

# Hydrologic and Climate Assessment

April 30, 2020



**Aaron B. Wilson**

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

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



**THE OHIO STATE UNIVERSITY**

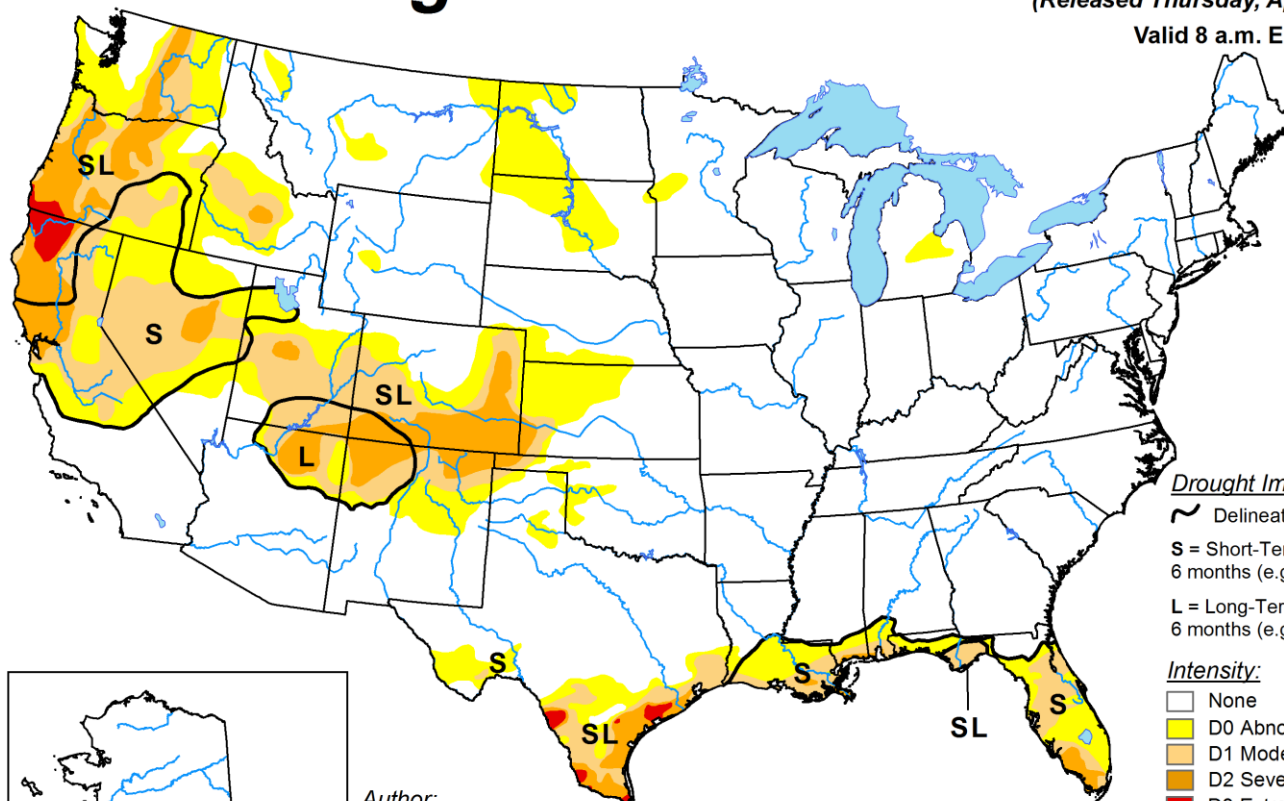
---

# U.S. Drought Monitor

April 28, 2020

(Released Thursday, Apr. 30, 2020)

Valid 8 a.m. EDT

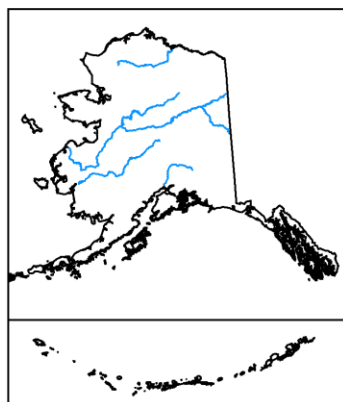


Drought Impact Types:

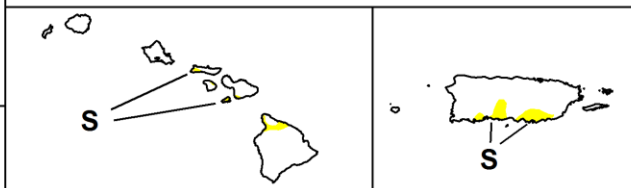
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

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



Author:  
Deborah Bathke  
National Drought Mitigation Center



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](https://droughtmonitor.unl.edu)



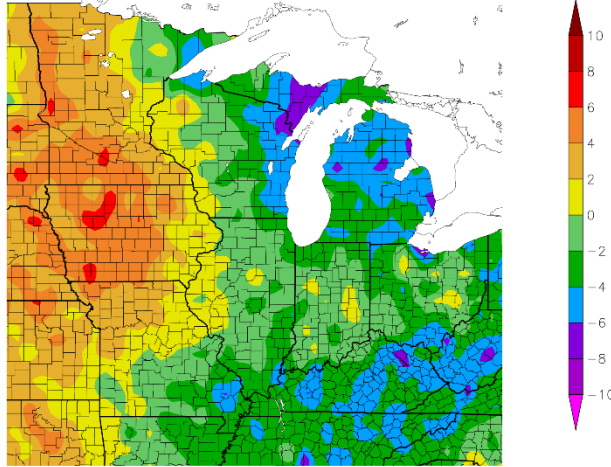
THE OHIO STATE UNIVERSITY

STATE CLIMATE OFFICE OF OHIO (SCOO)  
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES  
DEPARTMENT OF EXTENSION  
BYRD POLAR & CLIMATE RESEARCH CENTER  
DEPARTMENT OF GEOGRAPHY

# Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)  
4/23/2020 – 4/29/2020

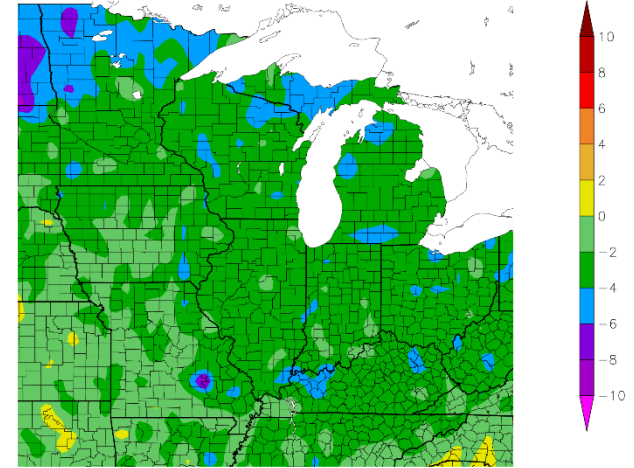


Generated 4/30/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

30-Day

Departure from Normal Temperature (F)  
3/31/2020 – 4/29/2020

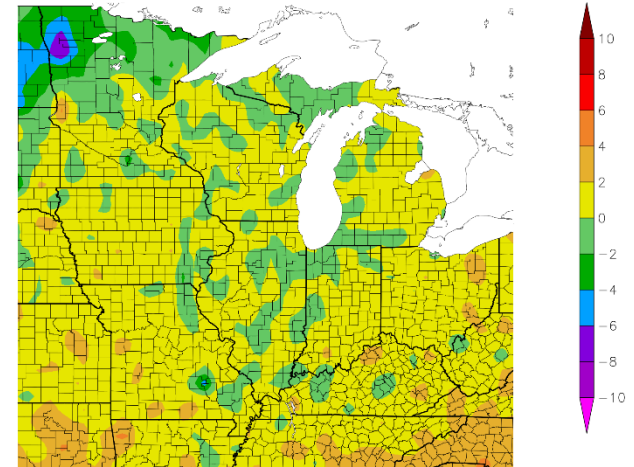


Generated 4/30/2020 at HPRCC using provisional data.

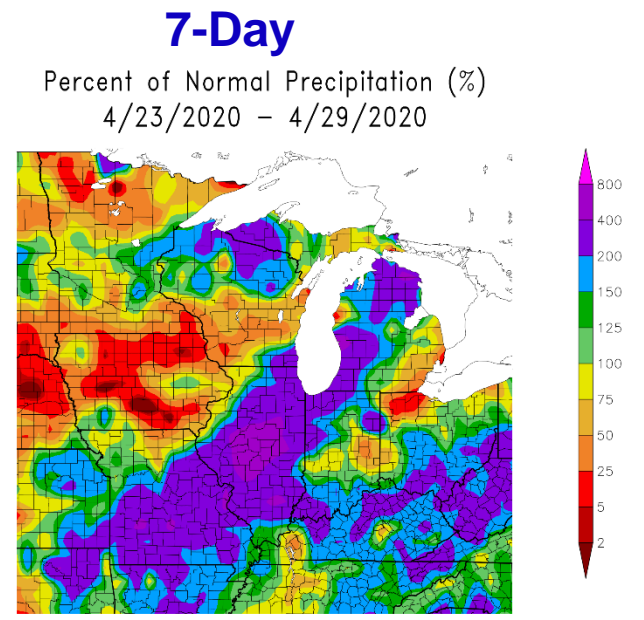
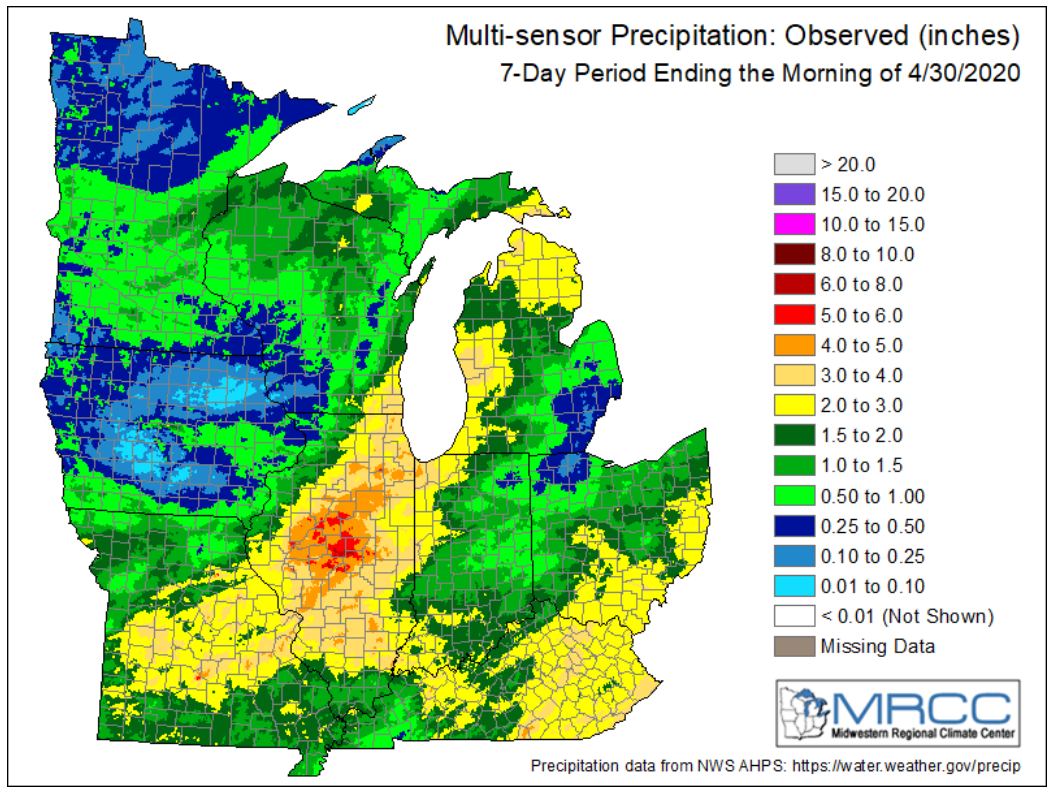
NOAA Regional Climate Centers

60-Day

Departure from Normal Temperature (F)  
3/1/2020 – 4/29/2020



# This Week's Precipitation



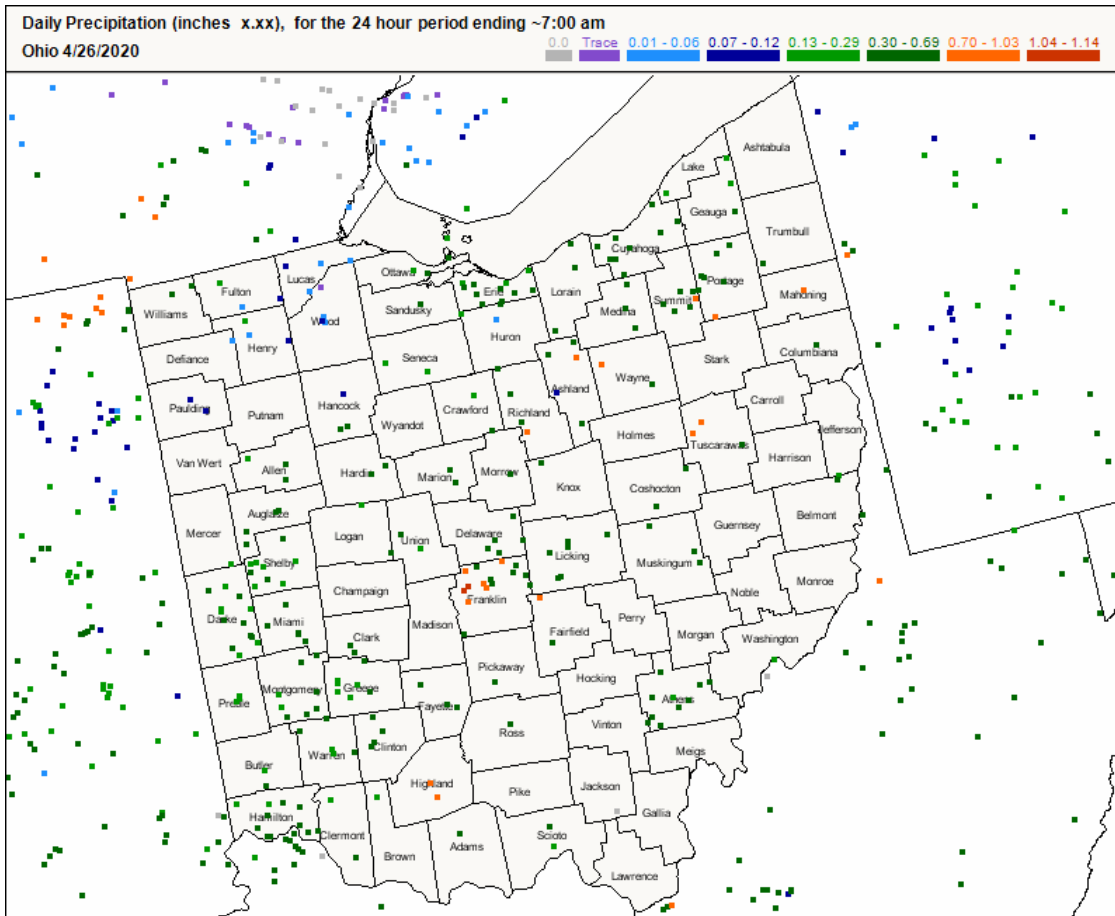
Generated 4/30/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers



# CoCoRaHS

## Top 10 Wettest: Mar-Apr



CoCoRaHS Name	Total Precip (inches)
Reynoldsburg 1.1 ENE	14.74
Sunbury 5.7 ESE	14.39
Granville 4.0 N	13.68
Westerville 0.7 N	13.63
Hanoverton 0.4 ENE	13.58
Kirkersville 3.3 N	13.57
Springfield 7.4 SW	13.53
Alexandria 2.1 NNW	13.23
Westerville 3.4 N	13.09
Grandview Heights 0.1 N	13.02

<https://cocorahs.org/>

STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY

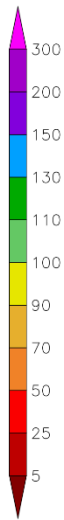
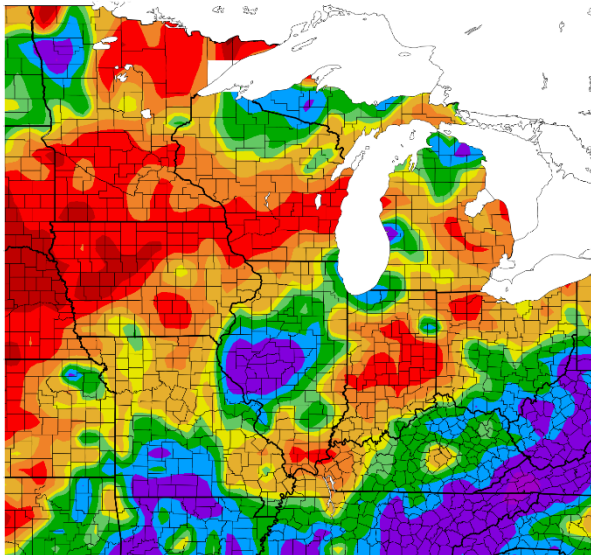


THE OHIO STATE UNIVERSITY

# Precipitation Differences Compared to Average (1981-2010)

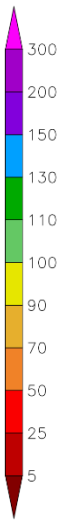
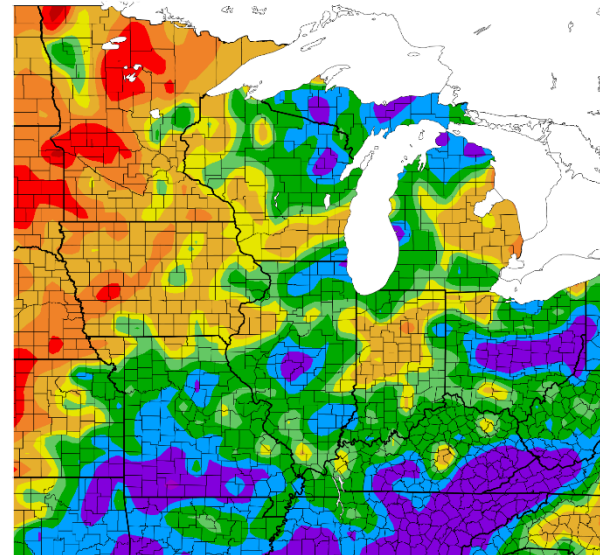
## 30-Day

Percent of Normal Precipitation (%)  
3/31/2020 - 4/29/2020



## 60-Day

Percent of Normal Precipitation (%)  
3/1/2020 - 4/29/2020



Generated 4/30/2020 at HPRCC using provisional data.

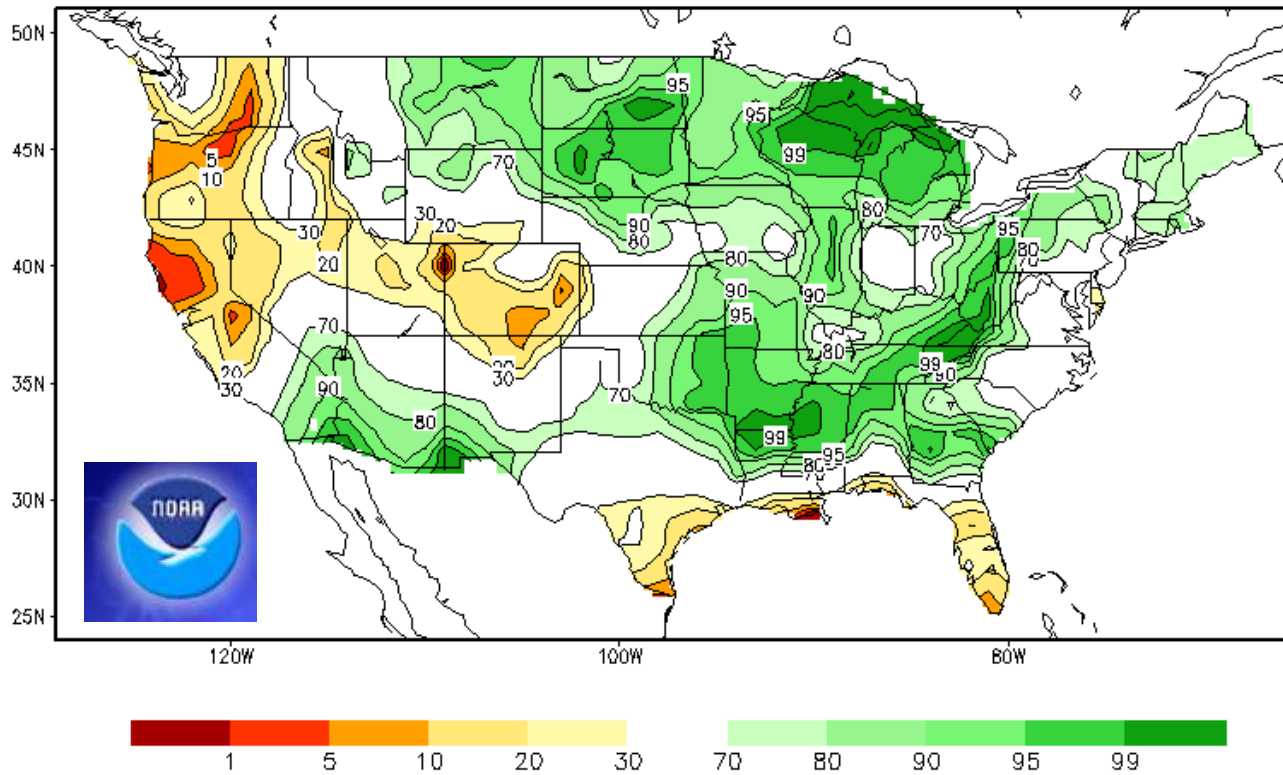
NOAA Regional Climate Centers

Generated 4/30/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

# Soil Moisture

Calculated Soil Moisture Ranking Percentile  
APR 29, 2020



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

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

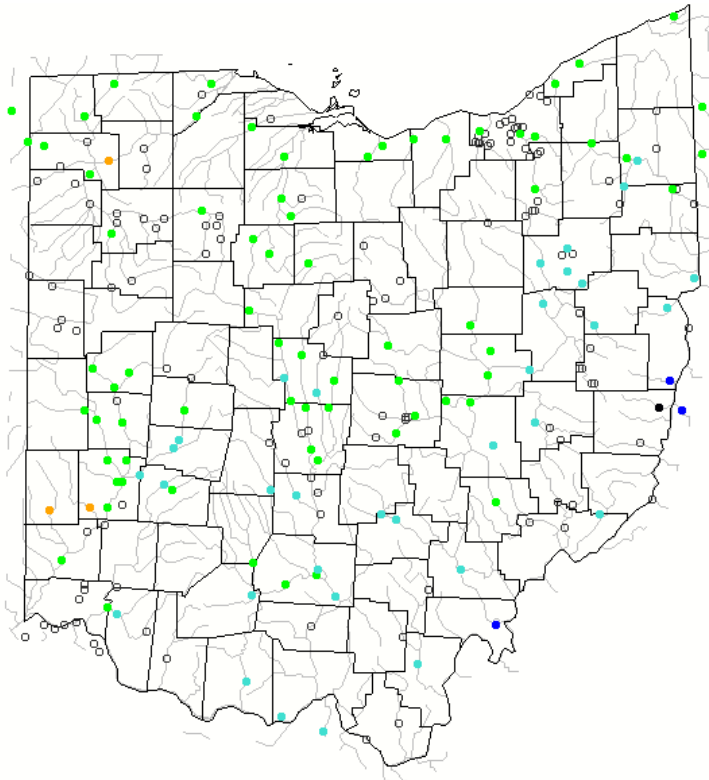
BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



**THE OHIO STATE UNIVERSITY**

7-DAY



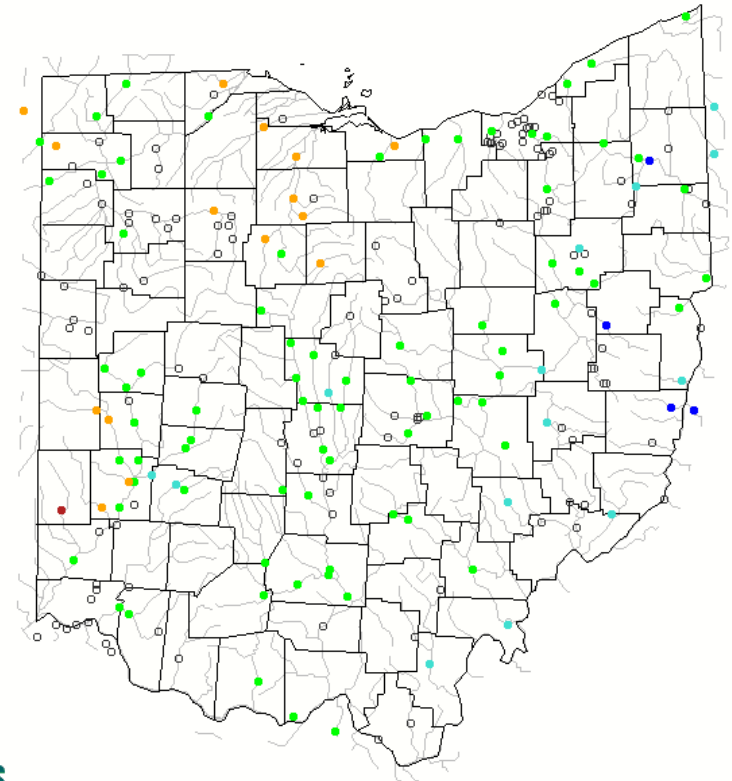
Explanation - Percentile classes

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



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

BYRD POLAR & CLIMATE RESEARCH CENTER

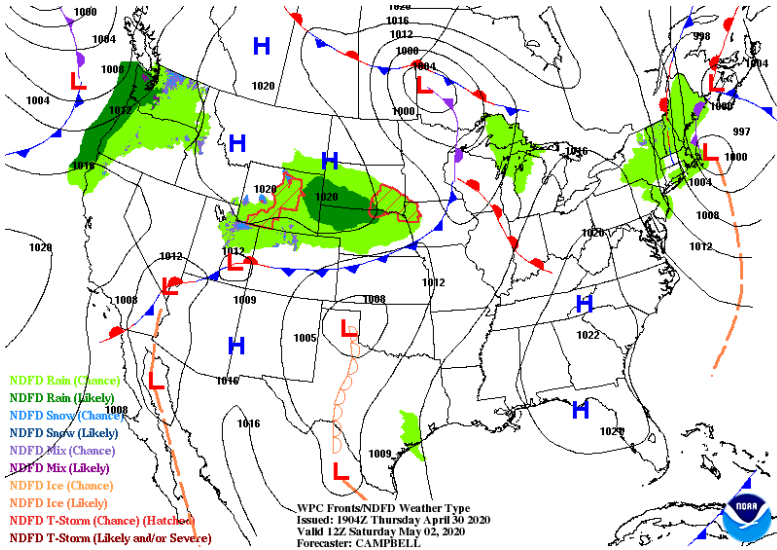
DEPARTMENT OF GEOGRAPHY



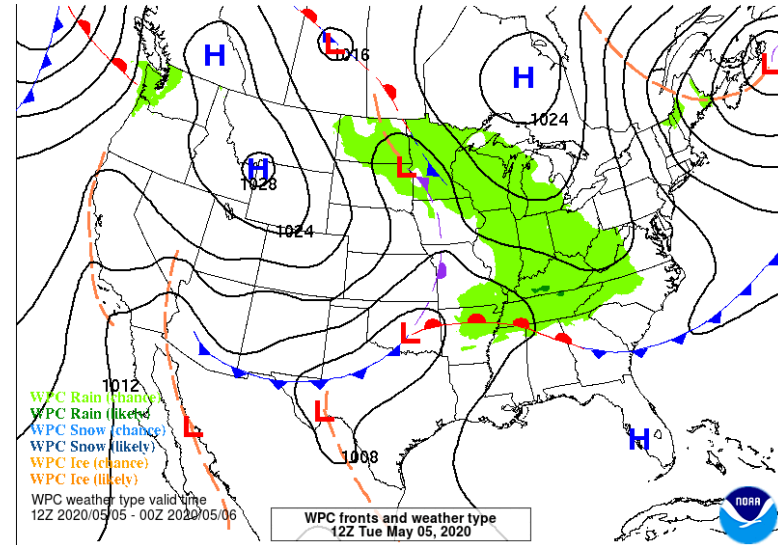
THE OHIO STATE UNIVERSITY



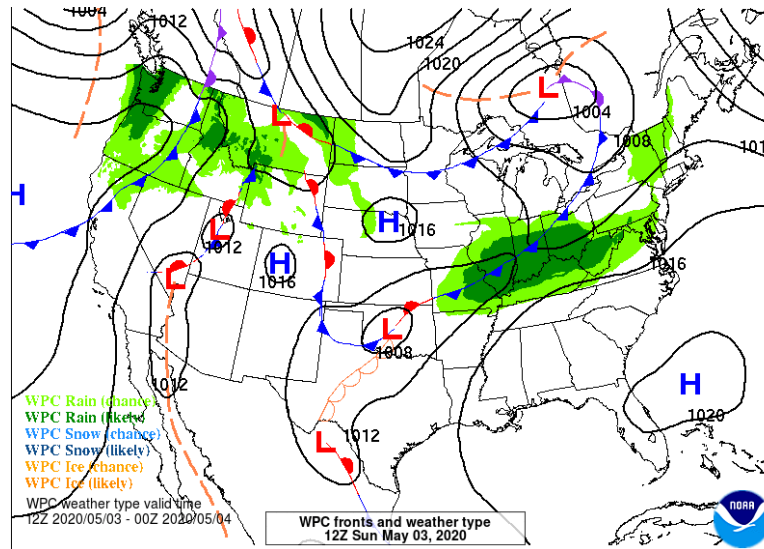
# Weather for the Week Ahead



Saturday 5/2



Tuesday



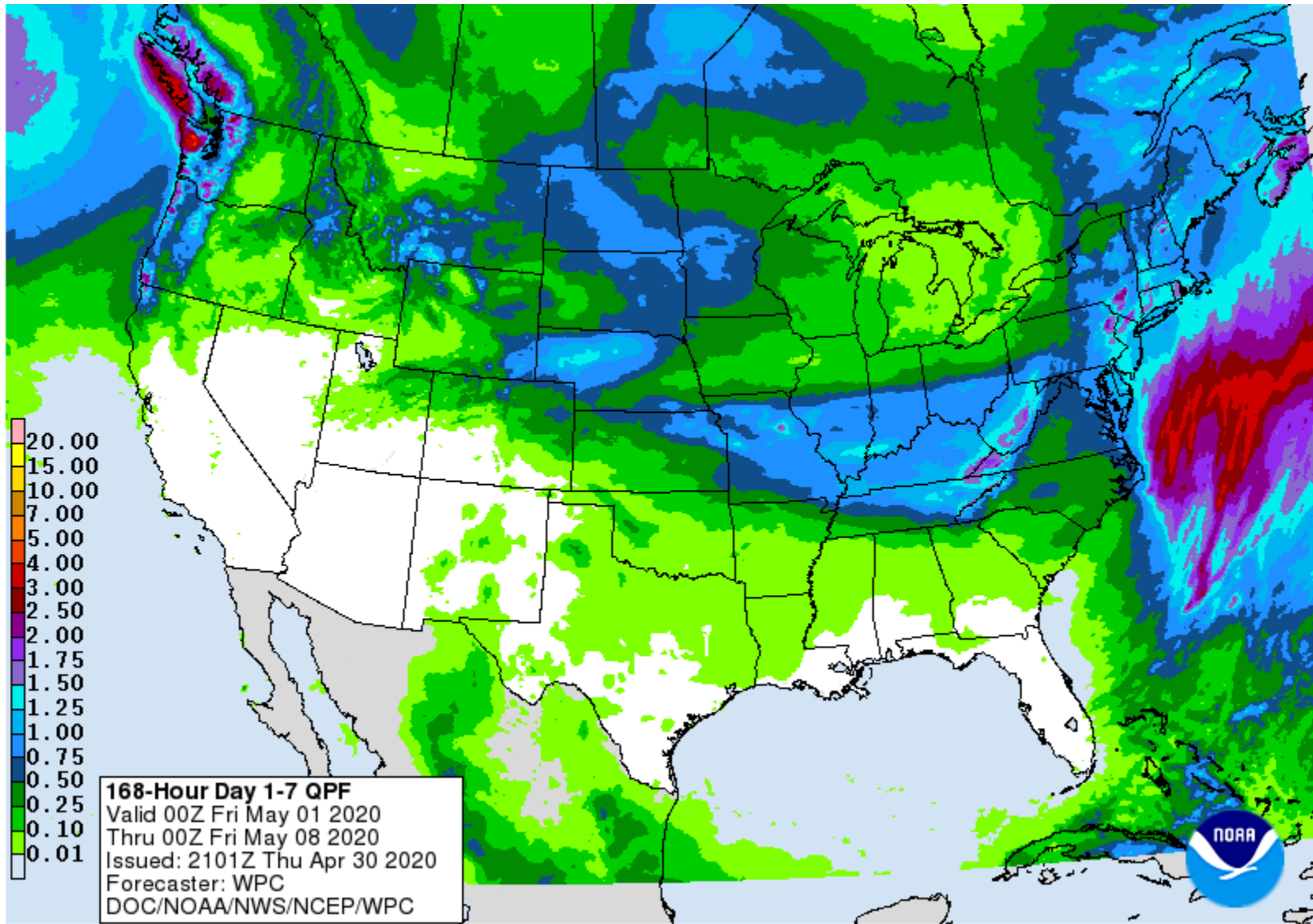
Sunday 5/3



THE OHIO STATE UNIVERSITY

STATE CLIMATE OFFICE OF OHIO (SCOO)  
 COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES  
 DEPARTMENT OF EXTENSION  
 BYRD POLAR & CLIMATE RESEARCH CENTER  
 DEPARTMENT OF GEOGRAPHY

# Weather for the Week Ahead



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

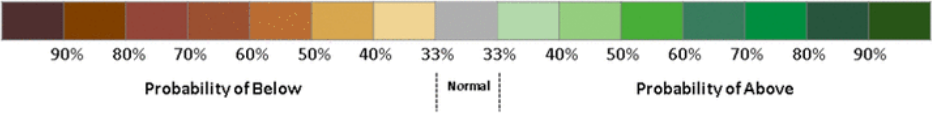
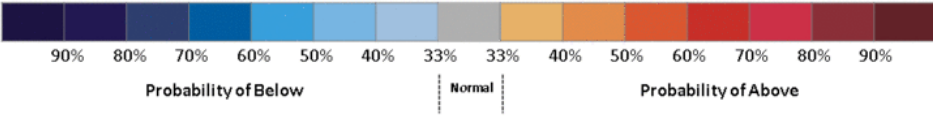
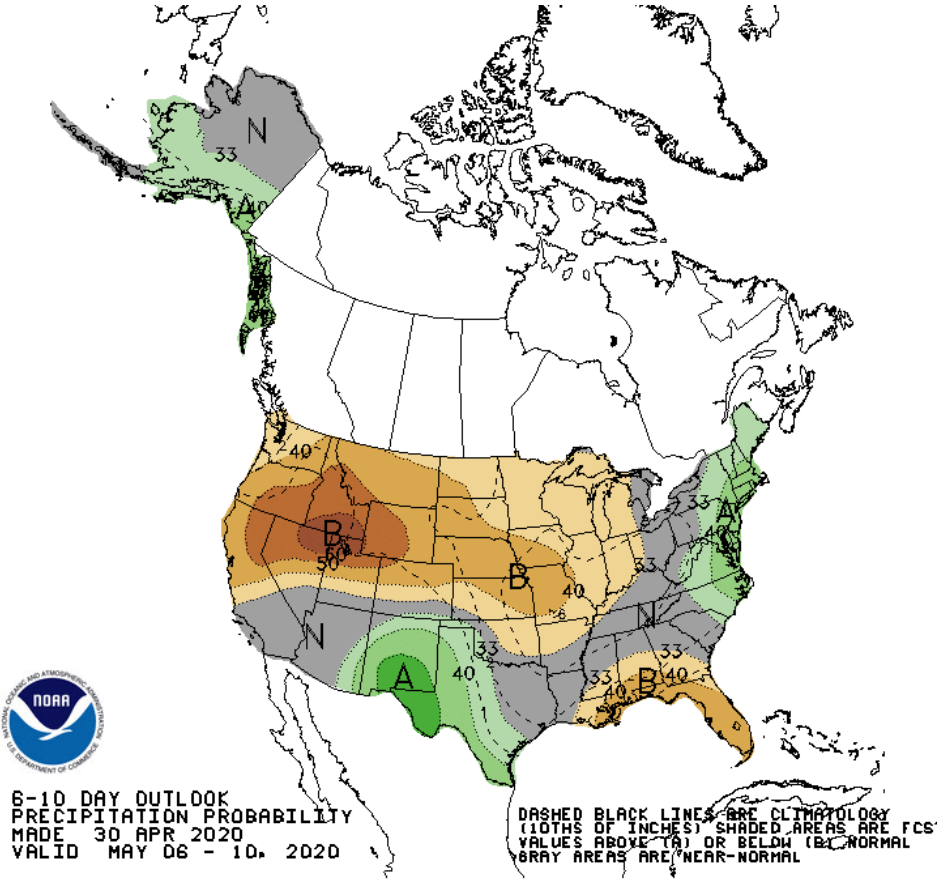
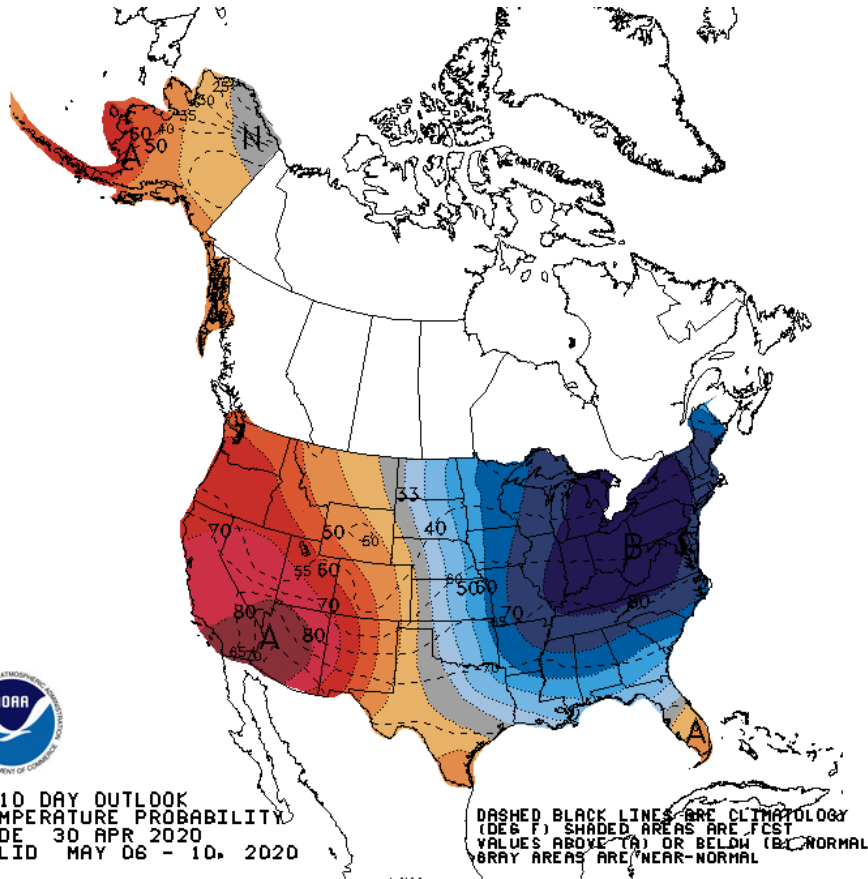
BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

# 6-10 Day Outlook



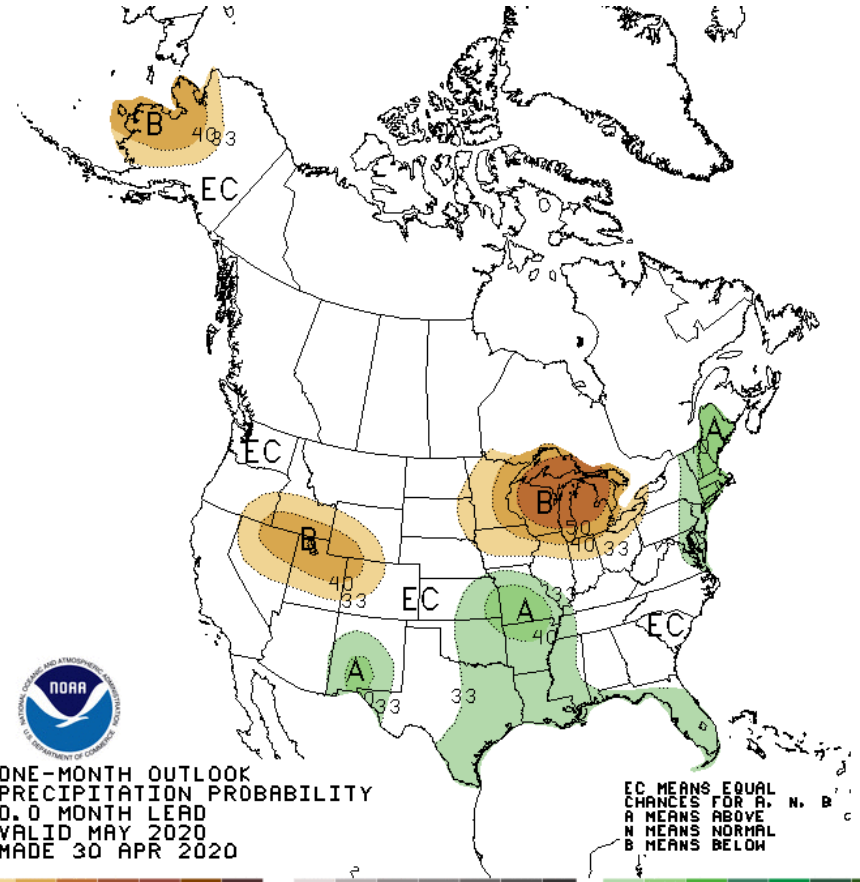
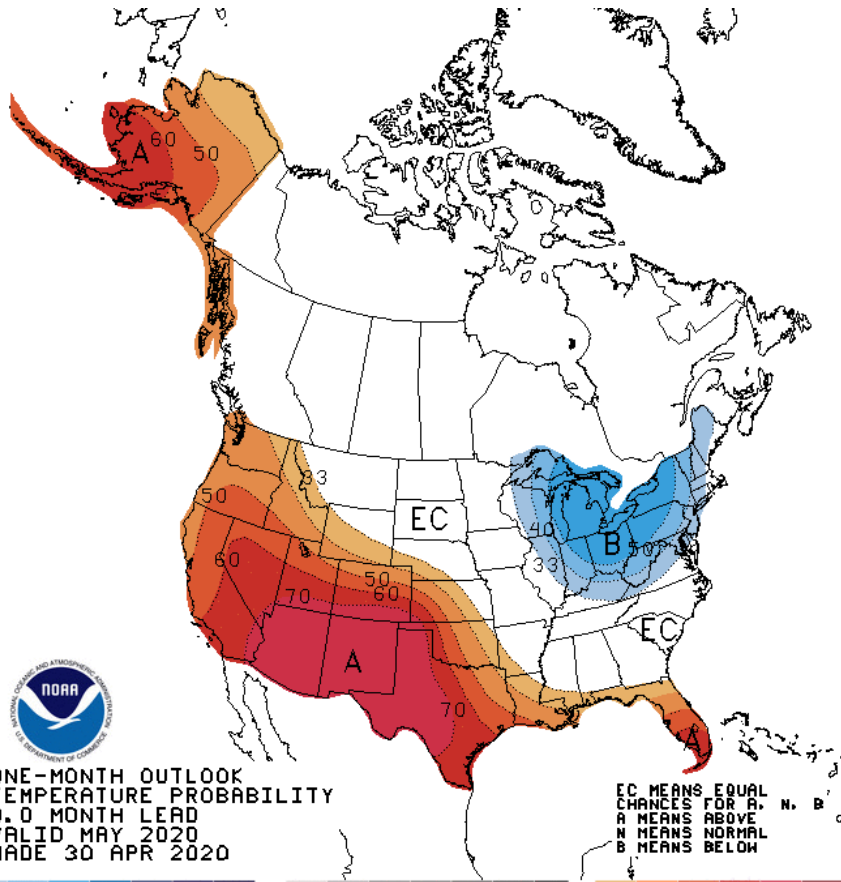
Highs: 66-70°F; Lows: 44-49°F; Precip: 0.85-1.05" (per week)



THE OHIO STATE UNIVERSITY

STATE CLIMATE OFFICE OF OHIO (SCOO)  
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES  
DEPARTMENT OF EXTENSION  
BYRD POLAR & CLIMATE RESEARCH CENTER  
DEPARTMENT OF GEOGRAPHY

# May Outlook



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

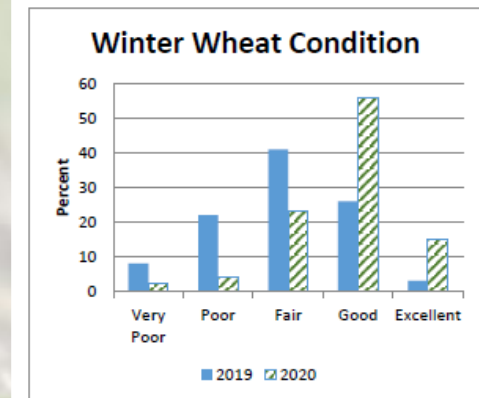
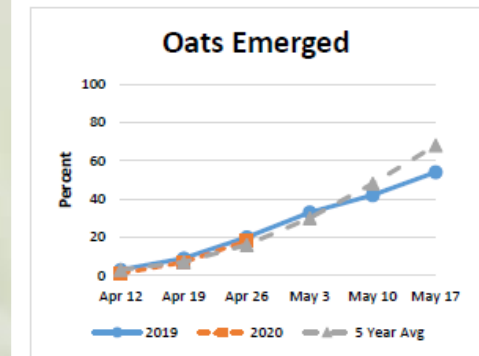
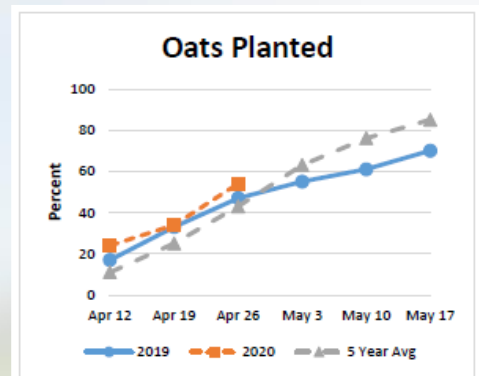
# Ag Highlights

- 2.7 suitable days for fieldwork
- Worked the ground, sprayed weeds, spread manure and fertilizers, and tiled fields.
- Corn and soybean planting began
- Some freeze damage

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)

Photo Credit: Beth Scheckelhoff



# Summary of Conditions



Photo Credit: Kenzie Johnston

**Drought Monitor:** None

**Climate Recap:** Dry NW, wet south and east; generally cold across the region

**Ahead:** Slow moderation in temperatures; active pattern but weak systems



**THE OHIO STATE UNIVERSITY**

**STATE CLIMATE OFFICE OF OHIO (SCOO)**  
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES  
DEPARTMENT OF EXTENSION  
BYRD POLAR & CLIMATE RESEARCH CENTER  
DEPARTMENT OF GEOGRAPHY

# 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: "Wishful Thinking" by Dan Lebowitz