May 24, 2016
(Released Thursday, May 26, 2016)
Valid 8 a.m. EDT

U.S. Drought Monitor
Midwest

Drought Conditions (Percent Area)

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<th>None</th>
<th>D0-D4</th>
<th>D1-D4</th>
<th>D2-D4</th>
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<tr>
<td>Current</td>
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<td>Last Week</td>
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<td>3 Months Age</td>
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<td>Start of</td>
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<td>Calendar Year</td>
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<td>Start of Water Year</td>
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<td>One Year Age</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.

Author:
David Simmeral
Western Regional Climate Center

http://droughtmonitor.unl.edu/
Previous 7-Day Precipitation

Percent of Normal Precipitation (%)
5/20/2016 - 5/26/2016

Generated 5/27/2016 at HPRCC using provisional data.
Drought Severity Index by Division
Weekly Value for Period Ending May 21, 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).

-4.0 or less (Extreme Drought)  +2.0 to +2.9 (Unusual Moist Spell)
-3.0 to -3.9 (Severe Drought)  +3.0 to +3.9 (Very Moist Spell)
-2.0 to -2.9 (Moderate Drought)  +4.0 and above (Extremely Moist)
-1.9 to +1.9 (Near Normal)
Additional Precip. Needed (In.) to bring PDI to -0.5
Weekly Value for Period Ending May 21, 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)
Crop Moisture Index by Division
Weekly Value for Period Ending May 21, 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, RESPONSES 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.

Based on preliminary data

-3.0 or less (Severely Dry)
-2.0 to -2.9 (Excessively Dry)
-1.0 to -1.9 (Abnormally Dry)
-0.9 to +0.9 (Slightly Dry/Favorably Moist)
+1.0 to +1.9 (Abnormally Moist)
+2.0 to +3.0 (Wet)
3.0 and above (Excessively Wet)
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

• Late-spring/Early-summer pattern has taken over and looks to remain through mid-week

• Scattered showers/storms possible each day over the Memorial Day weekend, but not everyone will see rain

• A weak cold front will push through Sunday night which should lead to dry conditions for Monday-Wednesday
8-14 Day Outlook
SUMMARY OF CONDITIONS

• Current
  • Drought Monitor: No major changes throughout the country.
    • No classification in Ohio or throughout most of the Midwest.
  • 7-day Precipitation: Up to 1.5” of precipitation has fallen across the state this week
    • Very little in NW Ohio; Greater amounts in the SE
    • After a cool, damp weekend, a large ridge of high pressure has moved over the region bring mainly dry weather (scattered showers and storms that have largely weakened as they moved in)
    • Except for the far eastern counties, this has been a dry week compared to the long-term average
  • Weekly Palmer Drought Severity Index: All divisions in Ohio are near normal in PDSI
    • Up to 3” of precipitation needed to bring the PDSI to -0.5 across E/SE Ohio counties and W. Central Ohio
  • Crop Moisture Index: All divisions in Ohio are near neutral
  • 30-Day precipitation has been below normal across the I-71 corridor and NW; Standard Precipitation Index has improved in SW and W. Central Ohio due to precipitation the previous week
  • Comparison with 60-Day precipitation shows not much change from last week; most areas are still close to neutral
  • Overall: A dry week over much of the state has led to soil conditions drying a bit compared to early spring, while conditions in the SE have moistened since early spring

• Outlook from CPC
  • 6-10 Day: >40% probability of Above Normal Temperatures; >33% probability of Above Normal Precipitation – Ridge of high pressure should remain; Precipitation will be scattered
  • 8-14 Day: >40% probability of Below Normal Temperatures; > 33% probability of Above Normal Precipitation – Ridge will break down late next week with precipitation increasing
  • 30-Day for JJA: >40% probability of Above Normal Temperatures; Equal Chances of Above/Below Normal Precipitation