

# Ohio's Climate Assessment

September 25, 2020



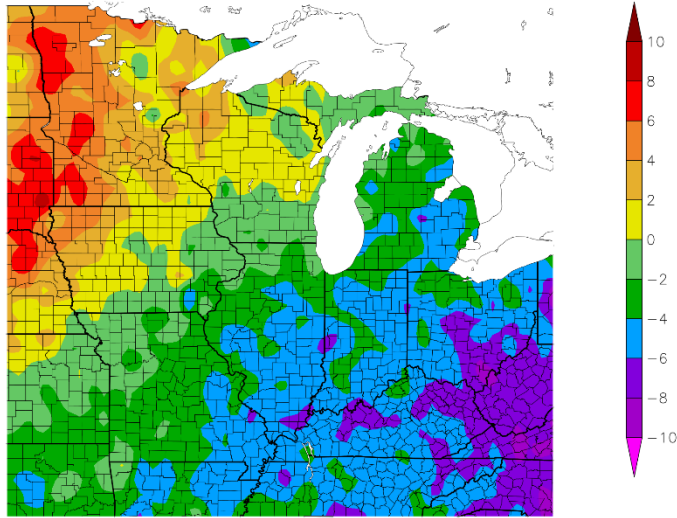
THE OHIO STATE UNIVERSITY

**Aaron B. Wilson**

STATE CLIMATE OFFICE OF OHIO (SCOO)  
DEPARTMENT OF EXTENSION - CFAES  
BYRD POLAR & CLIMATE RESEARCH CENTER  
DEPARTMENT OF GEOGRAPHY

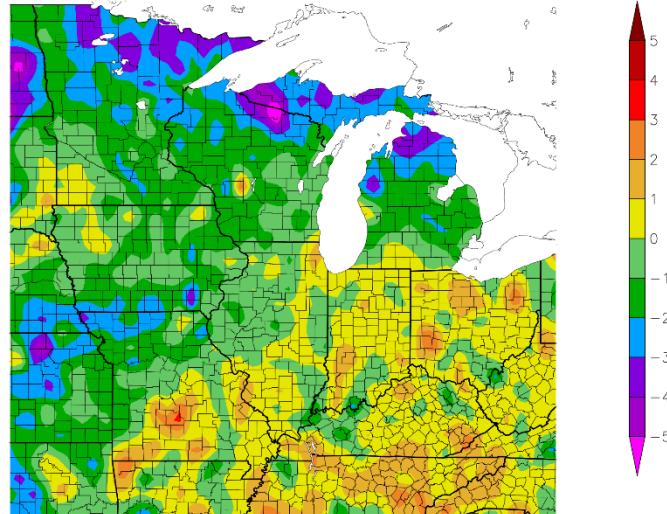
# Temperature Differences Compared to Average (1981-2010)

Departure from Normal Temperature (F)  
9/18/2020 – 9/24/2020



7-Day

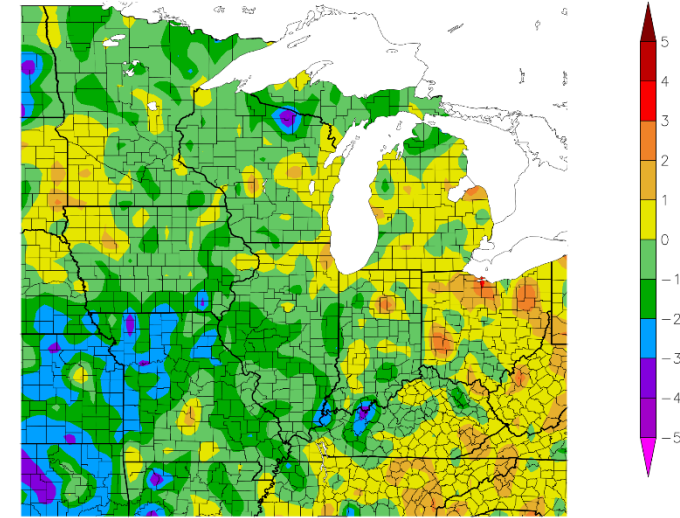
30-Day  
Departure from Normal Temperature (F)  
8/26/2020 – 9/24/2020



Generated 9/25/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
7/27/2020 – 9/24/2020



Generated 9/25/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

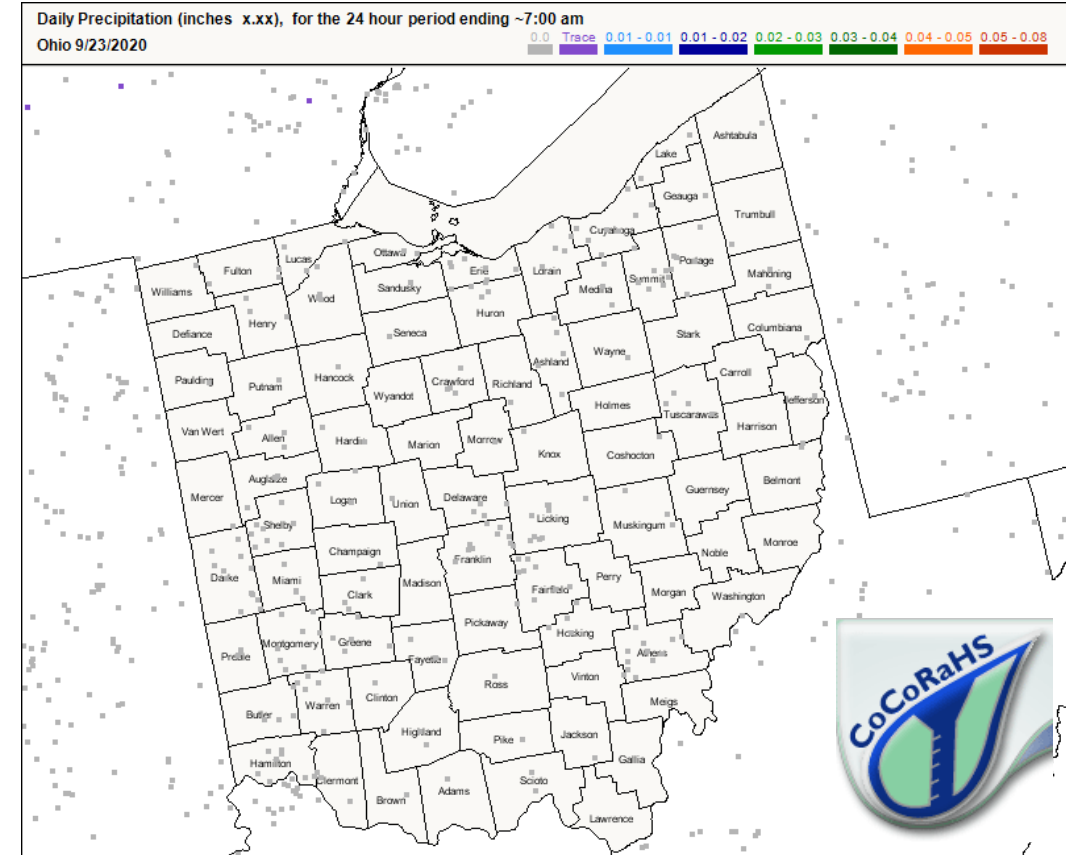
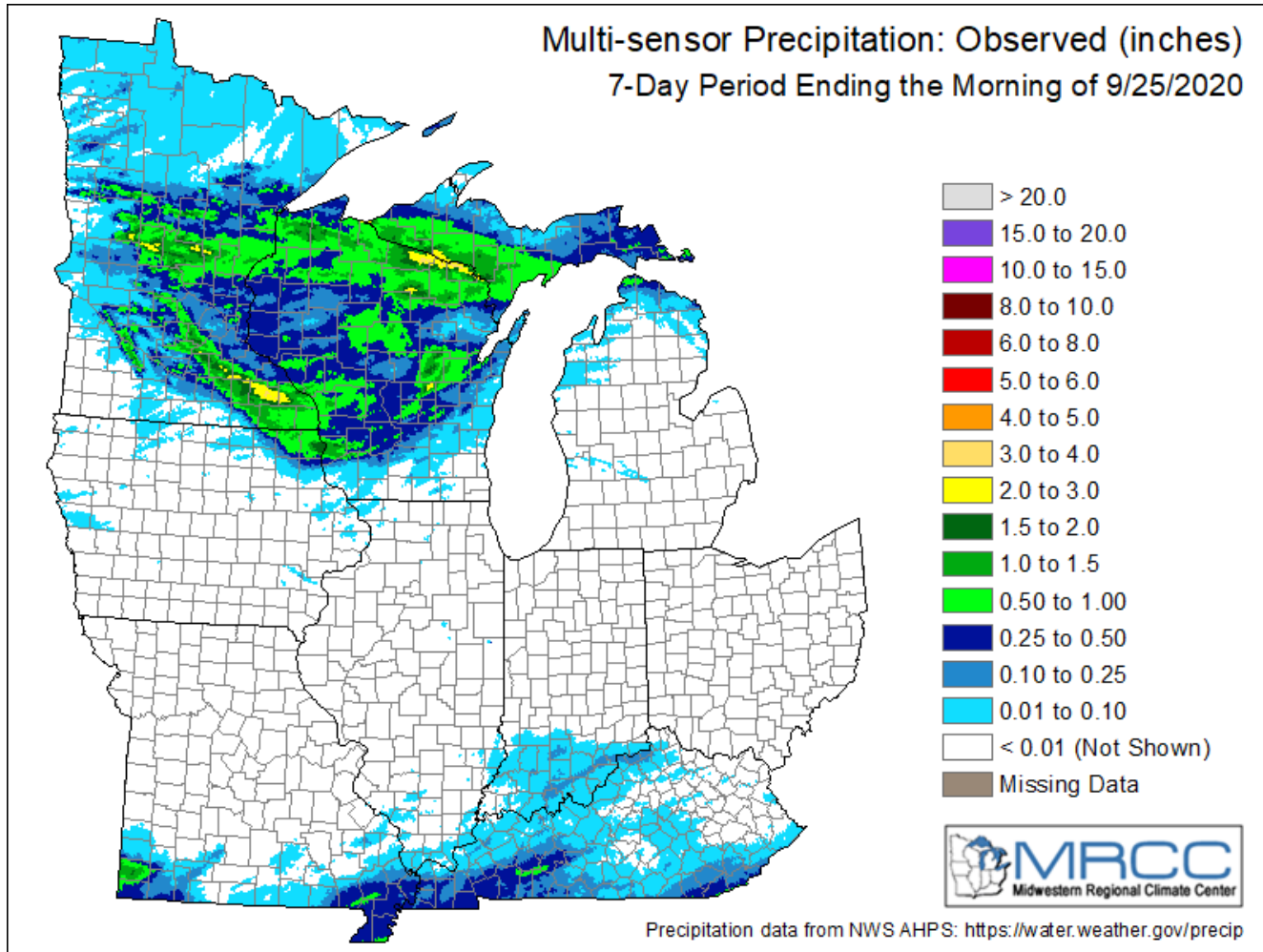
60-Day



<https://www.drought.gov/drought/dews/midwest/current-conditions>



# This Week's Precipitation



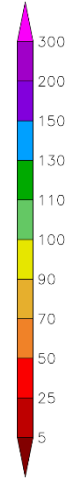
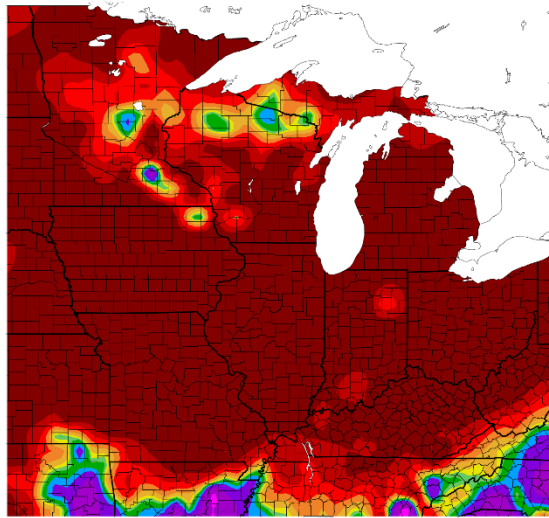
<https://www.cocorahs.org/>



THE OHIO STATE UNIVERSITY

# Precipitation Differences Compared to Average (1981-2010)

Percent of Normal Precipitation (%)  
9/18/2020 – 9/24/2020

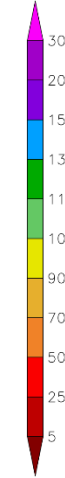
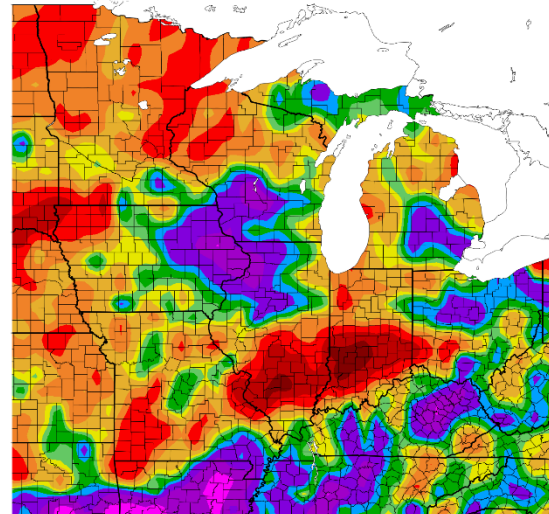


7-Day

Generated 9/25/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

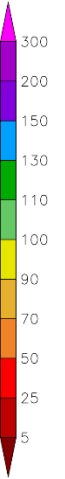
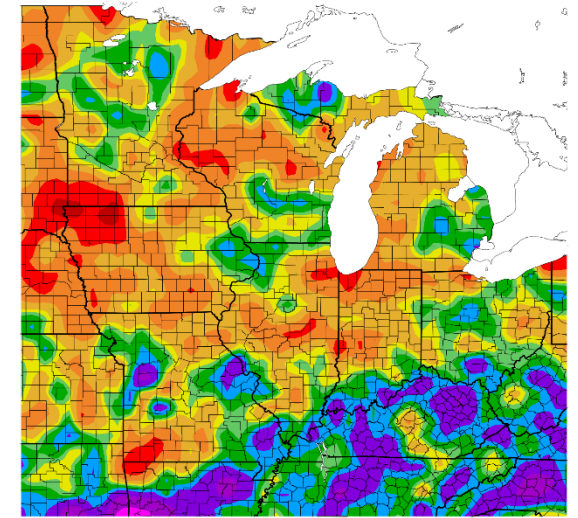
30-Day  
Percent of Normal Precipitation (%)  
8/26/2020 – 9/24/2020



Generated 9/25/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)  
7/27/2020 – 9/24/2020



60-Day

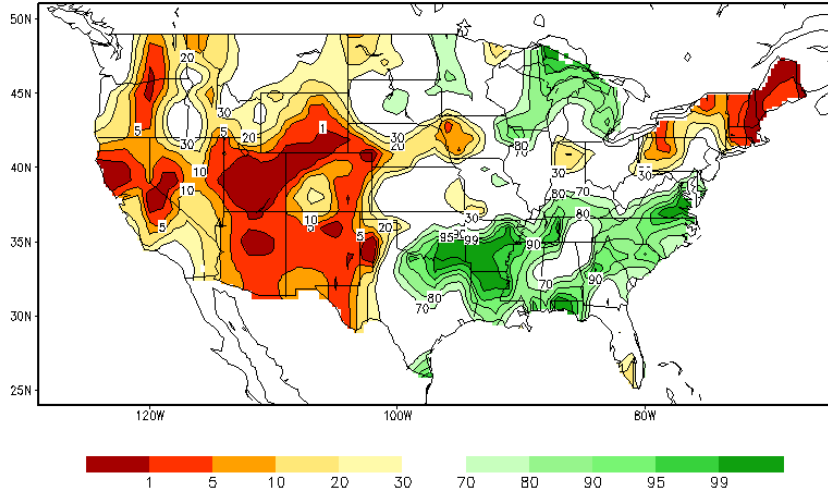
Generated 9/25/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers



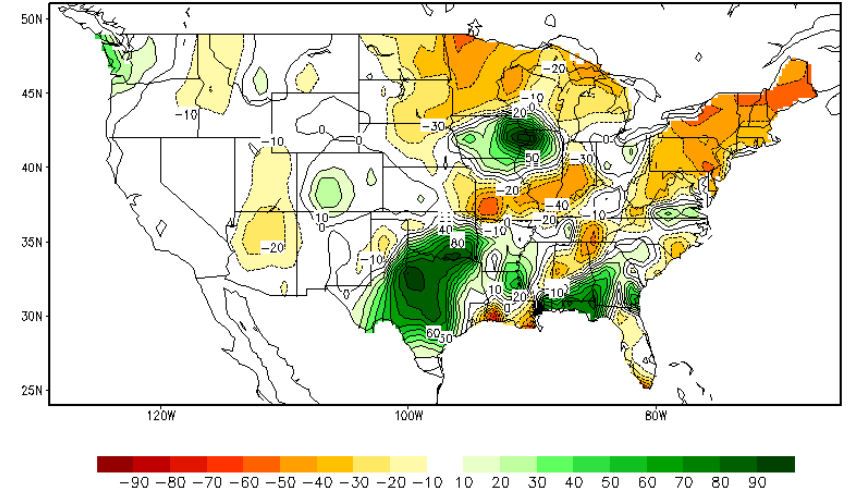
<https://www.drought.gov/drought/dews/midwest/current-conditions>

Calculated Soil Moisture Ranking Percentile  
SEP 24, 2020

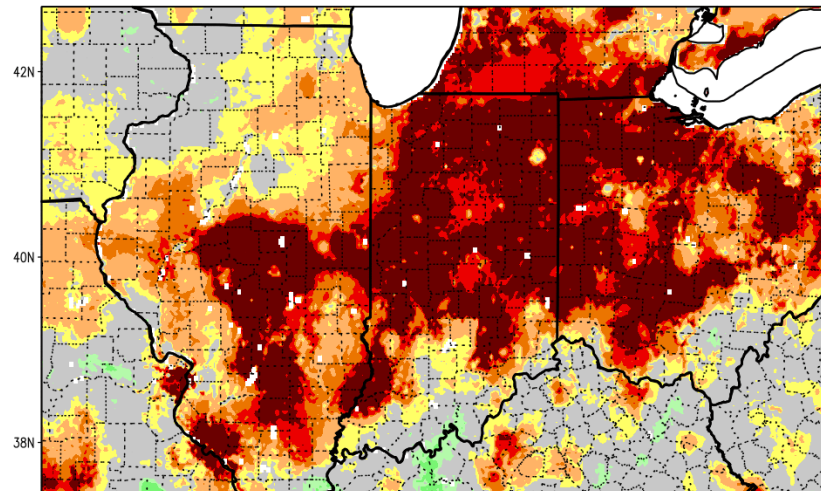


# Soil Moisture

Calculated Soil Moisture Anomaly Change  
SEP 24, 2020 from AUG.31



SPoRT-LIS 0-100 cm Soil Moisture percentile valid 25 Sep 2020

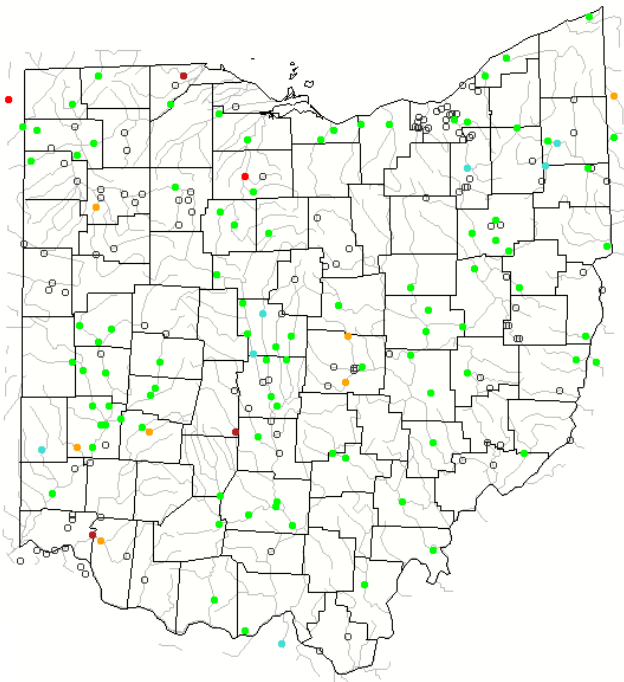


[https://weather.msfc.nasa.gov/sport/case\\_studies/lis\\_IN.html](https://weather.msfc.nasa.gov/sport/case_studies/lis_IN.html)



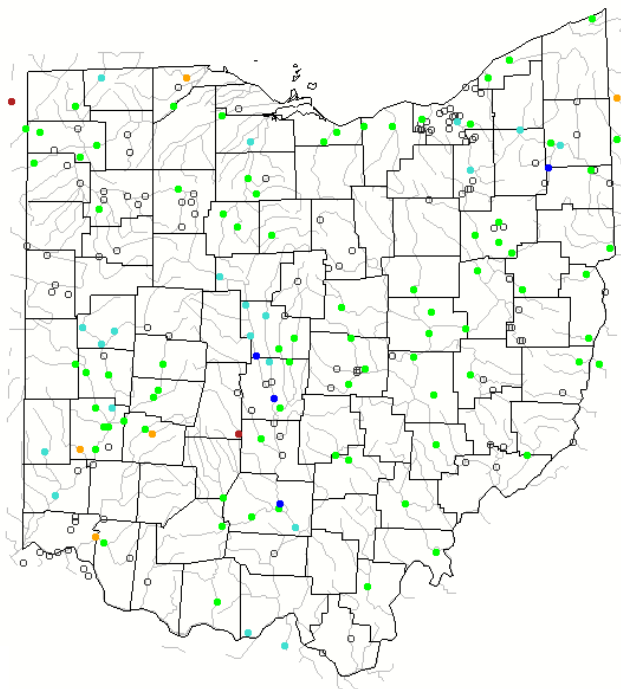
[https://www.cpc.ncep.noaa.gov/products/Soilmst\\_Monitoring/US/Soilmst/Soilmst.shtml#](https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml#)

7-DAY

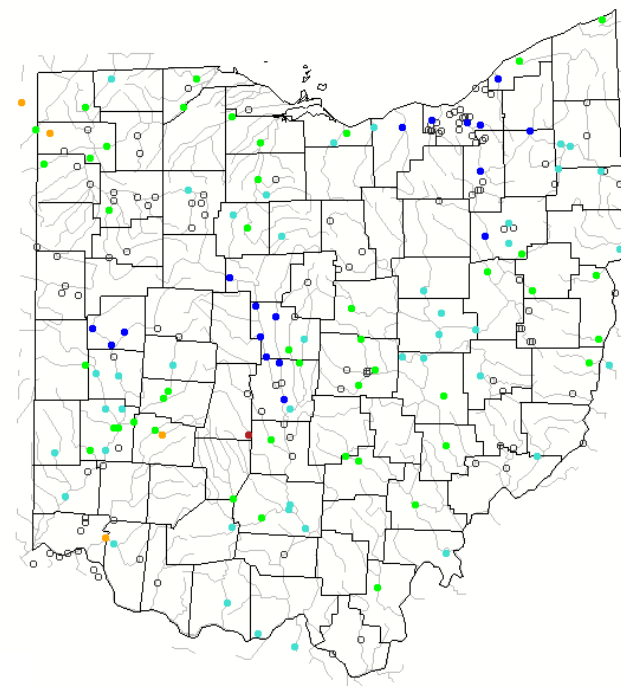


# USGS Stream Flow

14-DAY



28-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



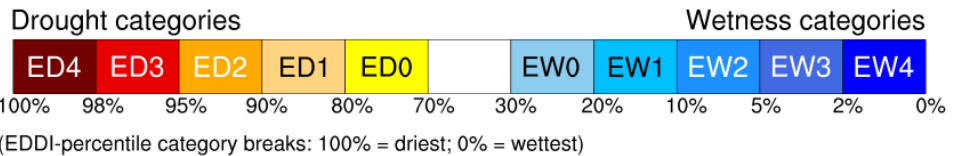
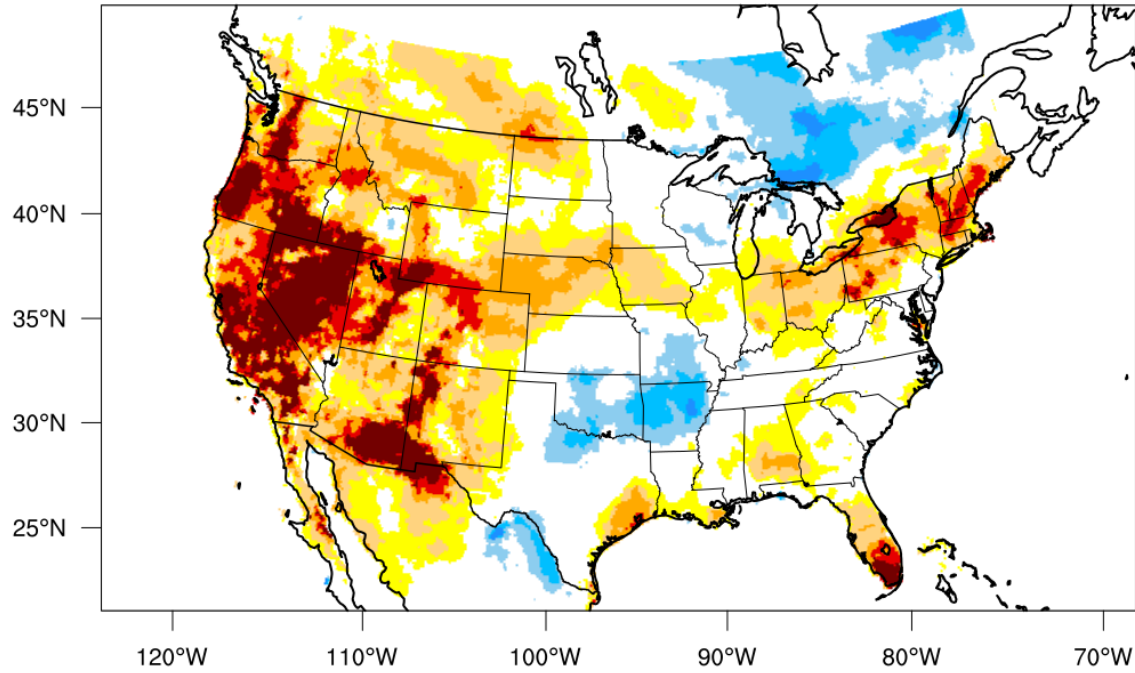
<https://waterwatch.usgs.gov/index.php>



THE OHIO STATE UNIVERSITY

# Water Demand

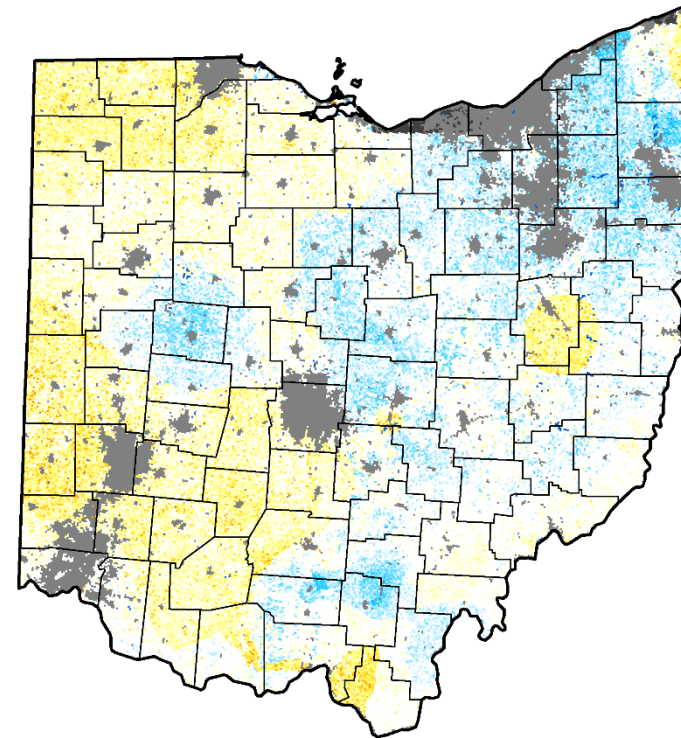
1-month EDDI categories for September 20, 2020



Generated by NOAA/ESRL/Physical Sciences Laboratory

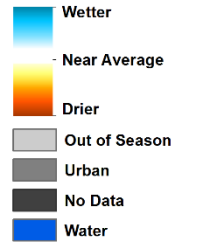


Quick Drought Response Index  
Ohio



September 20, 2020  
(Week 38)

Conditions Relative to  
4-Week Historical Average

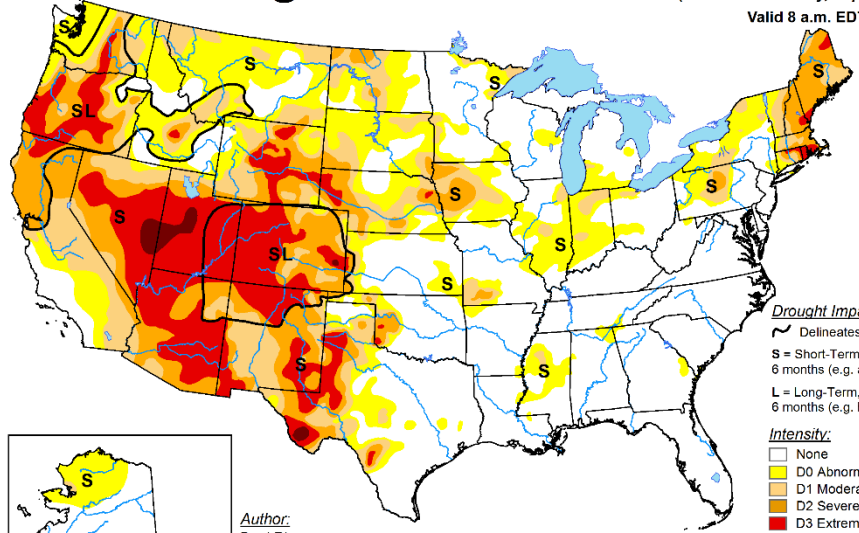


<https://quickdri.unl.edu/State.aspx?OH>

# Current U.S. Drought Monitor

## U.S. Drought Monitor

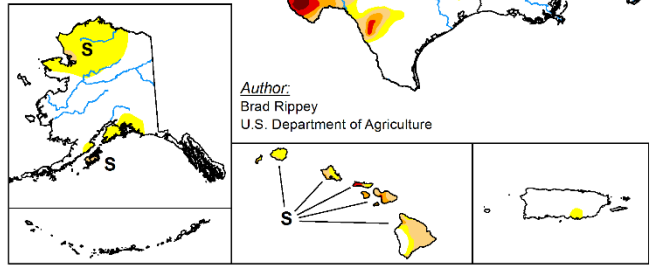
September 22, 2020  
 (Released Thursday, Sep. 24, 2020)  
 Valid 8 a.m. EDT



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

**Author:**  
 Brad Rippey  
 U.S. Department of Agriculture



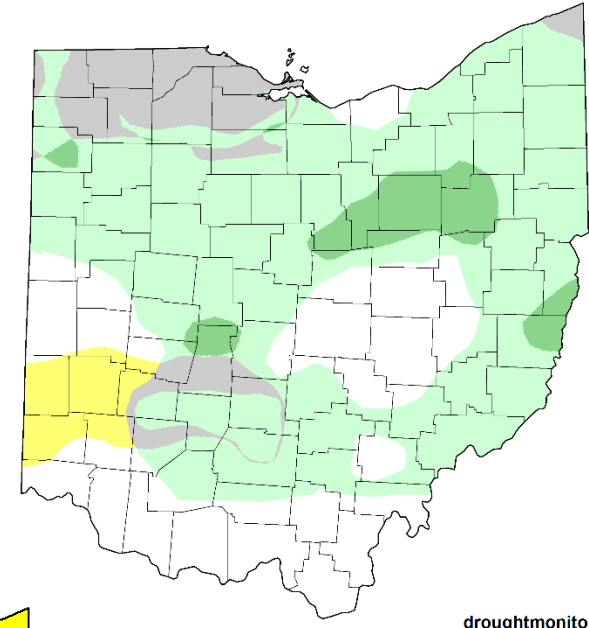

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



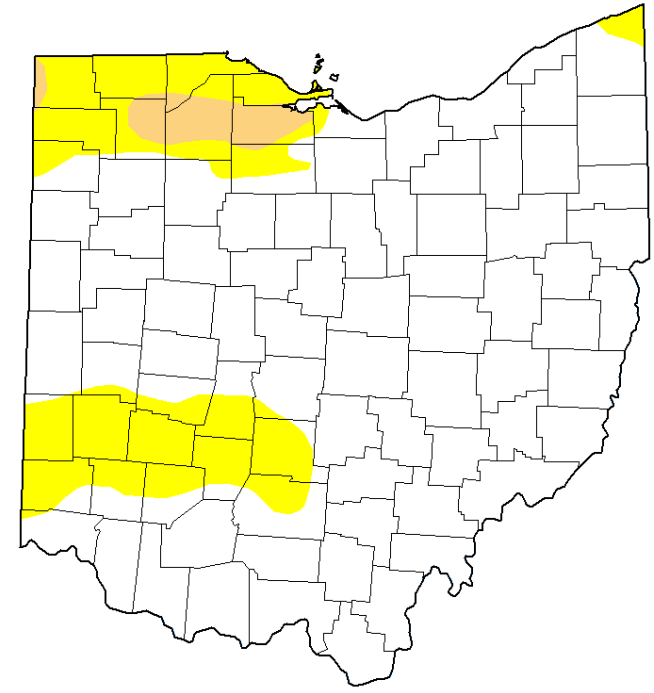
droughtmonitor.unl.edu

## U.S. Drought Monitor Class Change - Ohio 1 Month

5 Class Degradation  
 4 Class Degradation  
 3 Class Degradation  
 2 Class Degradation  
 1 Class Degradation  
 No Change  
 1 Class Improvement  
 2 Class Improvement  
 3 Class Improvement  
 4 Class Improvement  
 5 Class Improvement

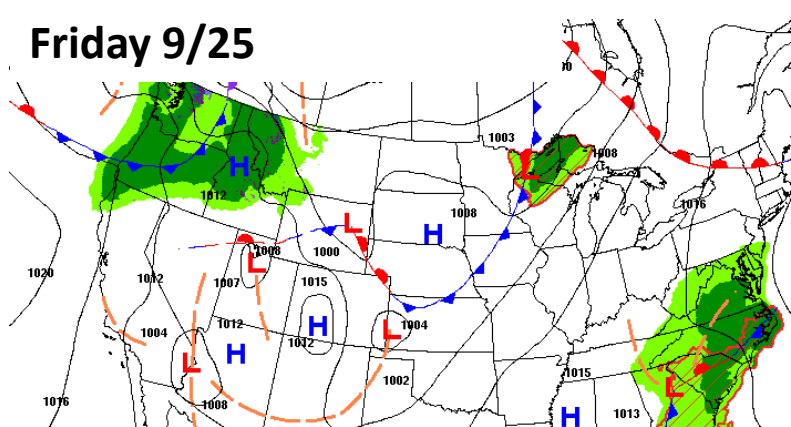
droughtmonitor.unl.edu





# Weather for the Week Ahead

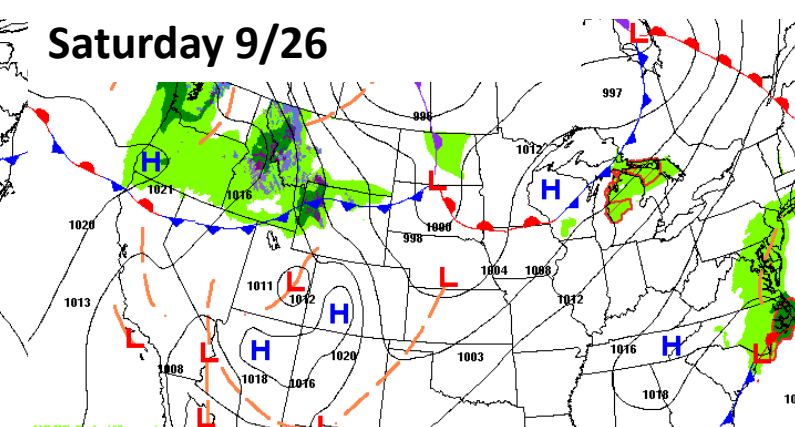
Friday 9/25



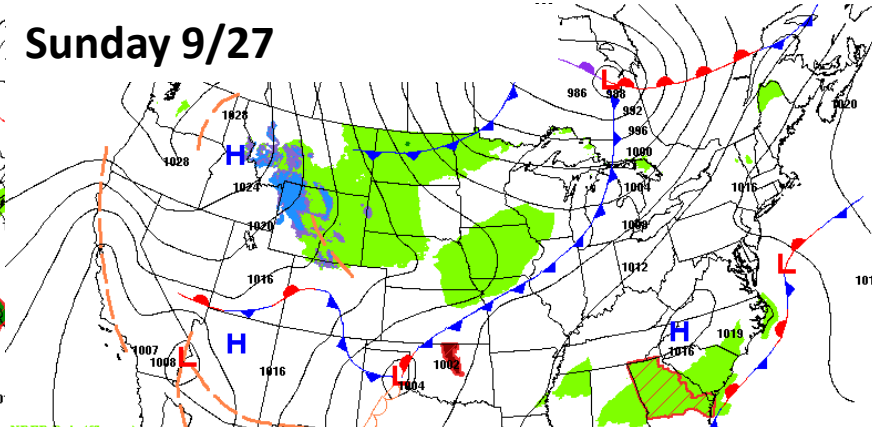
- NDFD Rain (Chance)
- NDFD Rain (Likely)
- NDFD Snow (Chance)
- NDFD Snow (Likely)
- NDFD Mix (Chance)
- NDFD Mix (Likely)
- NDFD Ice (Chance)
- NDFD Ice (Likely)
- NDFD T-Storm (Chance) (Hatched)
- NDFD T-Storm (Likely and/or Severe)

WPC Fronts/NDFD  
Issued: 1546Z Fri  
Valid 00Z Saturday  
Forecaster: ZIEGE

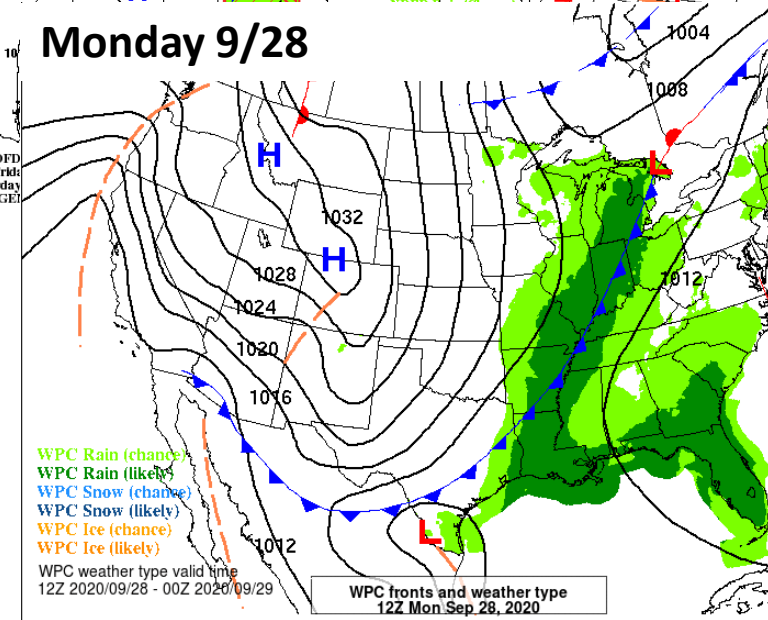
Saturday 9/26



Sunday 9/27



Monday 9/28

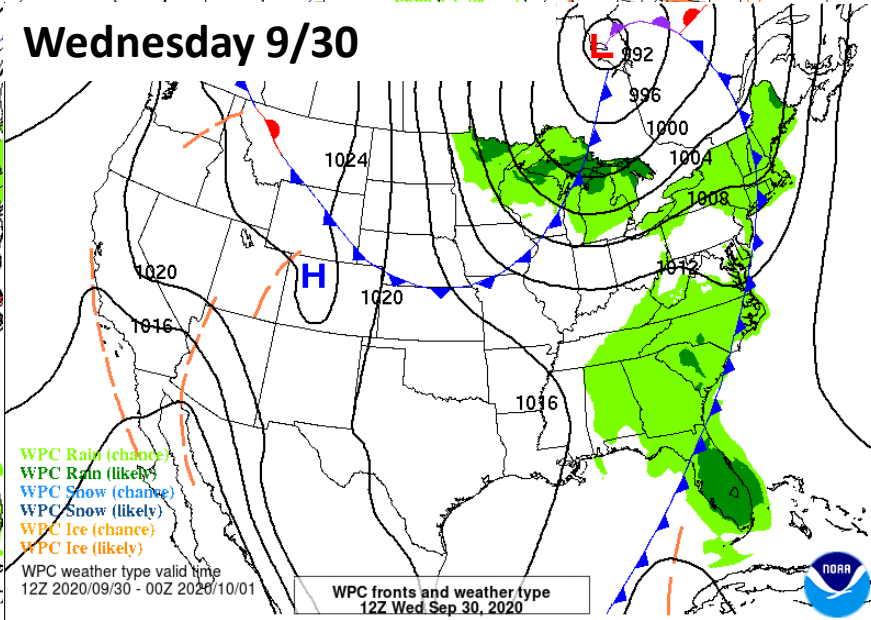


- WPC Rain (chance)
- WPC Rain (likely)
- WPC Snow (chance)
- WPC Snow (likely)
- WPC Ice (chance)
- WPC Ice (likely)

WPC weather type valid time  
12Z 2020/09/28 - 00Z 2020/09/29

WPC fronts and weather type  
12Z Mon Sep 28, 2020

Wednesday 9/30



- WPC Rain (chance)
- WPC Rain (likely)
- WPC Snow (chance)
- WPC Snow (likely)
- WPC Ice (chance)
- WPC Ice (likely)

WPC weather type valid time  
12Z 2020/09/30 - 00Z 2020/10/01

WPC fronts and weather type  
12Z Wed Sep 30, 2020

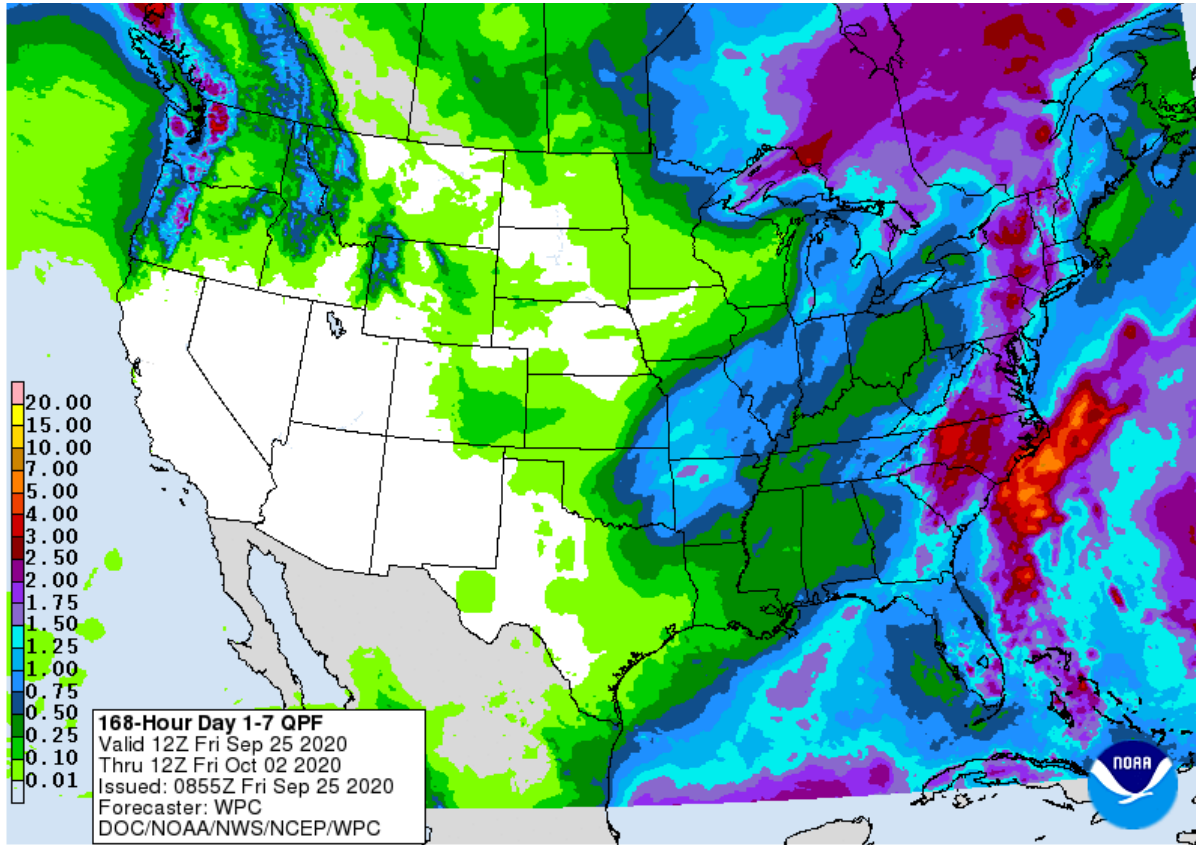
Weather Type  
Number 25 2020  
September 27, 2020



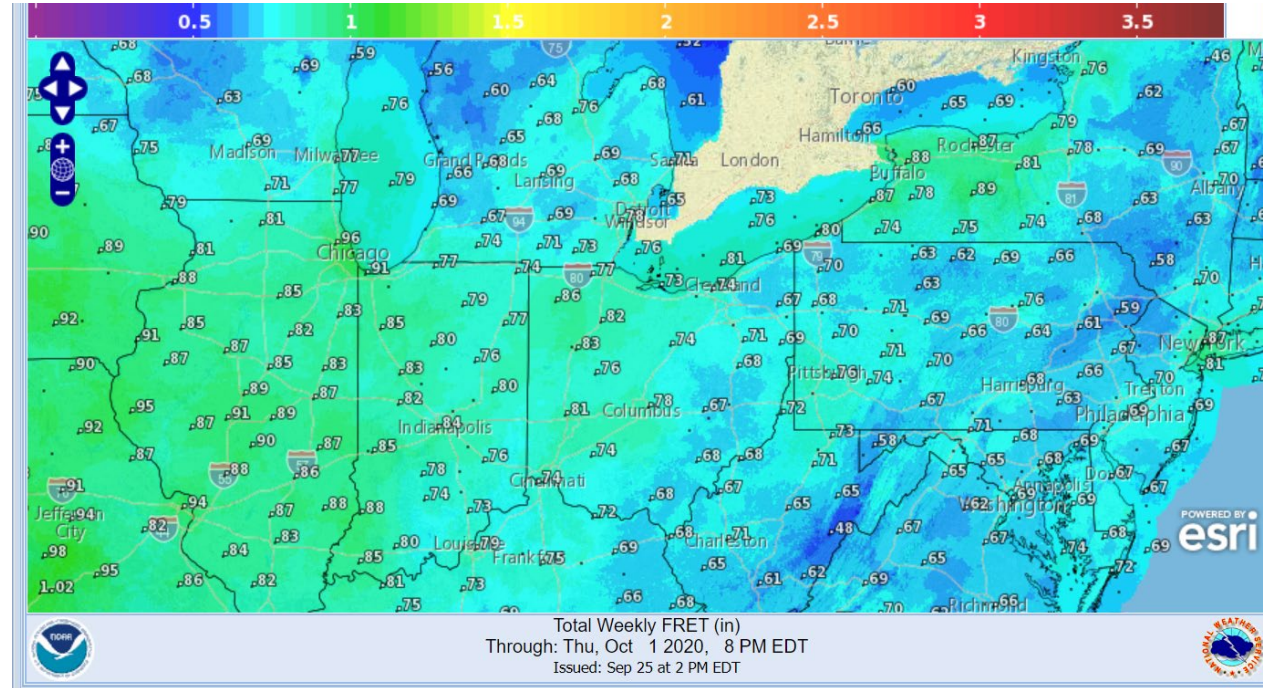
THE OHIO STATE UNIVERSITY

<https://www.wpc.ncep.noaa.gov/#>

# 7-Day Precipitation/Evaporation Forecast



<https://www.wpc.ncep.noaa.gov/#>

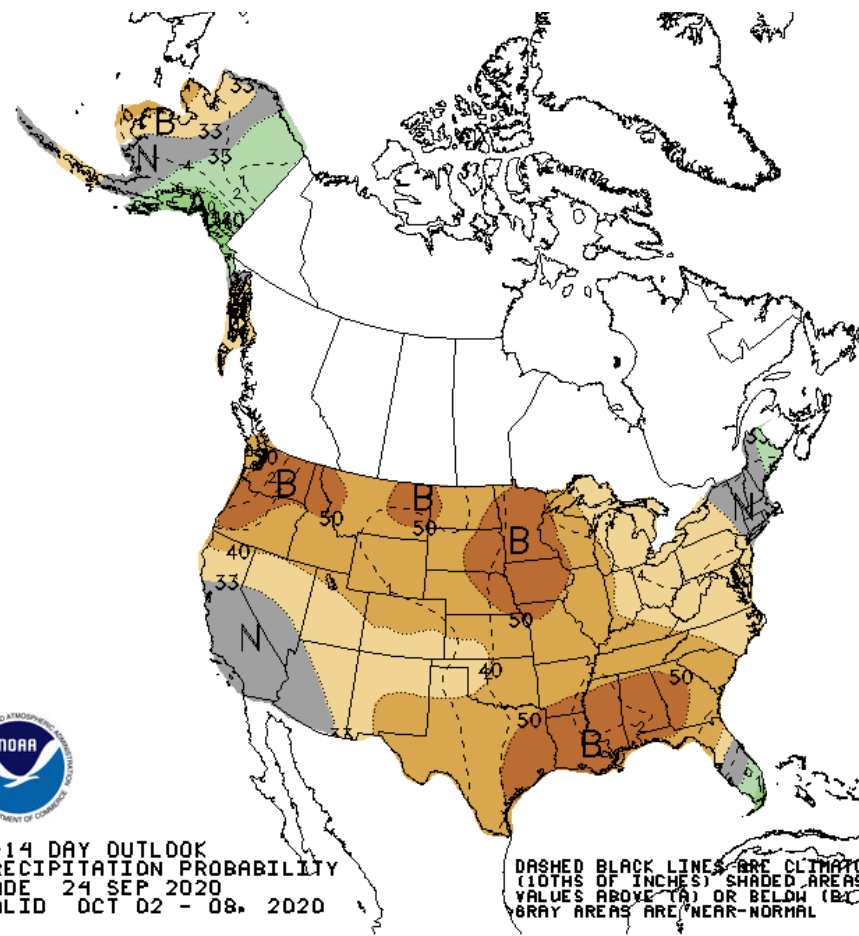
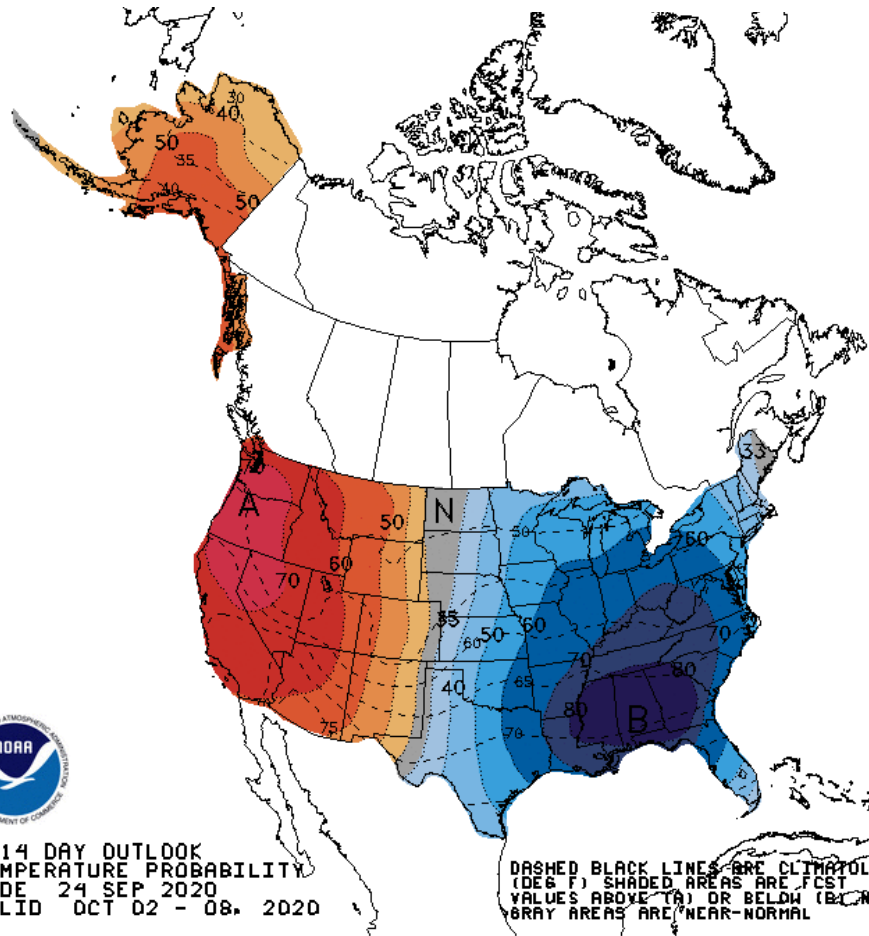


<https://www.weather.gov/abr/etforecasts>



THE OHIO STATE UNIVERSITY

# 8-14 Day Outlook

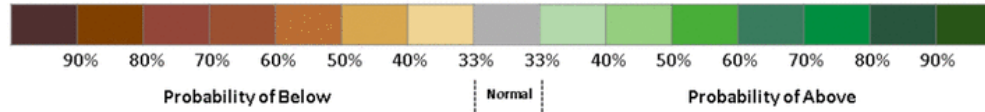
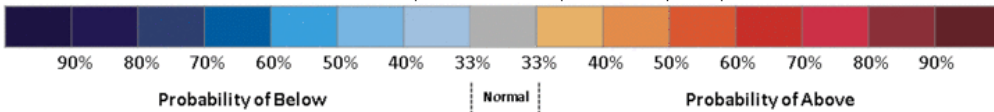


Normals (1981-2010)

Highs: 70-75°F

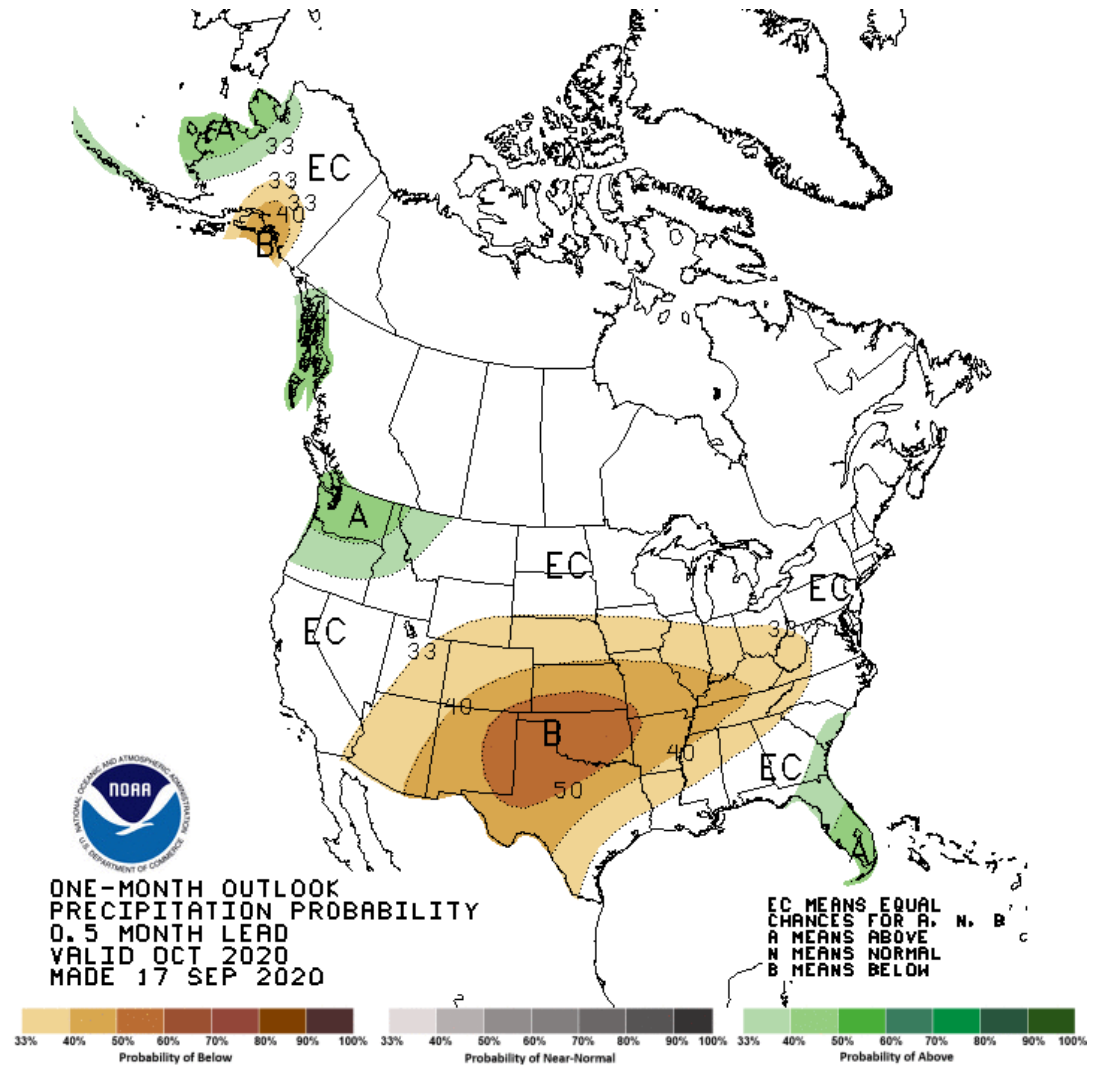
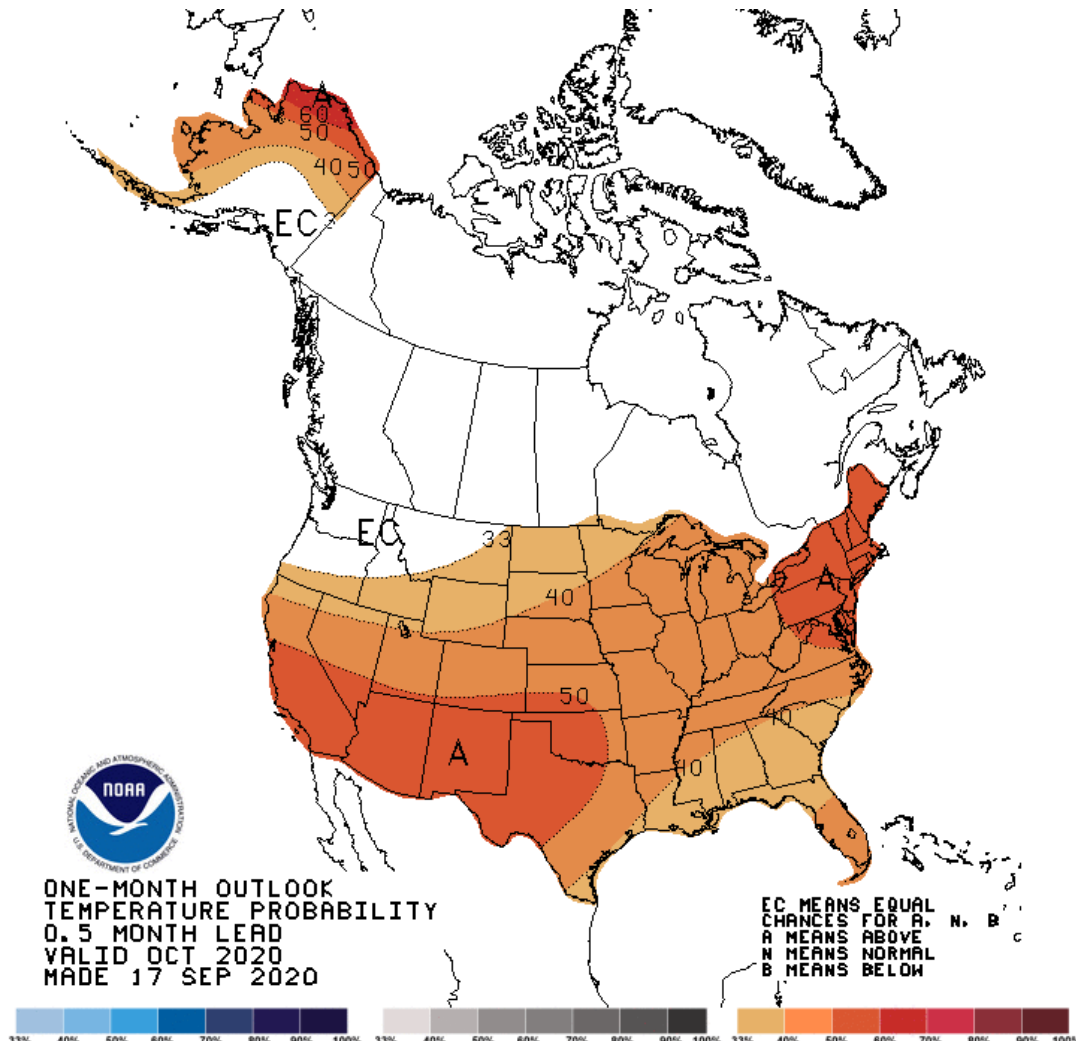
Lows: 50-55°F

Precip: 0.75"

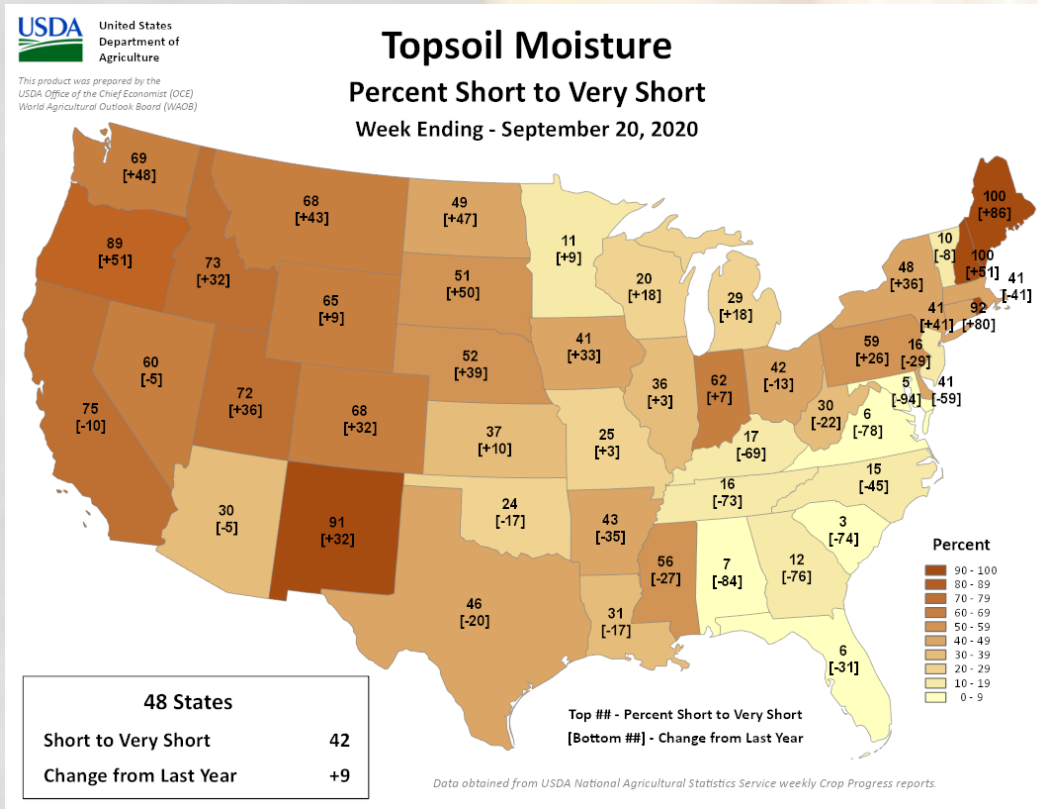


THE OHIO STATE UNIVERSITY

# October Outlook



# Ag Highlights



- 6.4 suitable days for fieldwork ending Sept. 21
- Silage and cutting hay
- Most crop conditions still fair to good and ahead of 5yr averages

**NASS: Cheryl Turner –**

[https://www.nass.usda.gov/Statistics\\_by\\_State/Ohio/Publications/Crop\\_Progress\\_&\\_Condition/2020/cw3220oh.pdf](https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2020/cw3220oh.pdf)

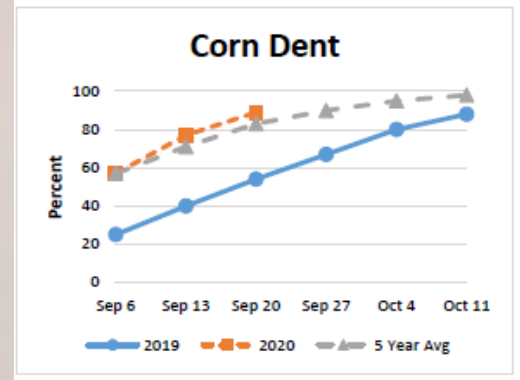
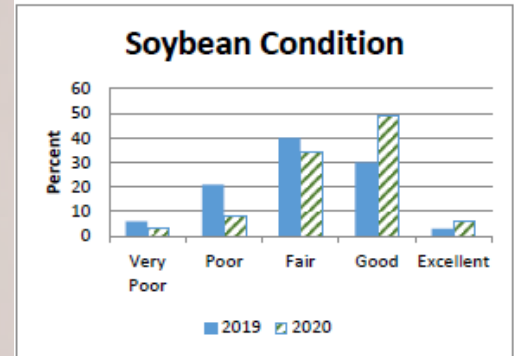
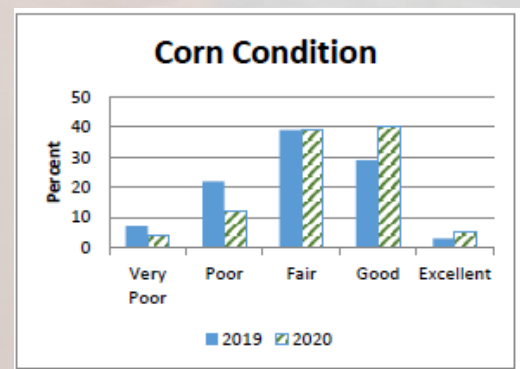


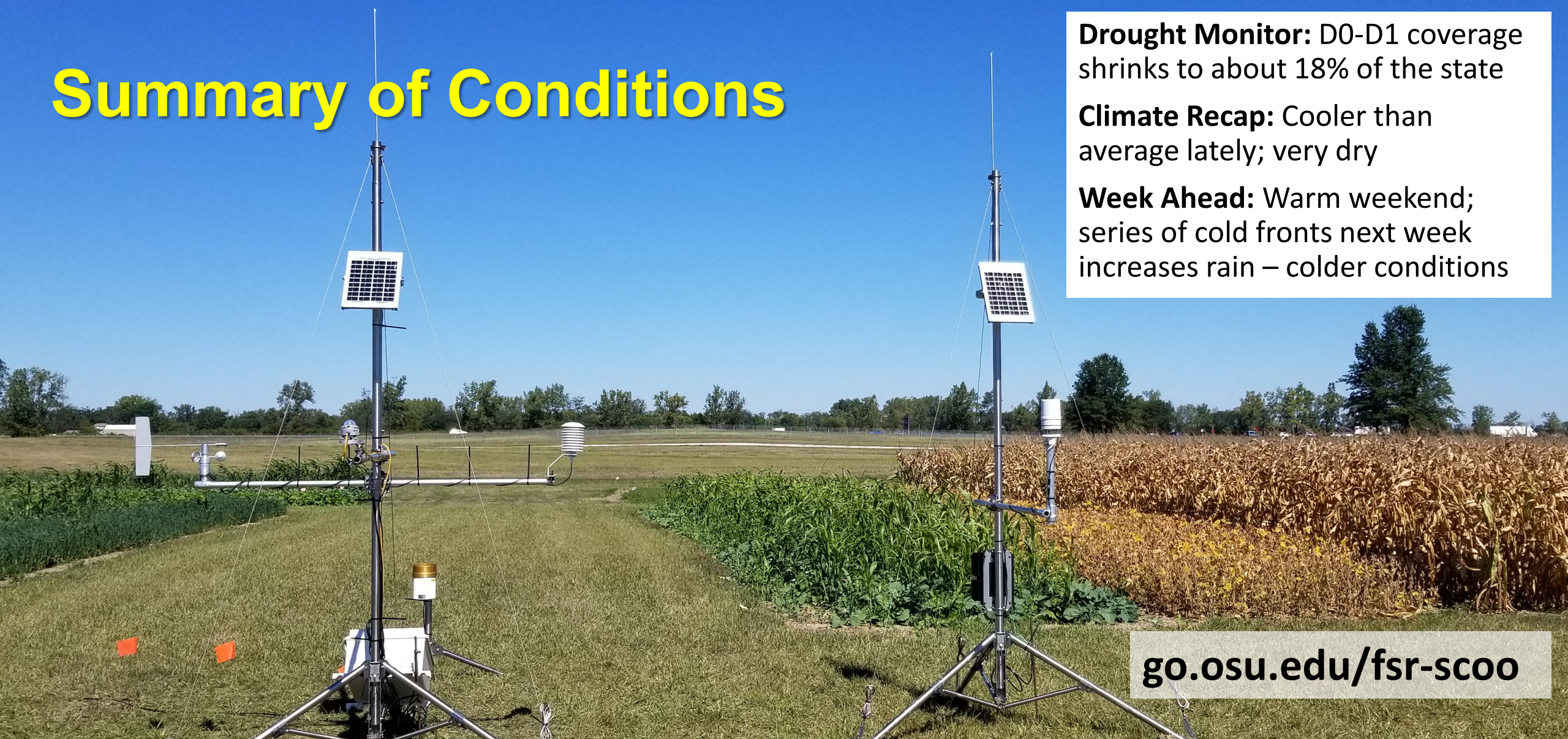
Photo Credit: Elizabeth Hawkins

# Summary of Conditions

**Drought Monitor:** D0-D1 coverage shrinks to about 18% of the state

**Climate Recap:** Cooler than average lately; very dry

**Week Ahead:** Warm weekend; series of cold fronts next week increases rain – colder conditions



[go.osu.edu/fsr-scoo](http://go.osu.edu/fsr-scoo)



THE OHIO STATE UNIVERSITY

# 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://cocorahs.org>
- Song: "Blue Creek Trail" by Dan Lebowitz

Photo Courtesy of Toni Custer



THE OHIO STATE UNIVERSITY

**Aaron B. Wilson**  
STATE CLIMATE OFFICE OF OHIO (SCOO)  
DEPARTMENT OF EXTENSION - CFAES  
BYRD POLAR & CLIMATE RESEARCH CENTER  
DEPARTMENT OF GEOGRAPHY