

Hydrologic and Climate Assessment

December 14, 2018



Aaron B. Wilson

STATE CLIMATE OFFICE OF OHIO (SCOO)

DEPARTMENT OF EXTENSION - CFAES

BYRD POLAR & CLIMATE RESEARCH CENTER

DEPARTMENT OF GEOGRAPHY

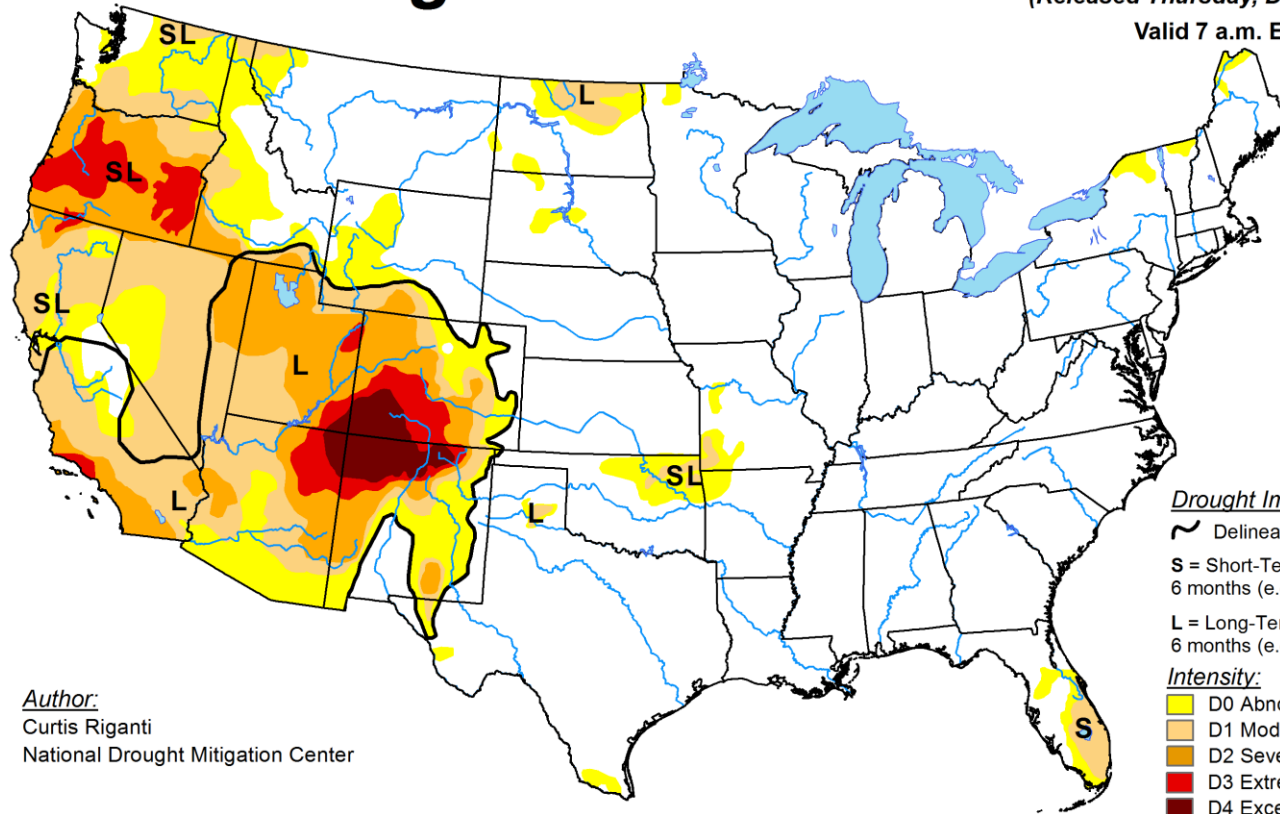


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U.S. Drought Monitor

December 11, 2018
(Released Thursday, Dec. 13, 2018)

Valid 7 a.m. EST



Author:
Curtis Riganti
National Drought Mitigation Center

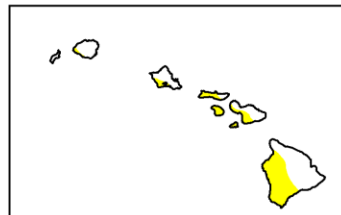
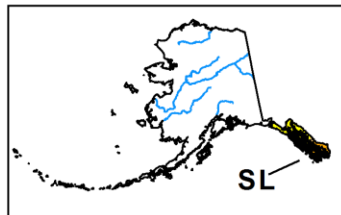
Drought Impact Types:

- ~ 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/>



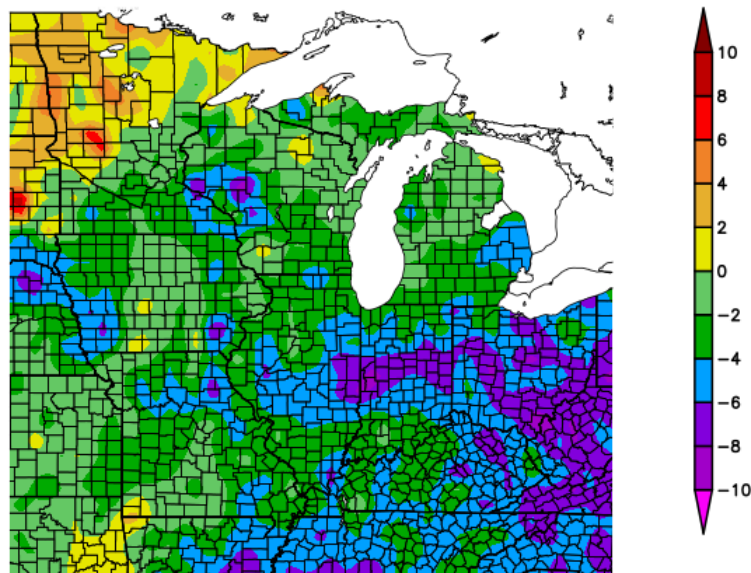
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Temperature Differences Compared to Average (1981-2010)

7-Day

Departure from Normal Temperature (F)
12/7/2018 – 12/13/2018



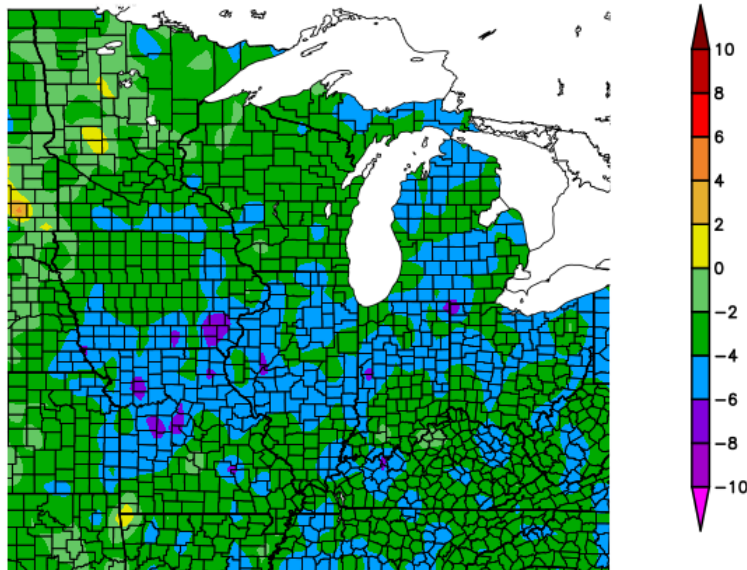
Generated 12/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Differences Compared to Average (1981-2010)

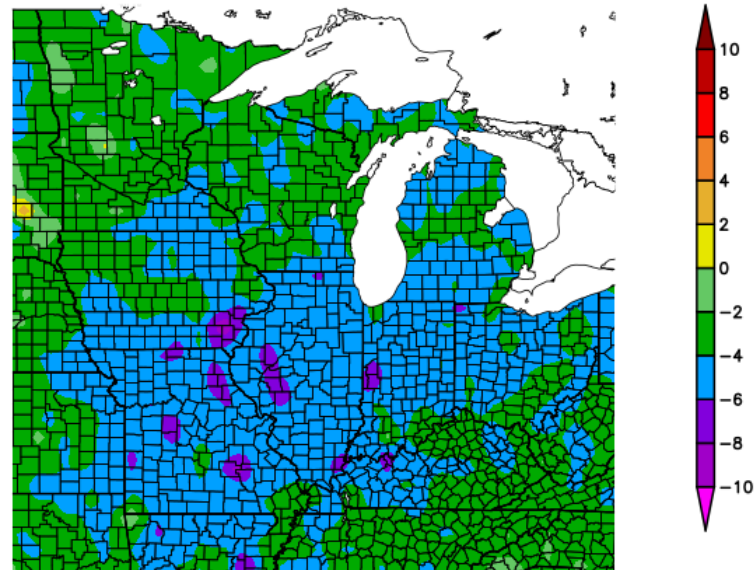
30-Day

Departure from Normal Temperature (F)
11/14/2018 – 12/13/2018



60-Day

Departure from Normal Temperature (F)
10/15/2018 – 12/13/2018



Generated 12/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 12/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



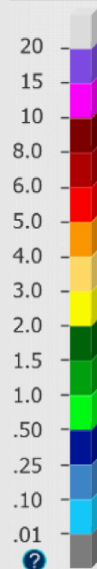
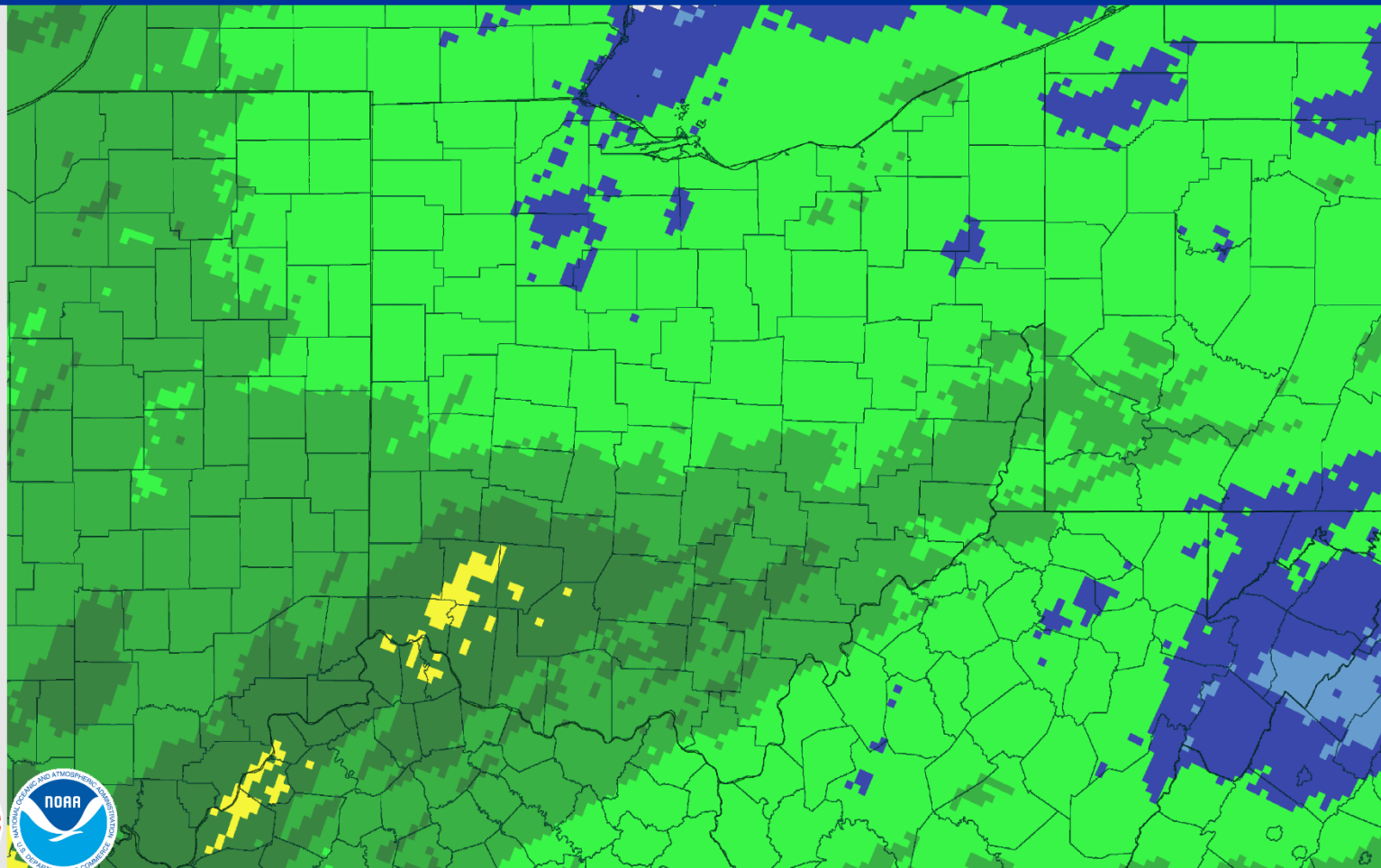
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Previous 14-Day Precipitation: Total

December 14, 2018 14-Day Observed Precipitation

Created on: December 14, 2018 - 20:06 UTC

Valid on: December 14, 2018 12:00 UTC



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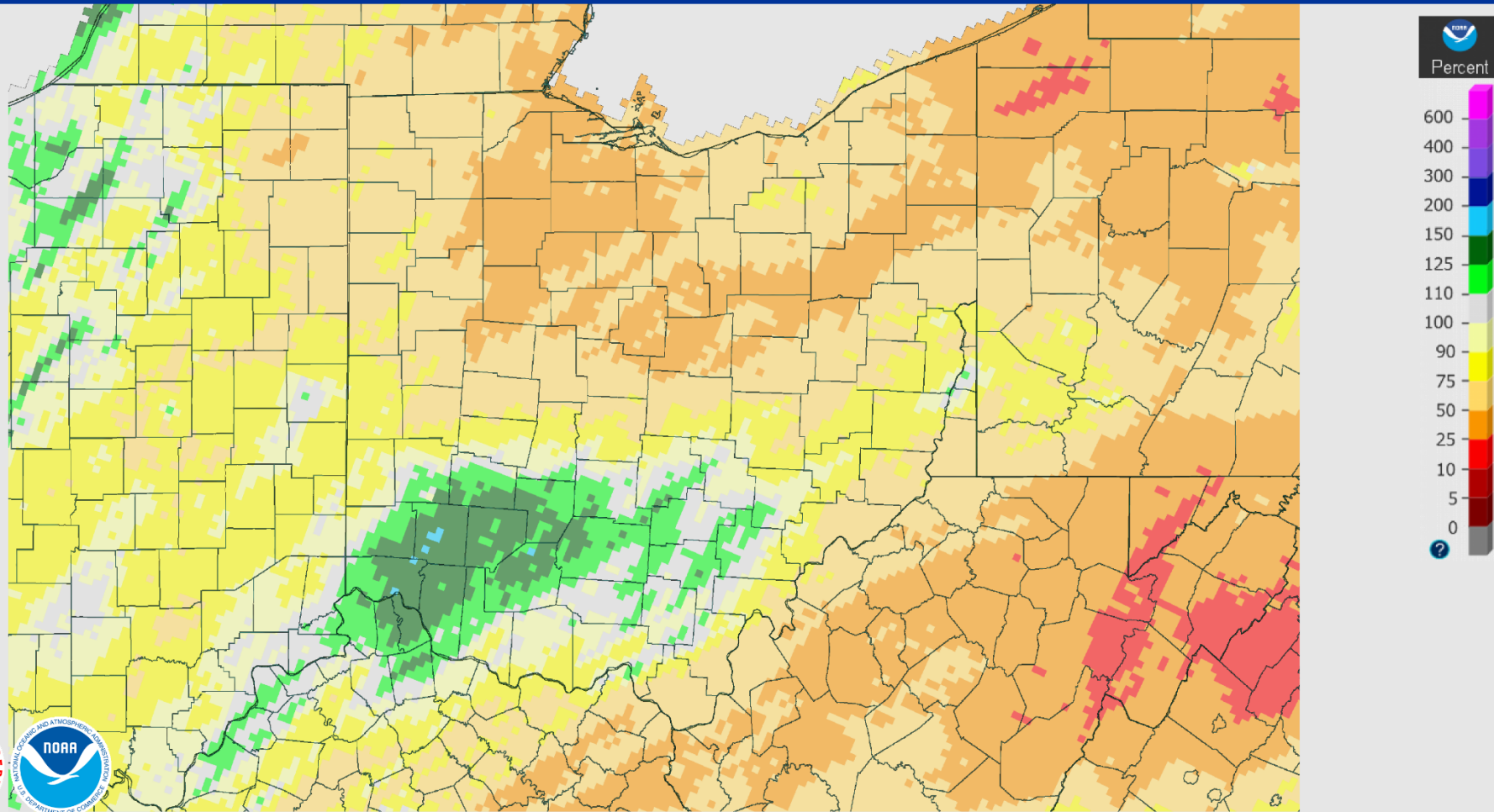
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Previous 14-Day Precipitation: Percent of Normal

December 14, 2018 14-Day Percent Precipitation

Created on: December 14, 2018 - 20:06 UTC

Valid on: December 14, 2018 12:00 UTC



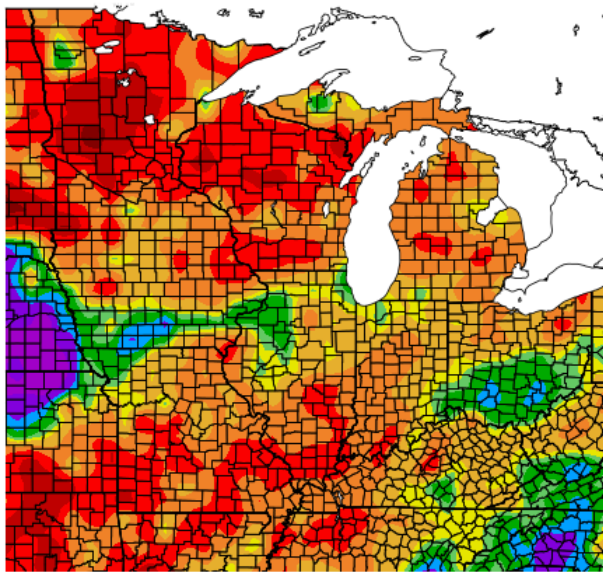
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Precipitation Differences Compared to Average (1981-2010)

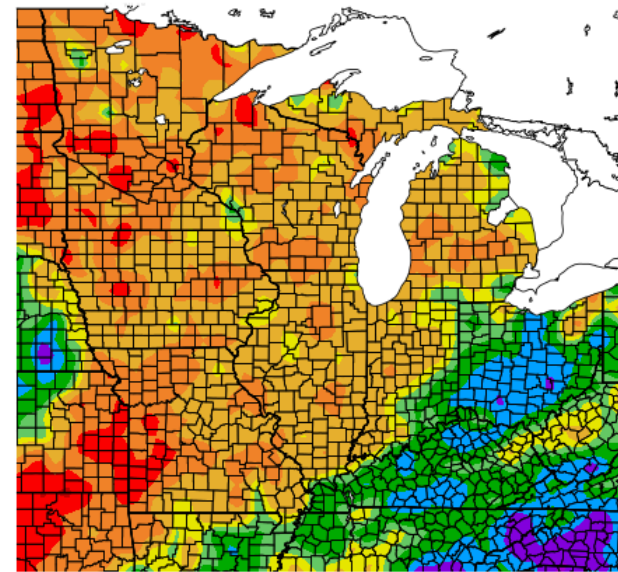
30-Day

Percent of Normal Precipitation (%)
11/14/2018 – 12/13/2018



60-Day

Percent of Normal Precipitation (%)
10/15/2018 – 12/13/2018



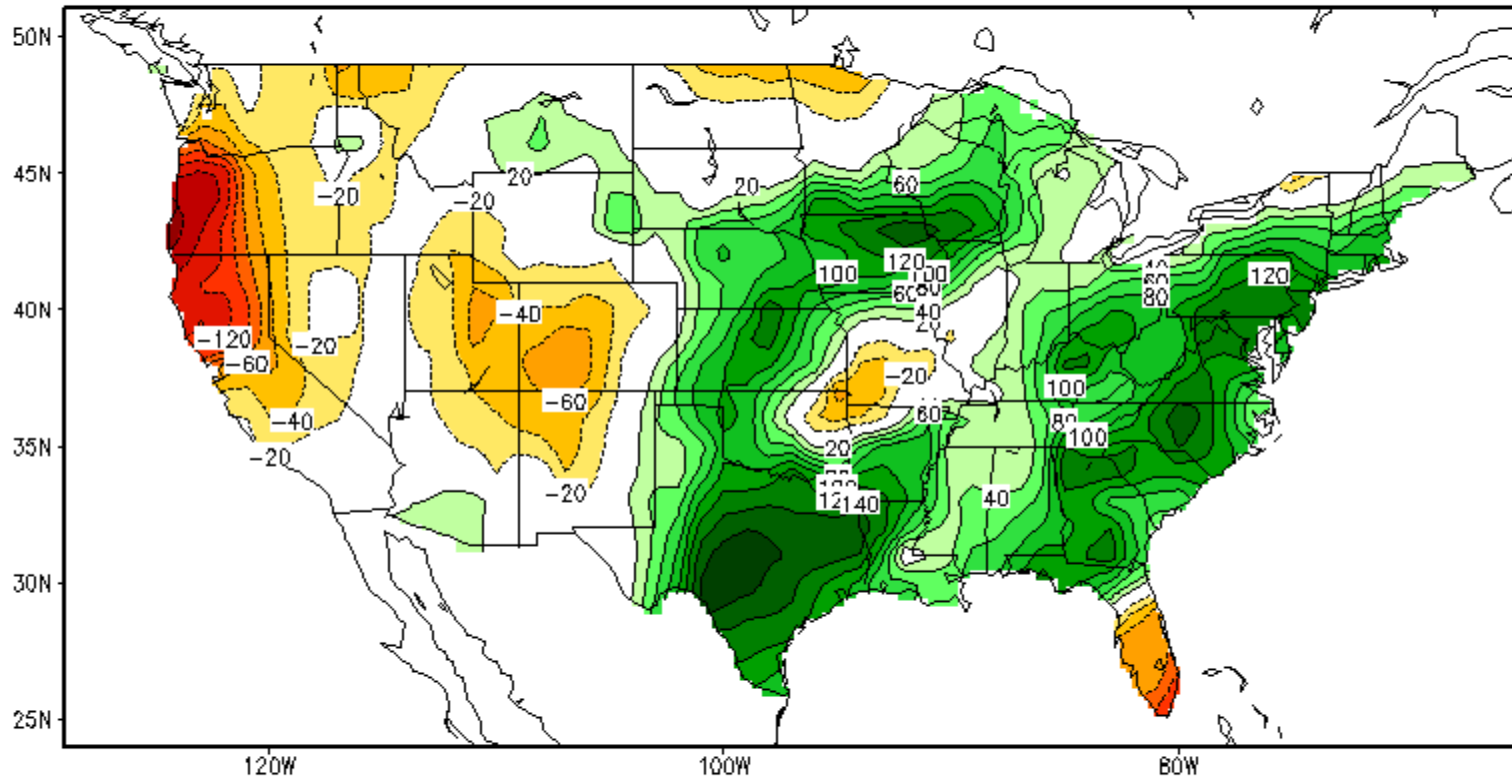
Generated 12/14/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers Generated 12/14/2018 at HPRCC using provisional data.

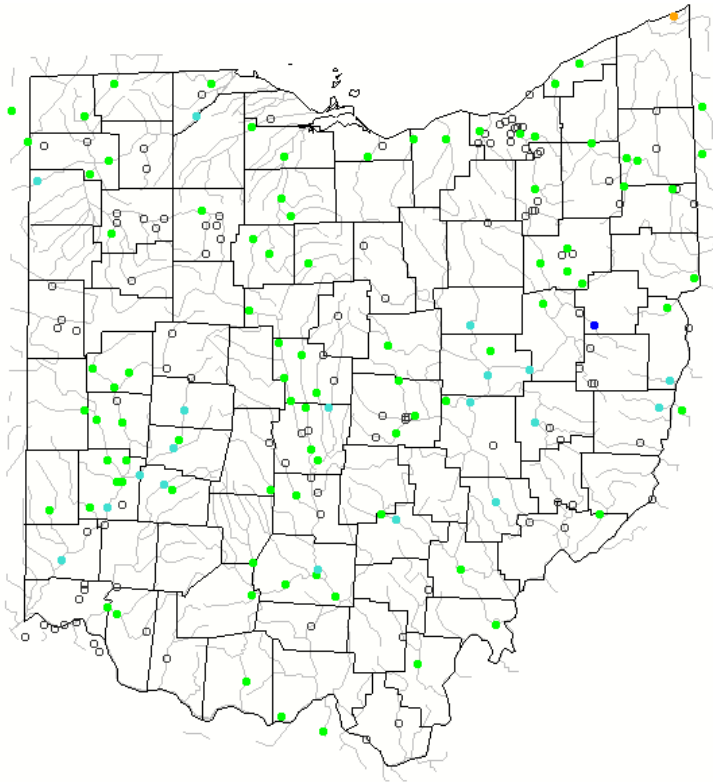
NOAA Regional Climate Centers

Soil Moisture

Calculated Soil Moisture Anomaly (mm)
DEC 13, 2018



7-DAY



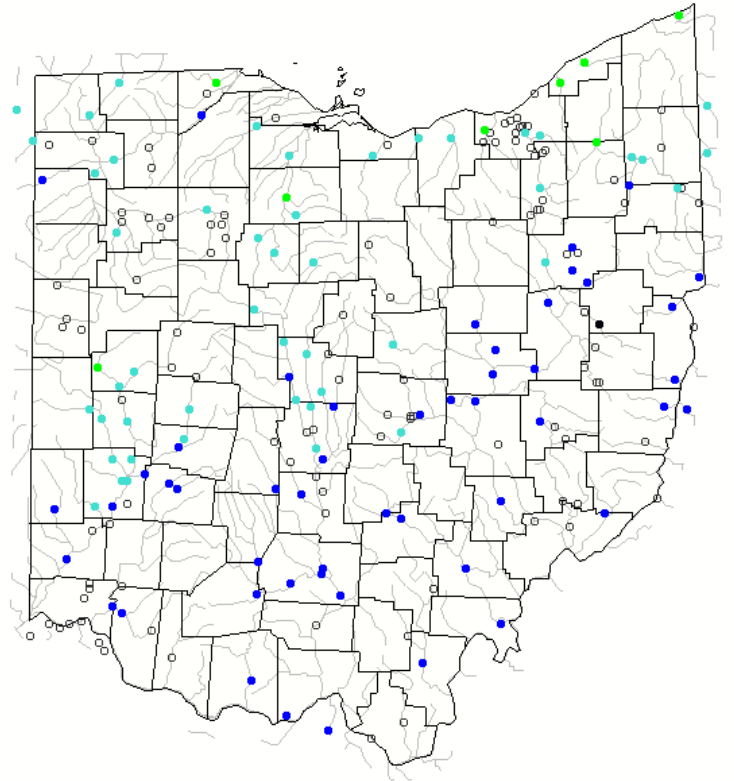
Explanation - Percentile classes

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



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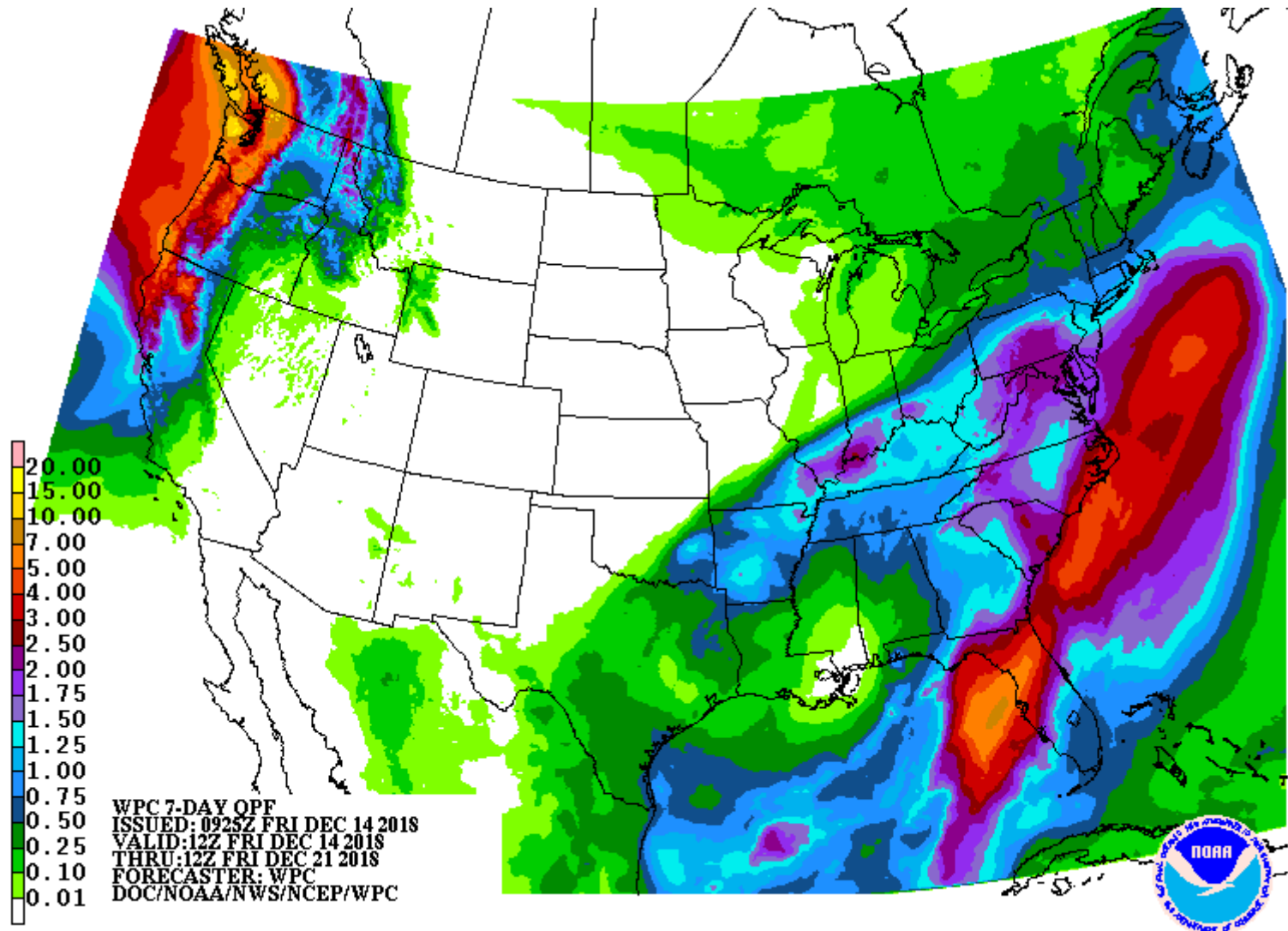
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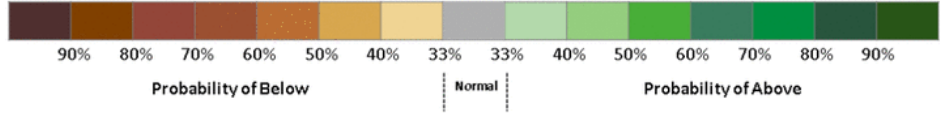
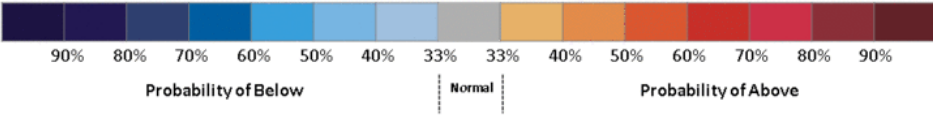
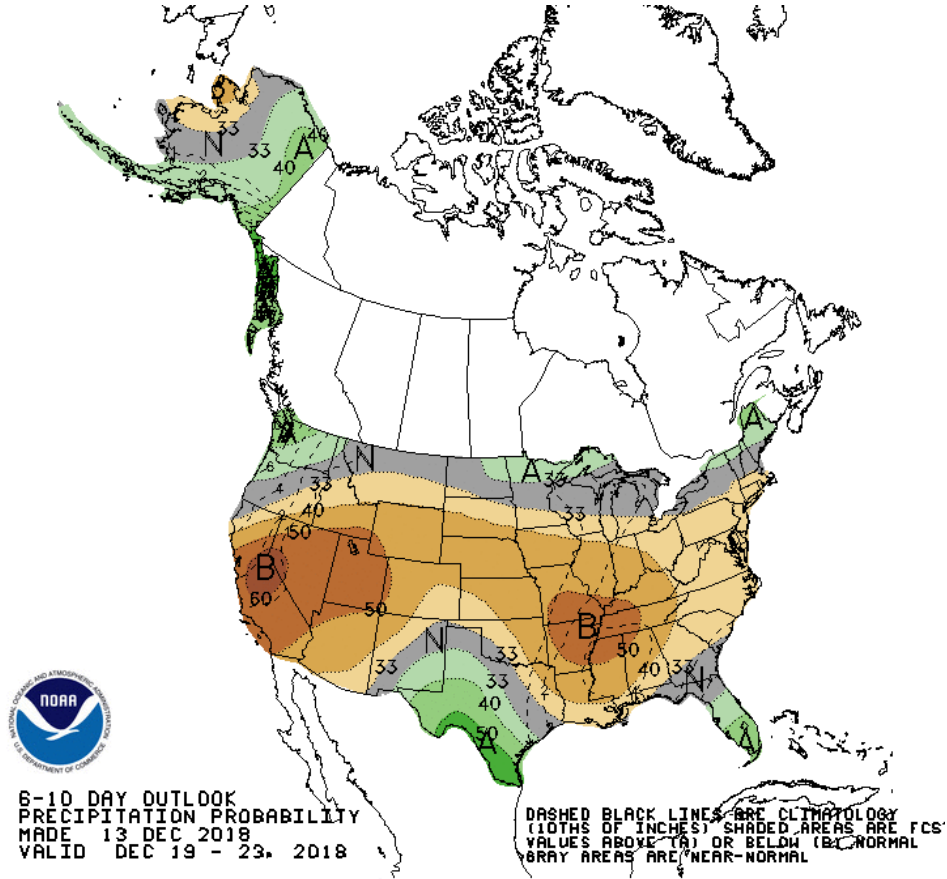
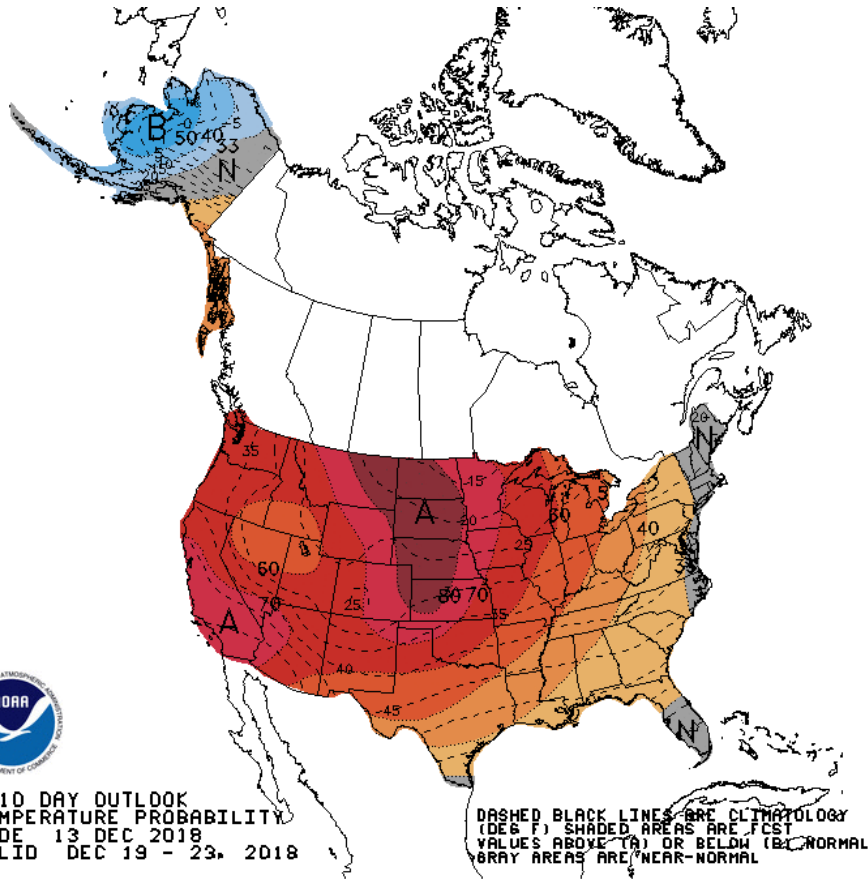
Weather for the Week Ahead



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6-10 Day Outlook



Highs: 37-42°F; Lows: 23-27°F; Precip: ~0.75" (per week)

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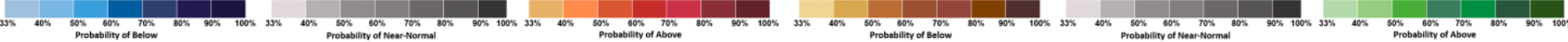
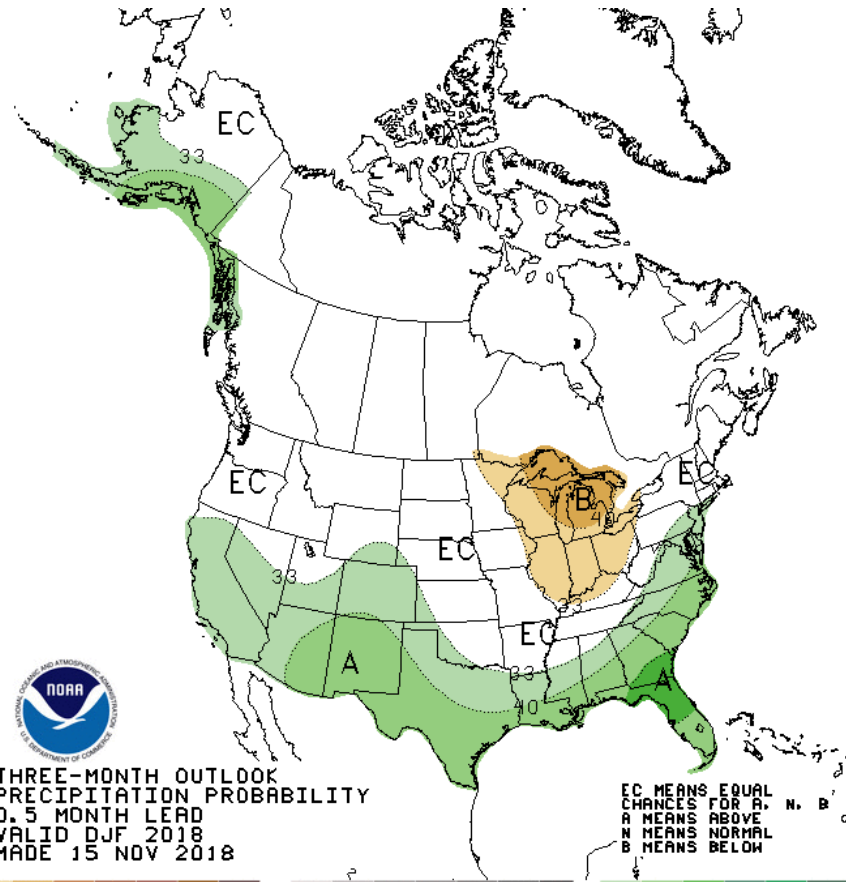
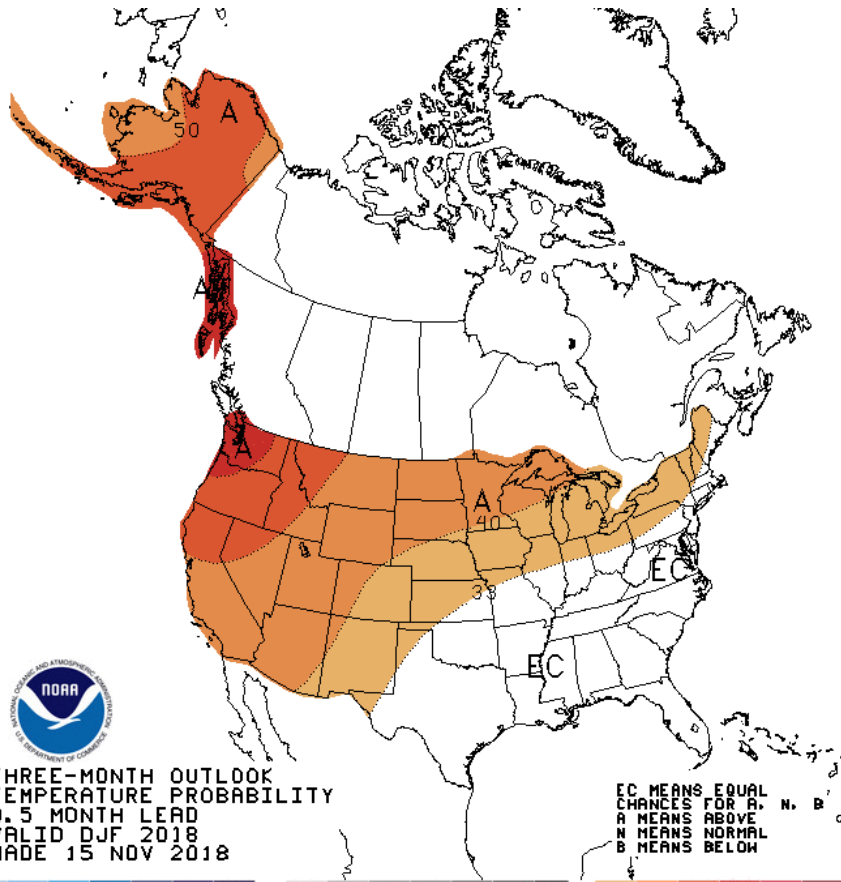
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December – February Outlook



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Ag Highlights

- Next NASS Update is January 2
- A fair amount of crops still waiting to be harvested – many were waiting for frozen ground
- Some progress made over the last week
- Disease and quality issues are possible

NASS: Cheryl Turner –

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



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Summary of Conditions



Front and Back Photo Credits: Dan Keck (@Flickr)

Drought Monitor: No drought - saturated

Climate Recap: Cold and wet; soils are saturated and streams are running normal to high

The week ahead: Rainy early this weekend then drier; warmer weather expected over the next 6-10 days



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