

Hydrologic and Climate Assessment

May 17, 2018



Aaron B. Wilson

STATE CLIMATE OFFICE OF OHIO (SCOO)

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

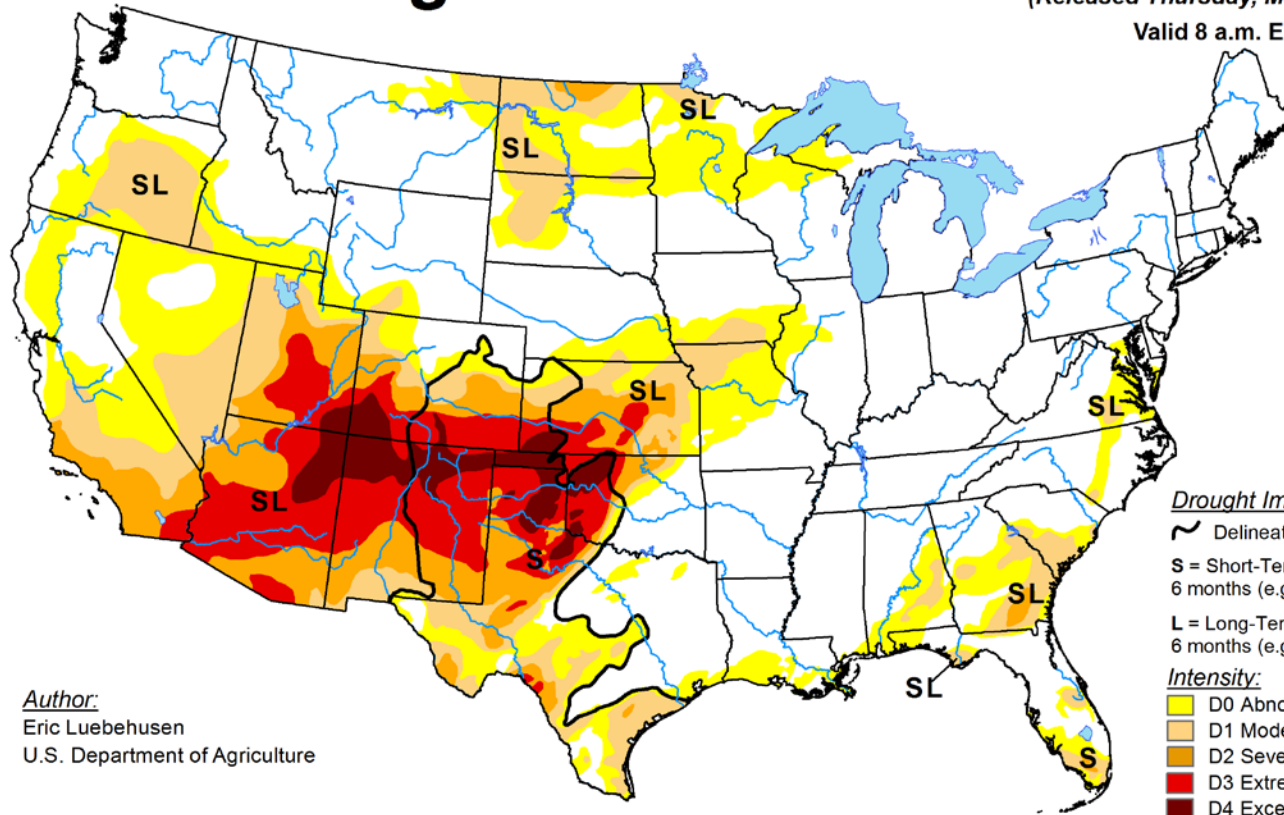
DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

U.S. Drought Monitor

May 15, 2018
 (Released Thursday, May. 17, 2018)
 Valid 8 a.m. EDT



Author:
 Eric Luebehusen
 U.S. Department of Agriculture

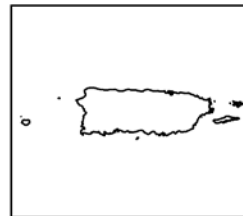
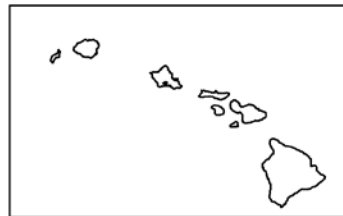
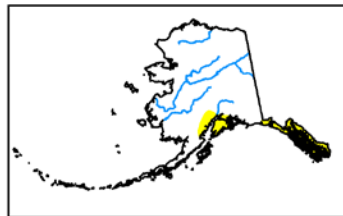
Drought Impact Types:

- ~ 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/>



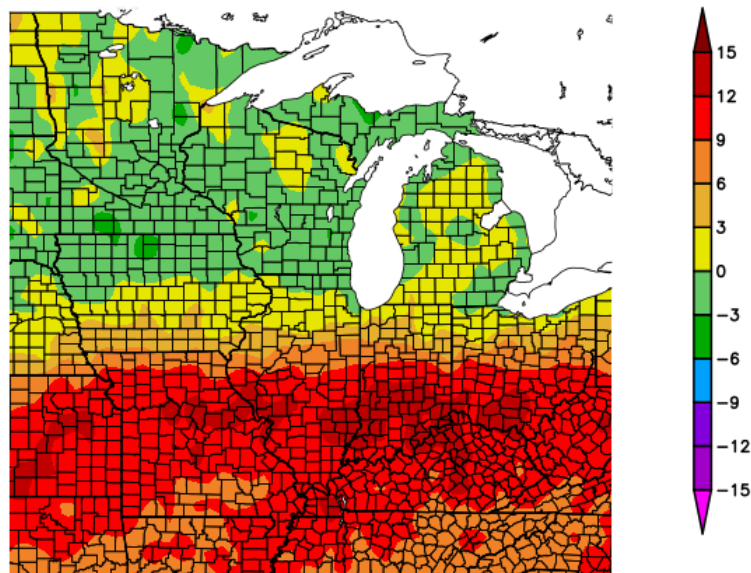
THE OHIO STATE UNIVERSITY

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)
5/10/2018 – 5/16/2018



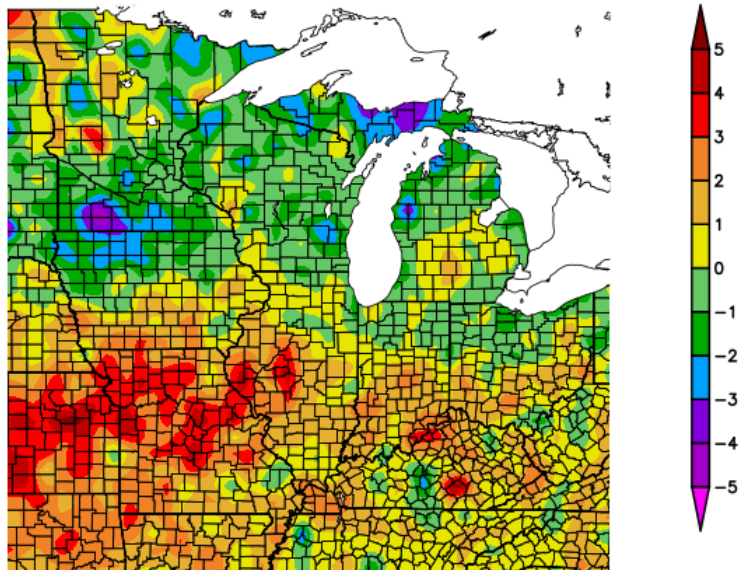
Generated 5/17/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Differences Compared to Average (1981-2010)

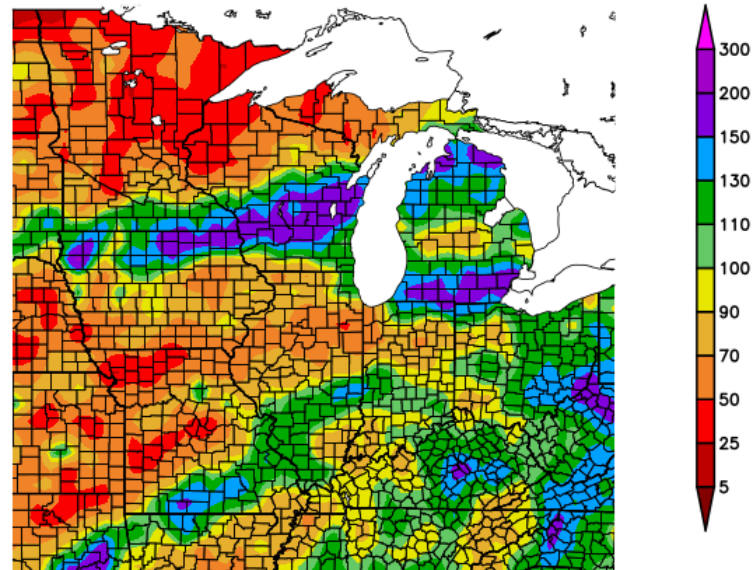
30-Day

Departure from Normal Temperature (F)
4/17/2018 – 5/16/2018



60-Day

Percent of Normal Precipitation (%)
3/18/2018 – 5/16/2018



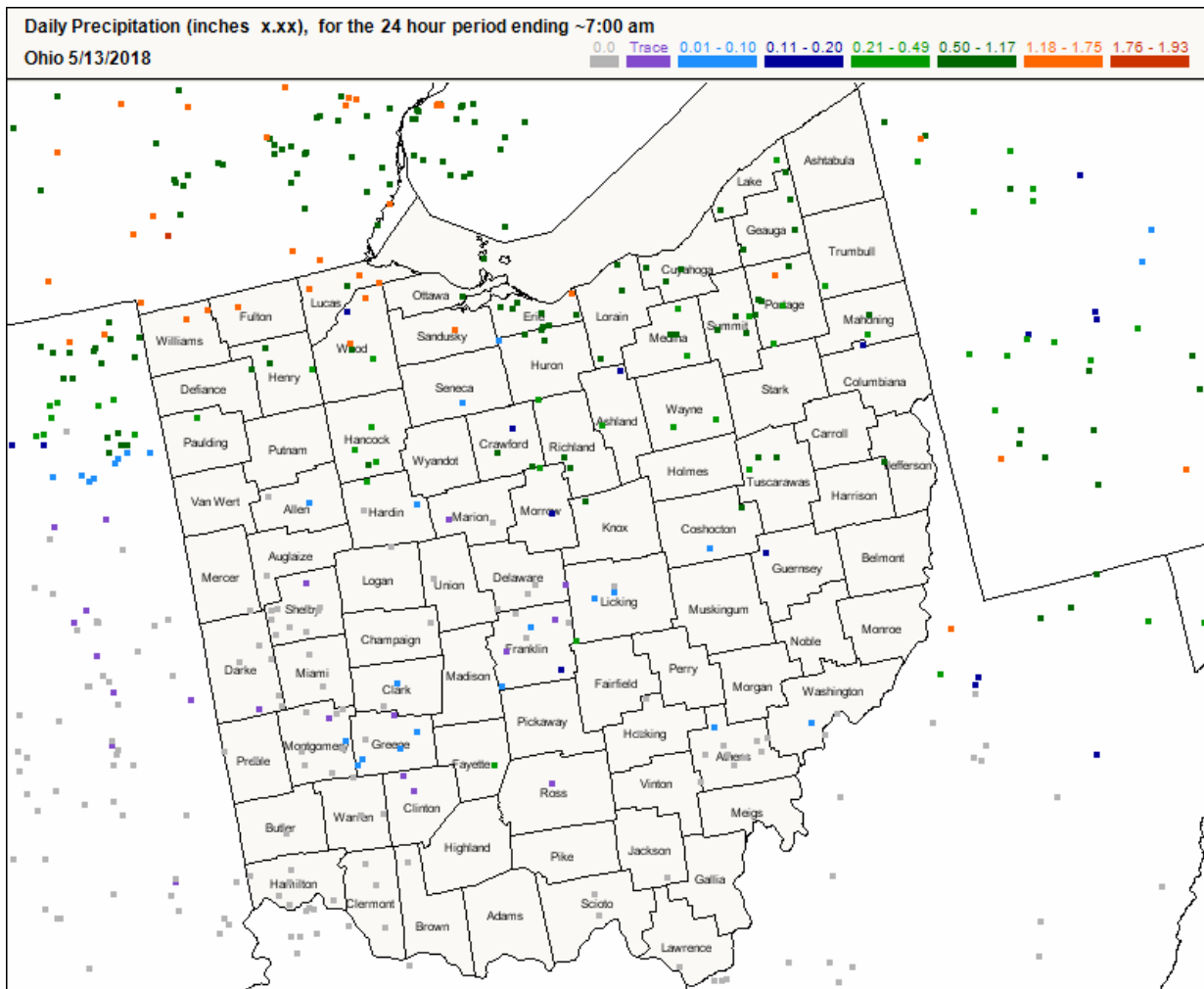
Generated 5/17/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 5/17/2018 at HPRCC using provisional data.

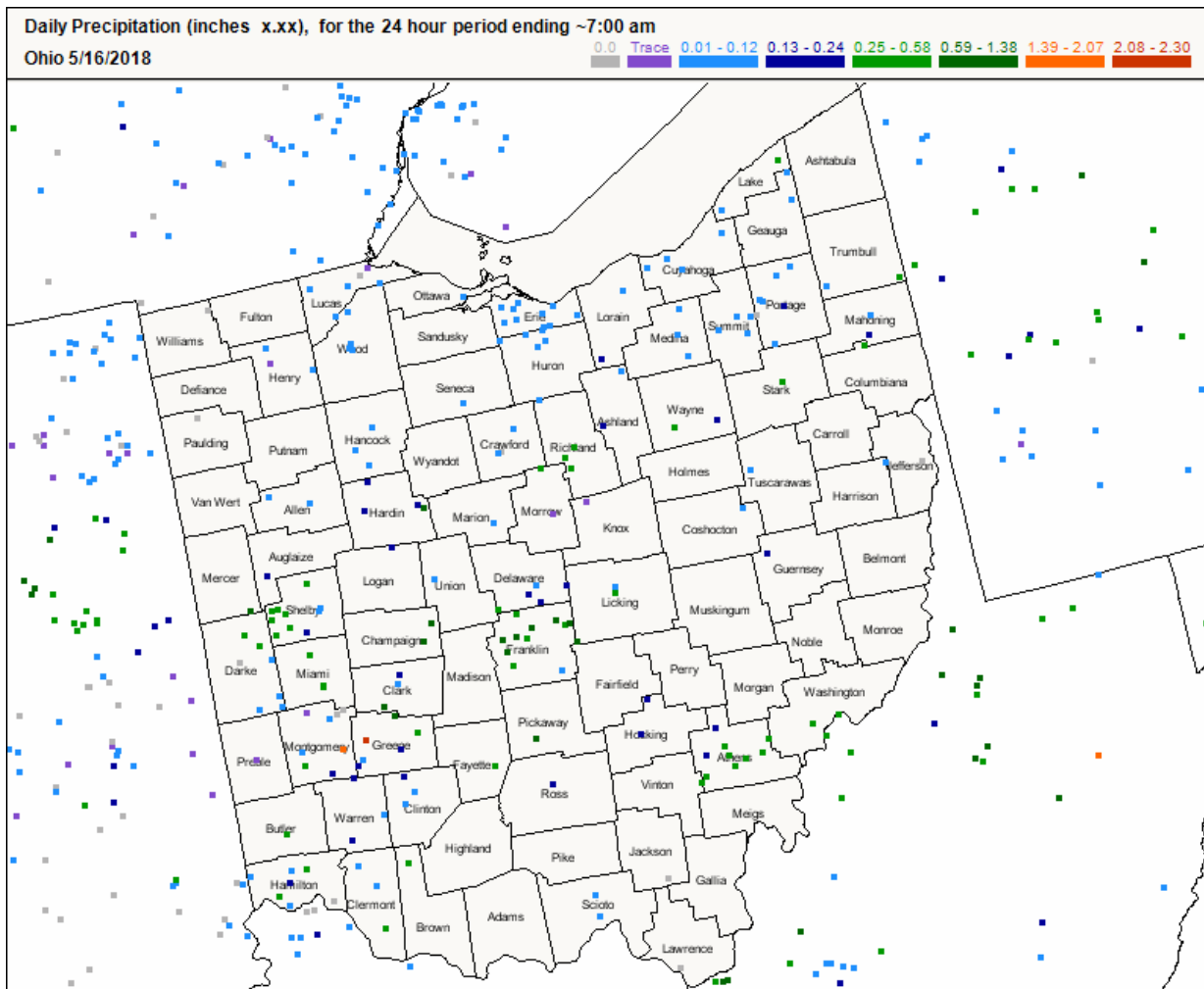
NOAA Regional Climate Centers



CoCoRaHS Observed Precipitation: May 13



CoCoRaHS Observed Precipitation: May 16

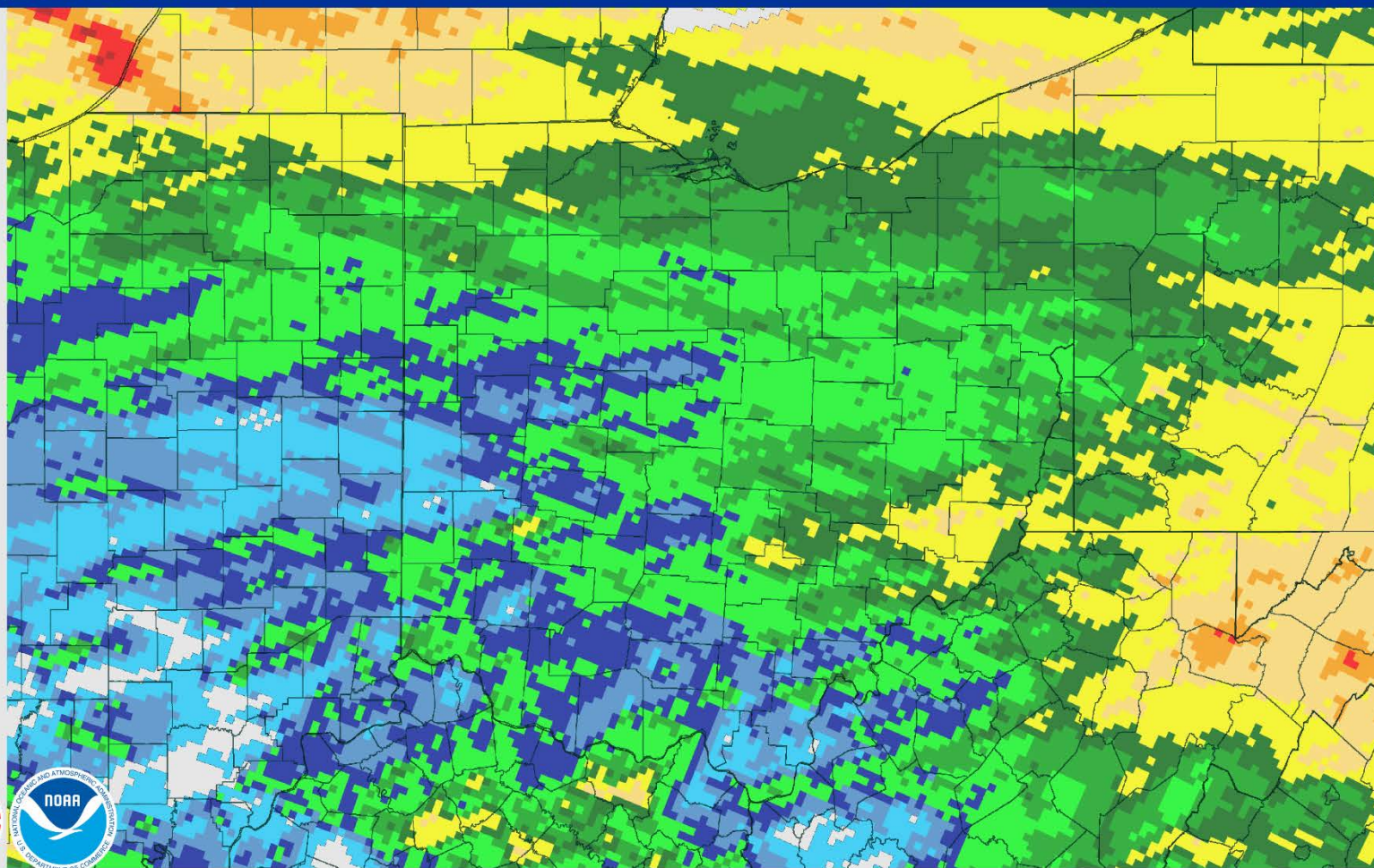


Previous 7-Day Precipitation: Total

May 17, 2018 7-Day Observed Precipitation

Created on: May 17, 2018 - 15:29 UTC

Valid on: May 17, 2018 12:00 UTC



THE OHIO STATE UNIVERSITY

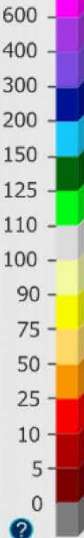
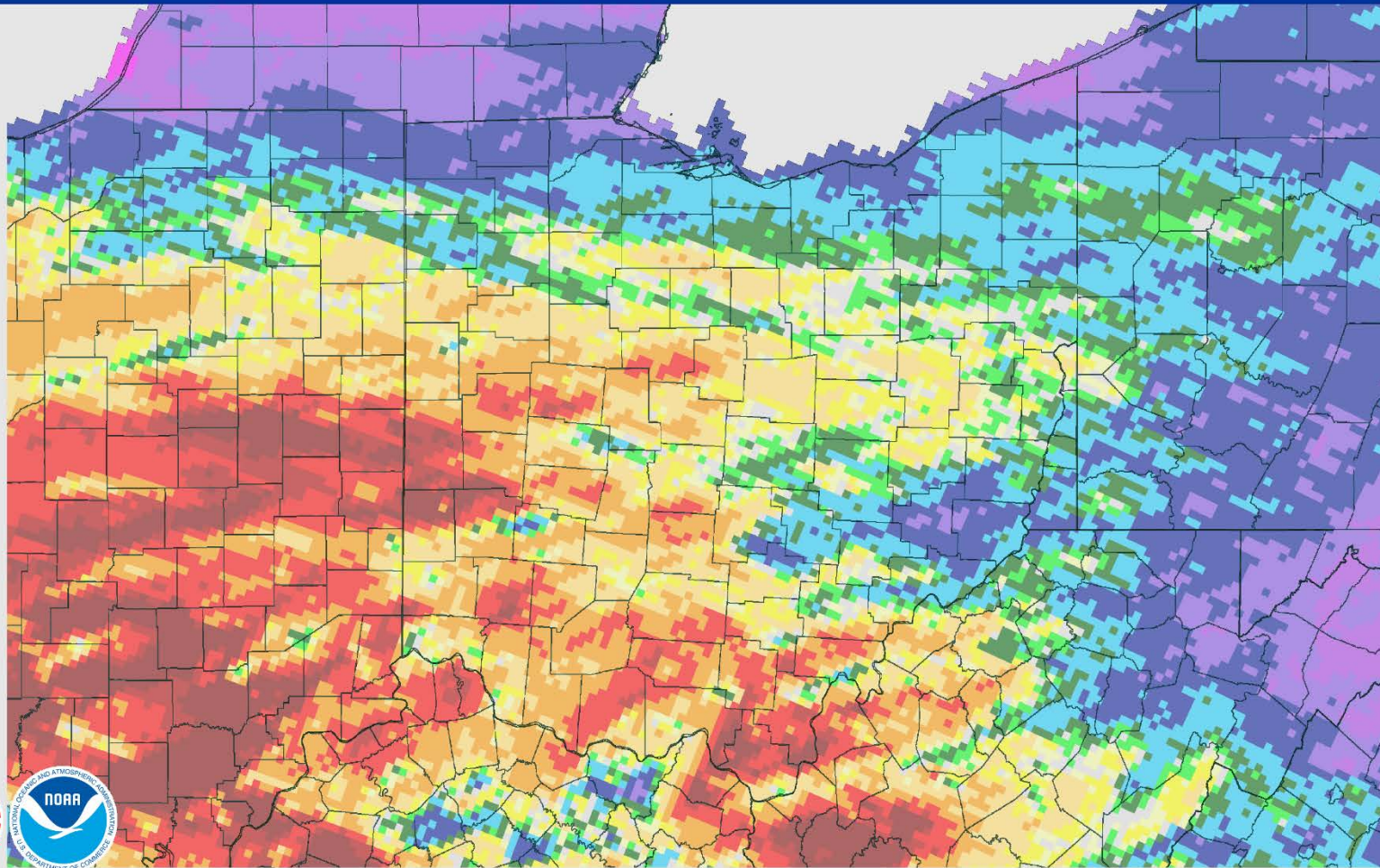
STATE CLIMATE OFFICE OF OHIO (SCOO)
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES
DEPARTMENT OF EXTENSION
BYRD POLAR & CLIMATE RESEARCH CENTER
DEPARTMENT OF GEOGRAPHY

Previous 7-Day Precipitation: Percent of Normal

May 17, 2018 7-Day Percent Precipitation

Created on: May 17, 2018 - 15:29 UTC

Valid on: May 17, 2018 12:00 UTC



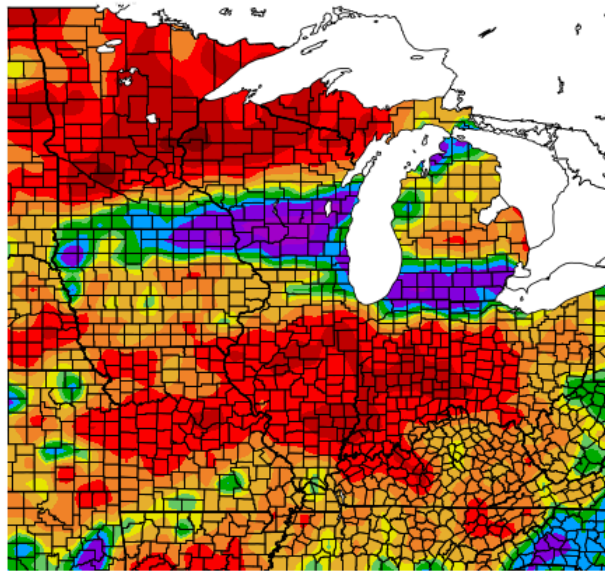
THE OHIO STATE UNIVERSITY

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

Precipitation Differences Compared to Average (1981-2010)

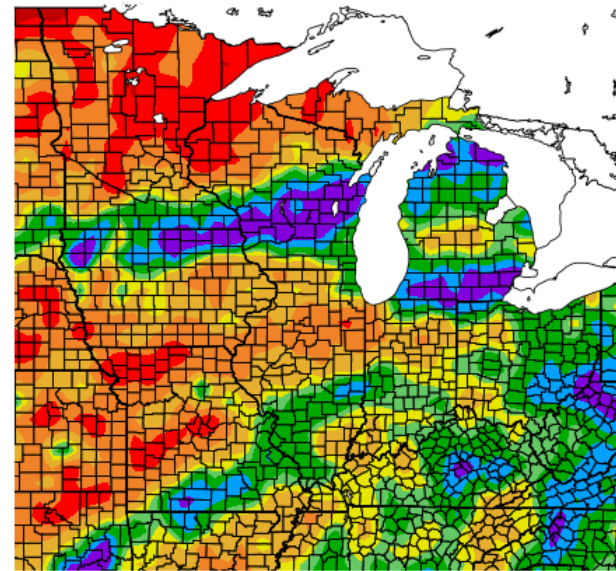
30-Day

Percent of Normal Precipitation (%)
4/17/2018 – 5/16/2018



60-Day

Percent of Normal Precipitation (%)
3/18/2018 – 5/16/2018



Generated 5/17/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 5/17/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

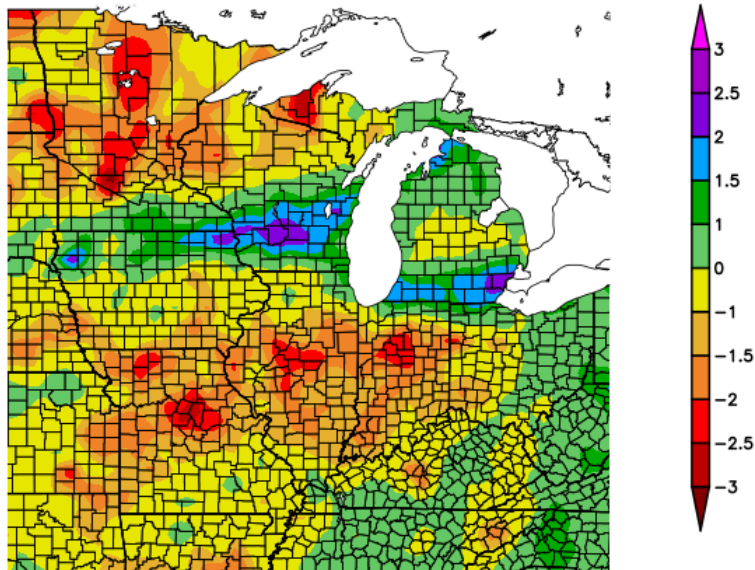


STATE CLIMATE OFFICE OF OHIO (SCOO)
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES
DEPARTMENT OF EXTENSION
BYRD POLAR & CLIMATE RESEARCH CENTER
DEPARTMENT OF GEOGRAPHY

Standard Precipitation Index (SPI)

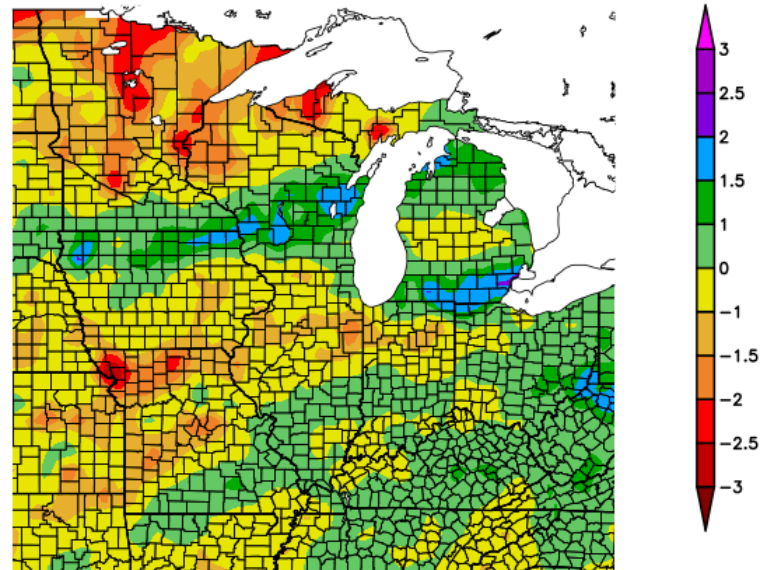
30-Day

30 Day SPI
4/15/2018 - 5/14/2018



60-Day

60 Day SPI
3/17/2018 - 5/15/2018



Generated 5/15/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 5/16/2018 at HPRCC using provisional data.

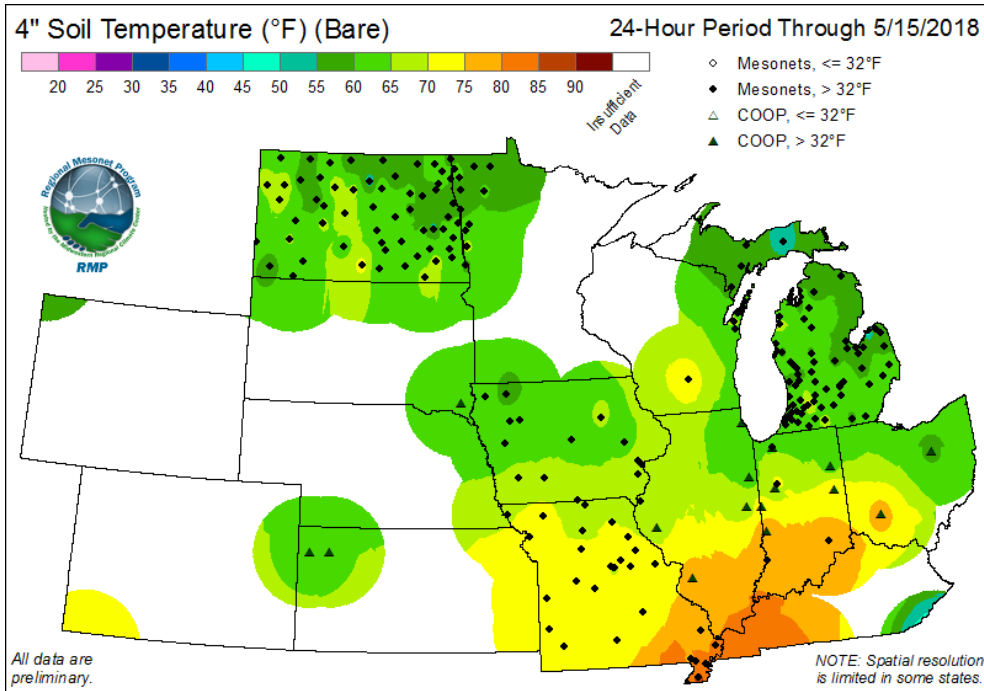
NOAA Regional Climate Centers



THE OHIO STATE UNIVERSITY

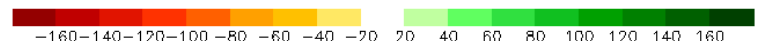
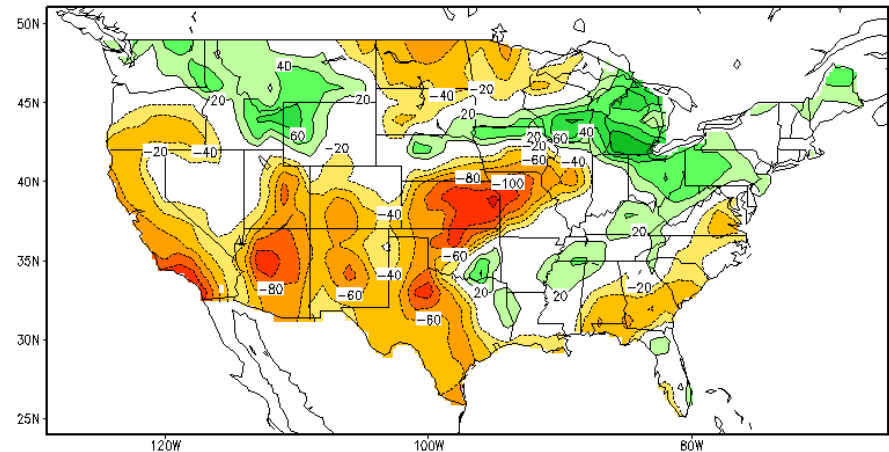
STATE CLIMATE OFFICE OF OHIO (SCOO)
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES
DEPARTMENT OF EXTENSION
BYRD POLAR & CLIMATE RESEARCH CENTER
DEPARTMENT OF GEOGRAPHY

Soil Temperature/Moisture

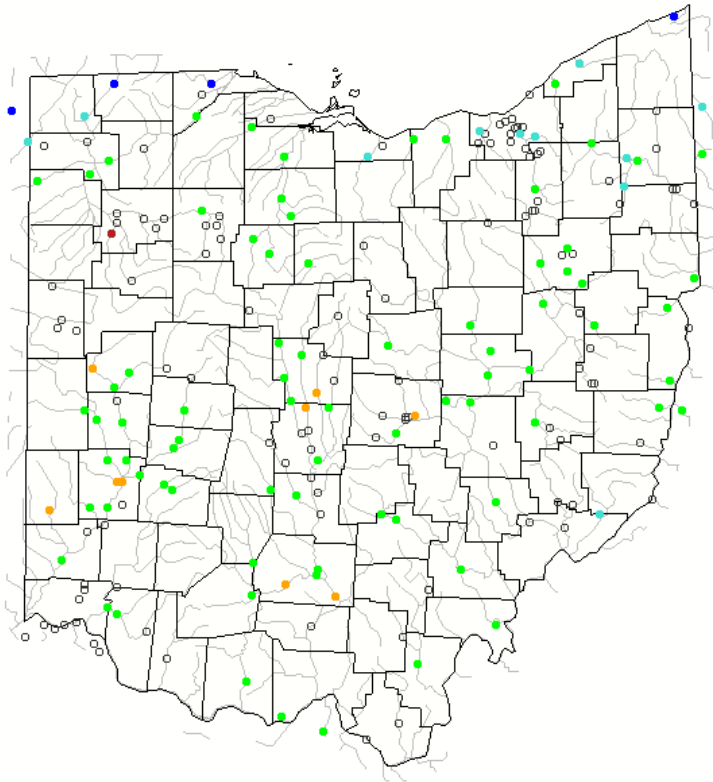


http://mrcc.isws.illinois.edu/cliwatch/special_topics/agriculture.html

Calculated Soil Moisture Anomaly (mm)
MAY 16, 2018

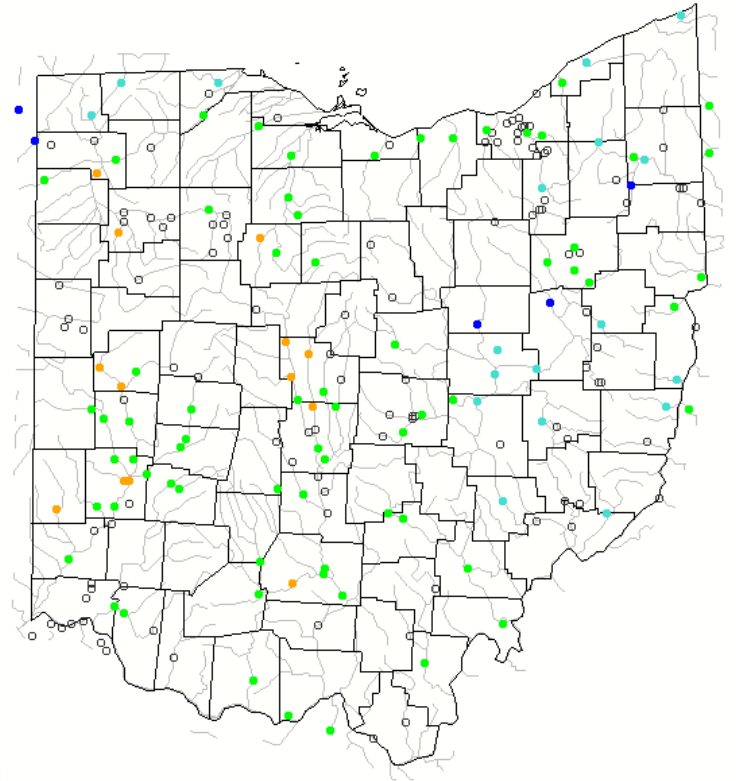


7-DAY



USGS Streamflow

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



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

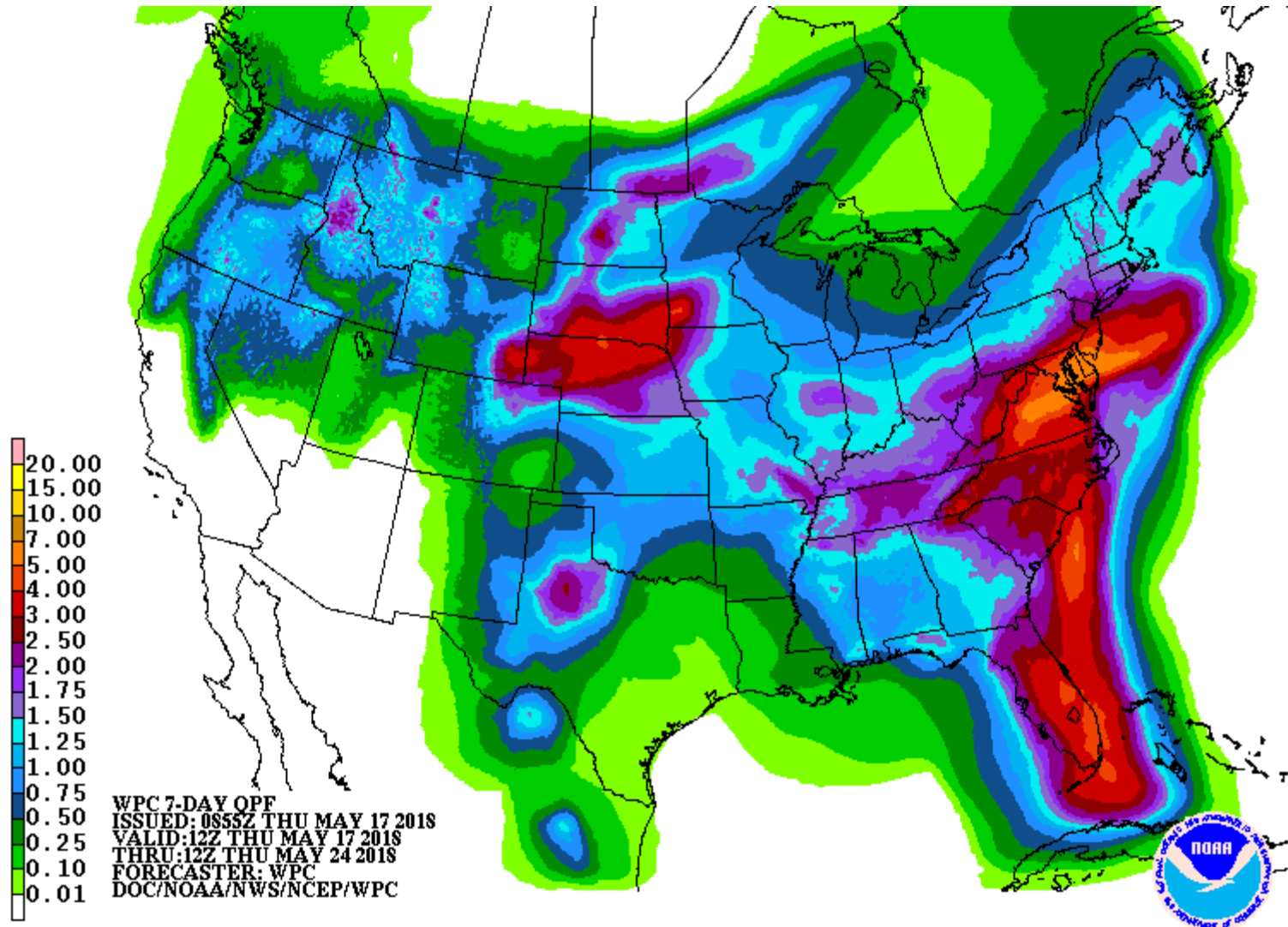
BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

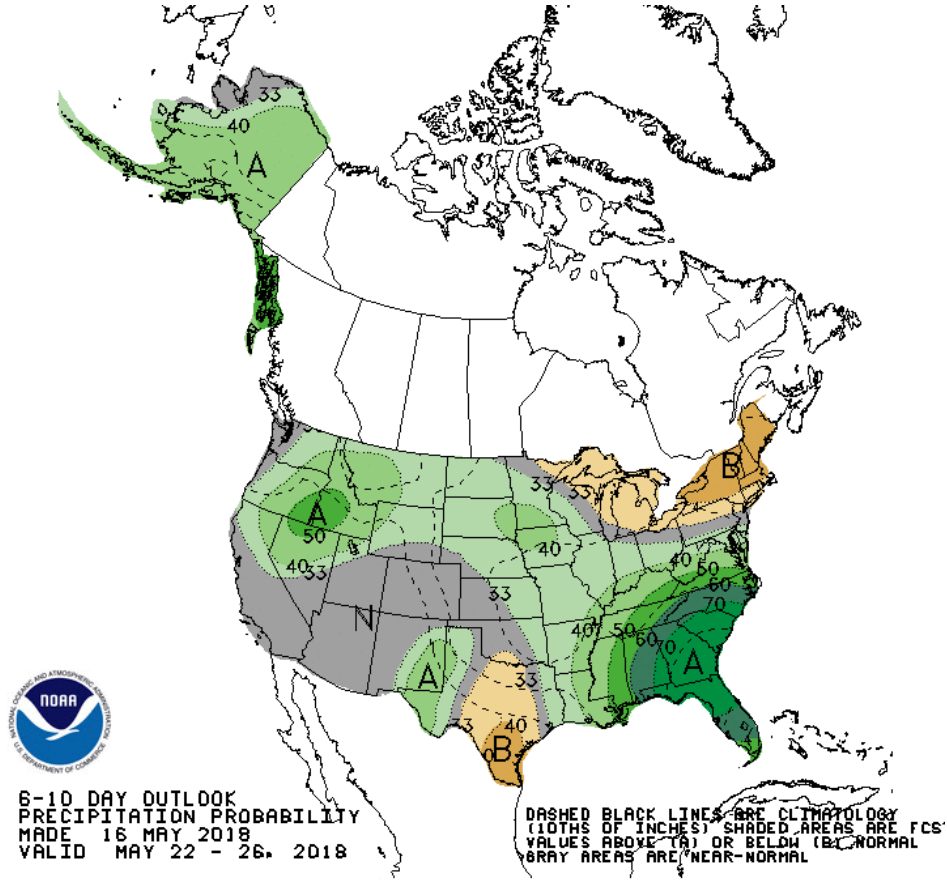
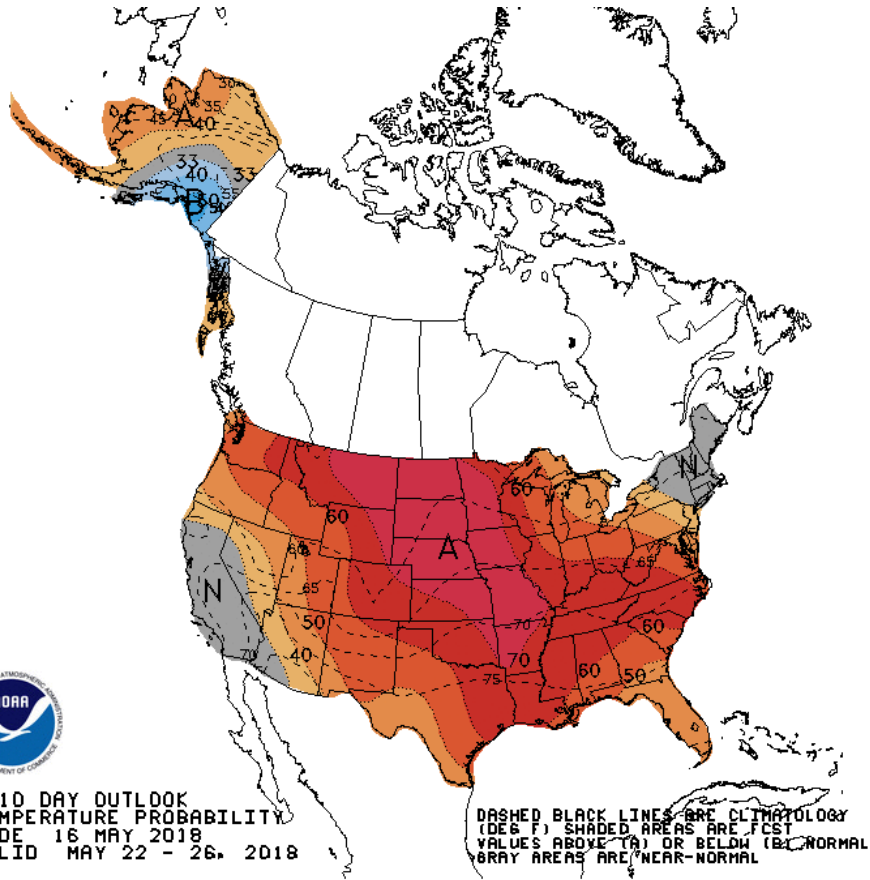
Weather for the Week Ahead



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

6-10 Day Outlook



Highs: Upper 60s to mid 70s

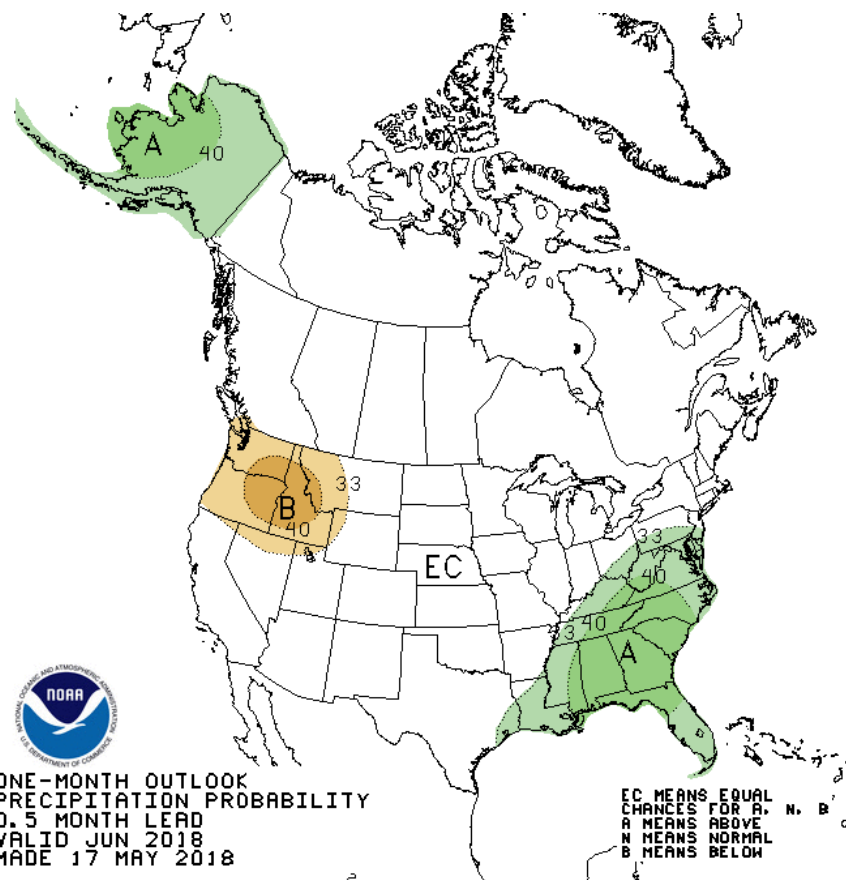
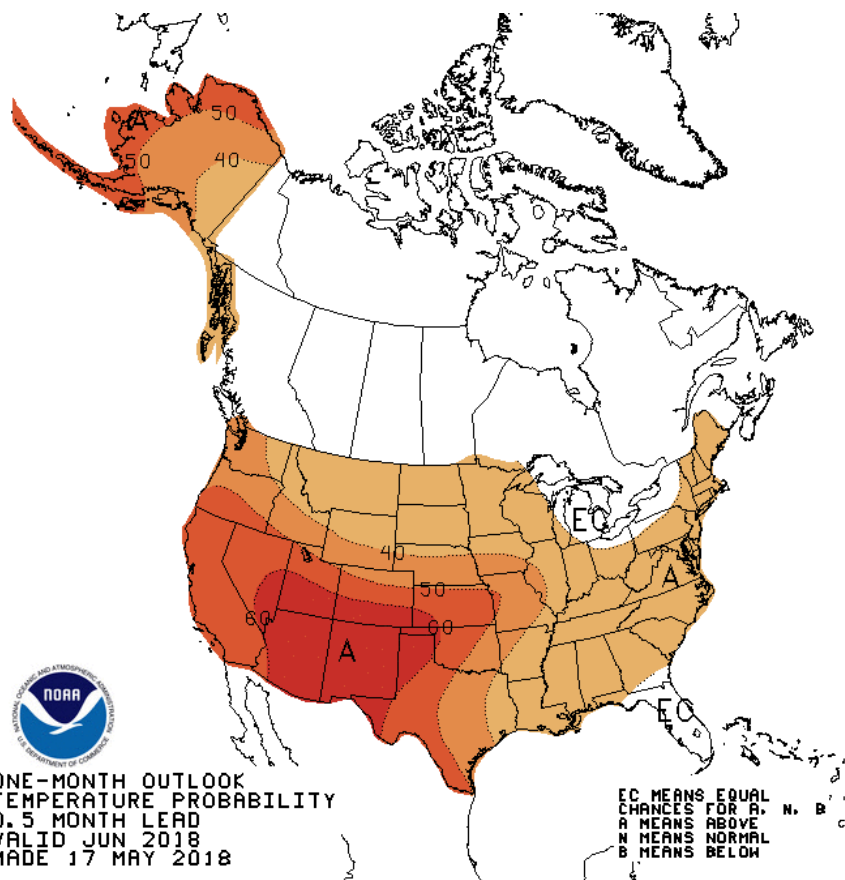
Lows: Upper 40s to mid 50s



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

June Outlook

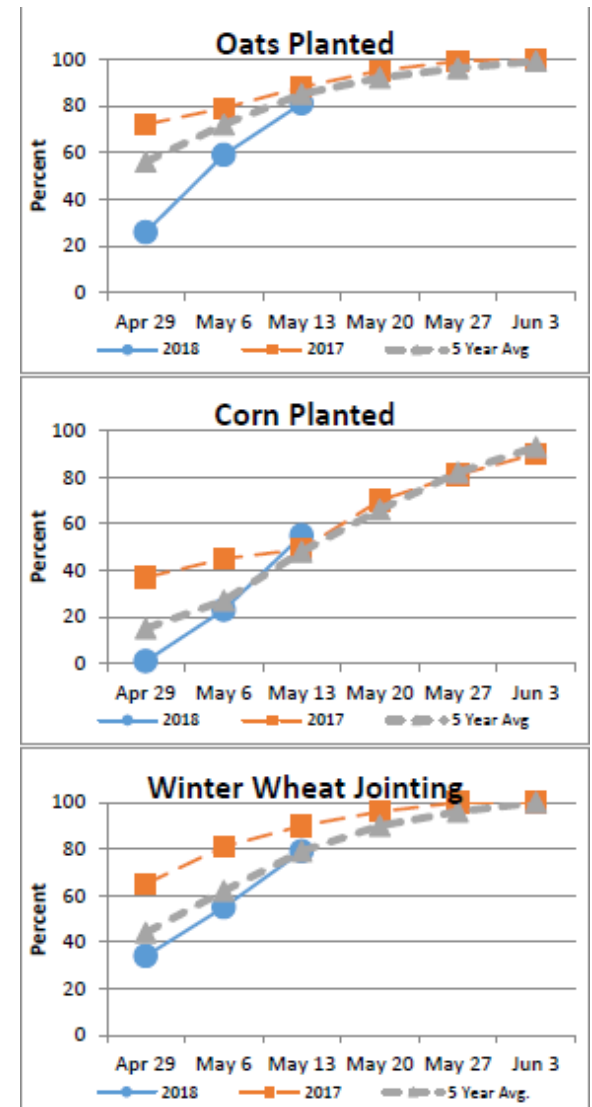


THE OHIO STATE UNIVERSITY

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

Ag Highlights

- 5.2 days suitable for work
- Near ideal planting conditions (except in the NW)
- Corn and soybeans ahead of the 5-year averages
- Wet in the North with many associated problems and delays



NASS: Cheryl Turner –

https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2017/cw3017oh.pdf



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

Summary of Conditions



Drought Monitor: No Formal drought in Ohio

30-Day and 60-Day: Conditions continue to dry out in the west/wet in the north

The week ahead: Scattered showers and storms (more prevalent across southern Ohio) and above normal temperatures will continue



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