

Hydrologic and Climate Assessment

July 6, 2017

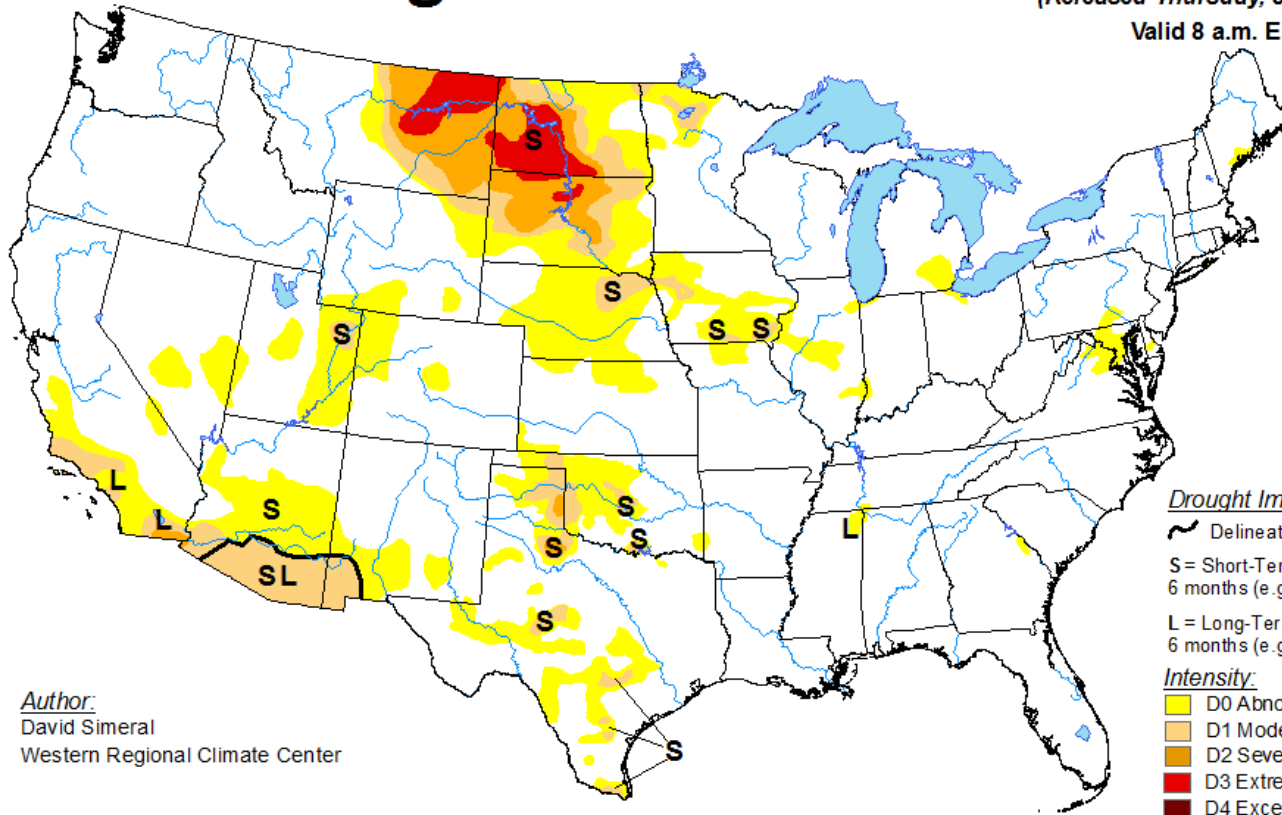


THE OHIO STATE UNIVERSITY

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

U.S. Drought Monitor

July 4, 2017
 (Released Thursday, Jul. 6, 2017)
 Valid 8 a.m. EDT



Author:
 David Simeral
 Western Regional Climate Center

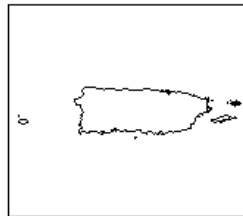
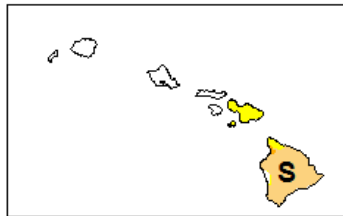
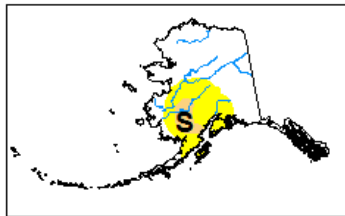
Drought Impact Types:

- ~ 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/>



THE OHIO STATE UNIVERSITY

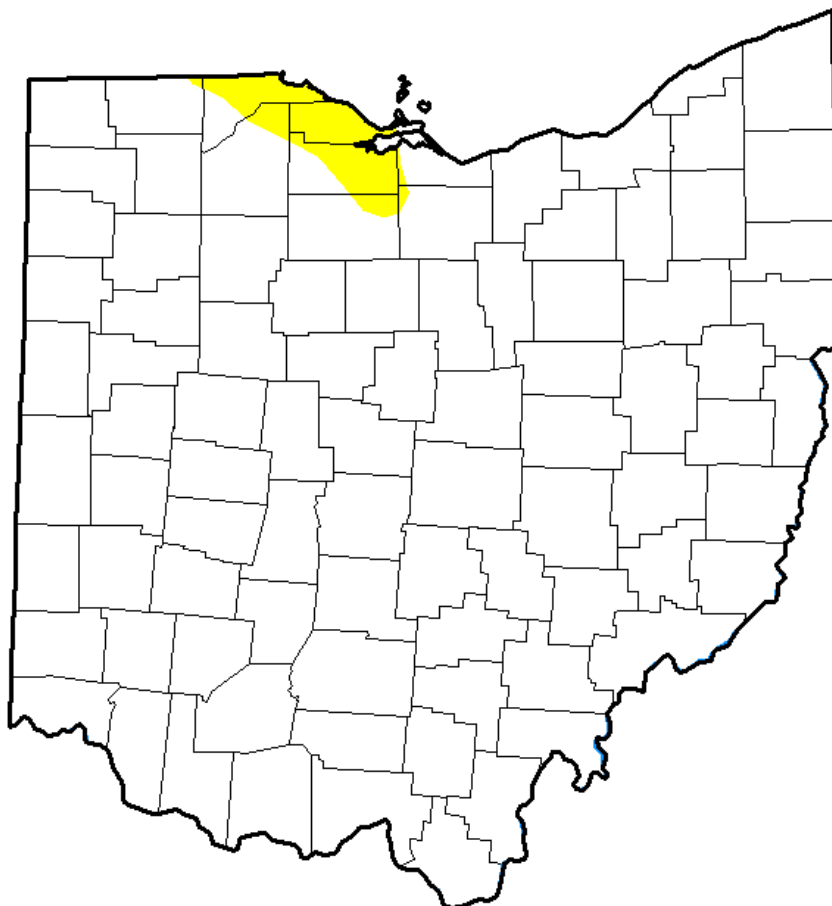
STATE CLIMATE OFFICE OF OHIO (SCOO)
 COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES
 DEPARTMENT OF EXTENSION
 BYRD POLAR & CLIMATE RESEARCH CENTER
 DEPARTMENT OF GEOGRAPHY

U.S. Drought Monitor Ohio

July 4, 2017

(Released Thursday, Jul. 6, 2017)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|--------|-------|-------|-------|-------|------|
| Current | 97.78 | 2.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| Last Week <i>06-27-2017</i> | 97.78 | 2.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 Months Ago <i>04-04-2017</i> | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Calendar Year <i>01-03-2017</i> | 88.16 | 11.84 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Water Year <i>09-27-2016</i> | 36.51 | 63.49 | 7.94 | 0.00 | 0.00 | 0.00 |
| One Year Ago <i>07-05-2016</i> | 46.69 | 53.31 | 0.25 | 0.00 | 0.00 | 0.00 |

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.

Author:

David Simeral
Western Regional Climate Center



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

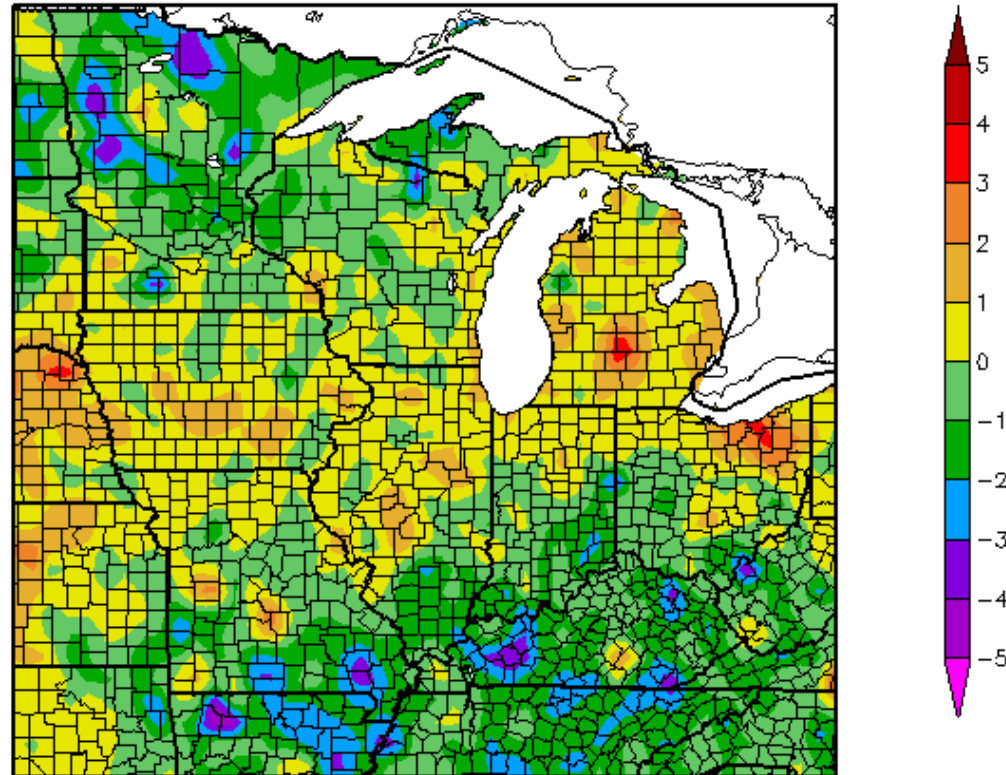


THE OHIO STATE UNIVERSITY

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

Previous 30-Day Temperature Difference Compared to Average (1981-2010)

Departure from Normal Temperature (F)
6/6/2017 - 7/5/2017



NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM
NIDIS Drought.gov
U.S. Drought Portal

Generated 7/6/2017 at HPRCC using provisional data.

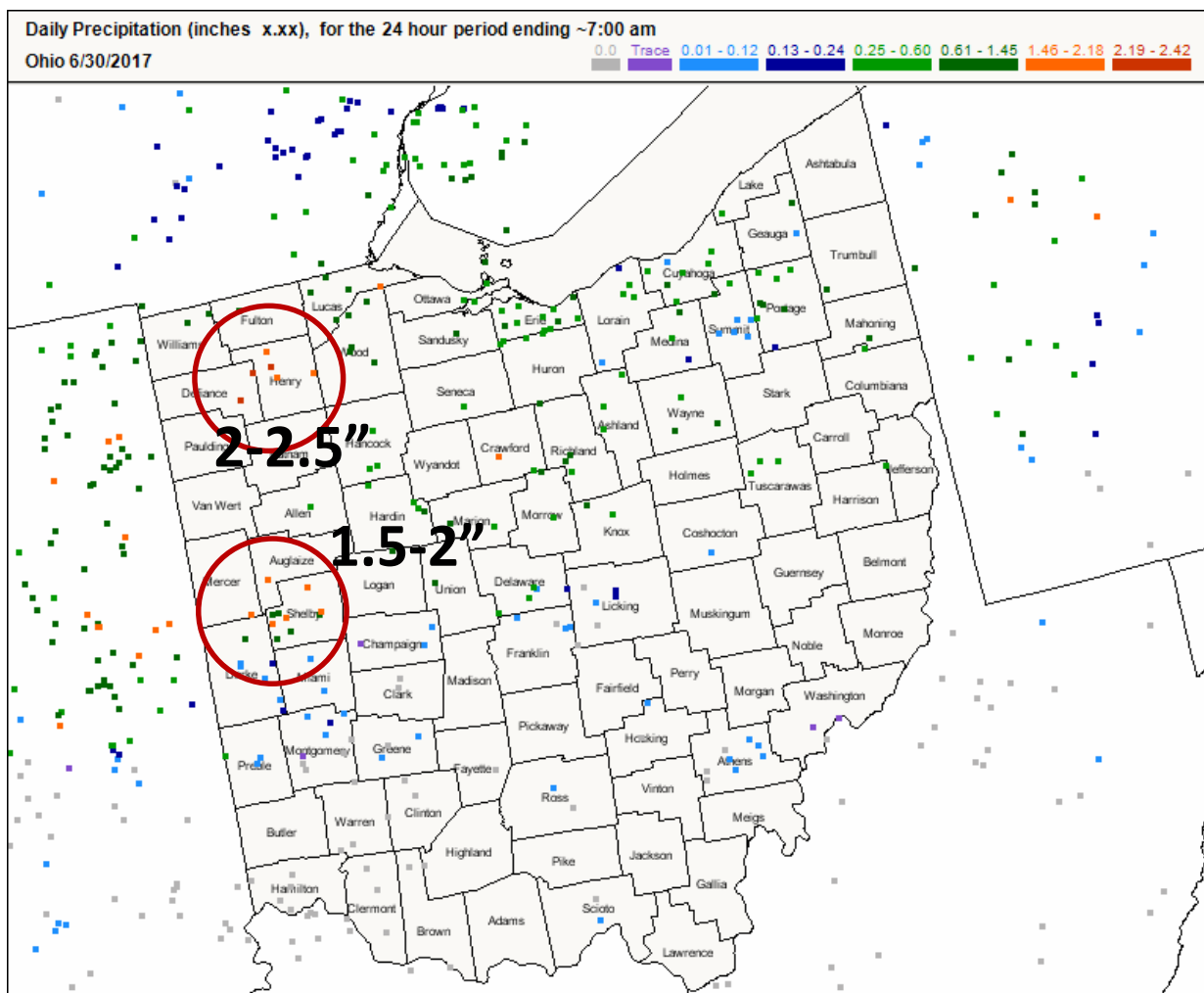
Regional Climate Centers



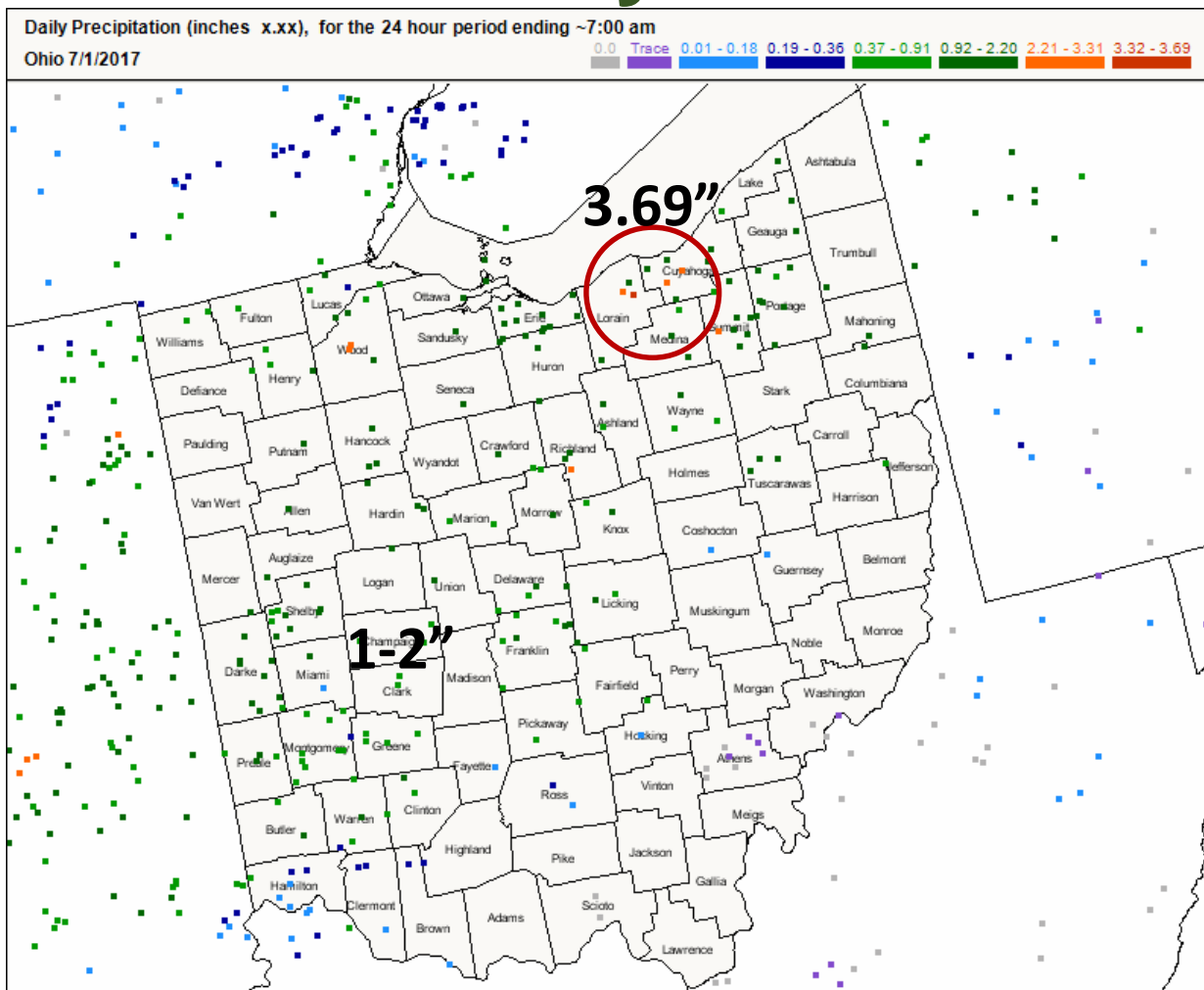
THE OHIO STATE UNIVERSITY

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

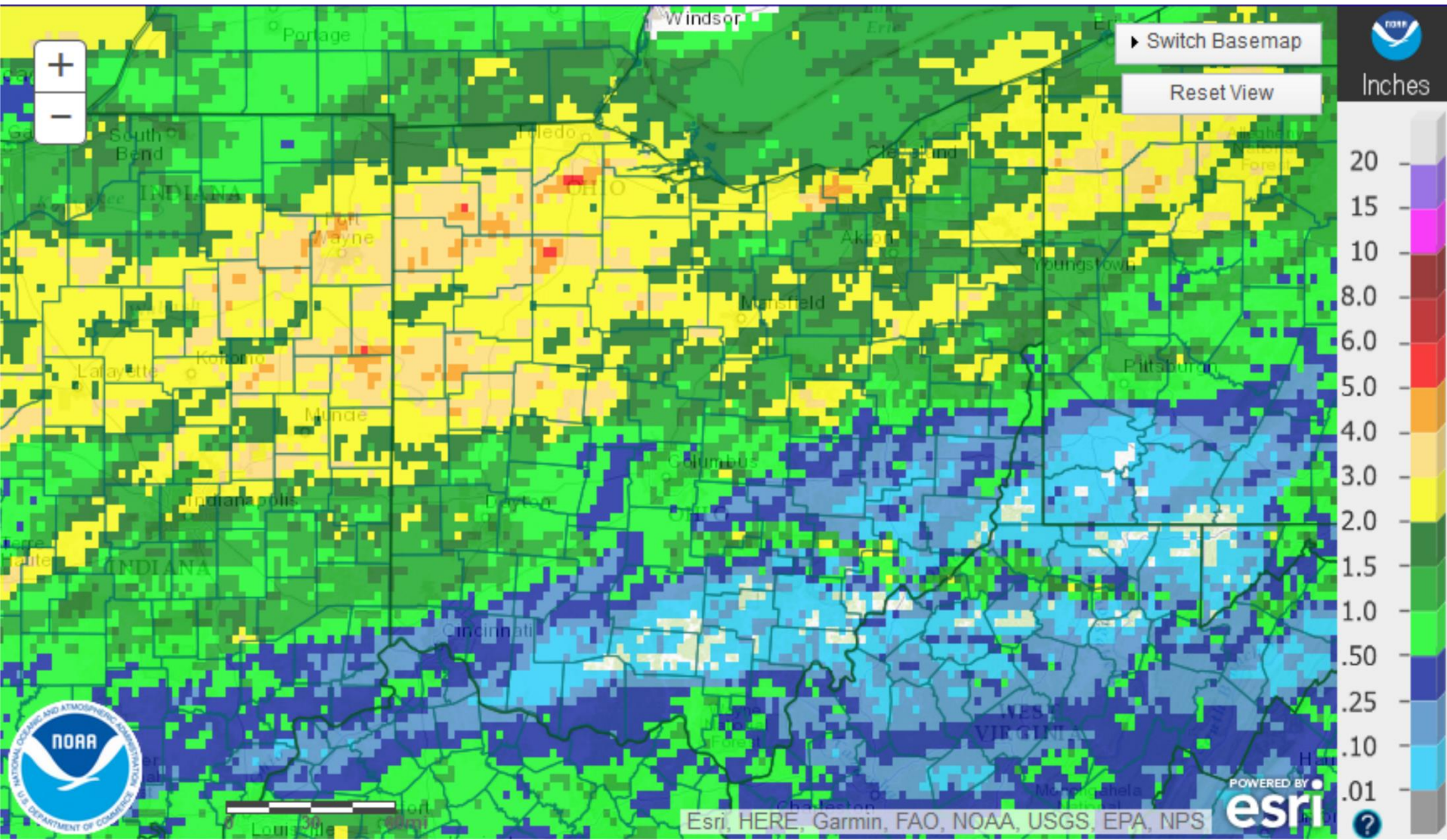
CoCoRaHS Observed Precipitation: June 30



CoCoRaHS Observed Precipitation: July 1



Previous 7-Day Precipitation: Total



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

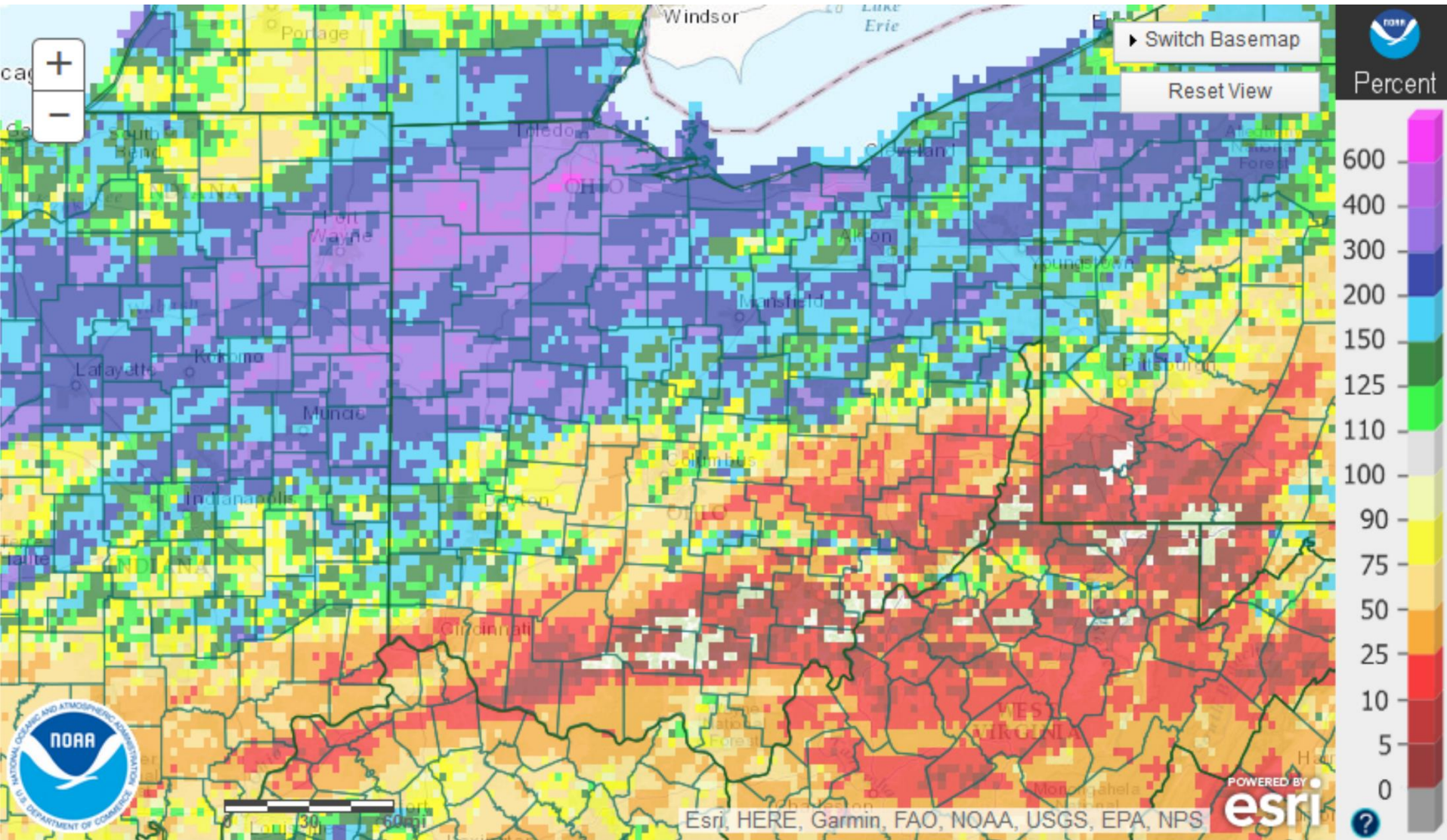
BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

Previous 7-Day Precipitation: Percent of Normal



STATE CLIMATE OFFICE OF OHIO (SCOO)

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF EXTENSION

BYRD POLAR & CLIMATE RESEARCH CENTER

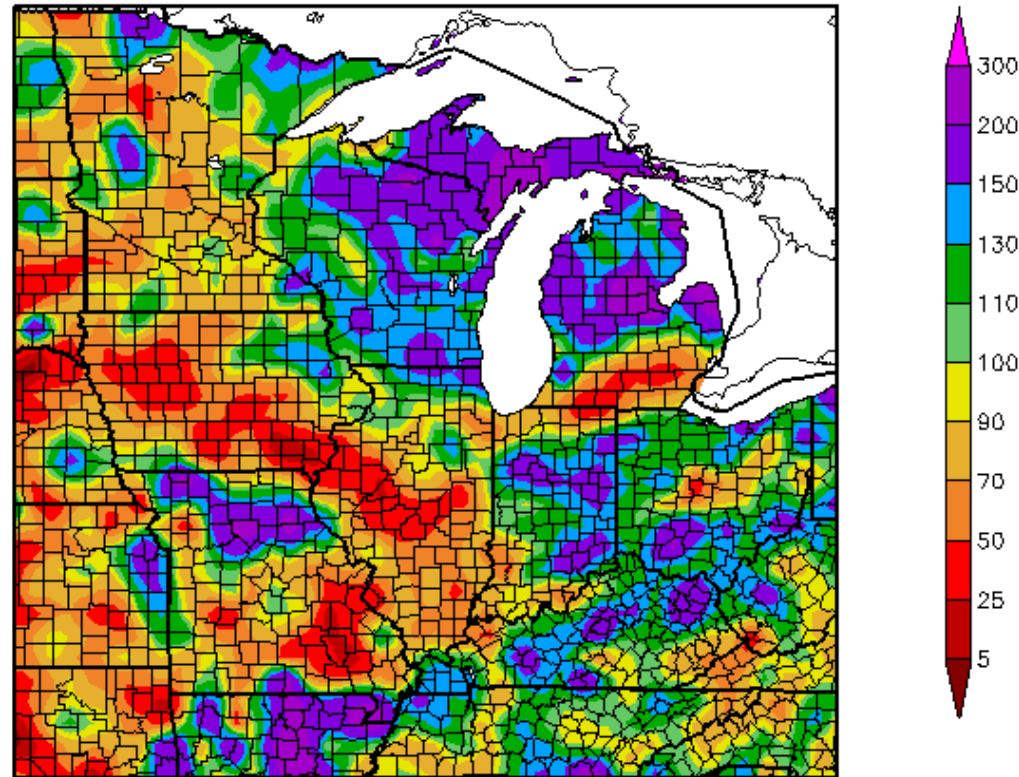
DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

Previous 30-Day Precipitation Difference Compared to Average (1981-2010)

Percent of Normal Precipitation (%)
6/6/2017 - 7/5/2017



NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM
NIDIS Drought.gov
U.S. Drought Portal

Generated 7/6/2017 at HPRCC using provisional data.

Regional Climate Centers

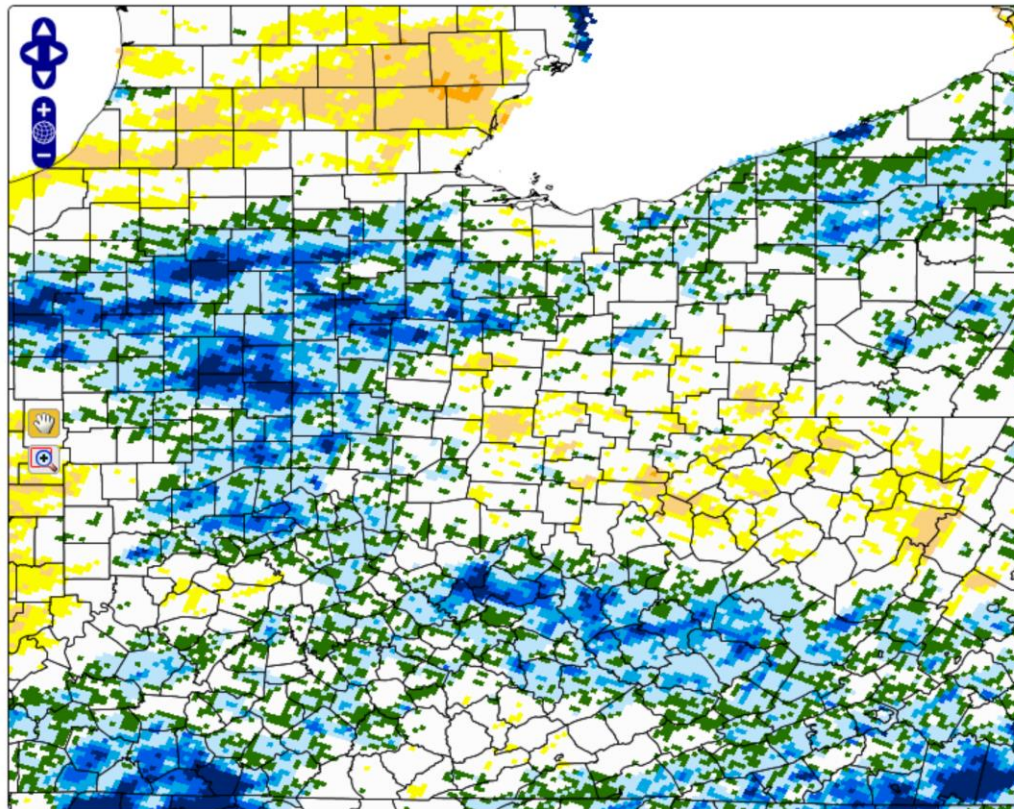


THE OHIO STATE UNIVERSITY

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

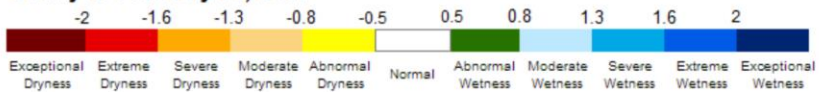
Standard Precipitation Index (SPI)

Experimental High Resolution Drought Trigger Tool



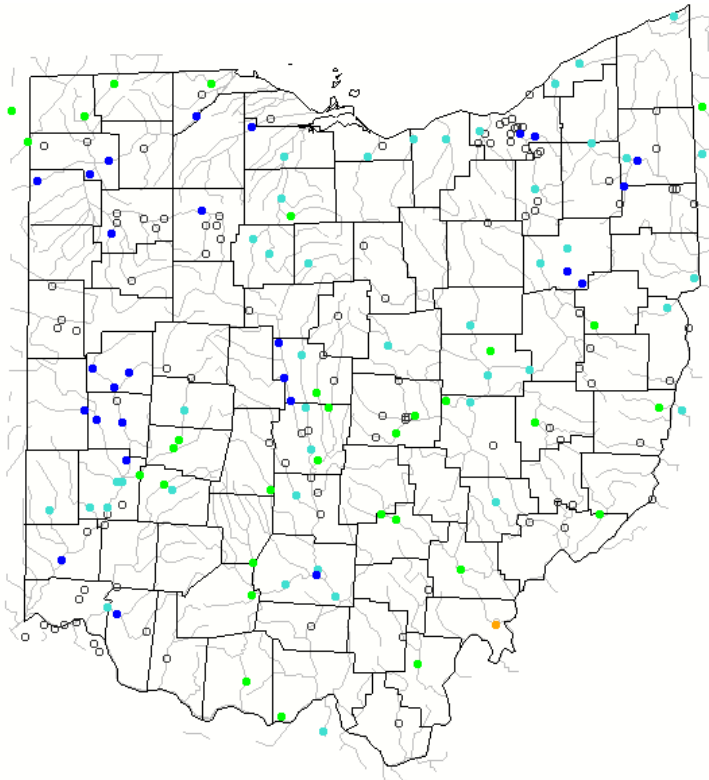
60-Day

60 day SPI for July 05, 2017



Transparency:
[About these maps](#)

7-DAY



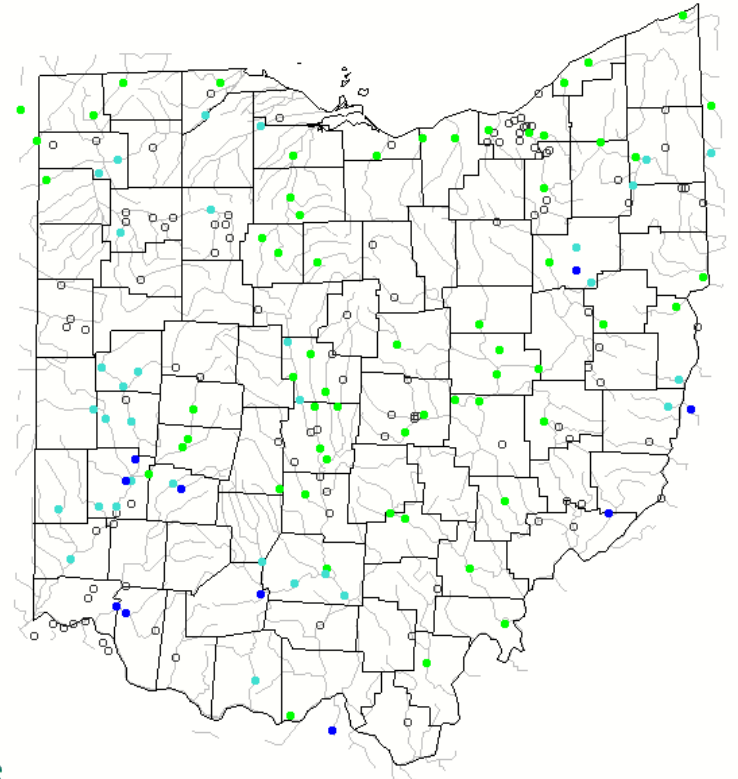
Explanation - Percentile classes

| | | | | | | | |
|-----|--------------------------|-----------------------|-----------------|-----------------------|--------------------------|------|------------|
| | | | | | | | |
| 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

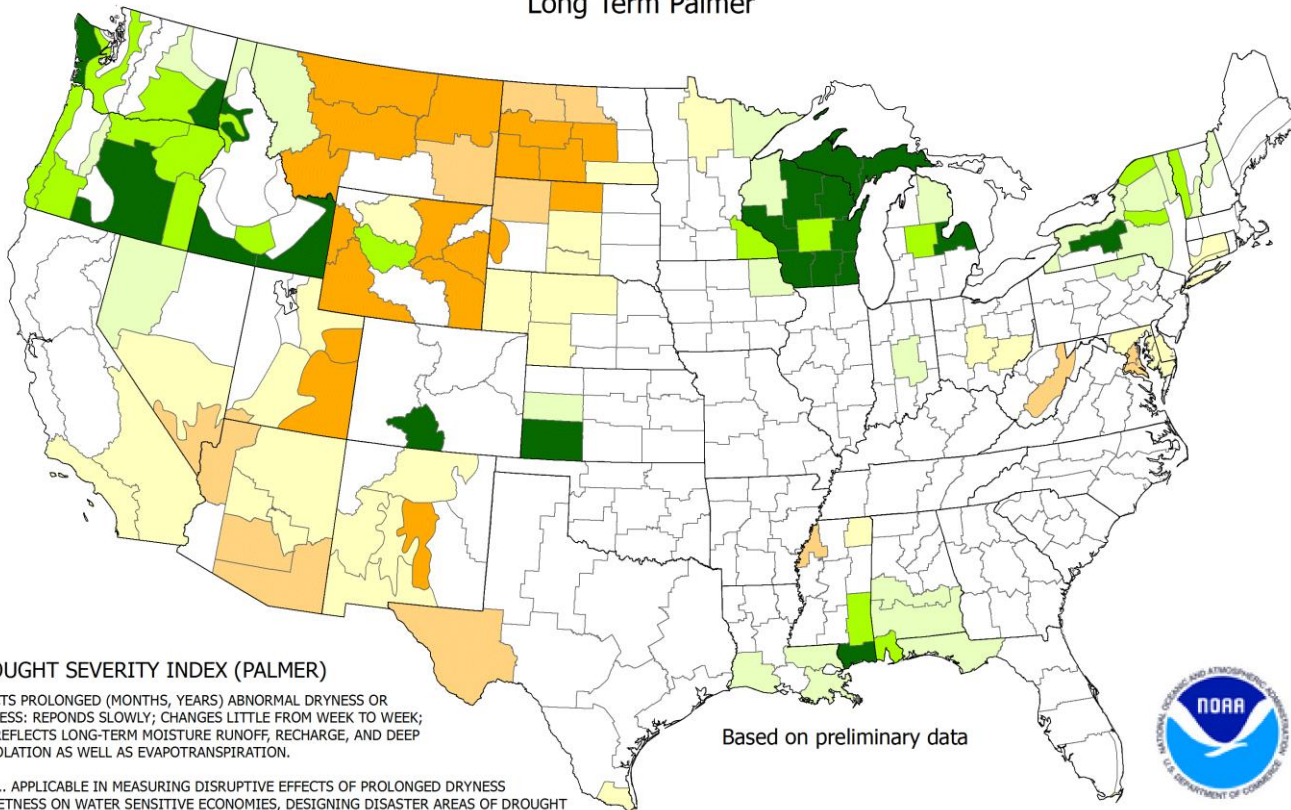
DEPARTMENT OF GEOGRAPHY



THE OHIO STATE UNIVERSITY

Palmer Drought Severity Index (PDSI)

Drought Severity Index by Division
Weekly Value for Period Ending Jul 01, 2017
Long Term Palmer



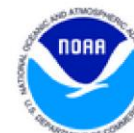
DROUGHT SEVERITY INDEX (PALMER)

DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; REponds SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.

USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.

LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

Based on preliminary data



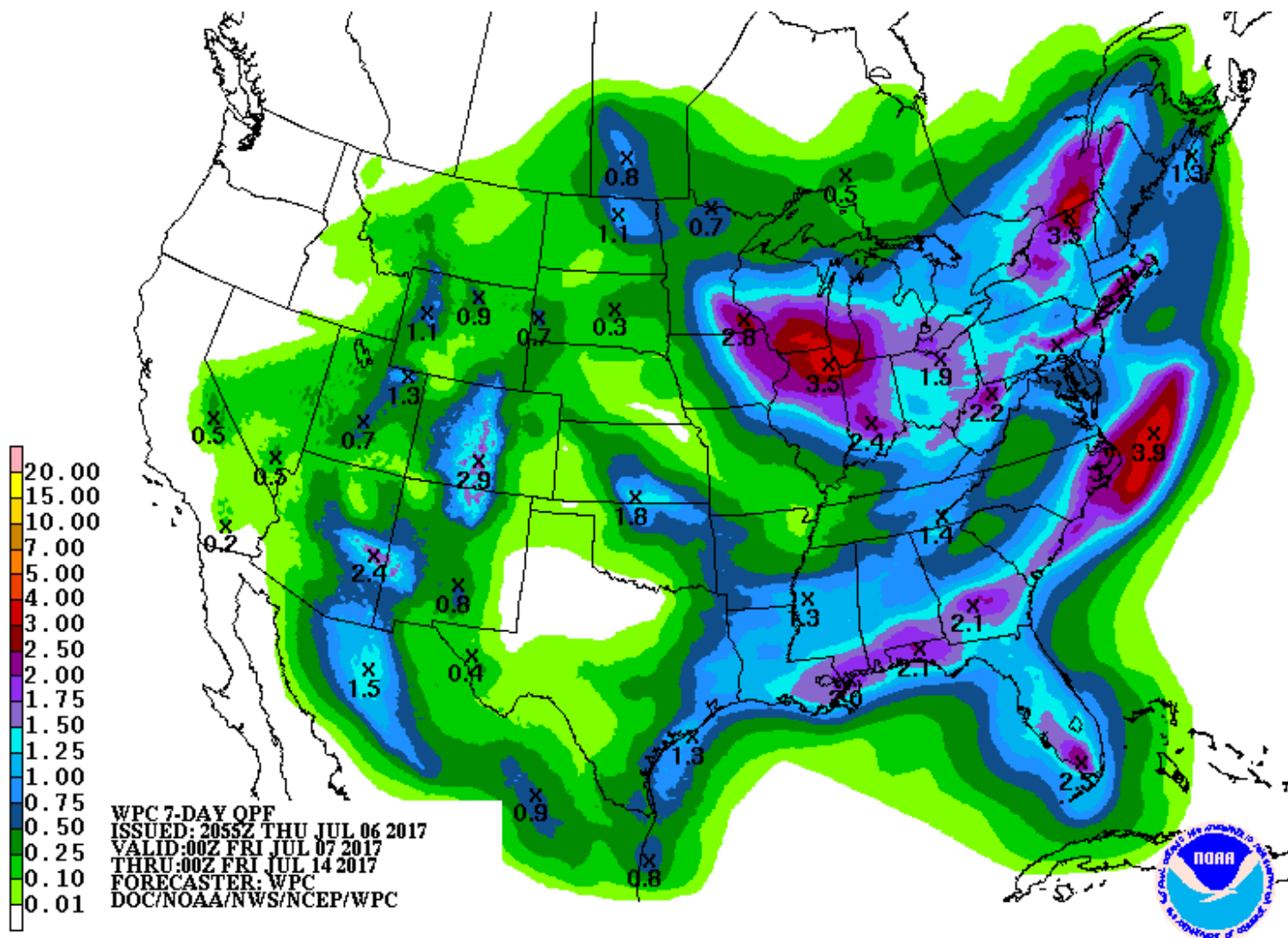
- 4.0 or less (Extreme Drought)
- 3.0 to -3.9 (Severe Drought)
- 2.0 to -2.9 (Moderate Drought)
- 1.9 to +1.9 (Near Normal)
- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)



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

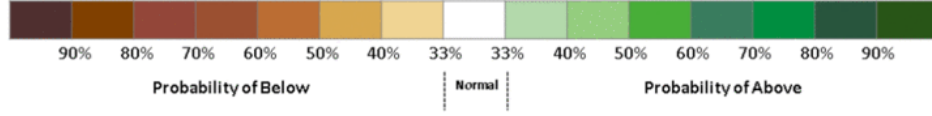
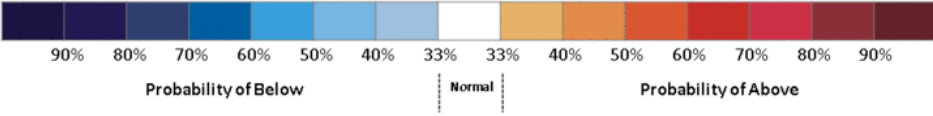
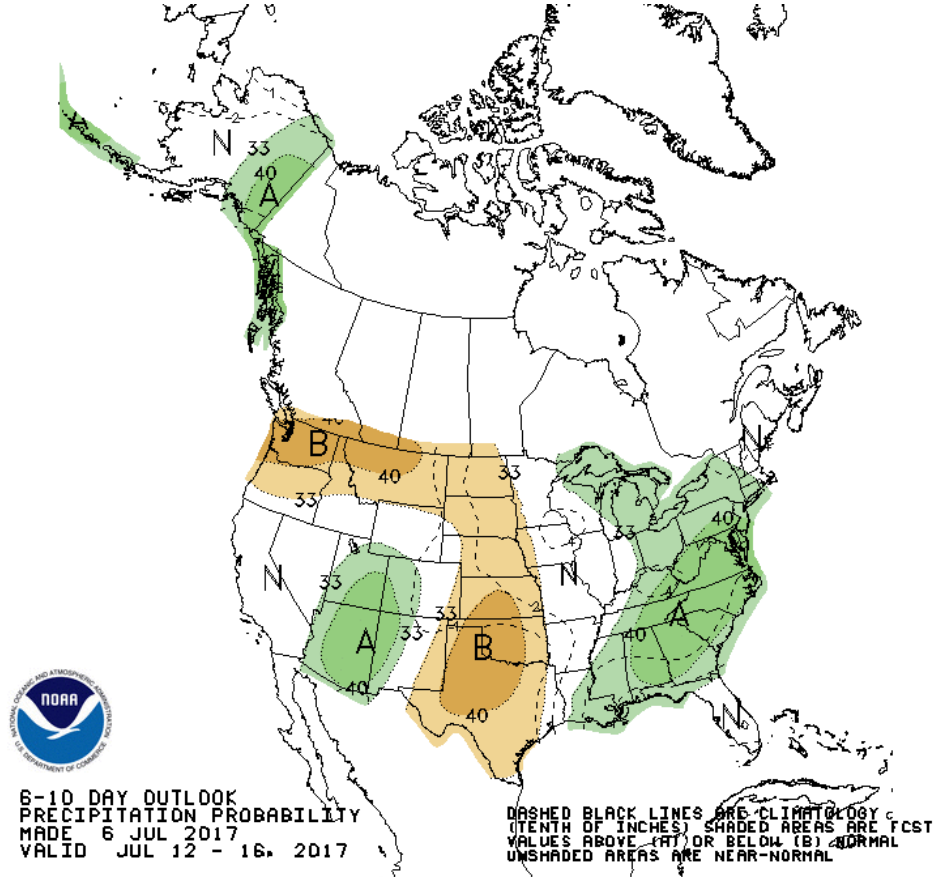
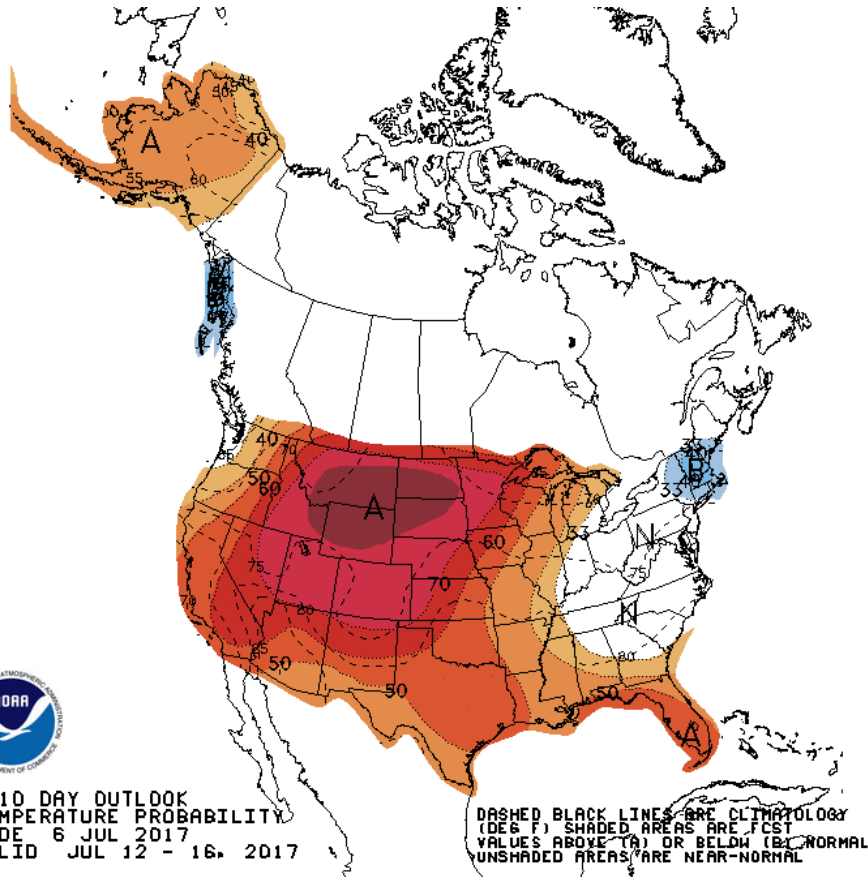
Weather for the Week Ahead



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: Mid 80s

Lows: Mid 60s

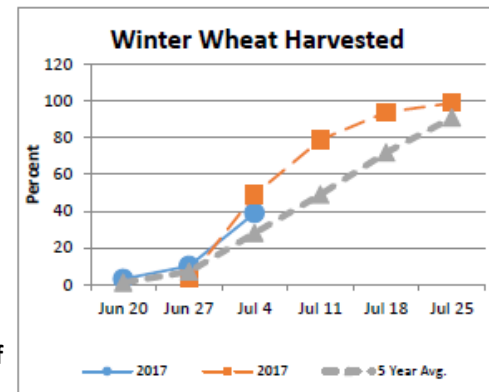
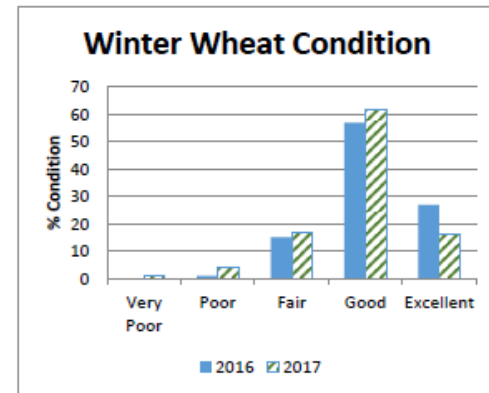
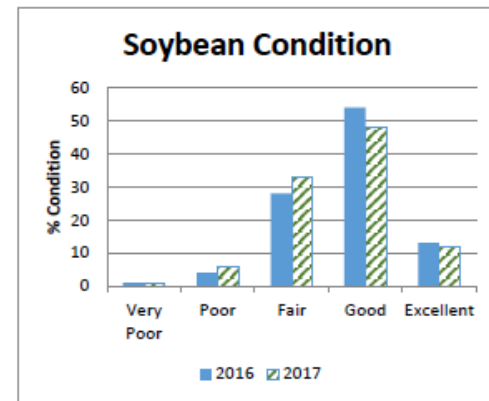


THE OHIO STATE UNIVERSITY

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

- 4.6 suitable days of field work
- Dry, cool weather early allowed for wheat harvest
- Wet once again in the west and north with ponding and some yellowing of plants.



NASS: Cheryl Turner –

https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2017/cw2717oh.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: Status quo this week

30-Day and 60-Day: Good soaking rain across the norther where it was needed; Still watching parts of central Ohio

Precipitation: Active pattern likely to continue for Ohio this week; multiple rounds of thunderstorms

