Hydrologic and Climate Assessment

23 May 2017

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL AND ENVIRONMENTAL SCIENCES

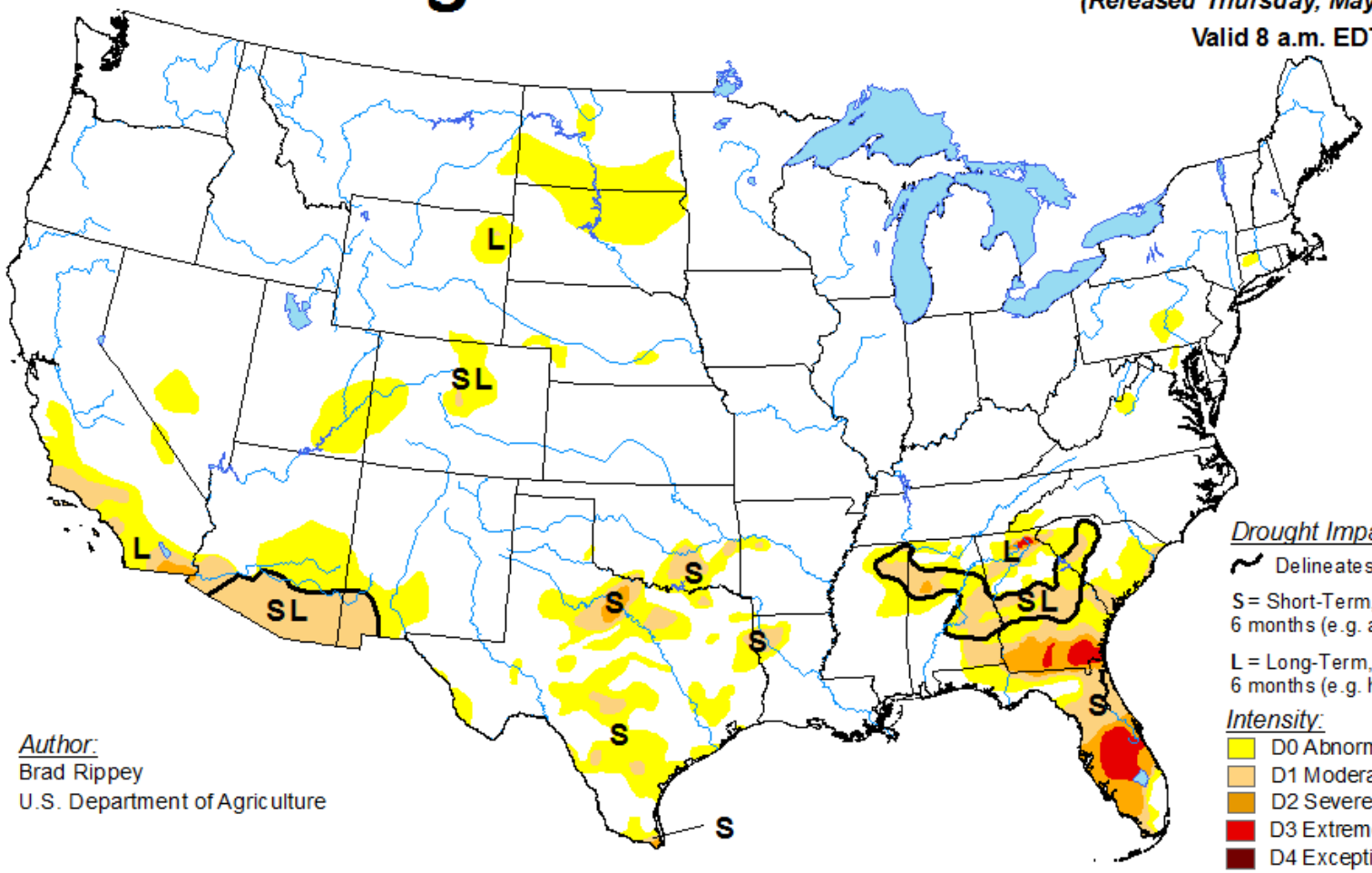
BPCRC.OSU.EDU

U.S. Drought Monitor

May 16, 2017

(Released Thursday, May. 18, 2017)

Valid 8 a.m. EDT



Author:
Brad Rippey
U.S. Department of Agriculture

Drought Impact Types:

Delineates dominant impacts

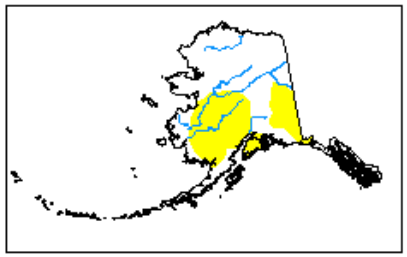
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

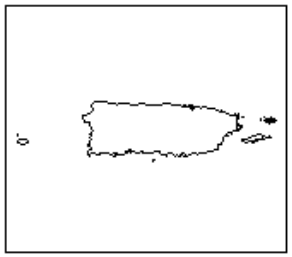
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- 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.

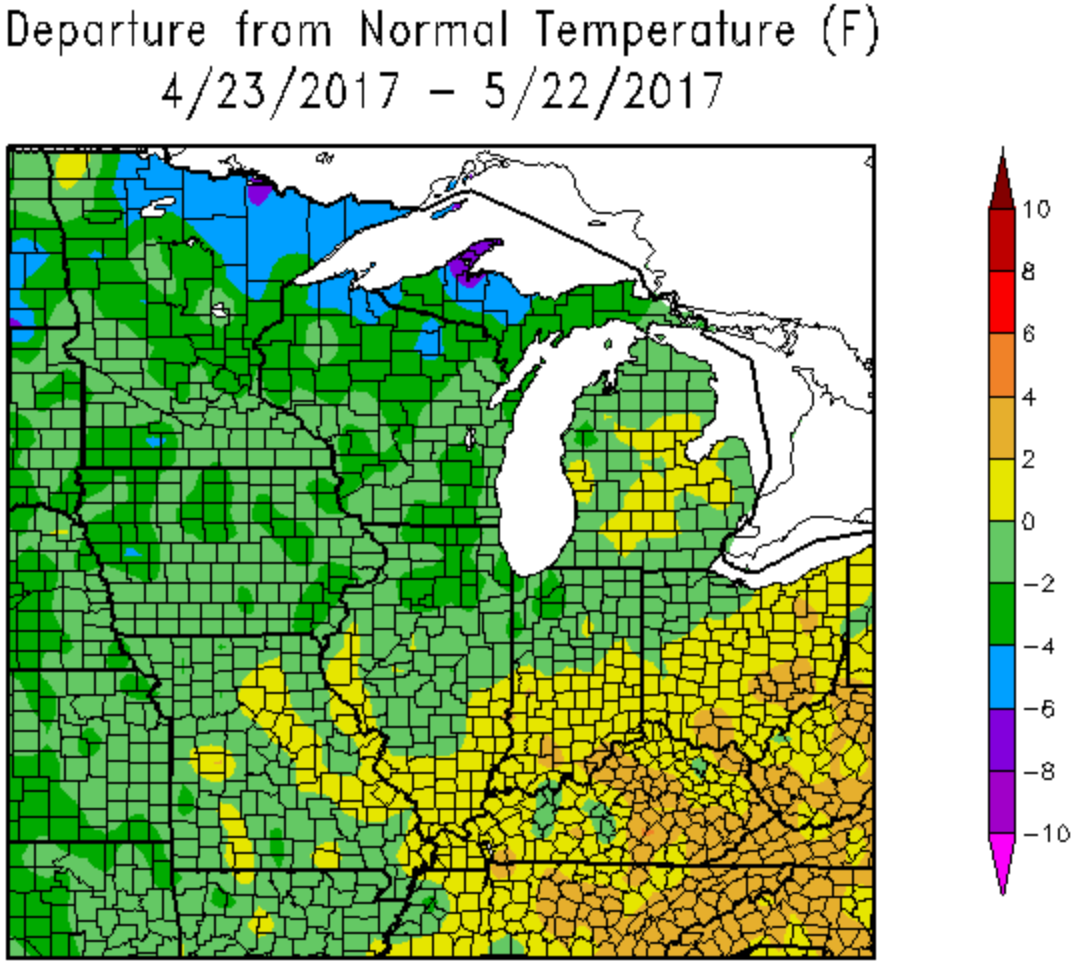




USDA NDMC NOAA

http://droughtmonitor.unl.edu/

Previous 30-Day Temperature

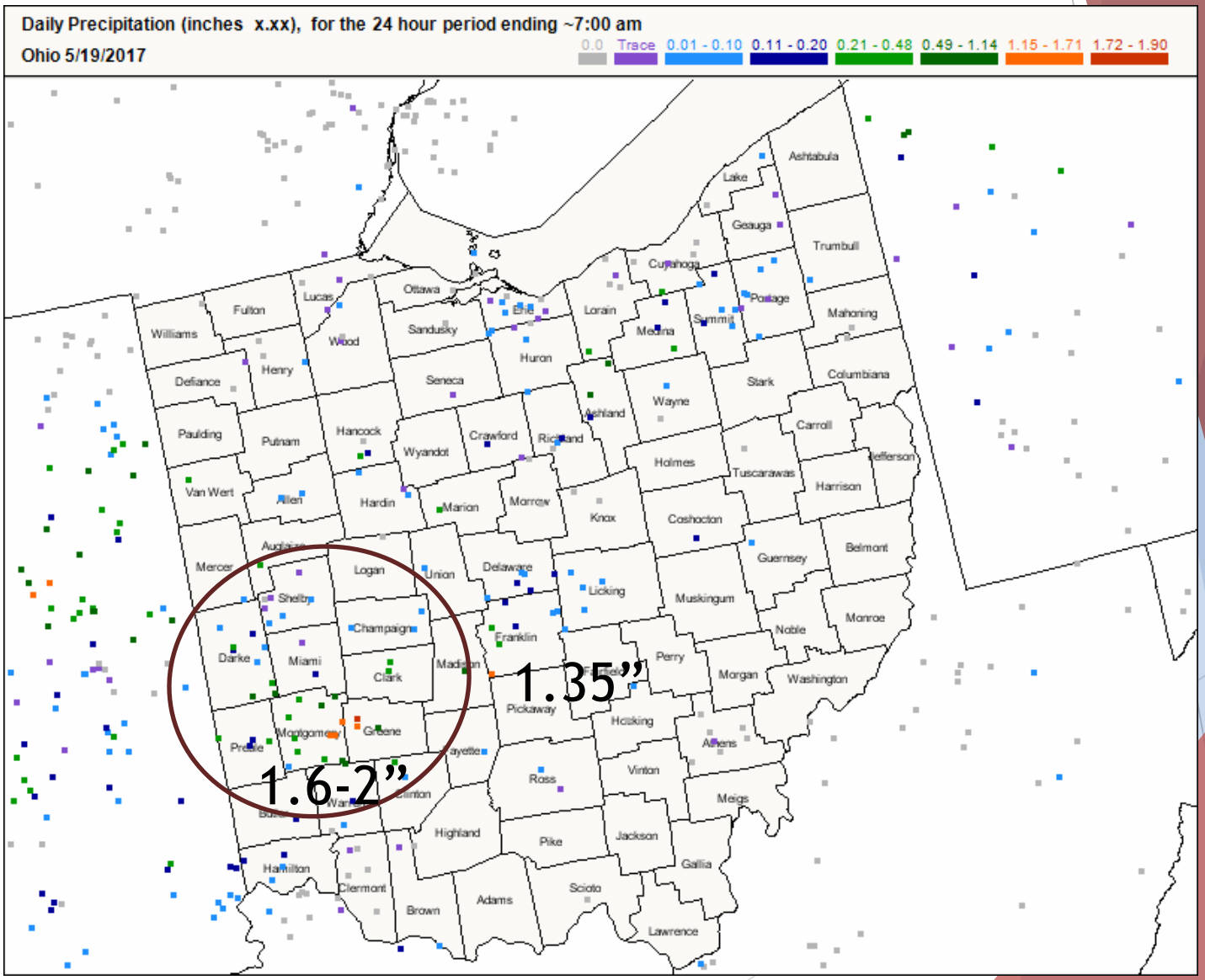


NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM

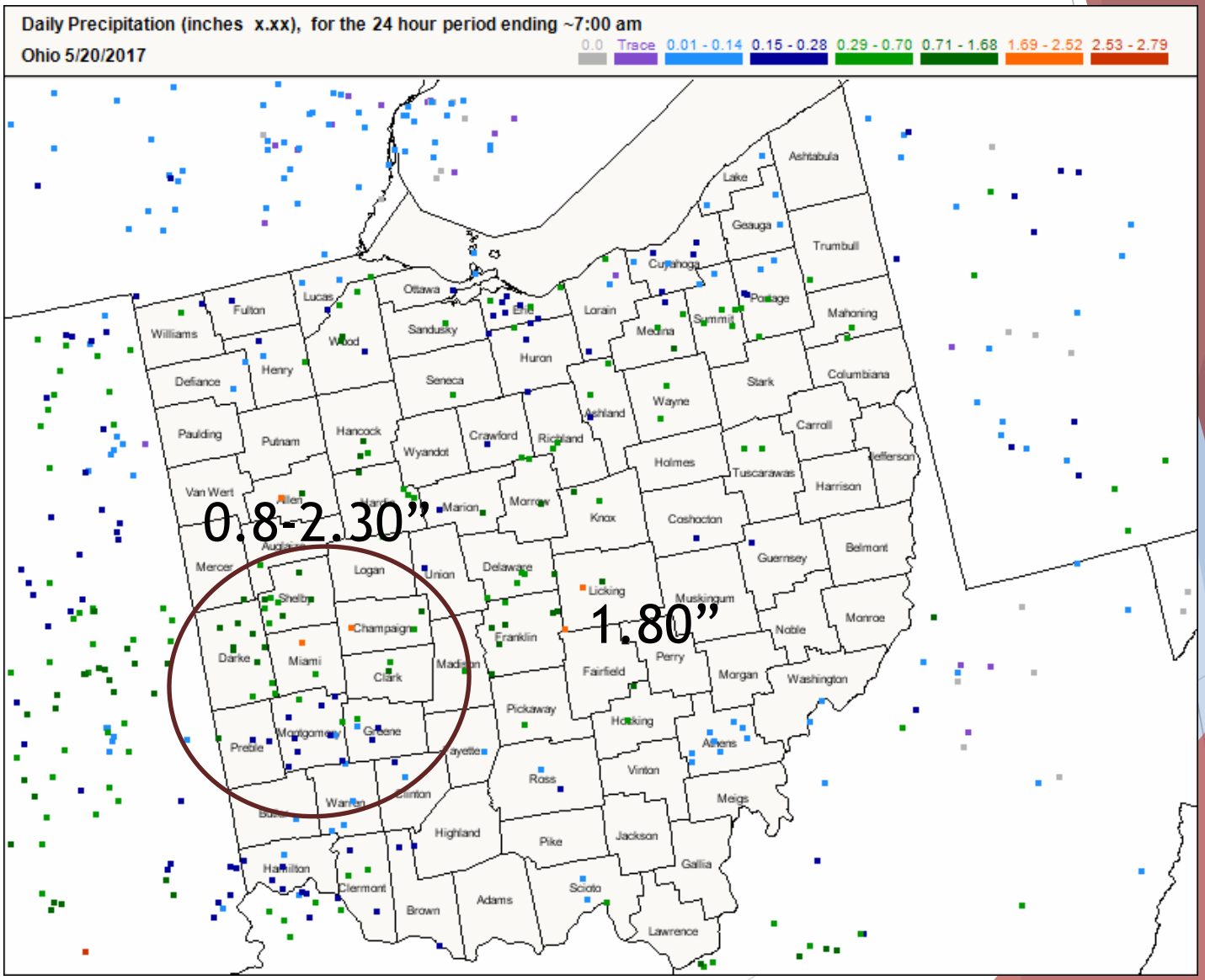
NIDIS Drought.gov

U.S. Drought Portal

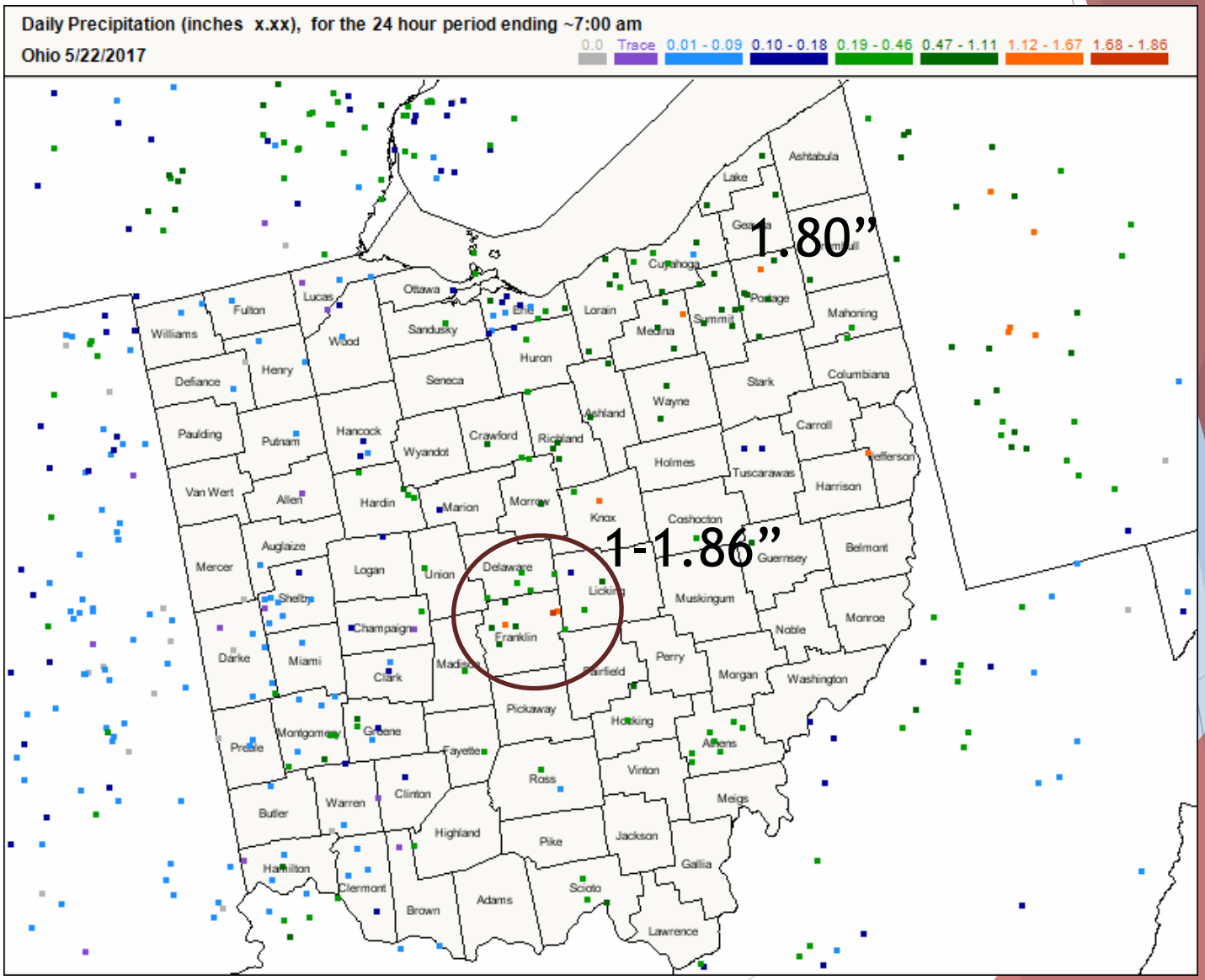
CoCoRaHS: 19 May



CoCoRaHS: 20 May

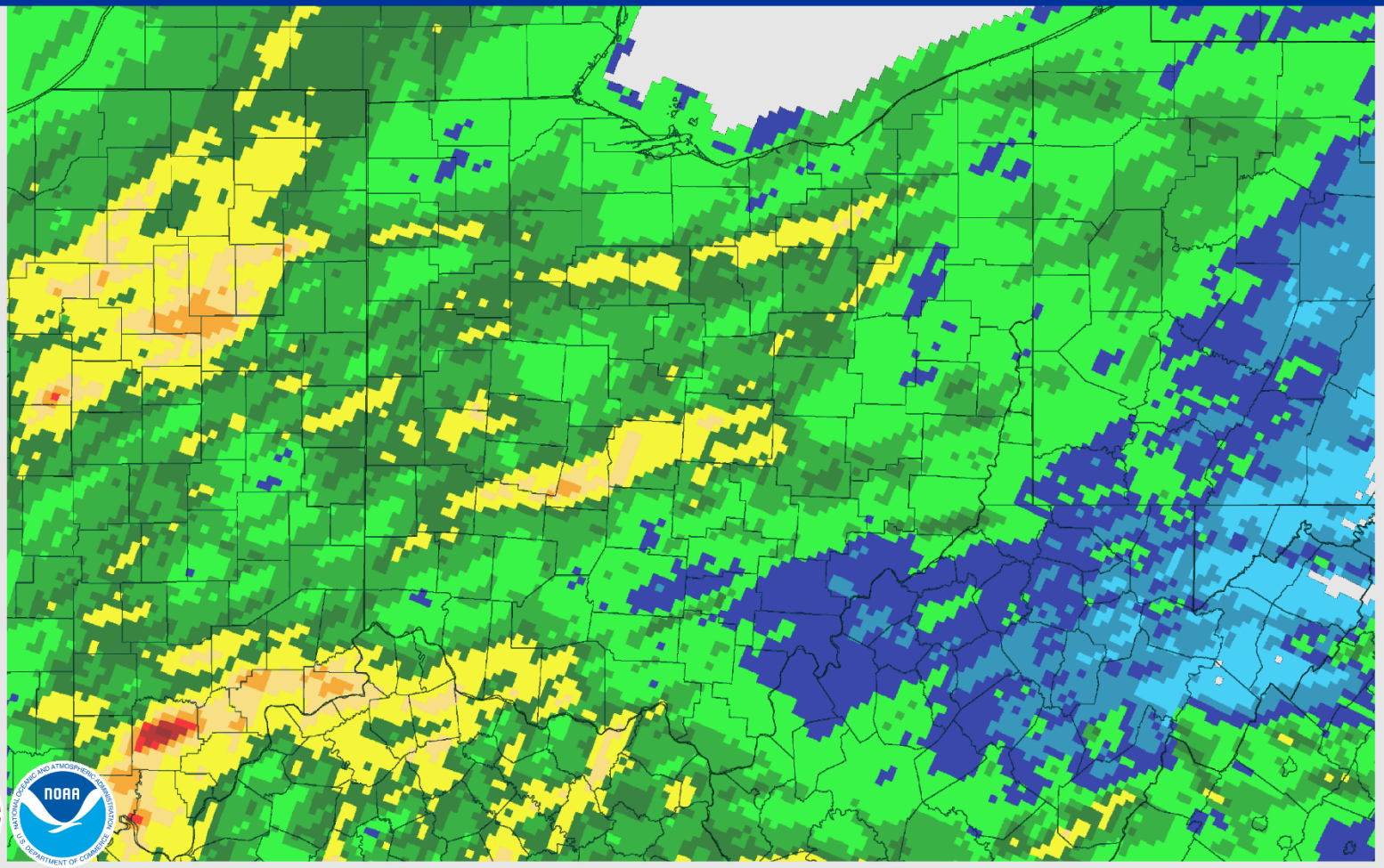


CoCoRaHS: 21 May



Previous 7-Day Precipitation

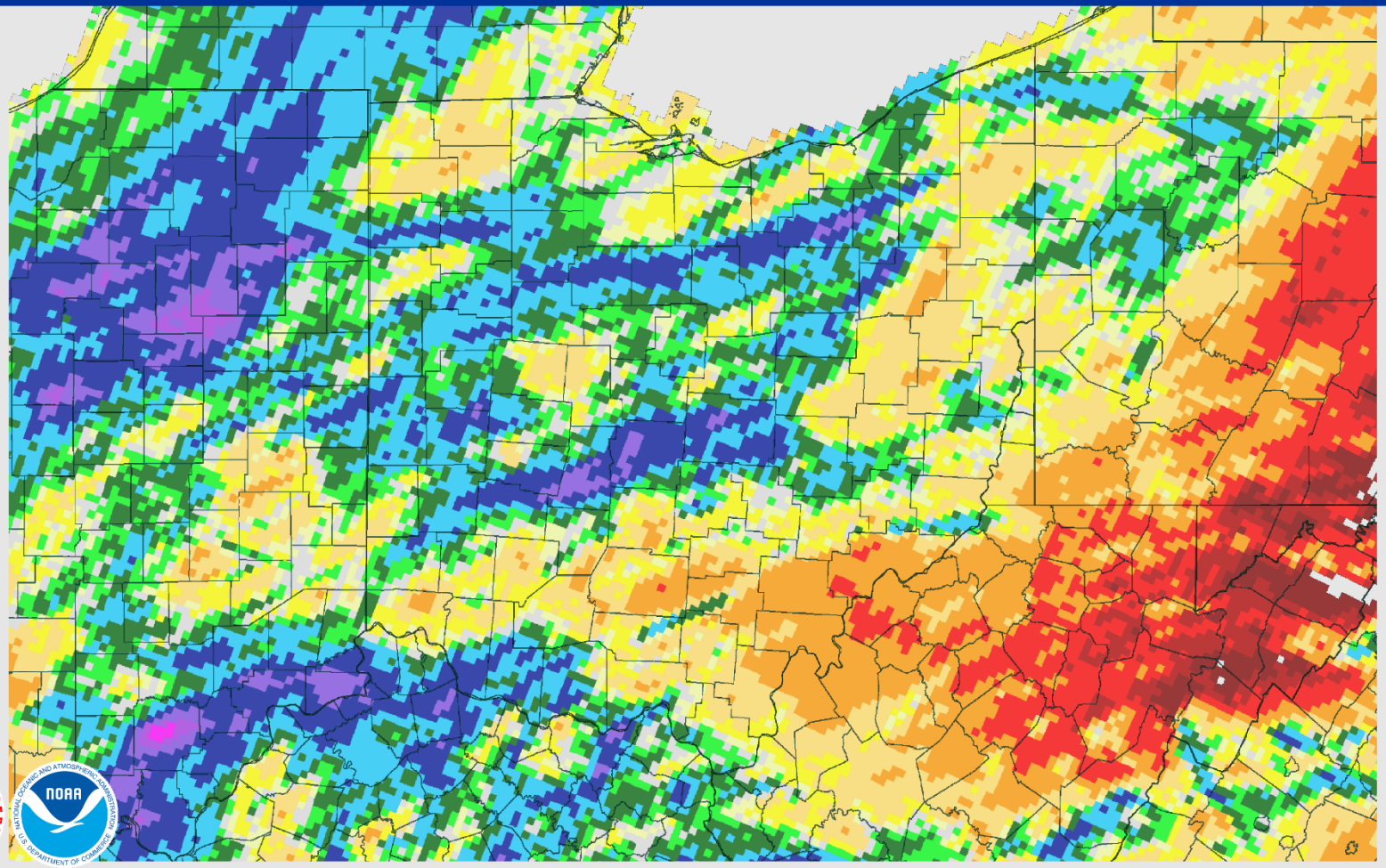
May 22, 2017 7-Day Observed Precipitation
Created on: May 23, 2017 - 13:10 UTC
Valid on: May 22, 2017 12:00 UTC



Total Observed

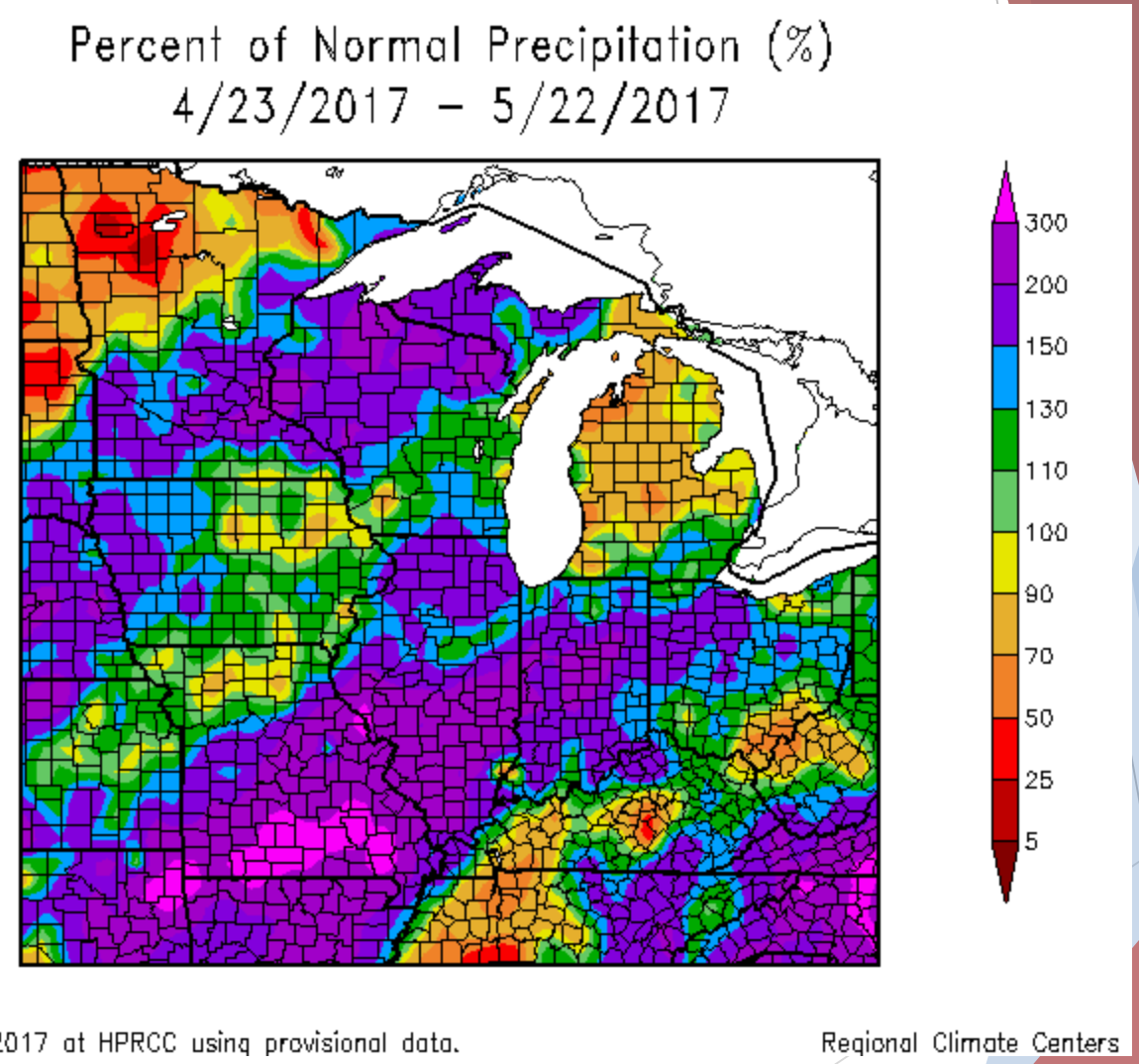
Previous 7-Day Precipitation

May 22, 2017 7-Day Percent Precipitation
Created on: May 23, 2017 - 13:12 UTC
Valid on: May 22, 2017 12:00 UTC



Percent of Normal

Previous 30-Day Precipitation

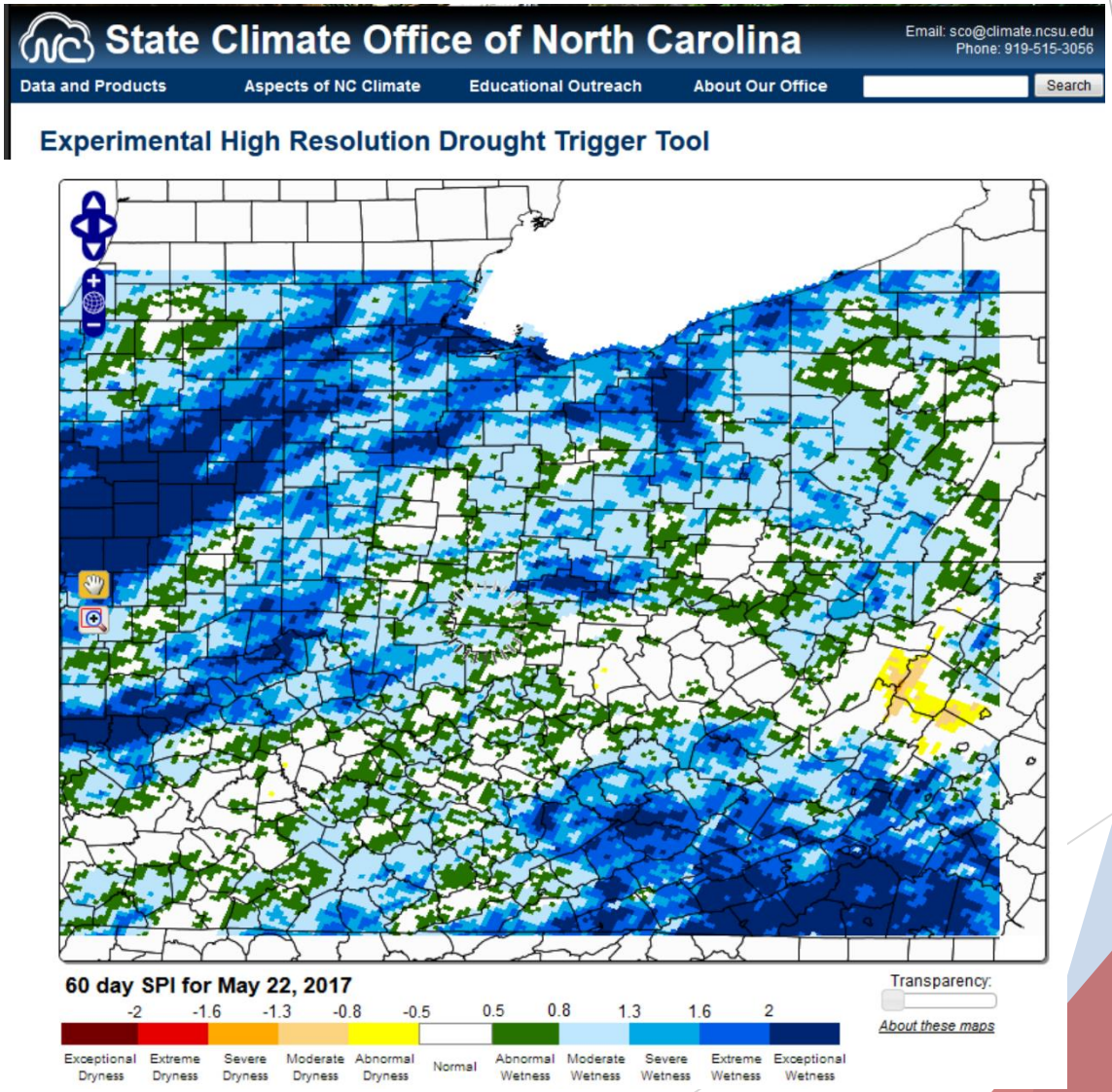


NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM

NIDIS Drought.gov
U.S. Drought Portal

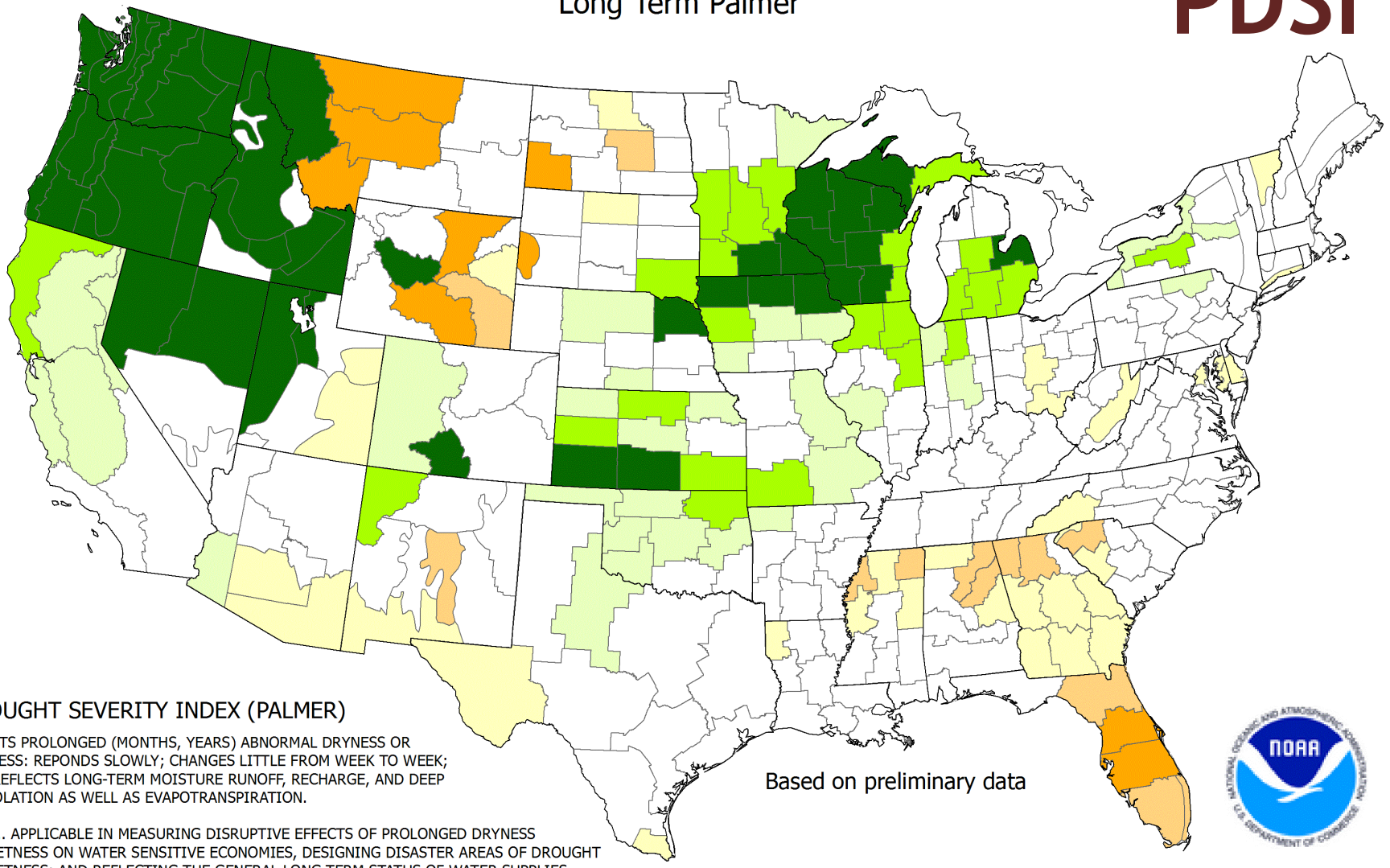
SPI: The Standardized Precipitation Index (SPI) indicates how unusual the amount of accumulated precipitation is, compared to the historical record over a given time scale.

60-Day



Drought Severity Index by Division
Weekly Value for Period Ending May 20, 2017
Long Term Palmer

PDSI



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.

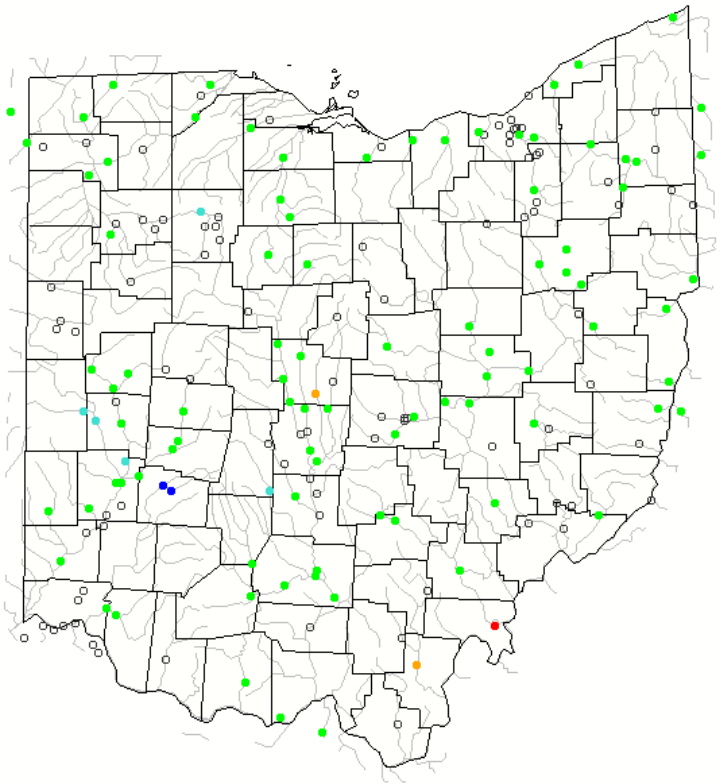
LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

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)

USGS Streamflow

7-DAY

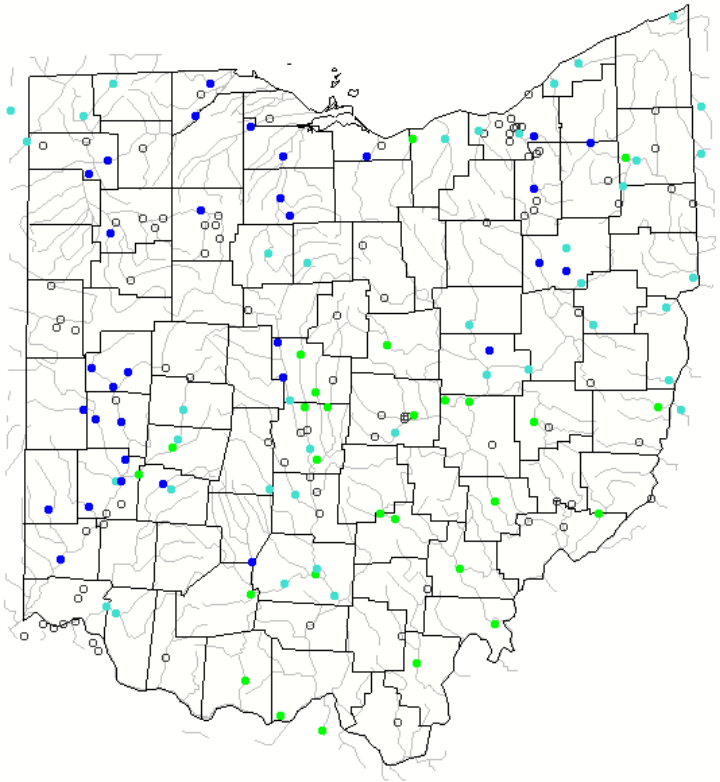


USGS

Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

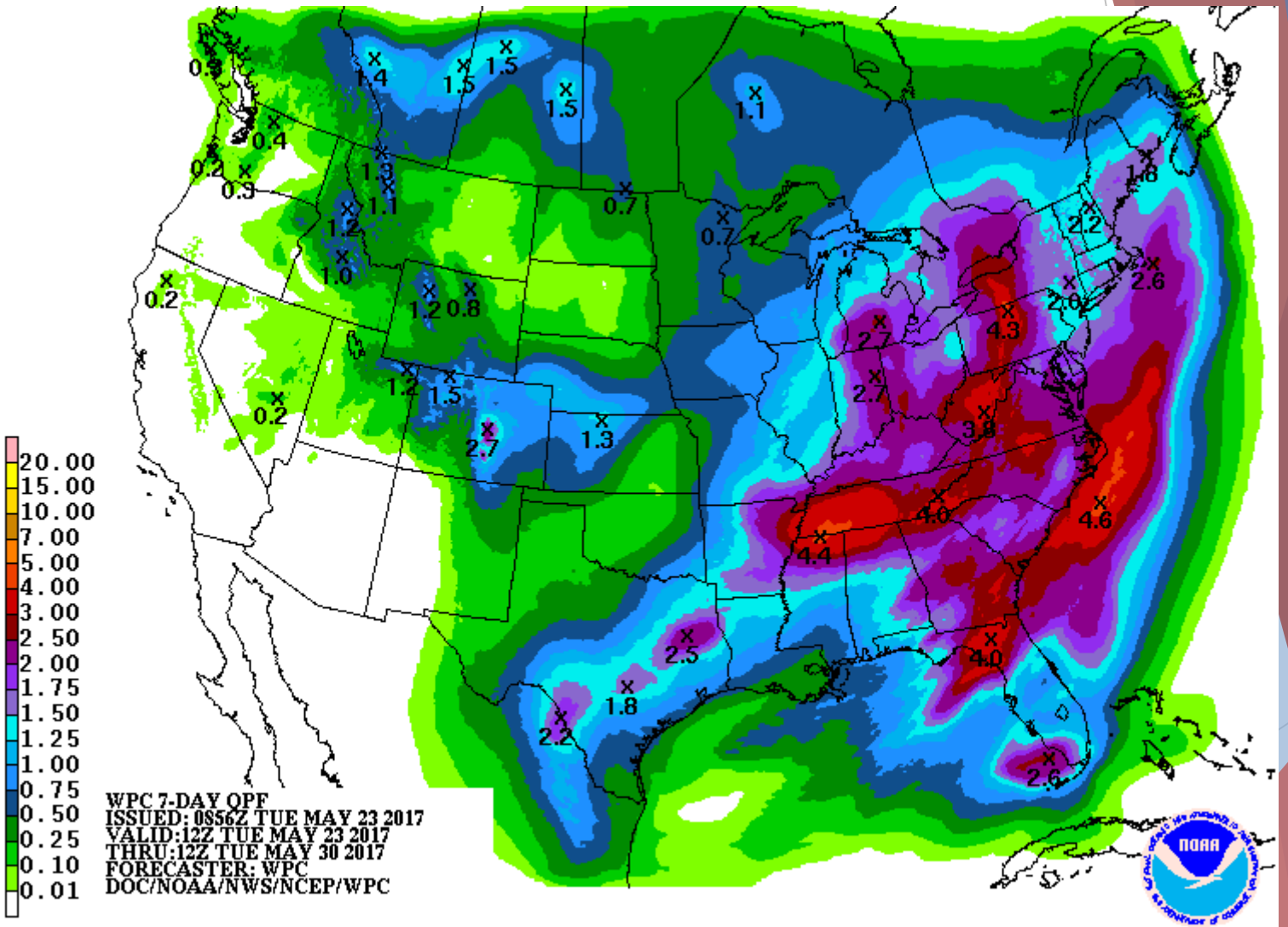
Average streamflow compared to historical streamflow for the day of the year

28-DAY

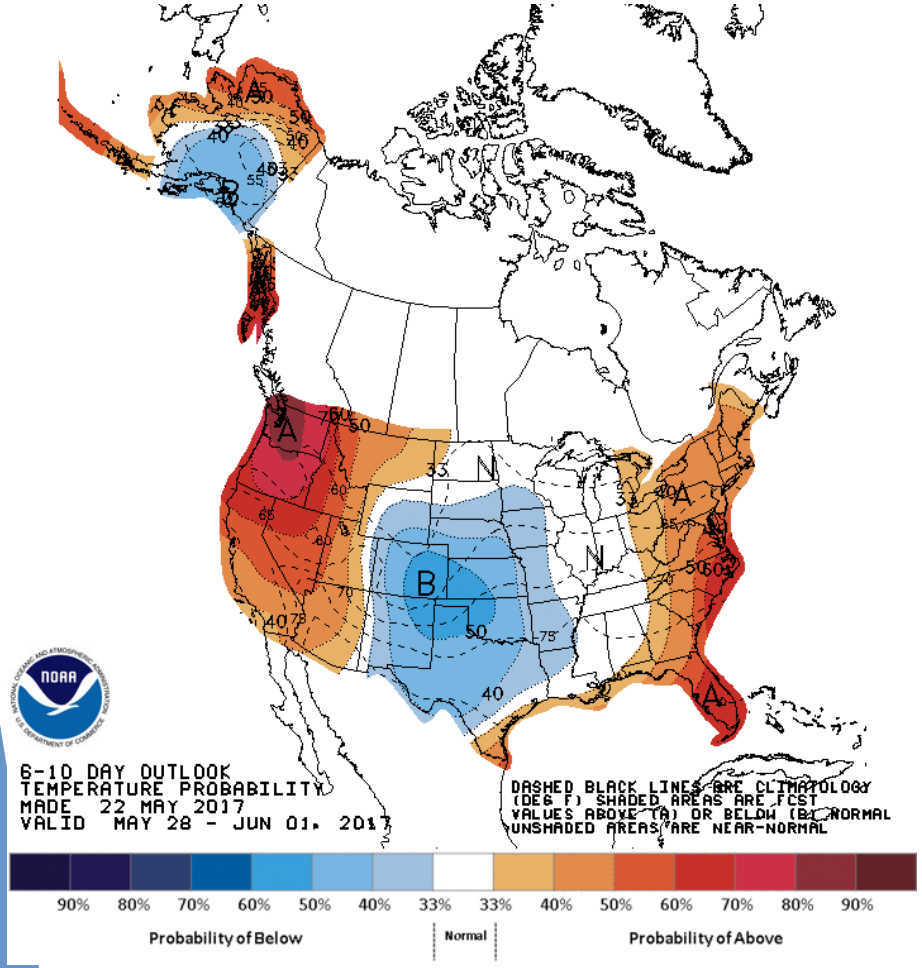


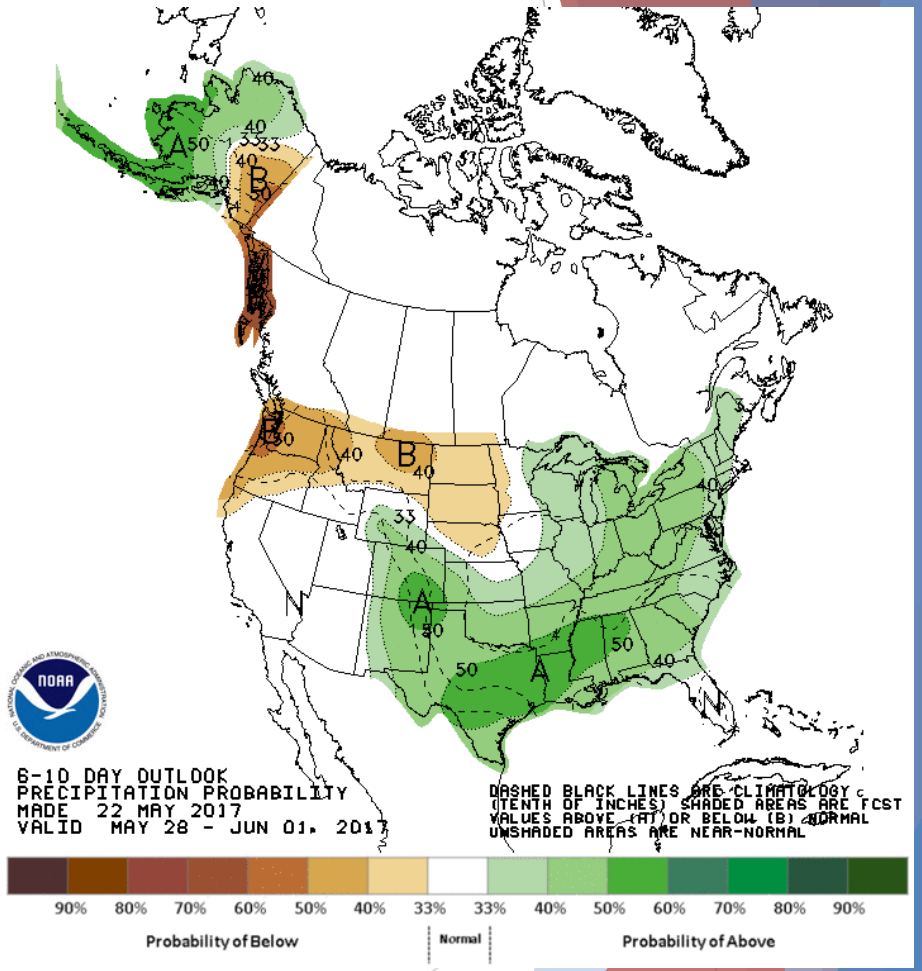
USGS

Weather for the Week Ahead



6-10 Day Outlook





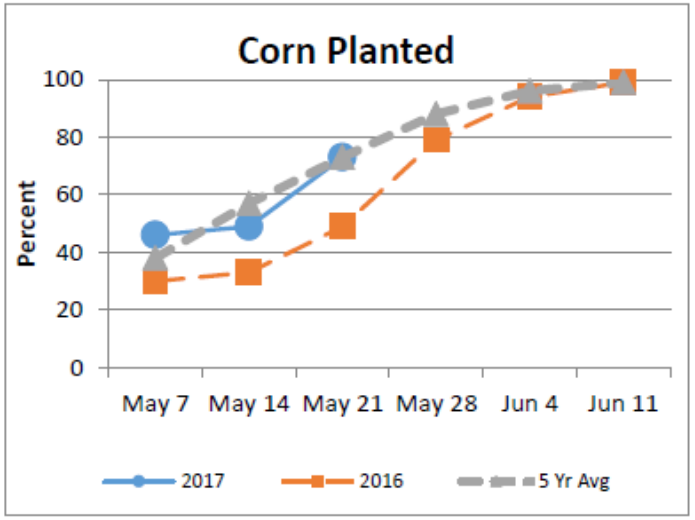
Highs: Mid 70s

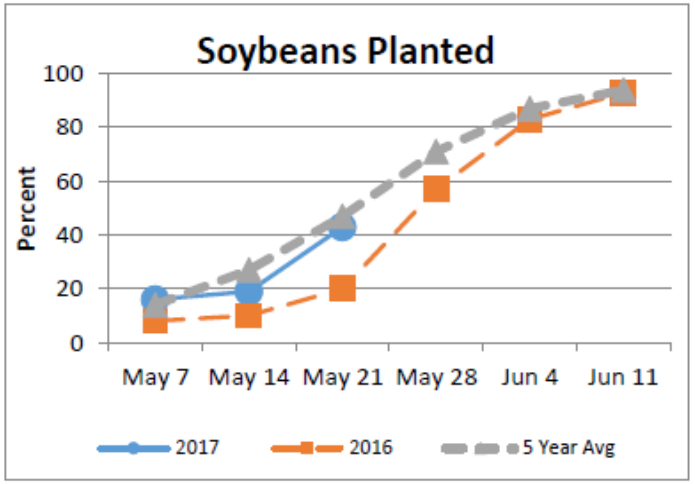
Lows: Low to Mid 50s

Ag Highlights

- Some warm dry weather allowed replanting in many areas: 4.4 suitable days
- Excess water and soil crusting still issues
- Corn right at 5 year average; first hay cut

State Climate Office installed soil moisture probes at two additional OARDC research sites: Northwest and North Central. Photo above shows one of our handheld meters that we used to test soil moisture around the newly installed probes on 22 May 2017.





NASS: Cheryl Turner -
https://www.nass.usda.gov/Statistics_by_State/Ohio/Publications/Crop_Progress_&_Condition/2017/cw2117oh.pdf

Summary of Conditions

- **Drought Monitor:** No classification in Ohio
- **30-Day and 60-Day:** Wet across the state; Exceptionally so in West/North; Drying across the SE
- **30-Day temperatures:** 0-4°F above average (NW to SE)
- **Precipitation:** Another 2” of rain possible this week?