



# Drought Information Statement for Southern Indiana and Central Kentucky

Valid September 12, 2024

Issued By: WFO Louisville KY

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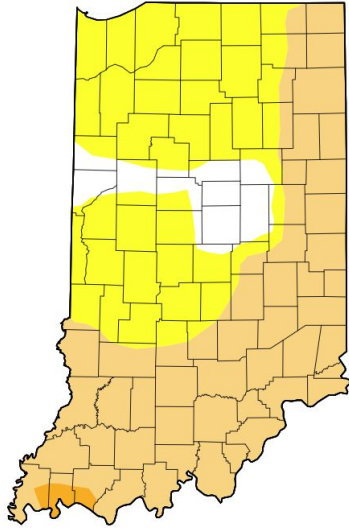
- This product will be updated once a month or more frequently if drought conditions change significantly.
  - Please see all currently available products at <https://drought.gov/drought-information-statements>.
  - Please visit <https://www.weather.gov/lmk/DroughtInformationStatement> for previous statements.
  - Please visit <https://www.drought.gov/drought-status-updates/> for regional drought status updates.
- 
- Overall, through September 12 dryness continued to increase across much of the region.
  - The Harrodsburg/Danville and Russellville/Franklin areas in Kentucky are the most severely affected.
  - Rainfall from former Hurricane Francine will be crucial.



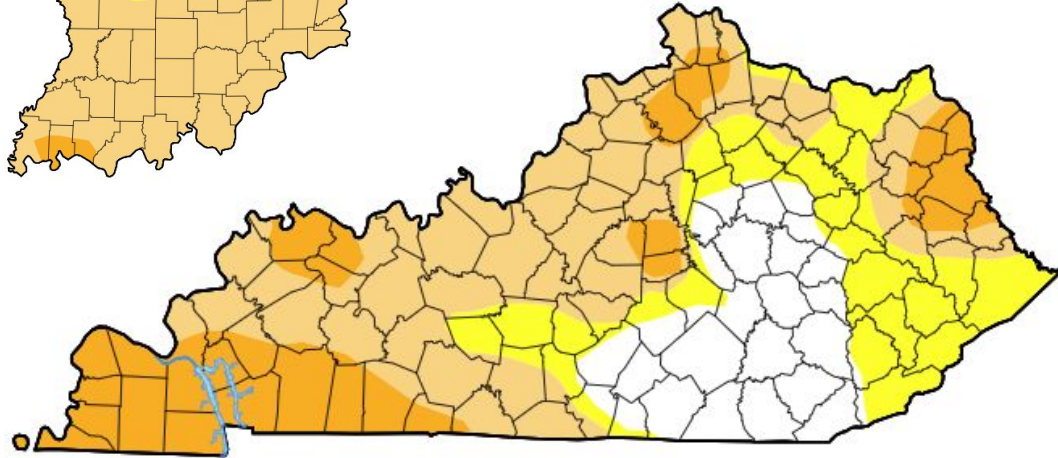


# U.S. Drought Monitor

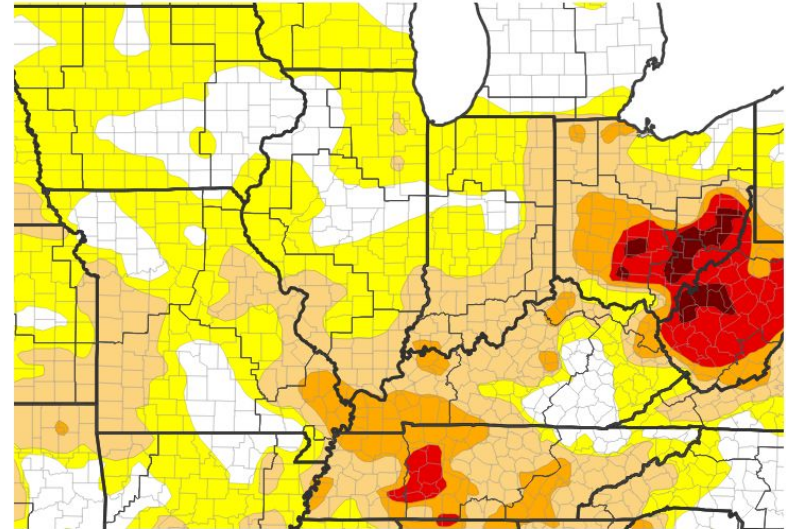
[U.S. Drought Monitor](#)



Drought has increased in intensity and areal coverage throughout southern Indiana and across much of central Kentucky.



U.S. Drought Monitor



U.S. Drought Monitor



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 09/10/24





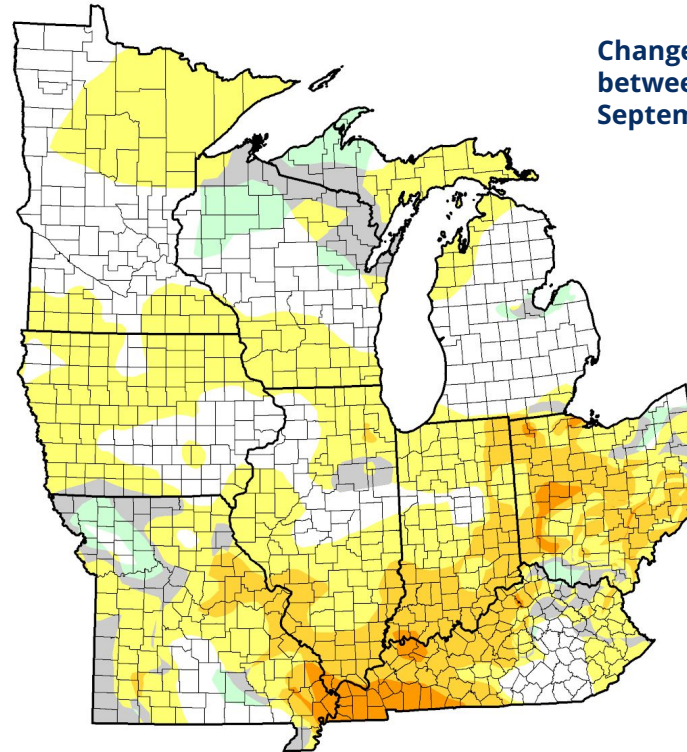
# Recent Change in Drought Intensity

Link to the latest [class change maps](#) for the U.S.

Over the past four weeks drought has deepened by one to two classes across southern Indiana and much of central Kentucky.

Drought has worsened by three classes in the past month in most of Logan and Simpson Counties south and southwest of Bowling Green.

In the region, drought has intensified across much of the Midwest and Kentucky, especially along the length of the Ohio Valley.



Change in drought intensity between August 13 and September 10, 2024.



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)





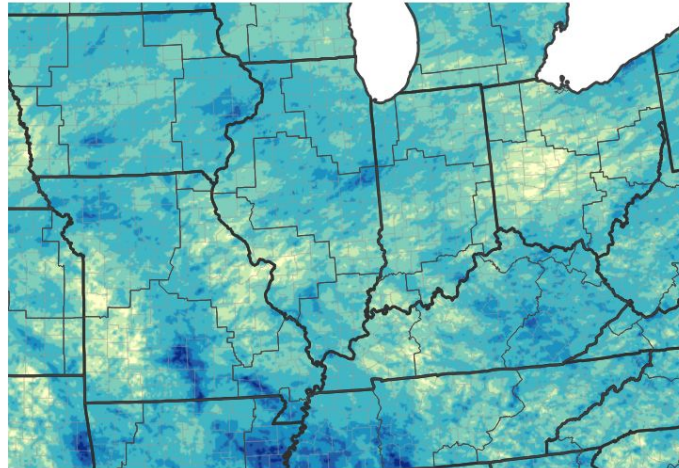


# 30-Day Precipitation

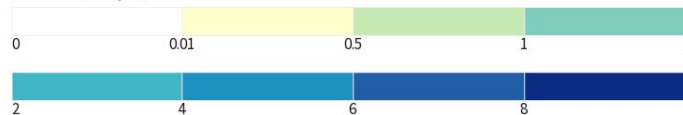
Precipitation totals and departures from normal

- Though there has been near normal rainfall in the southern Blue Grass region of Kentucky, most of central Kentucky and southern Indiana have received less than optimal precipitation since mid-August.
- A [CoCoRaHS](#) observer in northwest Logan County received only 0.19" of rain between August 13 and September 10.

30-Day Precipitation Accumulations (Inches)

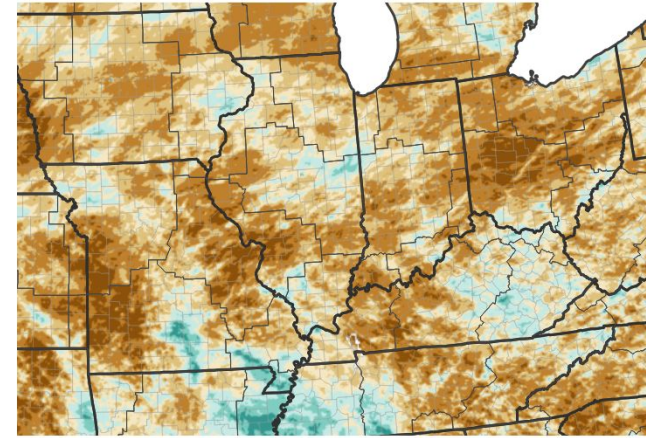


Inches of Precipitation

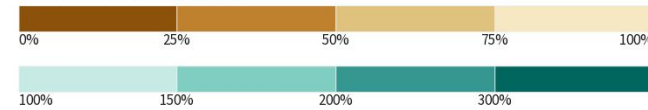


Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov Last Updated: 09/15/24

30-Day Percent of Normal Precipitation



Percent of Normal Precipitation (%)



Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov Last Updated: 09/15/24





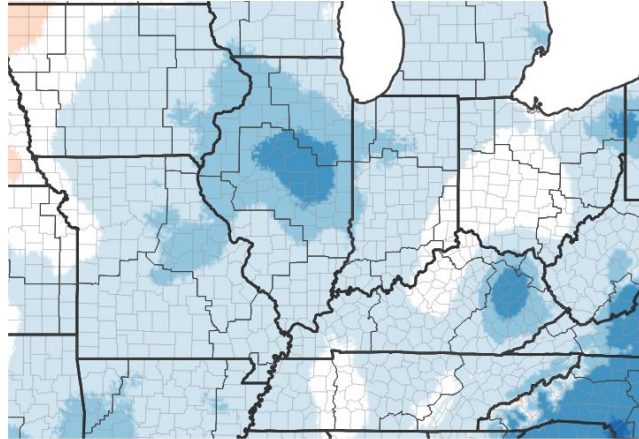


# Temperature

## Midwest Regional Climate Center

- Over the seven days ending September 10 temperatures were slightly cooler than normal as an air mass of Canadian origin slowly moved through the region. Lexington tied a record low of 45° on the 9th.
- Temperatures since mid-August have been on a roller coaster, from cooler than normal August 19-23, to much warmer than normal August 27-31, and then much below normal September 7-9.

7-Day Temperature Anomaly

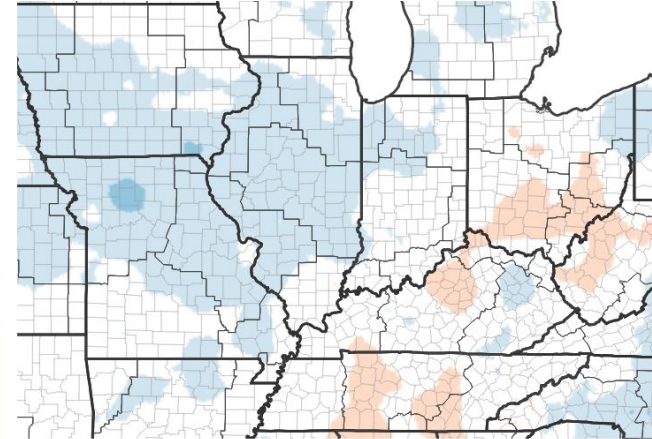


Departure from Normal Max Temperature (°F)

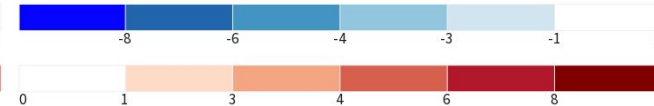


Source(s): NOAA's National Centers for Environmental Information; image courtesy of Drought.gov Data Valid: 09/11/24

30-Day Temperature Anomaly



Departure from Normal Max Temperature (°F)



Source(s): NOAA's National Centers for Environmental Information; image courtesy of Drought.gov Data Valid: 09/10/24





# Summary of Impacts

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

## Hydrologic Impacts

- Most streamflows in central Kentucky and southern Indiana are at or slightly below normal. *USGS*

## Agricultural Impacts

- Report from Hardin County of poor pastures with supplemental feeding required; driest since 2012. Reports of severely reduced crop yields and poor pastures; driest in several years. Kentucky counties of Mercer, Washington, and Boyle particularly hard hit. Some early harvesting has taken place. *CMOR*

## Fire Hazard Impacts

- Numerous county burn bans are in effect and fire danger class is moderate. *WFAS, ky.gov, in.gov*

## Other Impacts

- Some trees' leaves started turning color and dropping earlier than normal. *LEX18, Perry County (IN) Extension*

## Mitigation Actions

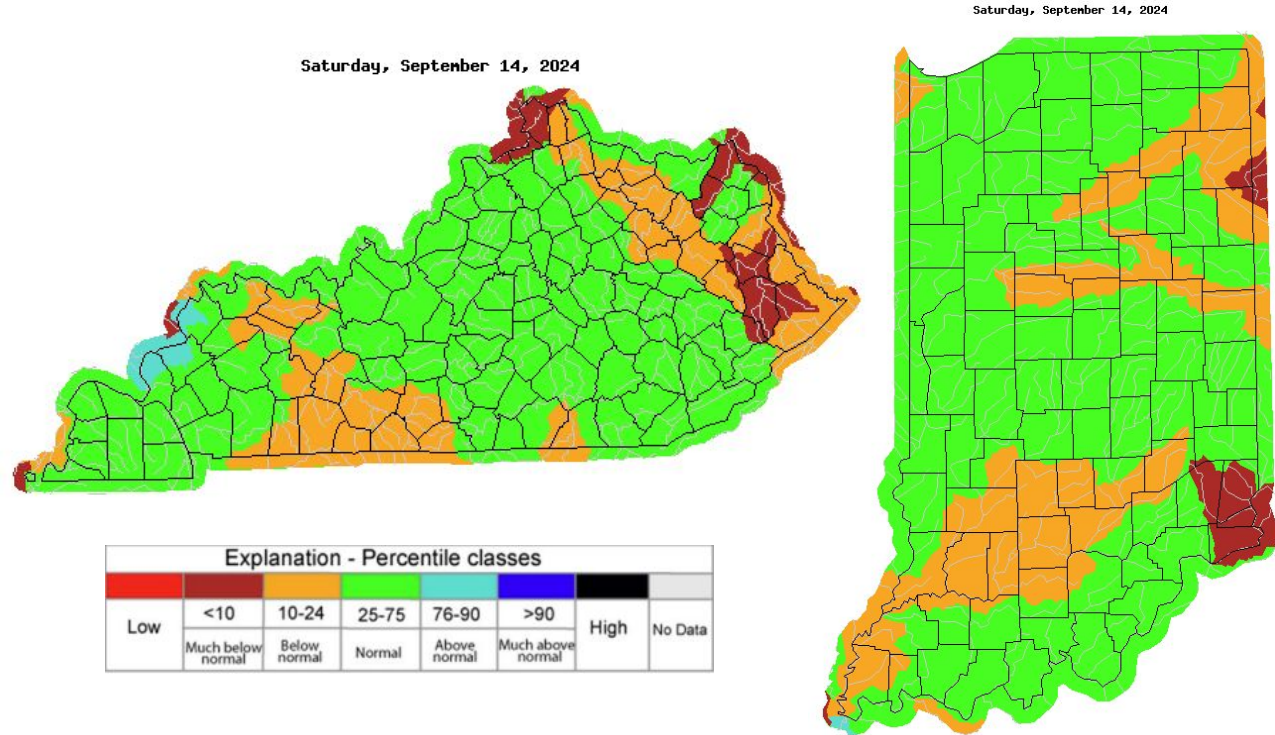
- Farmers are having to supplement with hay as pastures decline in both Kentucky and Indiana. *USDA Crop Progress and Condition*





# Hydrologic Conditions and Impacts

- Fall is normally a dry time of year, and streams are seasonably low across the region.
- Even taking into account the fact that streamflows are usually low in September, they're even lower than normal in south central Kentucky and around Hoosier National Forest.



USGS 7-day average streamflow Hydrologic Unit Code (HUC) maps





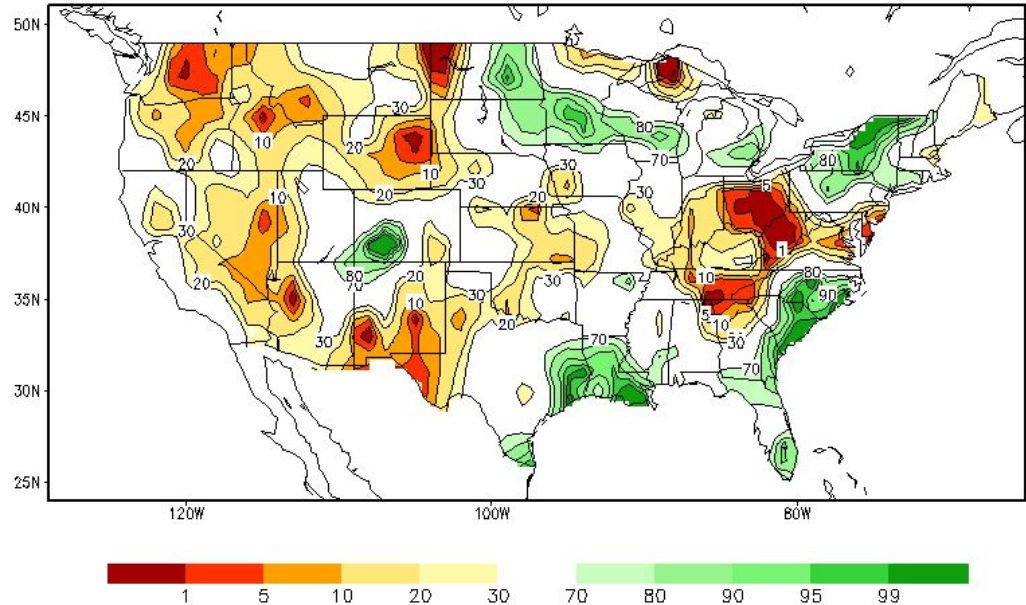


# Agricultural Impacts

<https://www.cpc.ncep.noaa.gov/soilmst/img/curr.w.rank.daily.gif>

- Soil moisture is low throughout the region.
- As of September 15, the Kentucky Mesonet showed 3-day average 4" soil moisture percentages at 12-26% in the middle third of the state.
- 4" soil volumetric water content at the Purdue Mesonet station in Dubois County, Indiana, is around 10%.

Calculated Soil Moisture Ranking Percentile  
SEP 14, 2024

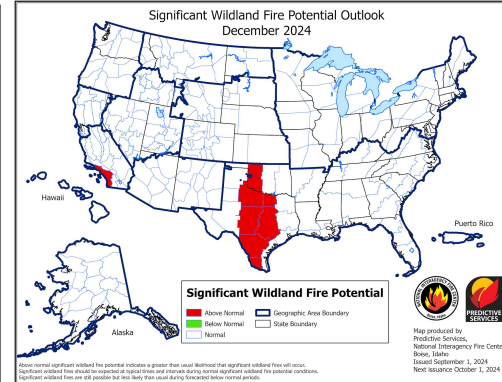
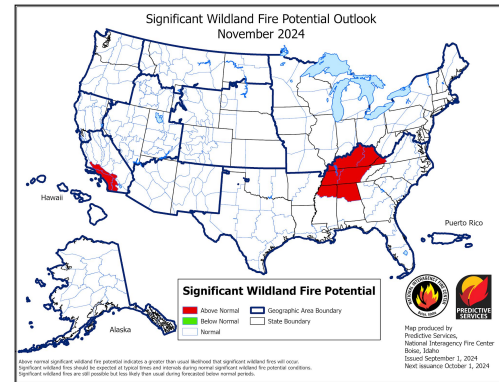
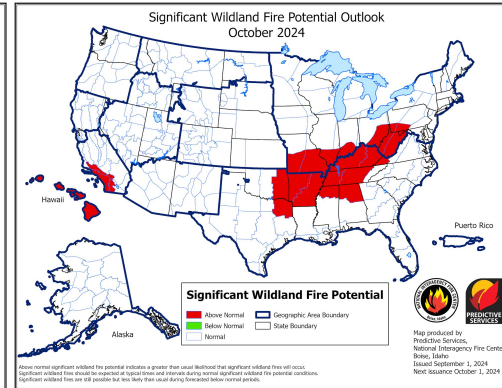
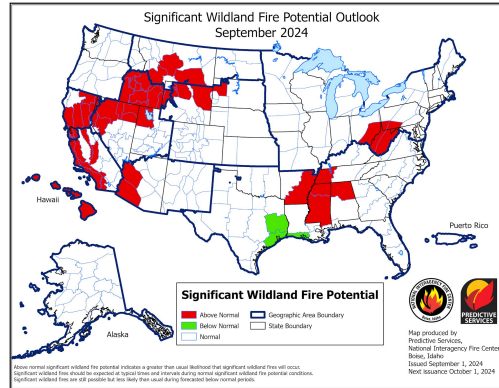




# Fire Hazard Impacts

<https://www.nifc.gov/nicc/predictive-services/outlooks>

- Observed Fire Danger Class as of September 14 is moderate, however this may worsen in coming weeks.
- There are currently no wildfires in central Kentucky or southern Indiana, though there are a few in Ohio, West Virginia, and Tennessee. A [CoCoRaHS](#) volunteer in Hardin County reported some small vegetation fires in the area.
- 25 counties in Kentucky have instituted burn bans, including 12 in central Kentucky.
- The central southern Indiana counties of Dubois, Orange, and Jefferson have instituted burn bans.

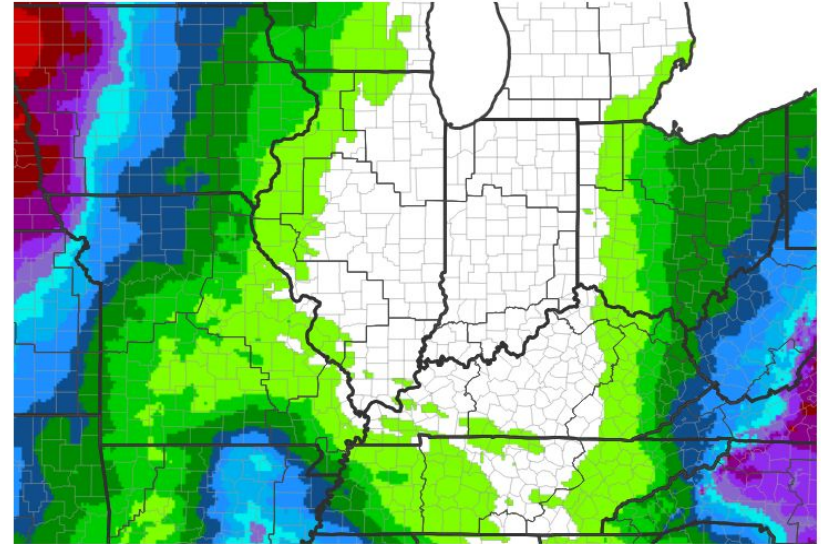




# Seven Day Precipitation Forecast

- Little to no rain is forecast across southern Indiana and central Kentucky through September 22.
- A tropical system off the Carolina coast may throw a few showers as far west as the Interstate 75 corridor September 17-18. However, the chance of measurable rain is only around 20%.

## 7-Day Quantitative Precipitation Forecast for September 15, 2024-September 22, 2024



Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center; image courtesy of Drought.gov

Last Updated: 09/15/24





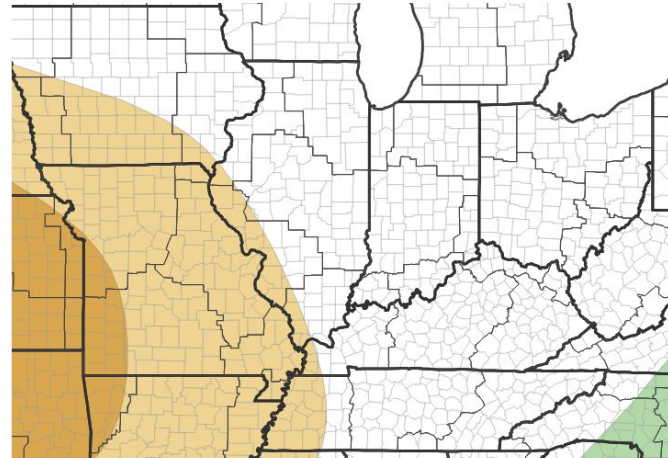


# Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- There is no clear signal for precipitation being above, near, or below normal this fall.
- A La Niña Watch is in effect, with La Niña conditions expected to develop during the September-November period. Historically, La Niña tends to favor wetter than normal conditions in the fall, though it's not a strong correlation.
- Landfalling tropical systems can be a significant source of fall precipitation in southern Indiana and central Kentucky. Former Hurricane Francine brought rain to the region September 12-14, with a few spots receiving over two inches.

**Seasonal (3-Month) Precipitation Outlook for September 1, 2024–November 30, 2024**



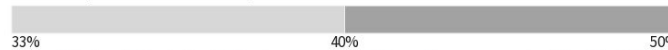
**Probability of Below-Normal Precipitation**



**Probability of Above-Normal Precipitation**



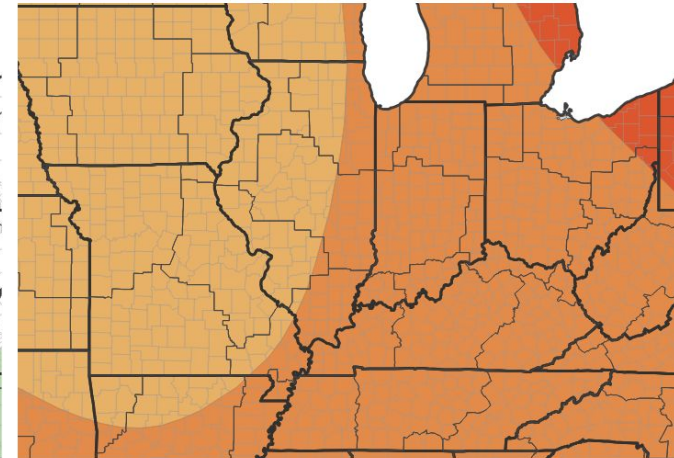
**Probability of Near-Normal Precipitation**



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated: 08/15/24

**Seasonal (3-Month) Temperature Outlook for September 1, 2024–November 30, 2024**



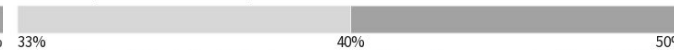
**Probability of Below-Normal Temperatures**



**Probability of Above-Normal Temperatures**



**Probability of Near-Normal Temperatures**



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated: 08/15/24



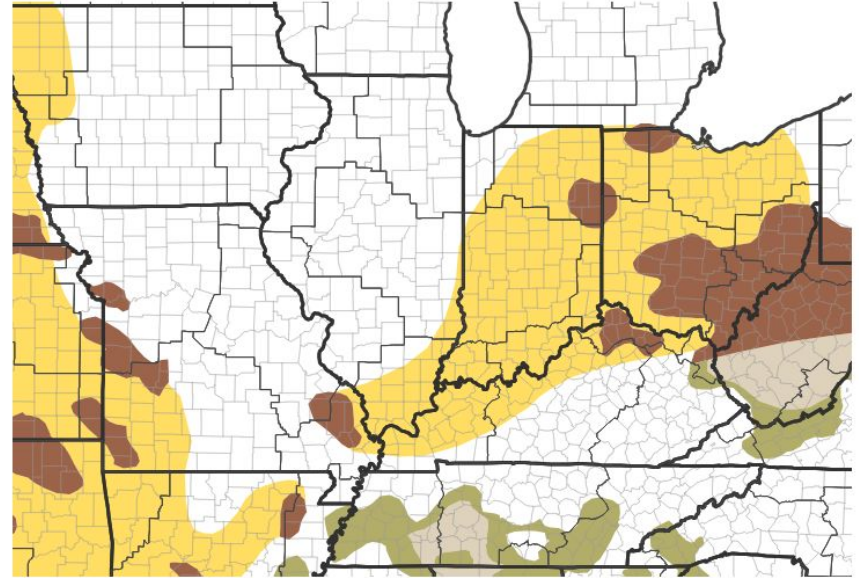


# Drought Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Drought has indeed developed as outlined in the Seasonal Drought Outlook that was issued at the end of August.
- Drought has expanded slightly more than expected.
- The next Seasonal Drought Outlook will be issued on September 19.

## Seasonal (3-Month) Drought Outlook for August 31, 2024–November 30, 2024



### Drought Is Predicted To...



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated: 08/31/24

Links to the latest:

[Climate Prediction Center Monthly Drought Outlook](#)

[Climate Prediction Center Seasonal Drought Outlook](#)



National Oceanic and  
Atmospheric Administration

U.S. Department of Commerce

National Weather Service  
WFO Louisville, KY