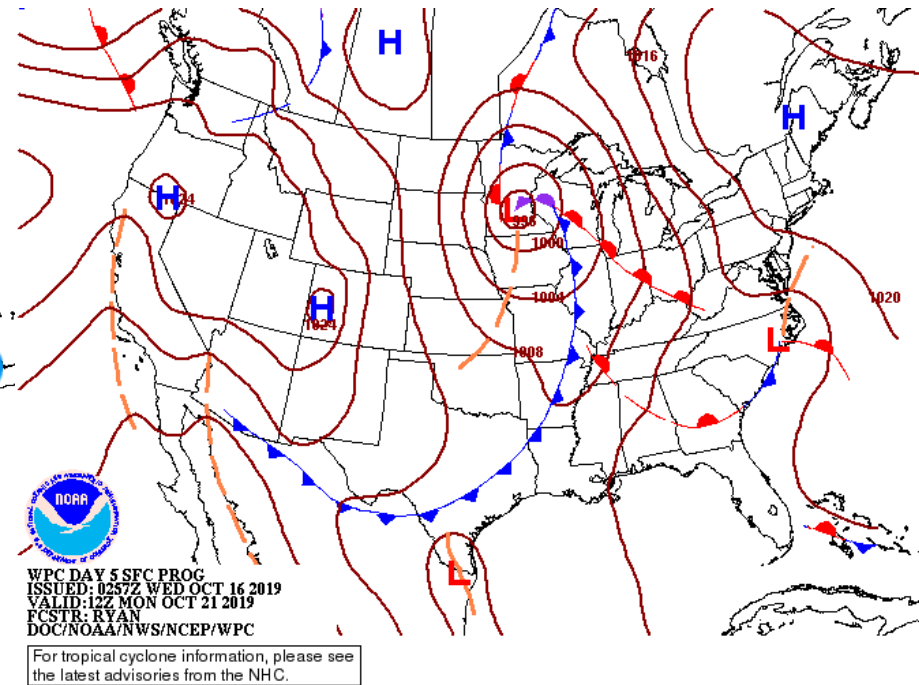
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# Weather for the Week Ahead



Wednesday



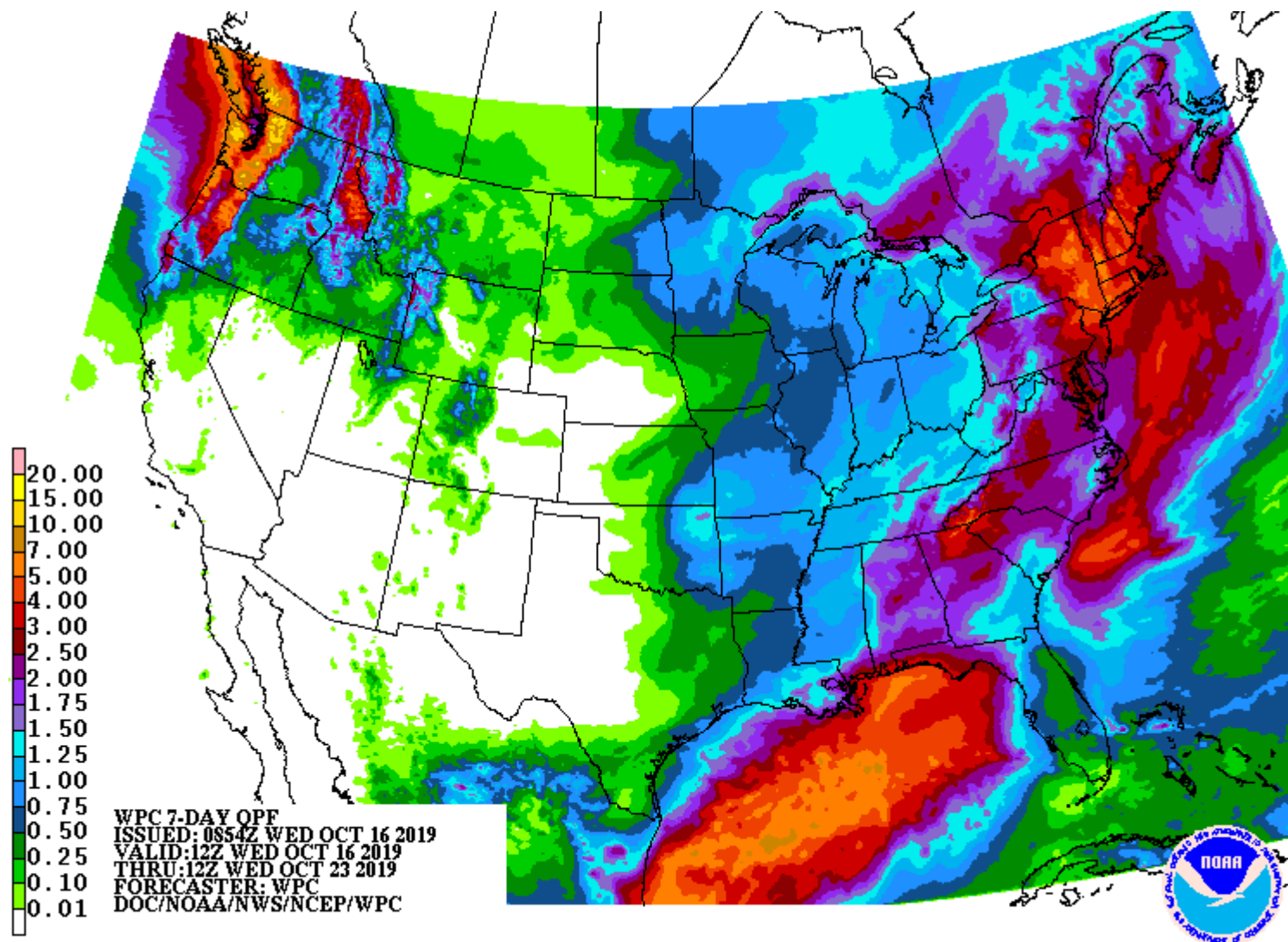
Monday



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# Weather for the Week Ahead

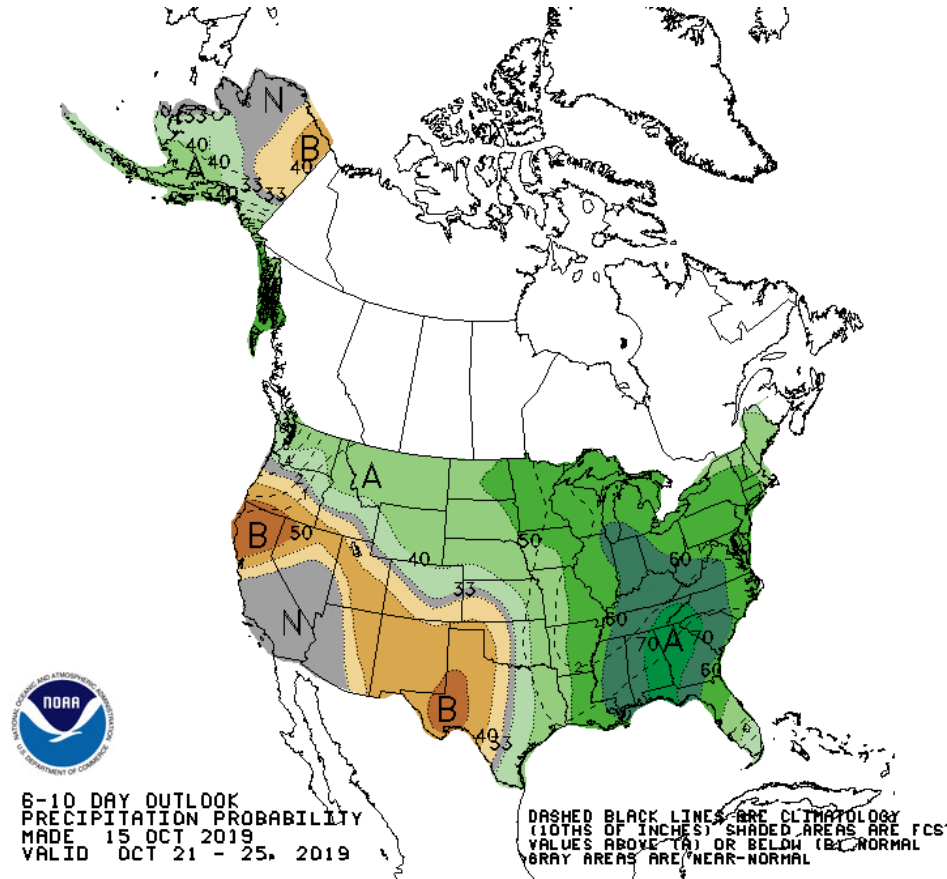
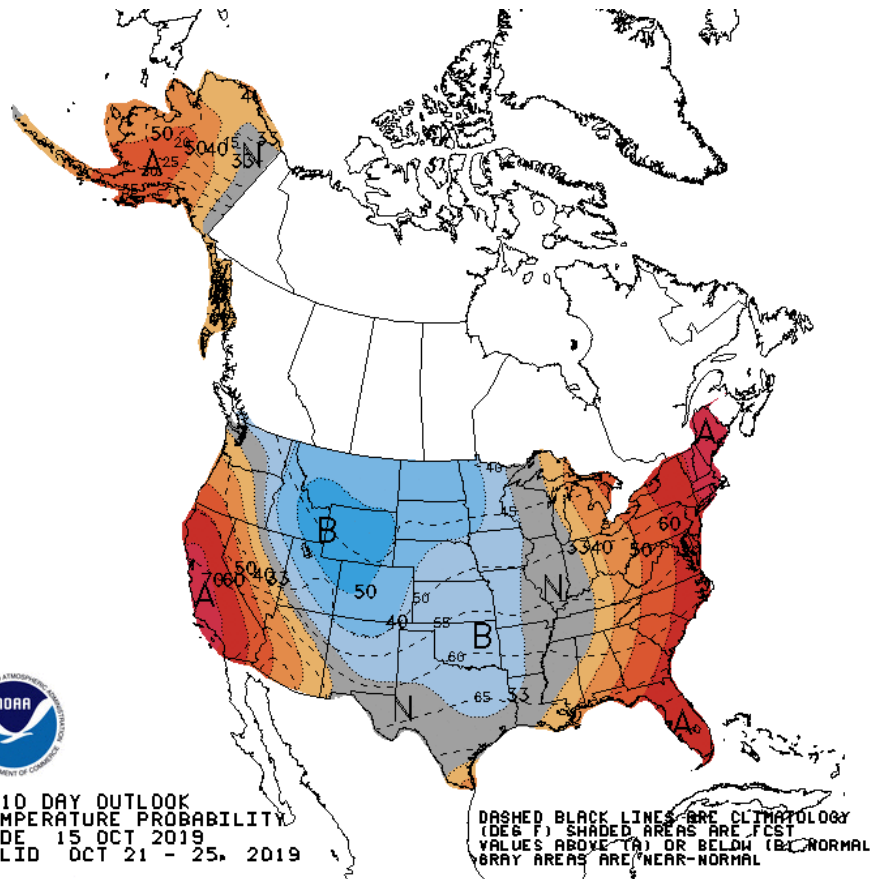


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# 6-10 Day Outlook



Highs: 61-66°F; Lows: 41-45°F; Precip: 0.60-0.80" (per week)

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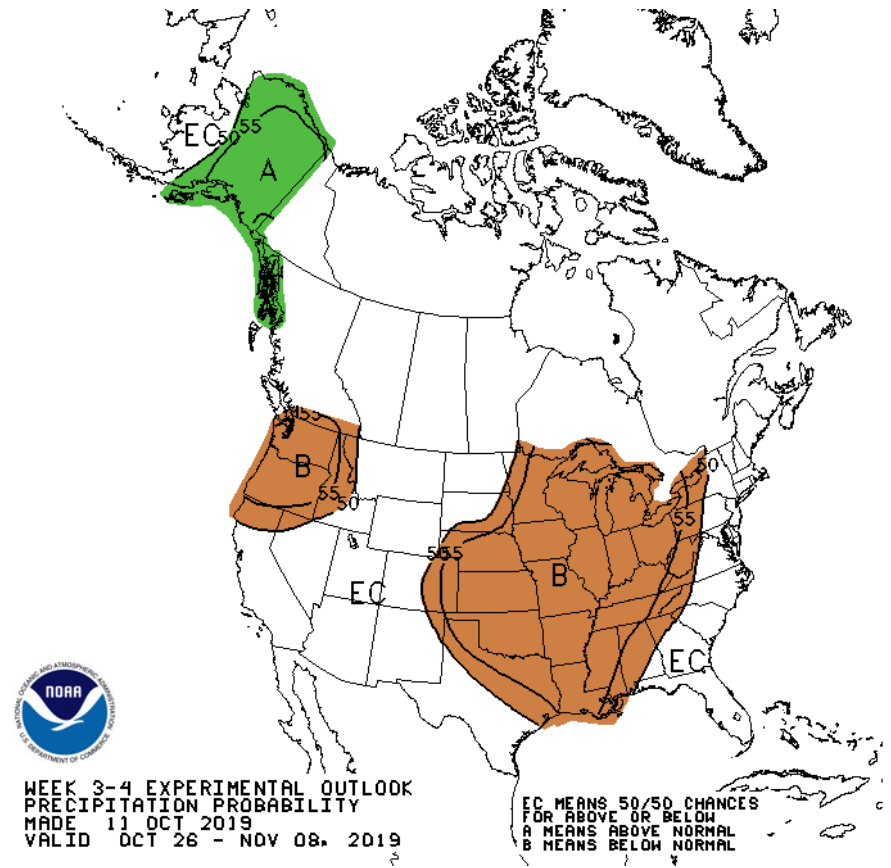
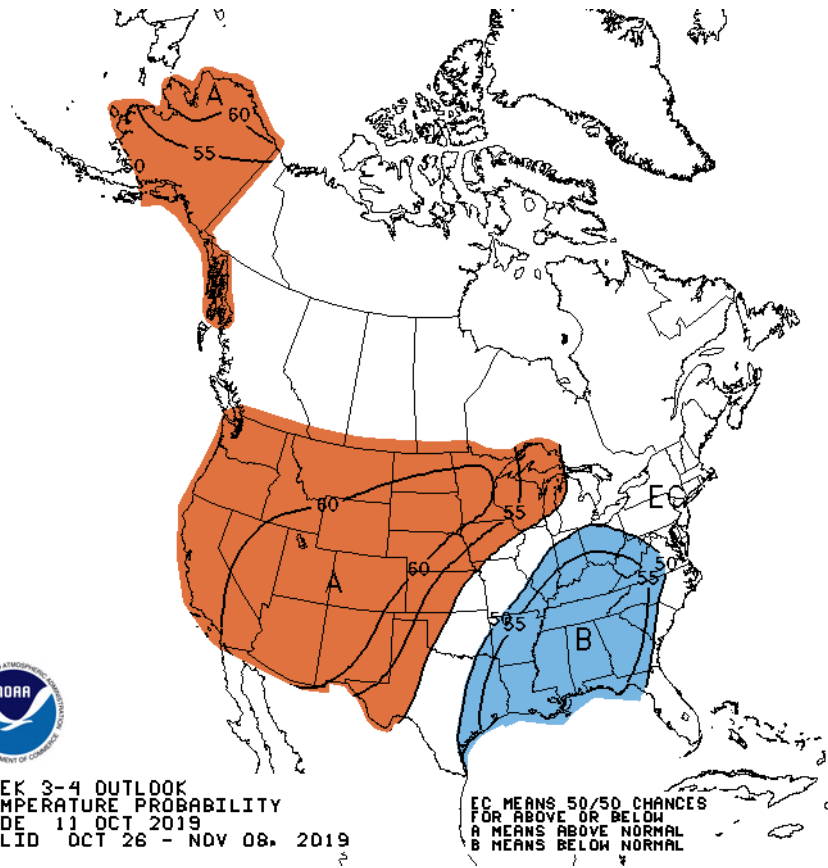
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# 3-4 Week Outlook



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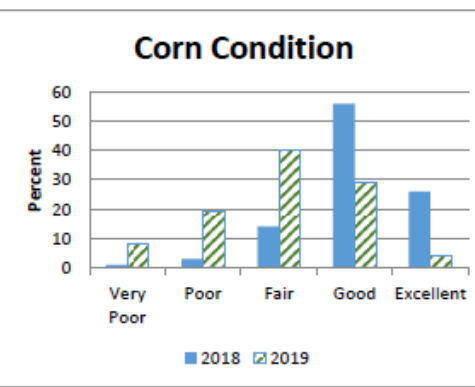
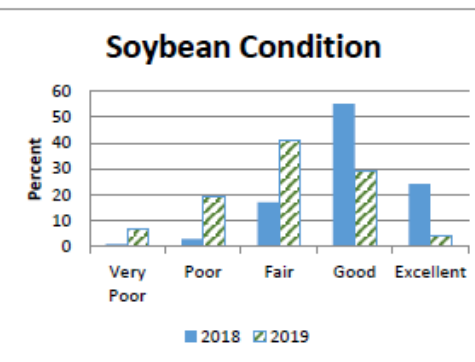
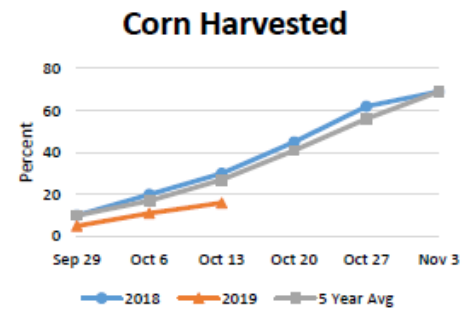
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# Ag Highlights

- 5.7 days suitable for fieldwork during the week ending October 13.
- A majority of corn reached mature status although harvest moved slowly
- Winter wheat continued to outpace 5-year average measures for planting and emergence due to open fields of prevented acres and good planting conditions.

**NASS: Cheryl Turner –**

[https://www.nass.usda.gov/Statistics\\_by\\_State/Ohio/Publications/Crop\\_Progress\\_&\\_Condition/2019/cw1719oh.pdf](https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2019/cw1719oh.pdf)



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# Summary of Conditions

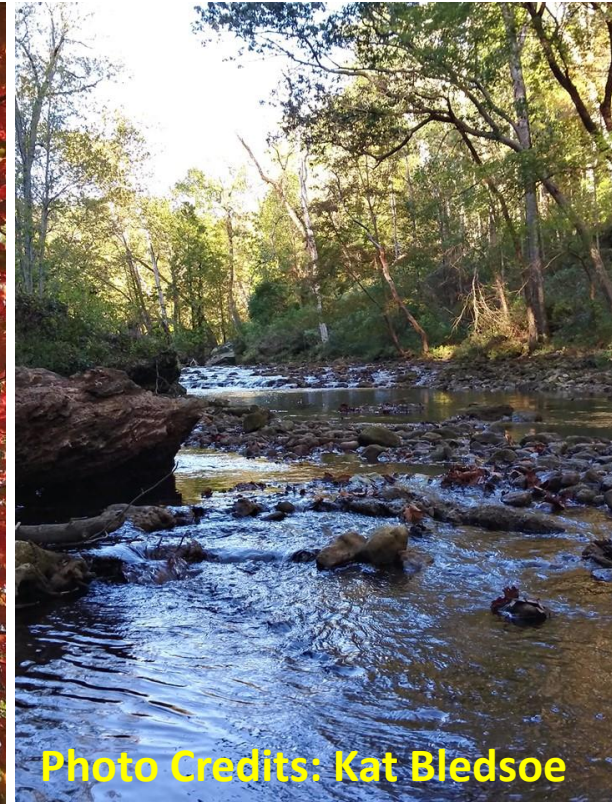
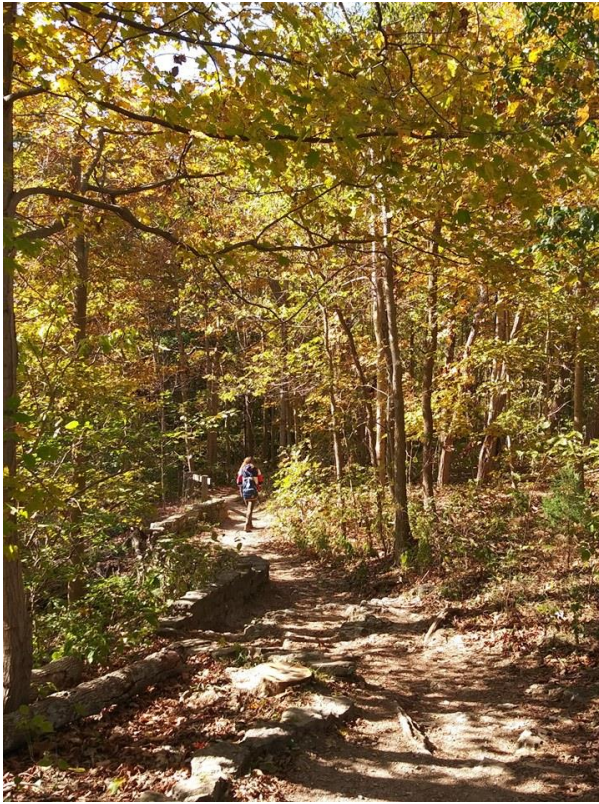


Photo Credits: Kat Bledsoe

**Drought Monitor:** Moderate Drought conditions expanded across NE Ohio, now a little more than 18% of the state

**Climate Recap:** On the cool side with light rain this past week

**The week ahead:** Seasonally cool this week with warming trend by the weekend



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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](http://www.ncdc.noaa.gov)
  - Monthly climate reports (U.S. & Global): [www.ncdc.noaa.gov/sotc/](http://www.ncdc.noaa.gov/sotc/)
- NOAA's Climate Prediction Center: [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)
- USDA Midwest Climate Hub:  
<https://www.climatehubs.oce.usda.gov/hubs/midwest>
- Climate Portal: [www.climate.gov](http://www.climate.gov)
- U.S. Drought Portal: [www.drought.gov](http://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://cocoahs.org>
- Song: "Lazy River Rag" by Dan Lebowitz