



# October Climate Briefing

October 3, 2024  
2:00 PM

For Southwest Pennsylvania, Eastern Ohio, and Northern West Virginia

## Monthly Outlook Briefing

→ As of October 3, 2024



## Key Points

- September remained dry and warm.
- Dry conditions favored for much of the month, though temperatures remain a toss up.
- Drought continues; a forecast dry October will not help conditions.
- Maintained wildland fire concerns.
- Growing season is extending as “first freezes” trend later in a warming autumnal climate.
- Around 15% of years have October snow in Pittsburgh.
- Winter preview: warm and wet for now, full outlook out later.

### FALL FOLIAGE COLORATION GUIDE

#### Multi-Colors

- Hawthorn - Brilliant Varying Colors
- Hazel Nut - Brownish Yellow
- Hornbeam - Orange, Scarlet
- Maple, Red - Red, Orange
- Maple, Sugar - Yellow, Orange, Red
- Oak, Black - Dull Red to Orange Brown
- Oak, Blackjack - Dull Yellow or Brown
- Oak, White - Pink or Red
- Persimmon - Glossy Green with Yellow
- Sassafras - Red, Orange, Yellow
- Sweetgum - Yellow, Orange, Brown
- Sycamore, American - Yellow, Brown

#### Browns

- Oak, Bur - Pale Brown
- Oak, Post - Pale Brown
- Oak, Shingle - Brown
- Oak, Swamp White - Pale Brown

#### Yellows

- Ash, White - Yellow
- Basswood - Yellow
- Beech - Yellow
- Birch, River - Dull Yellow
- Birch, Sweet - Yellow
- Buckeye, Ohio - Yellow
- Coffeetree, Kentucky - Yellow
- Cottonwood, Eastern - Yellow
- Elder, Box - Yellow
- Elm, American - Yellow
- Hazel Nut - Brownish Yellow
- Hickory, Mockernut - Dull Yellow
- Hickory, Pignut - Dull Yellow
- Hickory, Shagbark - Dull Yellow
- Hickory, Shellbark - Dull Yellow
- Hophornbeam, Eastern - Yellow
- Locust, Black - Yellow
- Locust, Honey - Yellow
- Maple, Silver - Pale Yellow
- Oak, Chestnut - Yellow
- Pecan - Dull Yellow
- Redbud, Eastern - Yellow
- Shad Bush - Bright Clear Yellow
- Tuliptree - Yellow
- Walnut, Black - Yellow
- Walnut, White - Bright Yellow
- Willow, Black - Pale Yellow

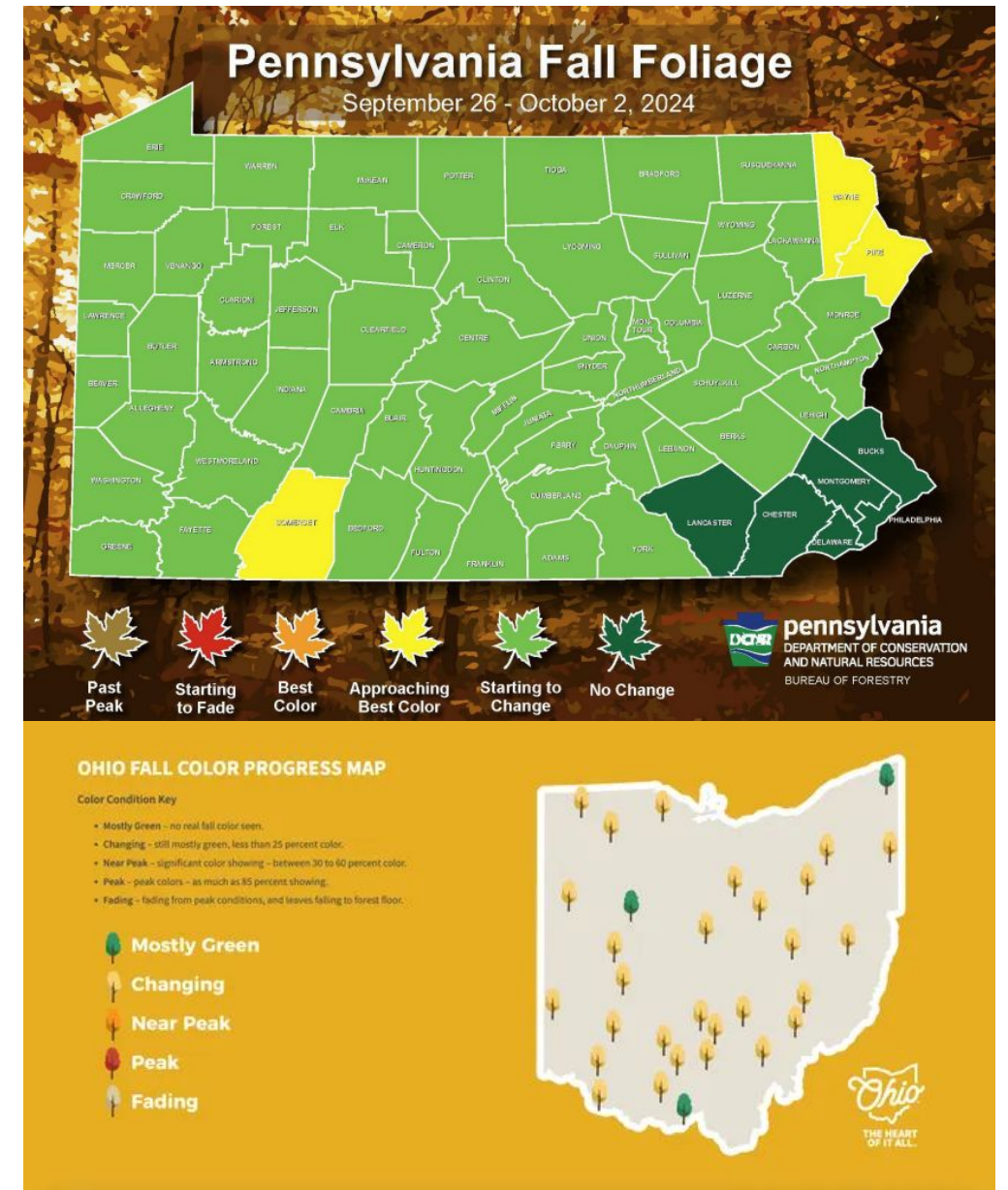
#### Reds

- Dogwood - Crimson
- Gum, Black - Deep Red
- Oak, Northern Red - Rusty Red
- Oak, Pin - Crimson
- Oak, Scarlet - Scarlet
- Oak, Southern Red - Rusty Red
- Oak, Swamp Chestnut - Dark Crimson
- Sourwood - Deep Red
- Sumac - Brilliant Red

#### No Change

- Magnolia, Umbrella
- Holly, American

Credit: PA DNCR, OH DNR, WV Forestry





# September Climate Summary

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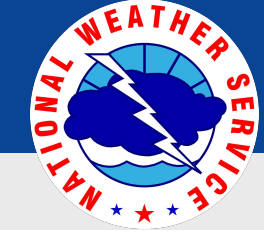
For Southwest Pennsylvania, Eastern Ohio, and Northern West Virginia

202409	Avg. High	High Departure	Avg. Low	Low Departure	Tot.Precip	Precip Departure	Tot. Snow	Snow Departure
Pittsburgh, PA	79.4	4.3	59.5	4.7	1.90	-1.4	0.0	0
Morgantown, WV	80.6	3.5	59.6	3.7	1.86	-1.55		
Wheeling, WV	80.5	5.5	58.9	3.8	1.66	-1.55		
New Philadelphia, OH	80.7	4.5	55.4	2.2	2.25	-0.72		
Zanesville, OH	82.5	5	56.4	2	2.94	-0.18		
DuBois, PA	74.0	3	55.5	4.5				

Temperature Legend
Above Average
Below Average

Precipitation Legend
Above Average
Below Average

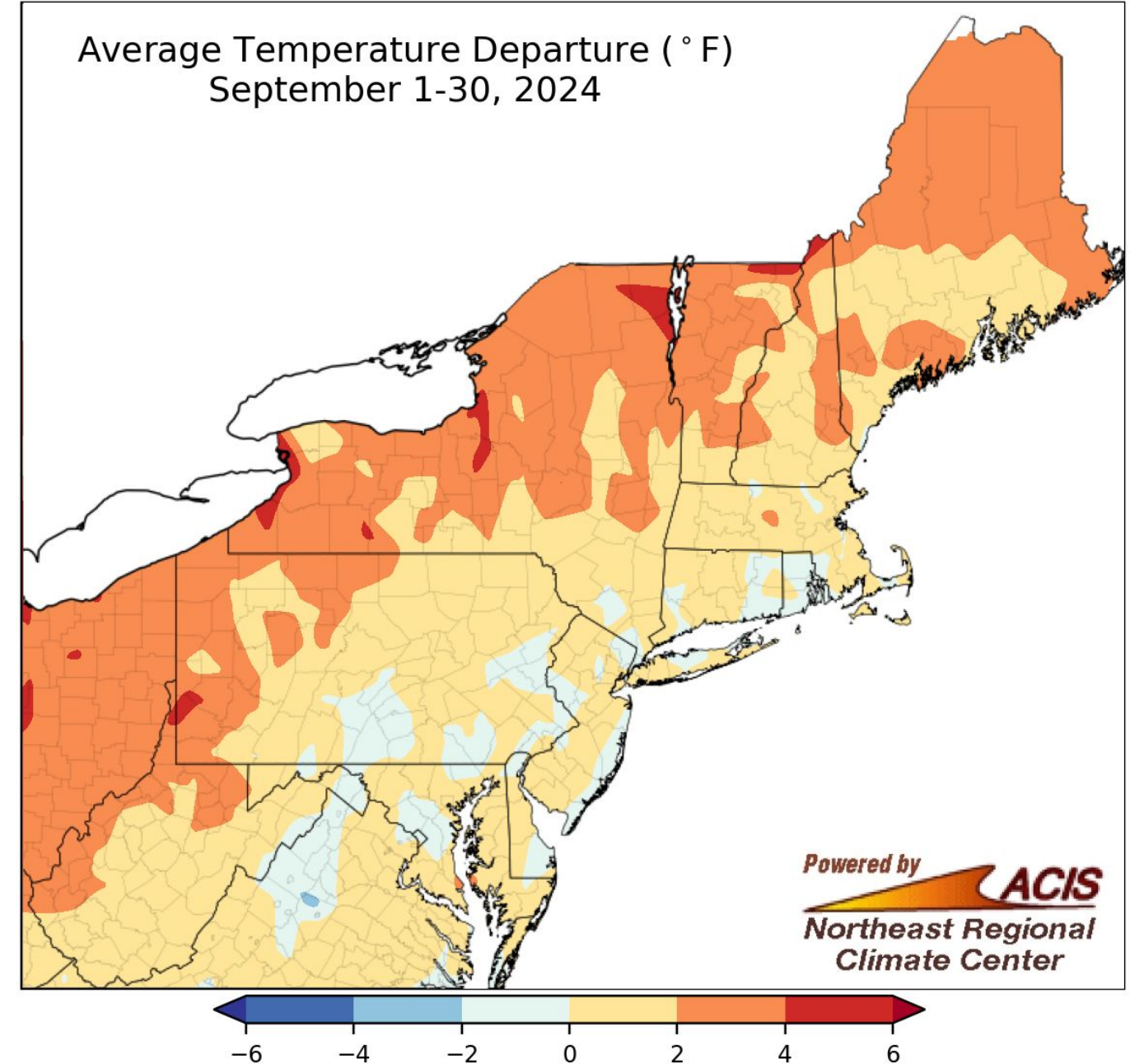
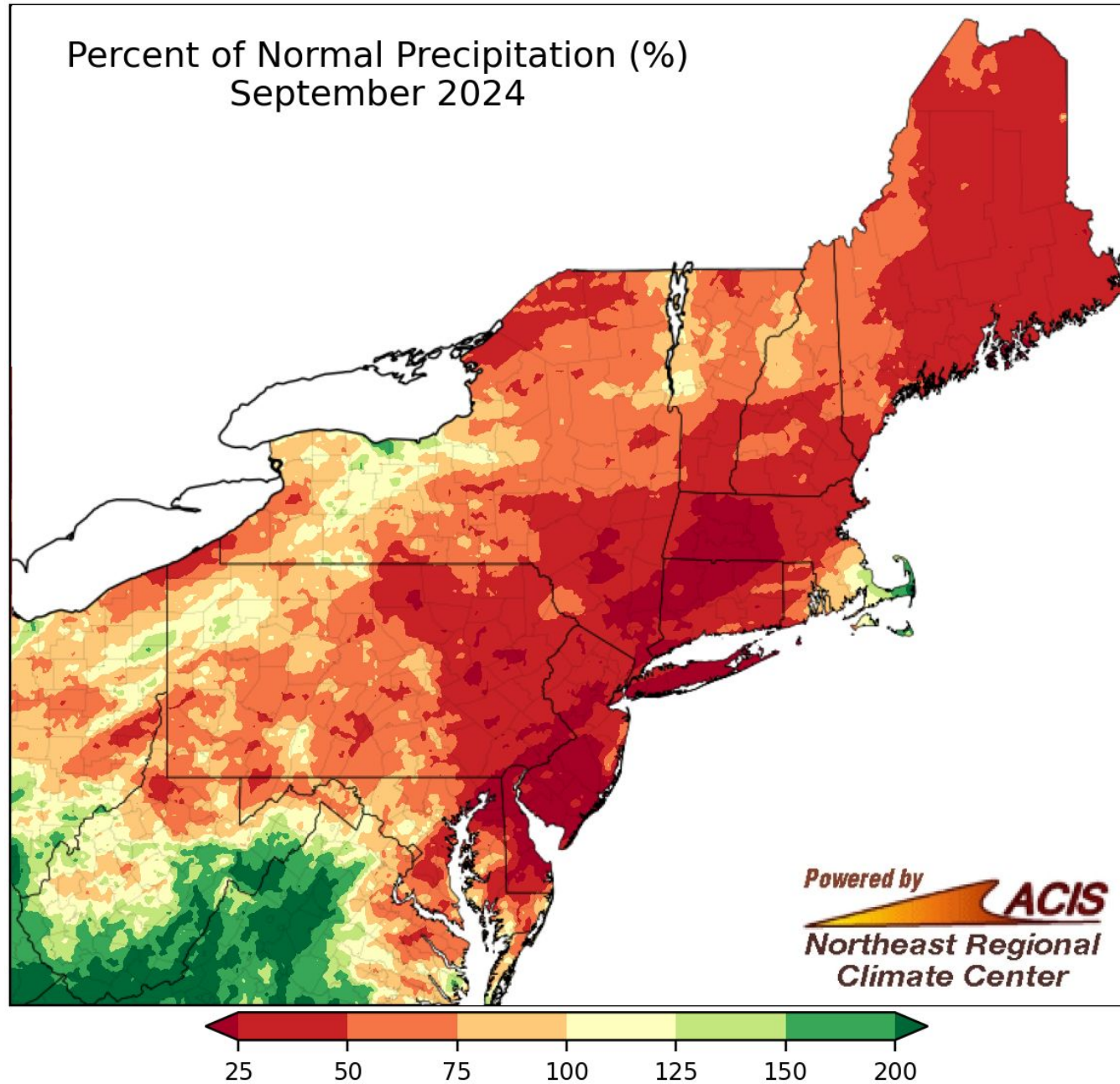
- Both high and low temperatures remained well above normal area-wide.
  - Pittsburgh had its 16th warmest September, Wheeling its 4th, Morgantown its 12th, New Philadelphia its 6th, Zanesville its 17th, and DuBois its 4th.
- All climate sites remained dry. This does little to help drought concerns across much of the area.
- Warm temperatures had the area feeling like Philadelphia, PA normally does this time of year.

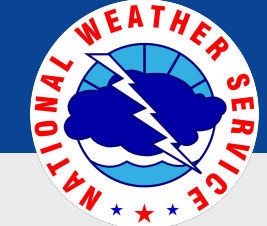


# September Climate Summary

October 3, 2024  
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For the Northeast





# October Temperature Outlook

October 3, 2024  
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## For the Continental United States



### 6-10 Day Temperature Outlook

Valid: October 8 - 12, 2024  
Issued: October 2, 2024



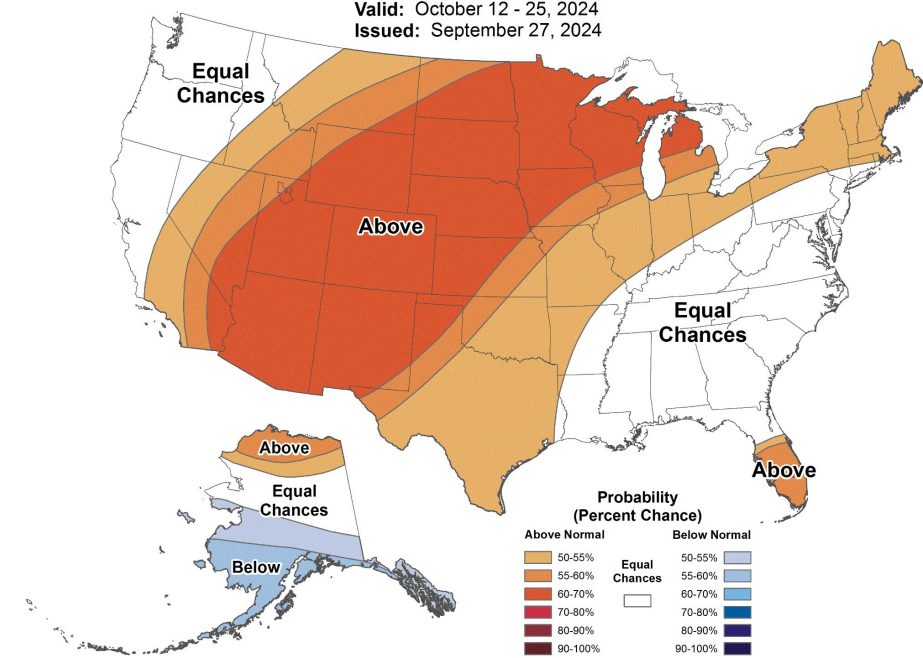
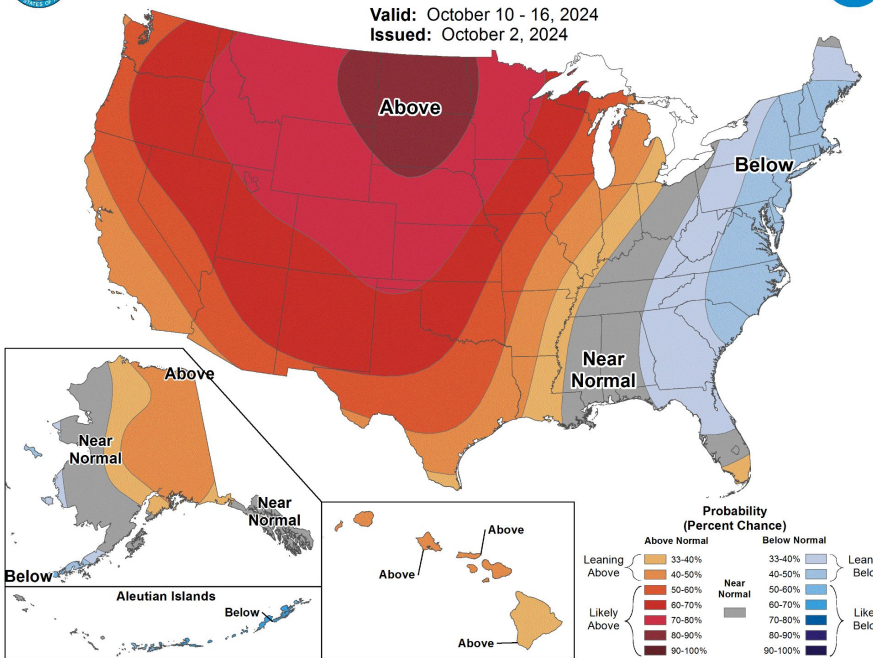
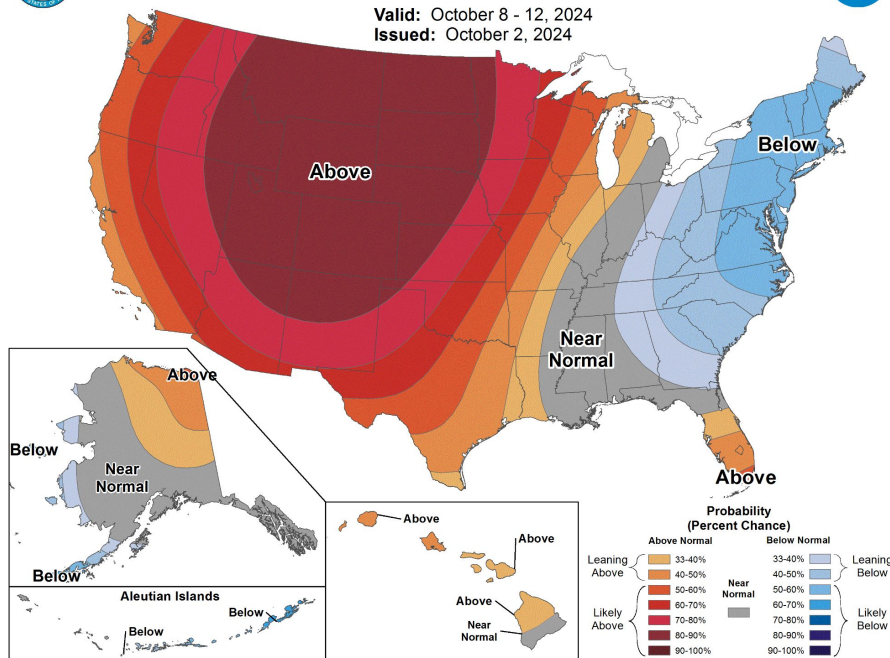
### 8-14 Day Temperature Outlook

Valid: October 10 - 16, 2024  
Issued: October 2, 2024



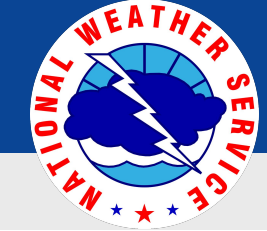
### Weeks 3-4 Temperature Outlook

Valid: October 12 - 25, 2024  
Issued: September 27, 2024



- There is very high confidence in a western ridge through most of the month, that will lead to eastern troughing. This will favor a 40% to 50% chance of below average temperatures through days 6-10, and a 33% to 40% chance of below average temperatures through days 8-14. Confidence in cool weather lowers slightly late month with uncertainty when (or if) Greenland blocking will break down.
- The last time Pittsburgh has below average monthly temperatures? June 2023. That's 15 months ago. We have a chance at breaking that streak, but it will largely depend on the late-month pattern.





# October Precipitation Outlook

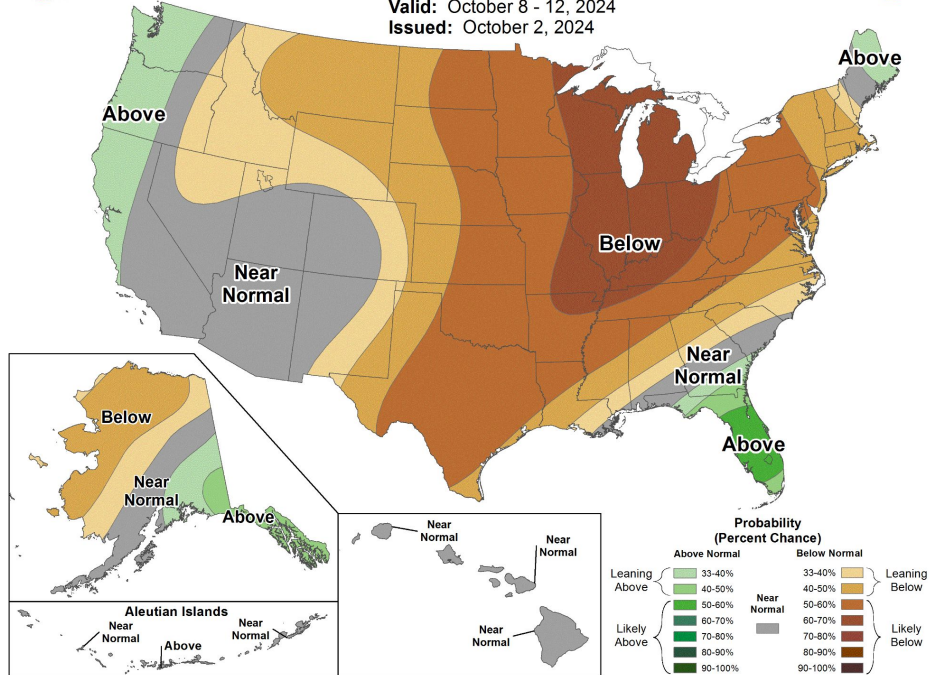
October 3, 2024  
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## For the Continental United States



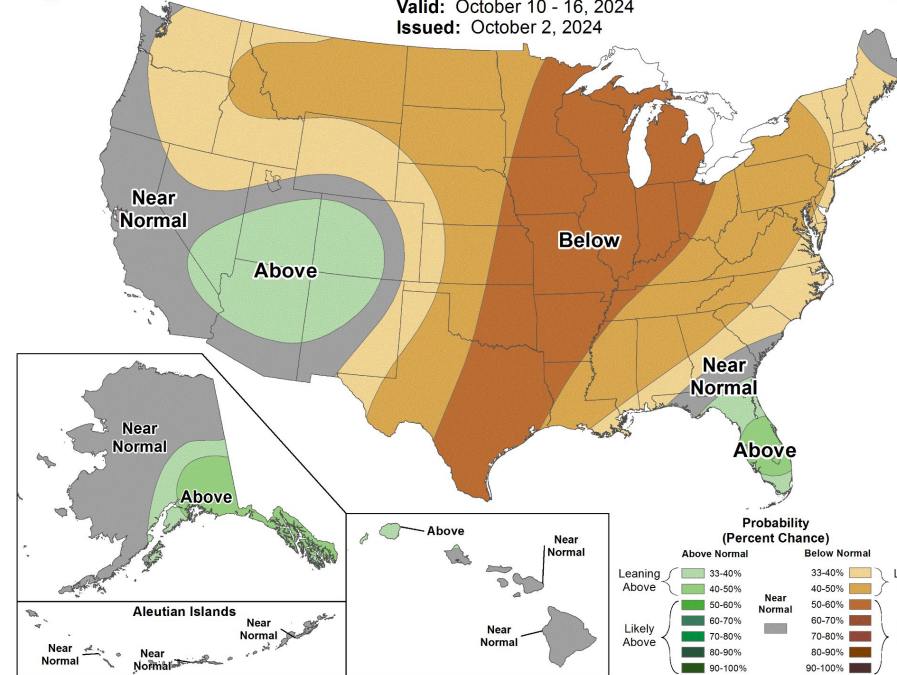
### 6-10 Day Precipitation Outlook

Valid: October 8 - 12, 2024  
Issued: October 2, 2024



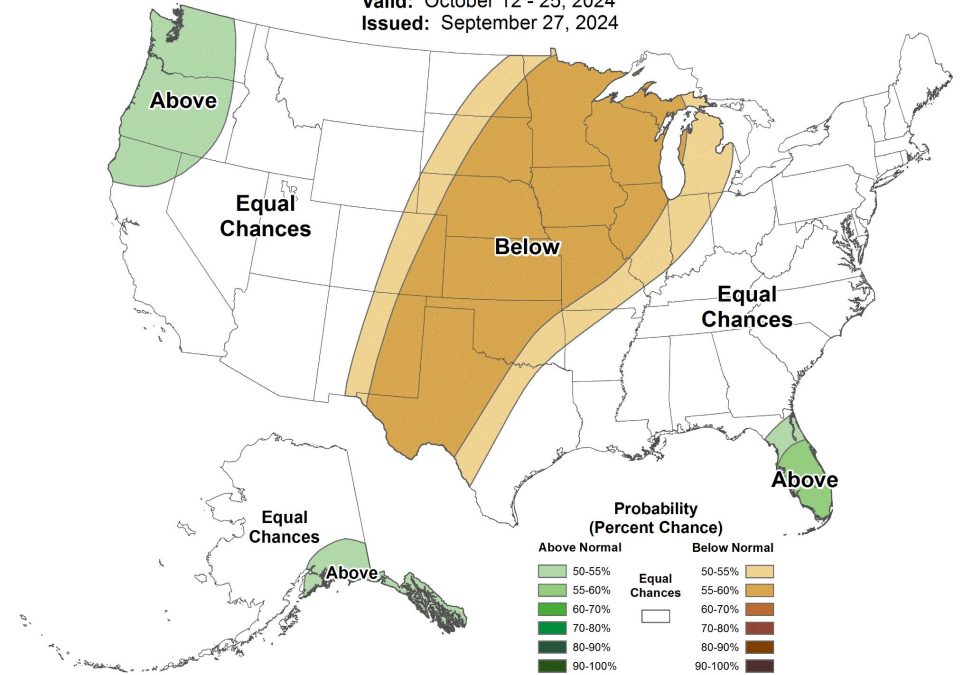
### 8-14 Day Precipitation Outlook

Valid: October 10 - 16, 2024  
Issued: October 2, 2024



### Weeks 3-4 Precipitation Outlook

Valid: October 12 - 25, 2024  
Issued: September 27, 2024



- Confidence in the western ridge to start the month means troughing and northwest flow is favored over out area, which typically correlates to dry conditions and high pressure. This is also reflected in the 6-10 day outlook and 8-14 day outlook accordingly, with a 50% to 60% chance and a 40% to 50% chance of dry anomalies. Predictability once again breaks down late month, but blocking hints that we might maintain the same pattern.
- Dry weather will unfortunately do little to help drought, although a wet start end of September and start to to the month helped some.



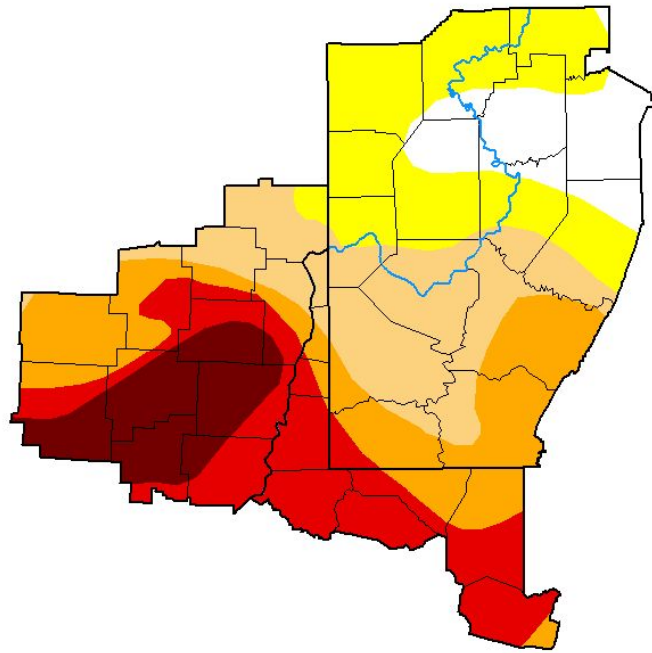


# Current and Forecast Drought

October 3, 2024  
2:00 PM

For Southwest Pennsylvania, Eastern Ohio, and Northern West Virginia

## U.S. Drought Monitor Pittsburgh, PA WFO



October 1, 2024  
(Released Thursday, Oct. 3, 2024)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	10.17	89.83	69.02	48.43	28.75	10.30
Last Week 09-24-2024	6.35	93.65	72.08	50.95	30.96	10.53
3 Months Ago 07-02-2024	14.32	85.68	9.86	0.53	0.00	0.00
Start of Calendar Year 01-02-2024	94.97	5.03	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	80.00	20.00	0.11	0.00	0.00	0.00
One Year Ago 10-03-2023	28.16	71.84	0.11	0.00	0.00	0.00

**Intensity:**

	None		D2 Severe Drought
	D0 Abnormally Dry		D3 Extreme Drought
	D1 Moderate Drought		D4 Exceptional Drought

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>

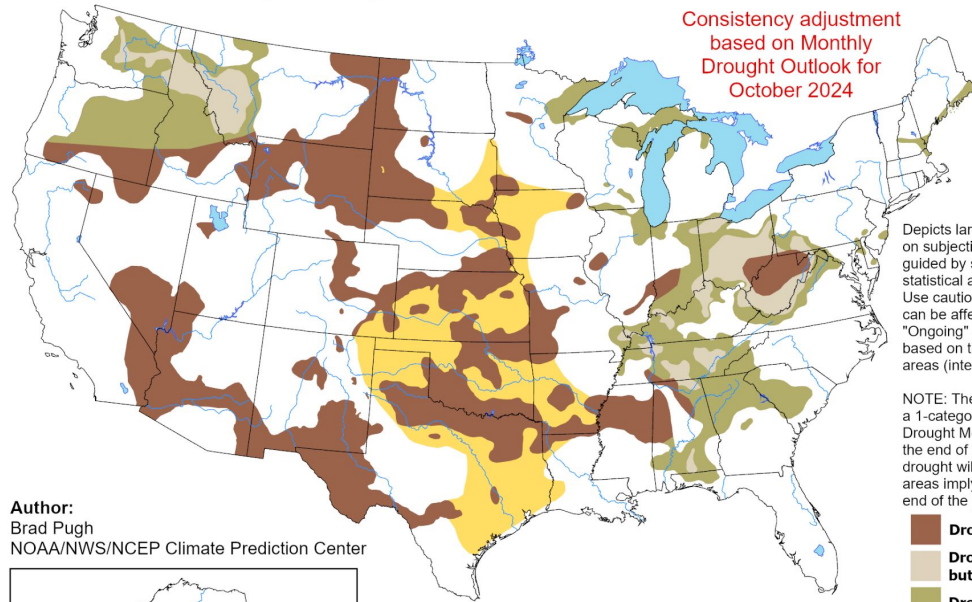
Author:  
Richard Tinker  
CPC/NOAA/NWS/NCEP



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

## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for October 1 - December 31, 2024  
Released September 30, 2024



Consistency adjustment based on Monthly Drought Outlook for October 2024

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).

Drought persists

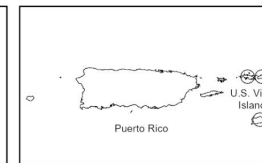
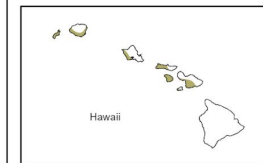
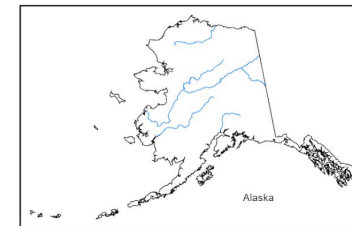
Drought remains, but improves

Drought removal likely

Drought development likely

No drought

Author:  
Brad Pugh  
NOAA/NWS/NCEP Climate Prediction Center



<https://go.usa.gov/3eZ73>

- Drought has worsened with below normal precipitation in September.
  - Recent rains have helped, but with October favored dry, drought is forecast to persist. Seasonally, some improvement is possible for parts of the area. Good news is winter is slightly favored to be wet.
- It will either take repetitive precipitation events or high precipitation event to mitigate drought impacts.
- Continued drought will warrant wildland fire concerns continuing after leaf-fall.



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

National Weather Service  
Pittsburgh, PA



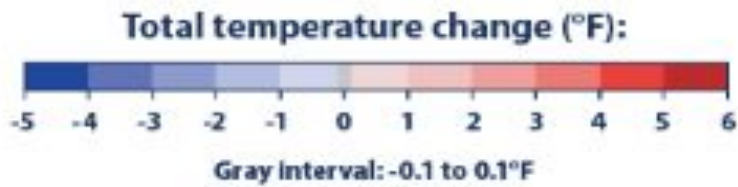
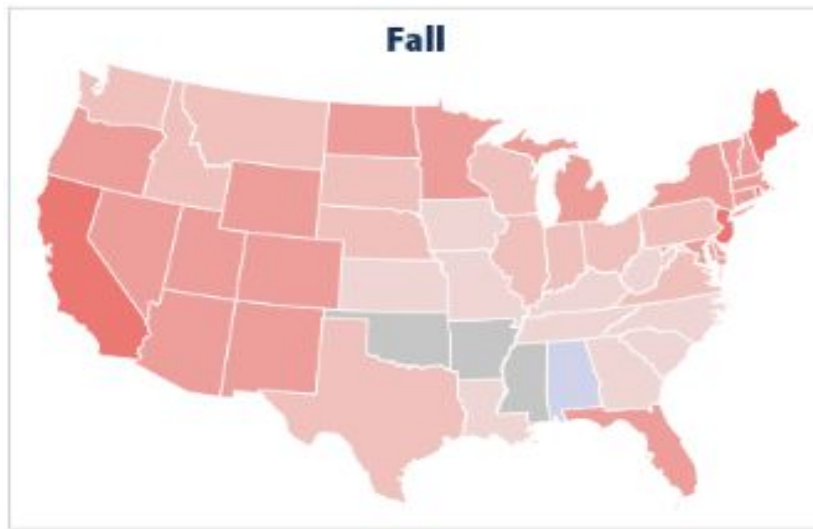
# Climate Change and Fall Temperatures

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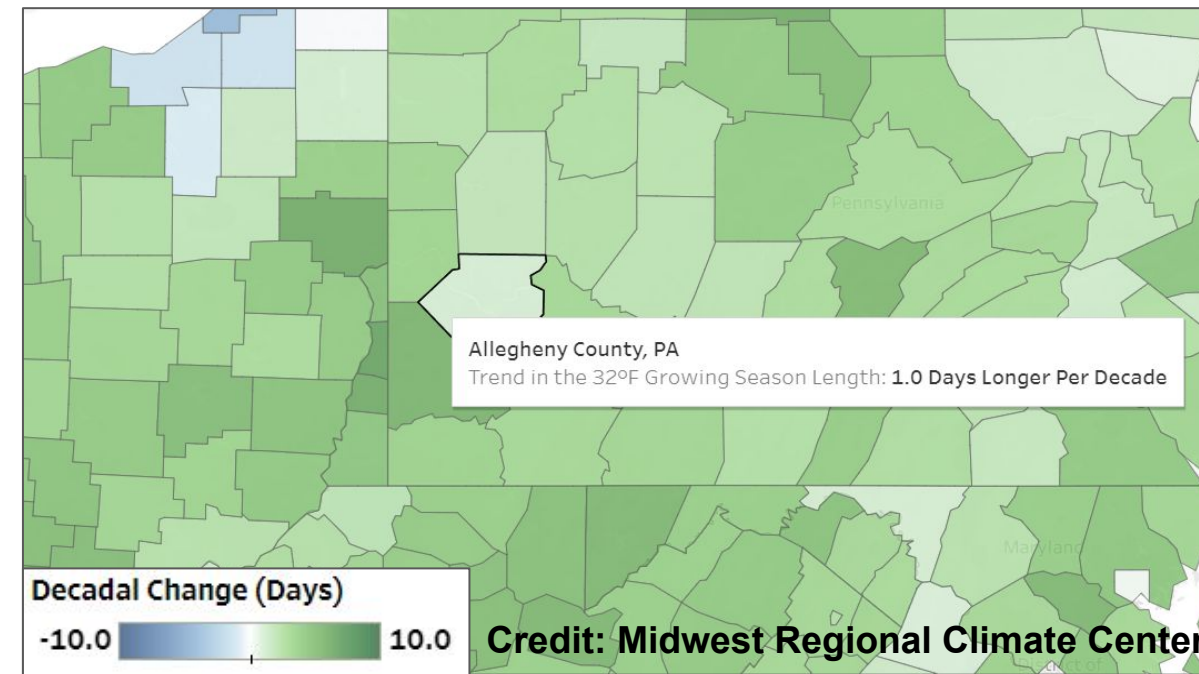
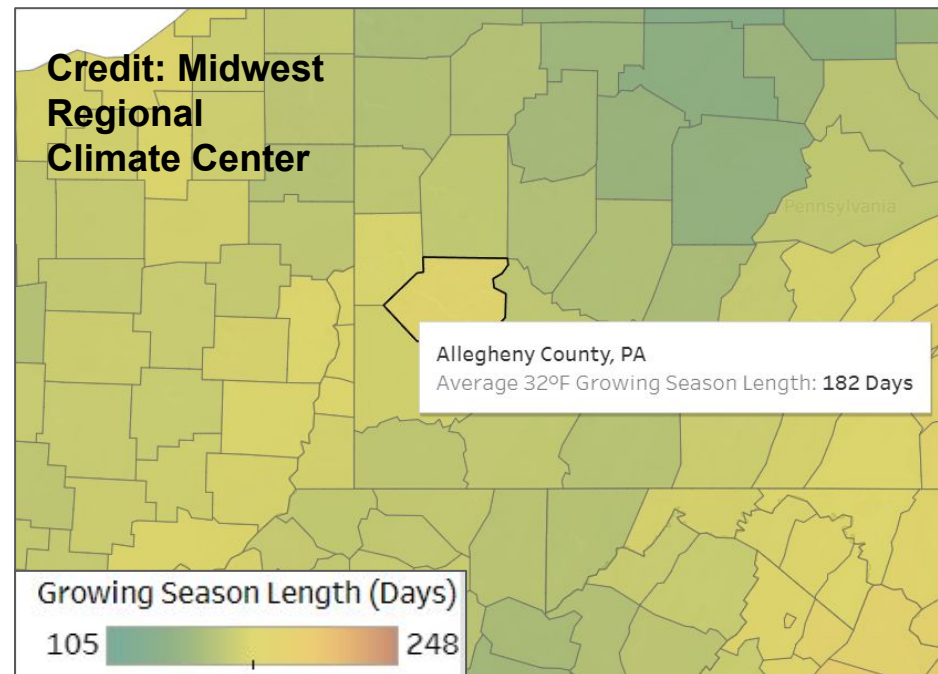
## For the Continental United States



- Across the United States, temperatures are increasing across all seasons. Specifically, “since 1896... summer and fall temperatures have increased by about 1.6°F” (EPA.gov).
- Most of the fall warming in the CONUS has been noted in the west, northern plains, and the northeast.
- This has acted to extend the growing season length slightly later into the year. Growing season has extended anywhere from 1 (Allegheny County) to 7 (Brooke County) day(s) per year.



Credit: EPA.gov

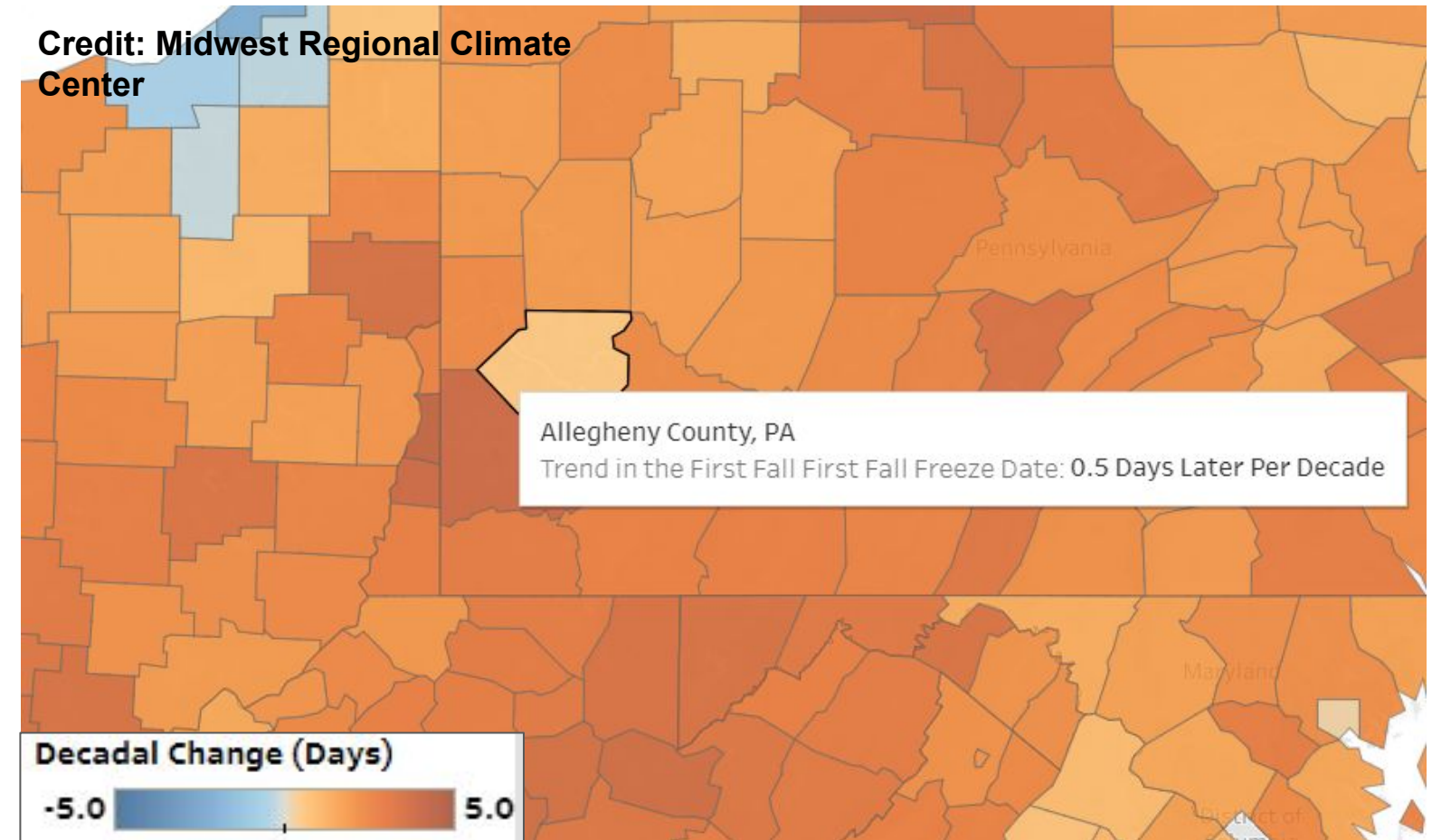
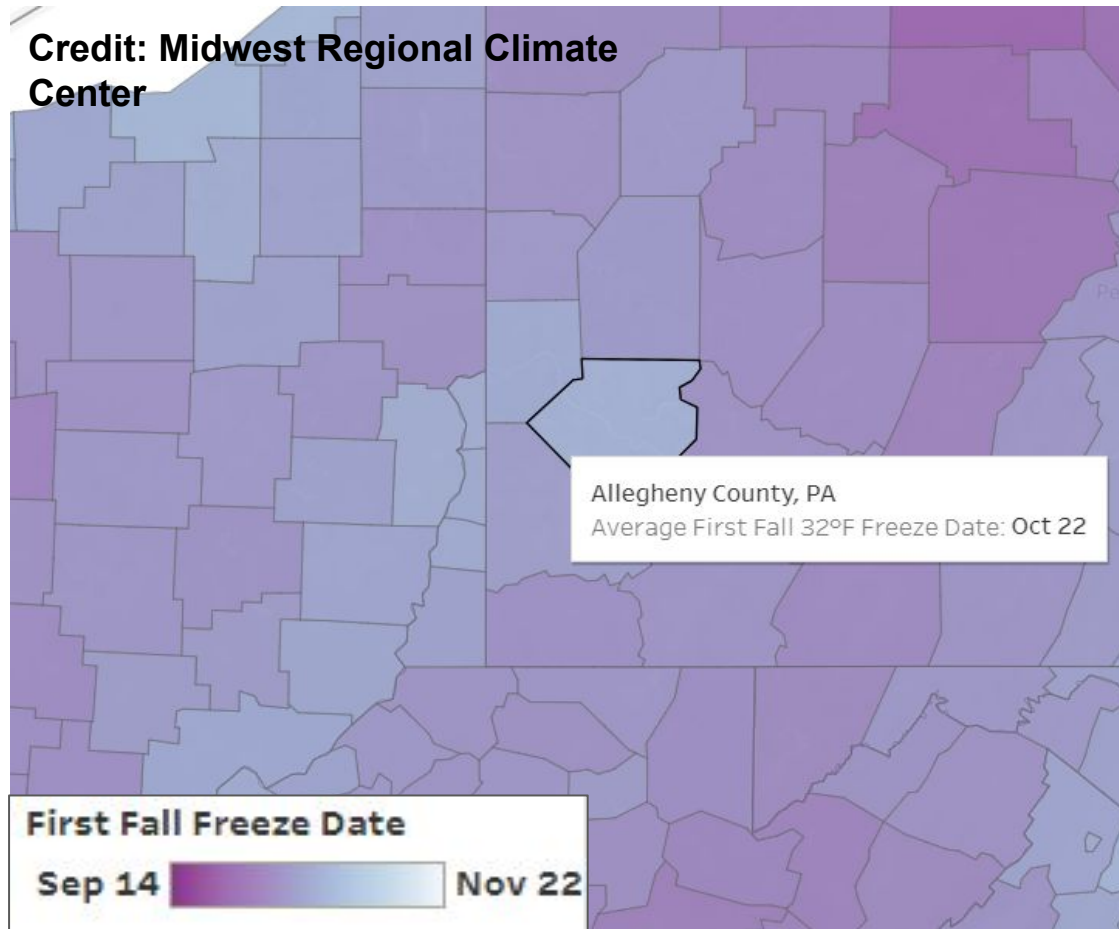




# Climate Change and First Freeze

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- The earliest average widespread first freeze in the area is Oct 7th in Jefferson County, PA.
- The latest average first freeze is Oct. 22nd in Allegheny County, PA with urban influence.
- Warming fall temperatures have led a statistically significant “later” shift in the first freeze, anywhere from 0.5 days/decade in Allegheny County, PA to 4.1 days/decade in Brooke County, WV.







# When Is the First Measurable Snow?

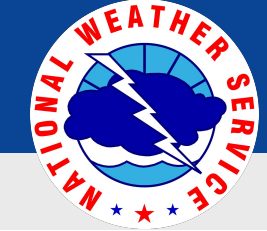
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	<b>Earliest First Snowfall</b>	<b>Average First Snowfall</b>	<b>Latest First Snowfall</b>
<b>Pittsburgh, PA</b>	October 18th (1972, 1992)	November 14th	December 18th (2015)
* <b>Wheeling, WV</b>	October 22nd (1925)	November 26th	January 13th (1924)
* <b>Morgantown, WV</b>	October 19th (1981)	November 23rd	January 2nd (1995)
* <b>New Philadelphia, OH</b>	October 20th (1974)	November 17th	January 7th (1995)
* <b>Zanesville, OH</b>	October 24th (1937)	November 25th	February 1st (1950)
* <b>DuBois, PA</b>	October 11th (1988)	November 5th	December 16th (1994)
<b>(*) indicates that a site only has a partial snowfall record, some data may not be wholly representative</b>			

- October snowfall is not completely impossible. Pittsburgh observes October snow about 15% of years.
- The earliest snowfall of area climate sites occurs in DuBois, PA, while the latest on average in Zanesville OH.
- The average first snow across the whole area is in November.

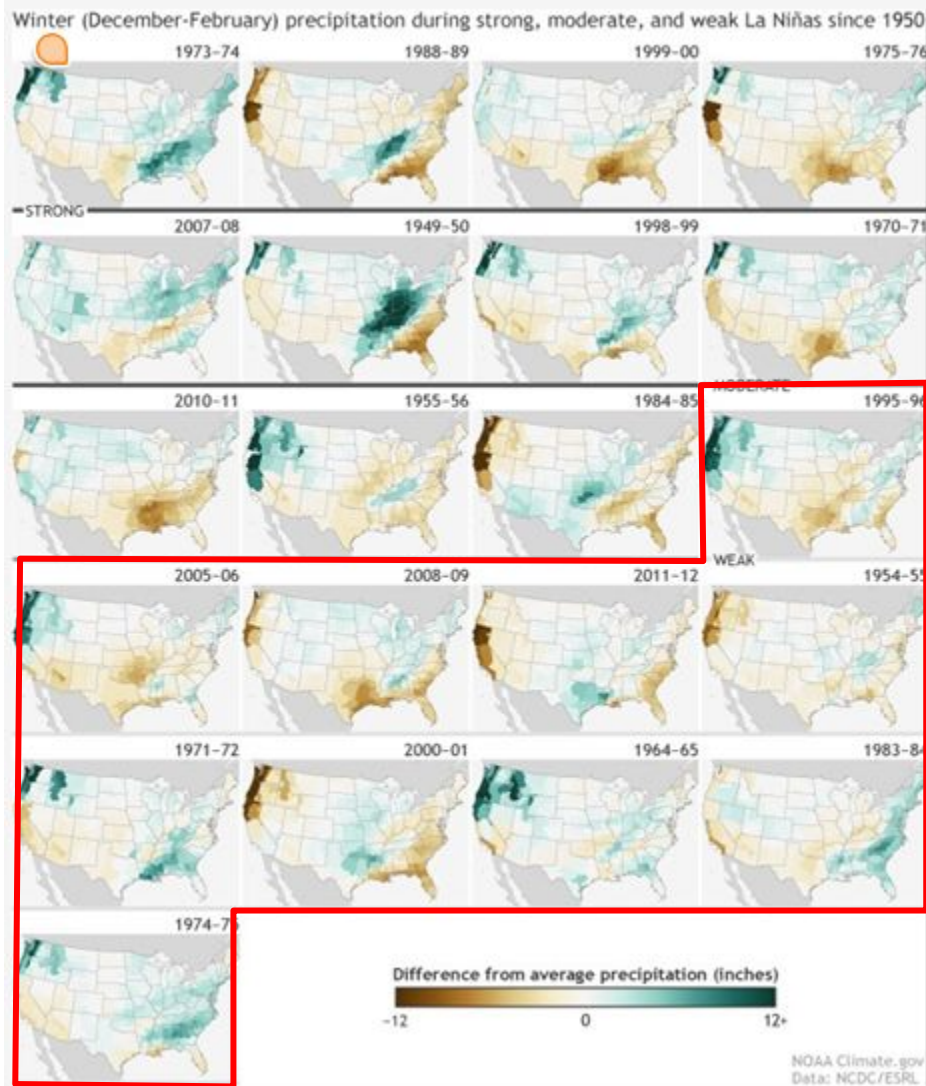




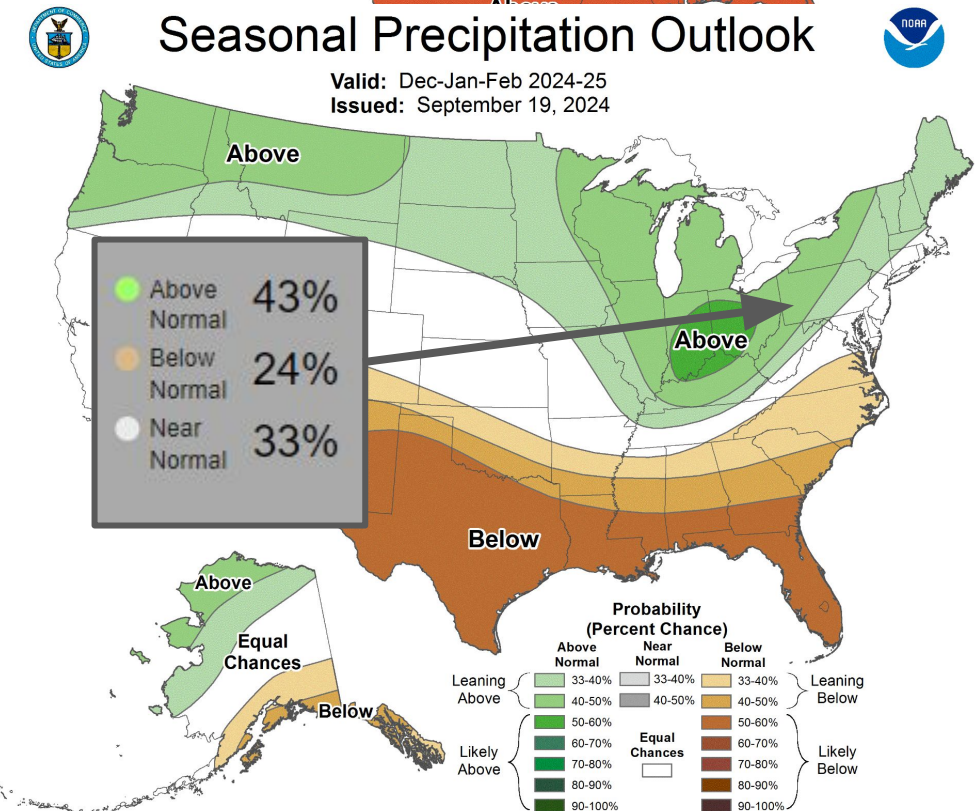
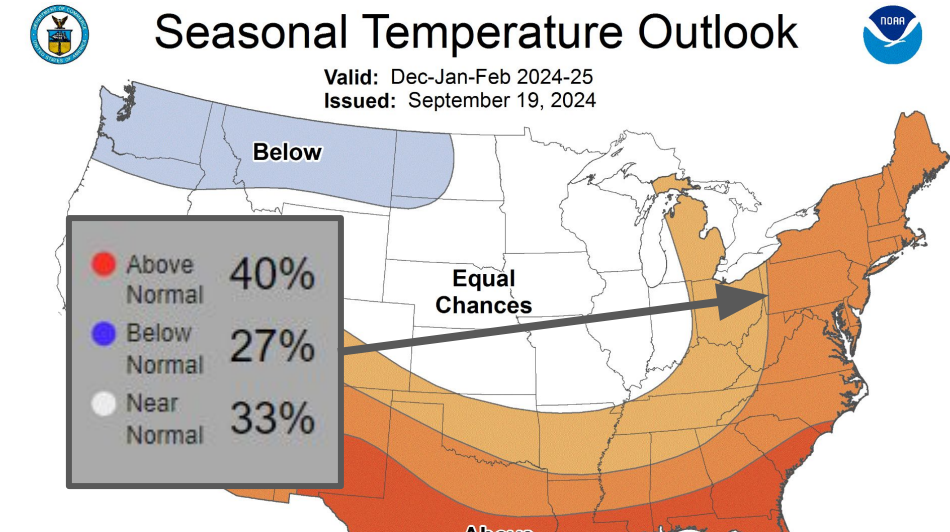
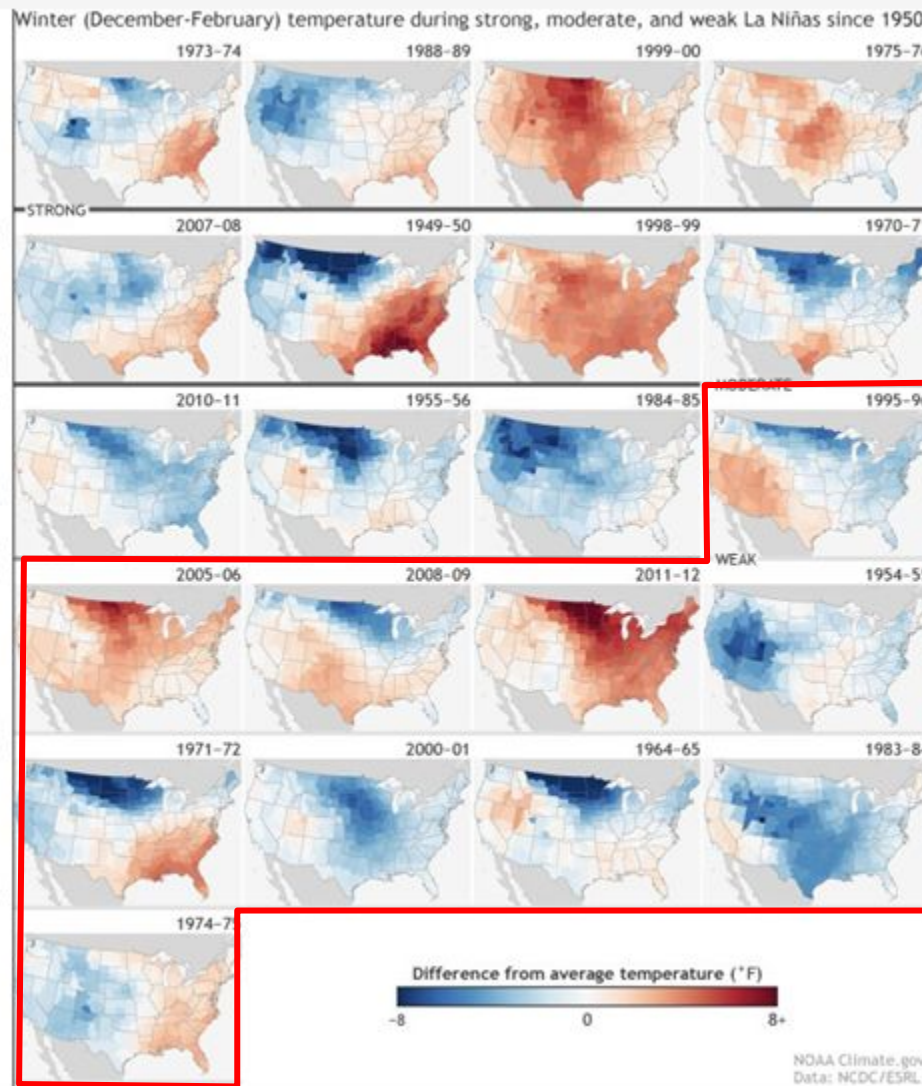
# Winter Preview 2024-2025

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For Southwest Pennsylvania, Eastern Ohio, and Northern West Virginia



## La Niña Winters 1950-2017



- The current forecast is on track for a weak La Nina during the winter months.
- Current forecast maintains a 35% to 50% chance of wetter and warmer conditions.
- More information on the winter outlook and snowfall to come.





# Contact and Additional Information

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## Contact Information

### Web

→ [weather.gov/pittsburgh](https://weather.gov/pittsburgh)

### Phone

→ (412) 262-1882

### Email

→ [nws.er.pbz.ops@noaa.gov](mailto:nws.er.pbz.ops@noaa.gov)

### Facebook

→ <https://www.facebook.com/NWSPittsburgh>

### Twitter

→ @NWSPittsburgh



## Next Briefing

→ This is a one time briefing for October. The next climate briefing will be issued in early November. Feel free to contact us for more information.



## Disclaimer

→ Information contained in this briefing is time-sensitive  
→ Do Not Use After the end of the current month.

