

# Drought Information Statement for Southern Indiana and Central Kentucky

Valid October 26, 2023

Issued By: WFO Louisville KY Contact Information:

- This product will be updated at least once a month or when drought conditions change significantly.
- Please see all currently available products at <a href="https://drought.gov/drought-information-statements">https://drought.gov/drought-information-statements</a>.
- Please visit https://www.weather.gov/lmk/DroughtInformationStatement for previous statements.







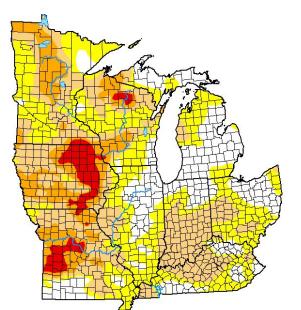
# U.S. Drought Monitor

Link to the <u>latest U.S. Drought Monitor</u> for the Midwest and Ohio Valley

 Drought conditions have held steady for the past couple of weeks in most of southern Indiana and central Kentucky.

- Drought intensity and Extent
  - D1 (Moderate Drought): South central Indiana and most of north central Kentucky
  - D0: (Abnormally Dry): South central Kentucky and portions of east central Kentucky

### U.S. Drought Monitor Midwest



#### October 24, 2023

(Released Thursday, Oct. 26, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	21.03	78.97	46.94	17.81	4.66	0.00
Last Week 10-17-2023	17.46	82.54	50.00	18.25	4.66	0.00
3 Month's Ago 07-25-2023	17.45	82.55	55.60	20.78	4.99	0.00
Start of Calendar Year 01-03-2023	43.26	56.74	28.01	7.67	1.00	0.06
Start of Water Year 09-26-2023	16.82	83.18	54.98	23.81	6.21	0.13
One Year Ago 10-25-2022	17.60	82.40	50.93	17.38	3.53	0.02

The Drought Monitor focuses on broad-scale conditions.

Local conditions may vary. For more information on the

Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author: Rocky Bilotta



NCEI/NOAA







droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 8am EDT October 24





### **Recent Change in Drought Intensity**

Link to the latest 4-week change map for the Midwest and Ohio Valley

- Four Week Drought Monitor Class Change
  - Over the past month there has been a slight southward advancement of moderate drought from the lower Ohio Valley to the southern and eastern Blue Grass
  - Periodic rains brought improved conditions to northern Kentucky

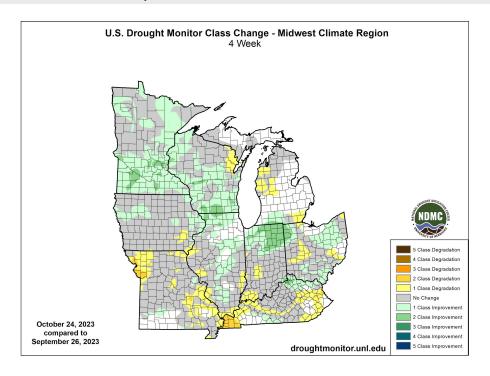
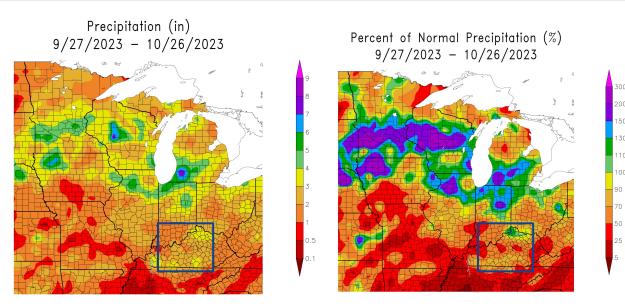


Image Caption: U.S. Drought Monitor 4-week change map valid 8am FDT October 24.



 Precipitation over southern Indiana and central Kentucky has been below normal over the past 30 days.



Generated 10/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers 023 at HPRCC using provisional data.

NOAA Regional Climate Ce

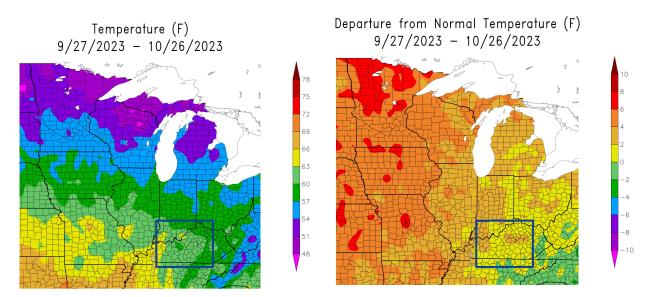
Image Captions: Left - Precipitation Amount for the Midwest and Ohio Valley Right - Percent of Normal Precipitation for the Midwest and Ohio Valley Data Courtesy Midwest Regional Climate Center.

Data over the past 30 days ending October 26, 2023

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

# Temperature

- Temperatures have generally hovered around normal in October, though there was a significant warm-up from the 24th through the 26th.
- Temperature
   departures from
   normal have been
   moderate, with no
   extreme temperatures
   during the past month.



Generated 10/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers 2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Image Captions:

Left - Average Temperature
Right - Departure from Normal Temperature
Data Courtesy Midwest Regional Climate Center.
Data over the past 30 days ending October 26, 2023





Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

#### **Hydrologic Impacts**

• Streamflows are running below normal for several locations, especially in central Kentucky. Dry weather in southern Indiana and central Kentucky has had a negative impact on the already low flow in the Mississippi River, which has led to exposed sand bars and increased barge rates.

#### **Agricultural Impacts**

 Pastureland and farm ponds will need to be carefully managed. The corn harvest is nearing completion in Kentucky but is lagging behind in Indiana. About half of the topsoil and subsoil in Kentucky is short or very short of moisture.

#### **Fire Hazard Impacts**

• Wildfire risk will continue as long as dry conditions remain in place, especially as leaf litter accumulates.

#### **Other Impacts**

• Some livestock in Indiana have been receiving supplemental hay due to poor pasture conditions.

#### **Mitigation Actions**

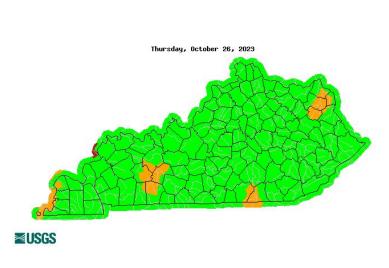
• Please refer to your municipality, water provider, or extension office for mitigation information.





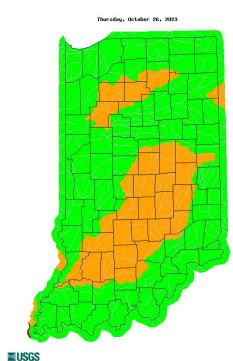
### Hydrologic Conditions and Impacts

 Recent low rainfall amounts have resulted in below normal streamflows for portions of central Kentucky and southern Indiana.



USGS 7 day average streamflow HUC map valid October 26, 2023

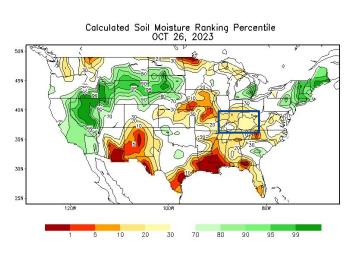
	Expl	anatior	- Perce	ntile cla	asses		_
Low	<10	10-24	25-75	76-90	>90	High	No Data
LOW	Much below normal	Below normal	Normal	Above normal	Much above normal	nign	







 Soil moisture remains below the 30th percentile for large portions of southern Indiana and central Kentucky.



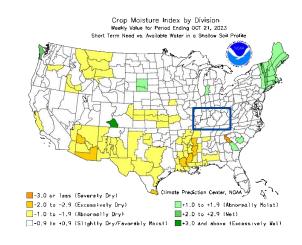


Image Captions:

Left: CPC Calculated Soil Moisture Ranking

Percentile valid October 26, 2023

Right: <u>Crop Moisture Index by Division</u>. Weekly value for period ending October 21, 2023



### Fire Hazard Impacts

Link to Wildfire Potential Outlooks from the National Interagency Coordination Center.

- Observed <u>Fire Danger Class</u> as of October 26 is low in central Kentucky and moderate in southern Indiana.
- No counties in central Kentucky are under a burn ban. In central southern Indiana, only Harrison County remains under a burn ban.

Latest Kentucky burn ban status available here.

Latest Indiana burn ban map available <u>here</u>.



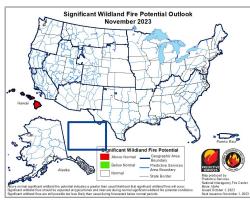


Image Caption: <u>Significant Wildland Fire</u>
<u>Potential Monthly Outlook</u> for October 2023 &
November 2023





### Seven Day Precipitation Forecast

- Periodic rains have brought beneficial moisture to the region in October. While the rains have not been heavy enough to alleviate the drought, they have been enough to prevent the drought from worsening in most locations.
- The seven day forecast indicates significant rains along and either side of the Ohio River. The current forecast calls for two to three inches of rain in southern Indiana and northern portions of central Kentucky, decreasing southeastward to around half an inch in the Lake Cumberland region. Most of this rainfall should occur October 29-30.

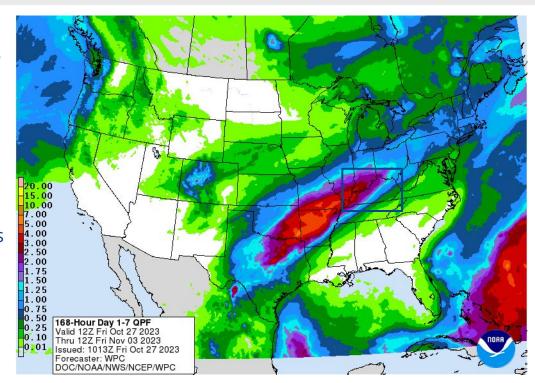


Image Caption: Weather Prediction Center <u>7-day precipitation forecast</u> valid October 27 to November 2



# Rapid Onset Drought Outlook

Links to the latest Climate Prediction Center 8 to 14 day Temperature Outlook and Precipitation Outlook.

Rapid drought onset or intensification is not expected.

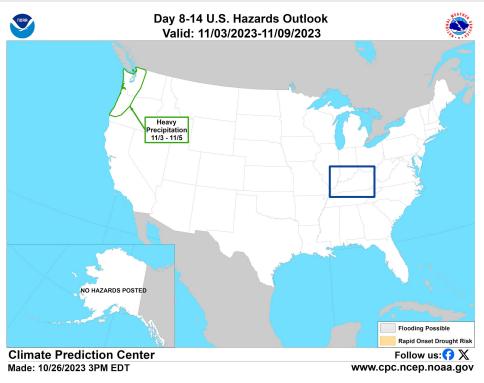


Image Caption:

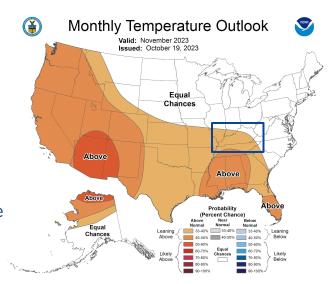
Days 8 to 14 U.S. Hazards Outlook Valid October 21 to 27

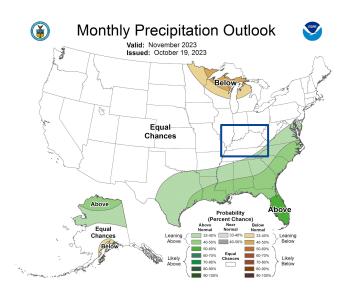


# Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the CPC homepage

- In November odds are tilting toward a warmer than normal month.
   There's no clear signal for precipitation.
- The October issuance of the Winter Outlook is available in the News Headline section at weather.gov/louisville. The Climate Prediction Center will update its Winter Outlook on November 16.





#### Image Captions:

Left - <u>Climate Prediction Center Monthly Temperature Outlook.</u>
Right - <u>Climate Prediction Center Monthly Precipitation Outlook.</u>
Valid October 2023



# Drought Outlook

The latest monthly and seasonal outlooks can be found on the CPC homepage

 Drought amelioration will be possible, especially in mid to late fall.

#### U.S. Seasonal Drought Outlook Valid for October 19, 2023 - January 31, 2024 **Drought Tendency During the Valid Period** Released October 19, 2023 Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts Use caution for applications that can be affected by short lived events "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4). NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none). Brad Pugh **Drought persists** NOAA/NWS/NCEP Climate Prediction Center Drought remains. but improves Drought removal likely Drought development likely No drought https://go.usa.gov/3eZ73

#### Links to the latest:

Climate Prediction Center Monthly Drought Outlook Climate Prediction Center Seasonal Drought Outlook Image Caption:

Climate Prediction Center Monthly Drought Outlook Released October 19, 2023 valid for October 19, 2023 - January 31, 2024

