U.S. Drought Monitor
Midwest

June 21, 2016
(Released Thursday, Jun. 23, 2016)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

<table>
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<tr>
<th></th>
<th>None</th>
<th>D0-D4</th>
<th>D1-D4</th>
<th>D2-D4</th>
<th>D3-D4</th>
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<tr>
<td>Current</td>
<td>70.40</td>
<td>29.60</td>
<td>2.02</td>
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<td>Last Week 6/14/2016</td>
<td>68.73</td>
<td>31.27</td>
<td>0.03</td>
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<tr>
<td>3 Months Age 3/22/2016</td>
<td>98.11</td>
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<td>Start of Calendar Year 12/22/2015</td>
<td>88.07</td>
<td>11.93</td>
<td>2.35</td>
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<tr>
<td>Start of Water Year 9/22/2015</td>
<td>79.46</td>
<td>20.54</td>
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<td>One Year Age 9/23/2015</td>
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<td>9.65</td>
<td>0.91</td>
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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.

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U.S. Department of Agriculture

http://droughtmonitor.unl.edu/
CoCoRaHS: 18-24 June

Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am
Ohio 6/27/2016

- 2.44" at Hancock
- 1.78" at Moro
- 2.43" at Madison
Previous 7-Day Precipitation

Percent of Normal Precipitation (%)
6/20/2016 - 6/26/2016

Accumulated Precipitation (in)
June 19, 2016 to June 25, 2016
Drought Severity Index by Division
Weekly Value for Period Ending Jun 18, 2016
Long Term Palmer

Drought Severity Index (Palmer)
Depicts prolonged (months, years) abnormal dryness or
wetness: responds 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 of short-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)
Additional Precip. Needed (In.) to bring PDI to -0.5
Weekly Value for Period Ending Jun 18, 2016
Long Term Palmer Drought Severity Index (PDI)

Based upon the current weekly PDI value, a climate division would need approximately X to Y inches of precipitation over the next four weeks to bring its PDI to near-normal (PDI -0.5 or wetter). These values include its normal 4-week precipitation amount. However, these approximations do not take into account precipitation rate (e.g., thunderstorms vs. steady rains), or season (winter vs. summer), certain precipitation types and rates, and time of year are more conducive for ameliorating drought while others may produce less drought reduction (e.g., runoff or frozen ground).

Uncolored climate divisions are currently at near-normal to moist PDI conditions. (Example - If 4-week normal precipitation is 3 inches and PDI deficit to bring to -0.5 is 4 inches, the value is 7)

Based on preliminary data

[Map showing drought severity with color codes: Zero Inches, Trace to 3 Inches, 3 to 6 Inches, 6 to 9 Inches, 9 to 12 Inches, 12 to 15 Inches, Over 15 Inches]
Crop Moisture Index by Division
Weekly Value for Period Ending Jun 18, 2016
Short Term Need vs. Available Water in a Shallow Soil Profile

CROP MOISTURE
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE. RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

-3.0 or less (Severely Dry)  +1.0 to +1.9 (Abnormally Moist)
-2.0 to -2.9 (Excessively Dry) +2.0 to +3.0 (Wet)
-1.0 to -1.9 (Abnormally Dry)  3.0 and above (Excessively Wet)
-0.9 to +0.9 (Slightly Dry/Favorably Moist)
The Standardized Precipitation Index (SPI) indicates how unusual the amount of accumulated precipitation is, compared to the historical record over a given time scale.
The Standardized Precipitation Index (SPI) indicates how unusual the amount of accumulated precipitation is, compared to the historical record over a given time scale.
Weather for the Week Ahead

• A secondary cold front will drop down through the region overnight Monday into Tuesday.

• Cooler temperatures are expected this week as high pressure builds into the area.

• Warming up a bit by Friday with our next chance of rain ahead of a cold front.
6-10 Day Outlook
8-14 Day Outlook
SUMMARY OF CONDITIONS

• **Current**
  - Drought Monitor: Conditions leading up to last week warranted a widespread application of D0 (abnormally dry) conditions across the state
  - 7-day Precipitation: Large MCS brought very heavy rain to portions of Ohio Thursday morning, particularly across North Central Ohio and the SE.
    - Additional storms on Sunday brought heavy rain to the same areas in addition to suburbs west of Dayton
  - Weekly Palmer Drought Severity Index: Moderate drought levels in the E/SE
    - More than 6” of precipitation needed to bring the PDSI to -0.5 across E/SE Ohio counties and Central Ohio, 3-6” over large part of the state
  - Crop Moisture Index: All divisions in Ohio are near neutral
  - 30-Day precipitation: Very wet in North Central Ohio – removal of D0 strongly encouraged
  - Standard Precipitation Index: Still low in the eastern/western counties
  - Comparison with 60-Day precipitation shows similar to 30-Day patterns
  - Overall: From Toledo to Cleveland – not much rain fell this week so little change to the DM. NW through Central and SE – very heavy rain so consideration should be given to removing D0 there

• **Outlook from CPC**
  - 6-10 Day: >50% probability of Below Normal Temperatures; >33% probability of Below Normal Precipitation across Ohio
  - 8-14 Day: >33% probability of Below Normal Temperatures; >33% probability of Above Normal Precipitation across Ohio