

CLIMATE SUMMARY

Vol. 1, Issue 6

October / 2021

Precipitation

According to the National Centers for Environmental Information (NCEI), the statewide average October precipitation was 4.41 inches, 1.37 inches *above* the long-term mean (1991-2020). This was 0.22 inches greater than October 2020 and 0.76 inches greater than September 2021. October 2021 ranks as the 14th wettest on record (Table 1).

Table 1: Ohio October Precipitation Ranking

Period	Value	Average	Anomaly	Rank	Wettest/Driest Since	Record Year
October 2021	4.41"	3.04"	+1.37"	14 th Wettest	Driest since: 2020 Wettest since: 2012	0.23" (1963) 6.42" (1919)

October was a wet month in Ohio this year. The eastern half of the state received 3 to 4 inches, while the western half accumulated as much as 7 inches (Fig. 1). For the northwestern portion of the state, this was more than 200% above the long-term mean (1991-2020), with near or slightly below average pockets in eastern and southwest Ohio (Fig. 2).

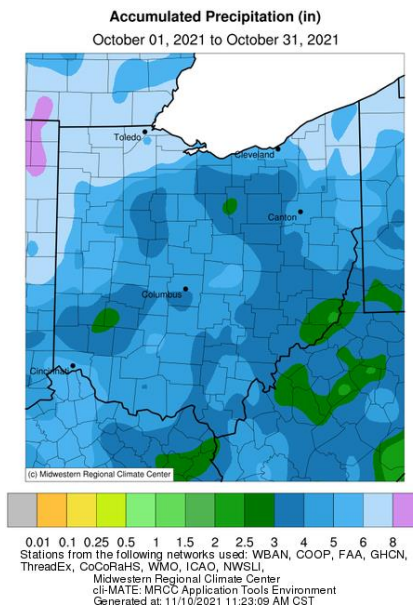


Figure 1: Accumulated October precipitation (inches). Courtesy of the Midwestern Regional Climate Center.

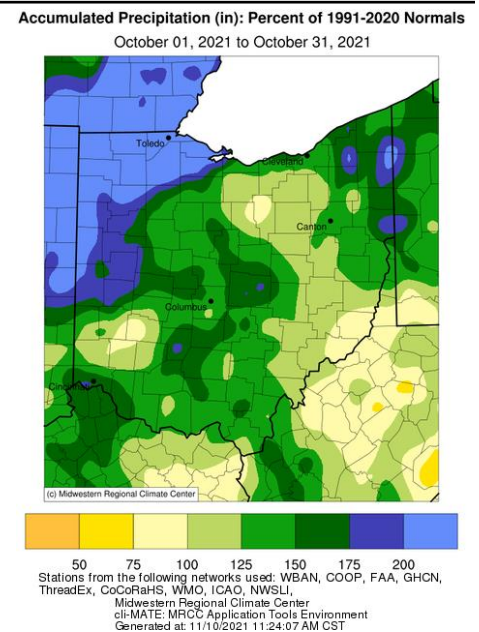


Figure 2: Percent of Normal Accumulated Precipitation in Inches for the Month of October. Courtesy of the Midwestern Regional Climate Center.

Defiance County in northwestern Ohio received the greatest amount of precipitation in in October, measuring 7.58 inches, making this the wettest October on record for that county in the 127-year period (Fig. 3). It was also the wettest October on record for several other counties including Williams, Fulton, Lucas, Henry, and Wood. The driest county during October was Monroe County in eastern Ohio, with 2.63 inches of precipitation, making it the 63rd driest October for that county. Historical statewide trends show that during 1895-2021, the lowest recorded precipitation was 0.23 inches in 1963, with the greatest occurring in 1919 at 6.42 inches (Fig. 4).

Figure 3: Ohio County Precipitation Ranking (NCEI, NOAA)

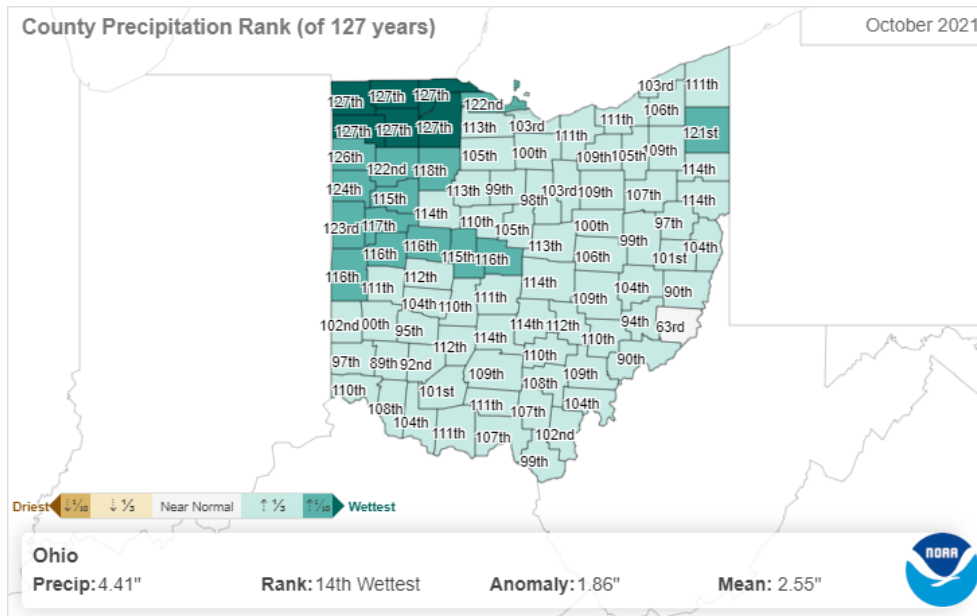
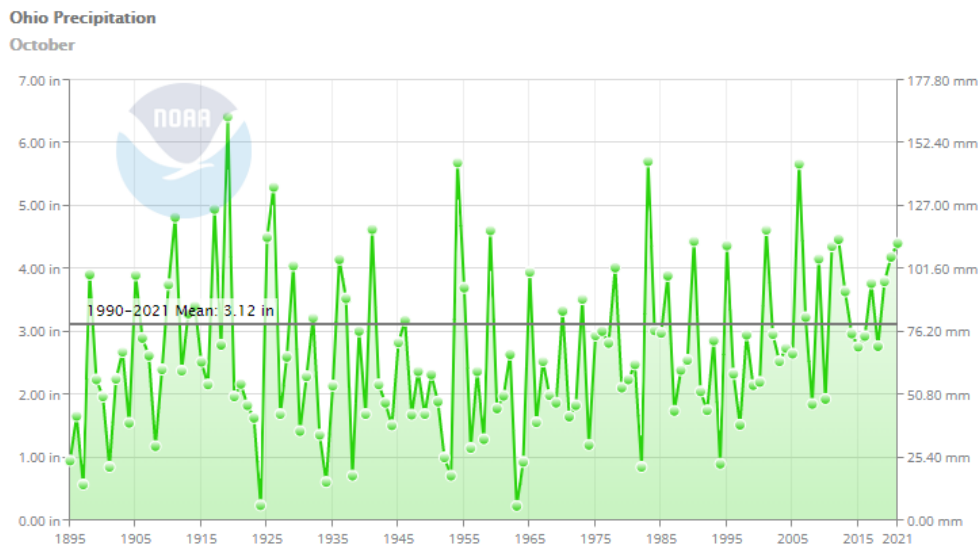


Figure 4: Ohio Historical Precipitation Time Series (NCEI, NOAA)



Temperature

October 2021 was the **warmest** October on record (1895-2021) for the state of Ohio. The average temperature was 60.6°F which was 6.9°F *warmer* than the long-term mean (1991-2020). This was also 7.1°F warmer than October 2020 but 6.4°F cooler than September 2021 (Table 2).

Table 2: Ohio October Temperature Ranking

Period	Value	Average	Anomaly	Rank	Coolest/Warmest Since	Record Year
October 2021	60.6°F	53.7°F	+6.9°F	Warmest	Coolest since: 2020 Warmest to Date	44.7°F (1925) 60.6°F (2021)

Average temperatures for the month of October ranged from 60-65°F across most of Ohio, while the northeastern and northwestern corners averaged between 55-60°F (Fig. 5). Since October 2021 was the warmest October *on record* for Ohio, temperatures for most of the state were *significantly* higher than normal, with central Ohio reaching as much as 8°F warmer than normal. The entire state was *at least* 5°F warmer than normal (Fig. 6).

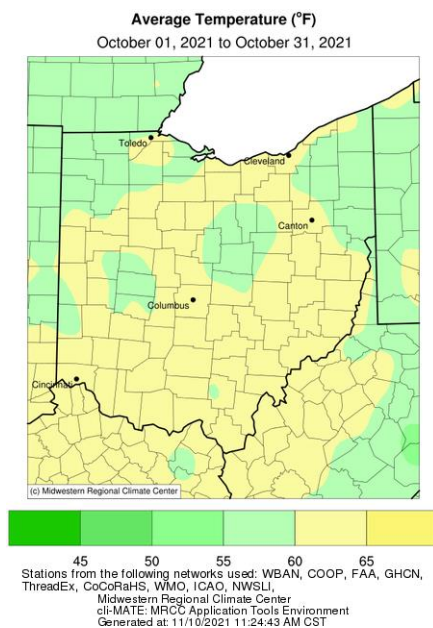


Figure 5: Average October Temperature in °F. Courtesy of the Midwestern Regional Climate Center.

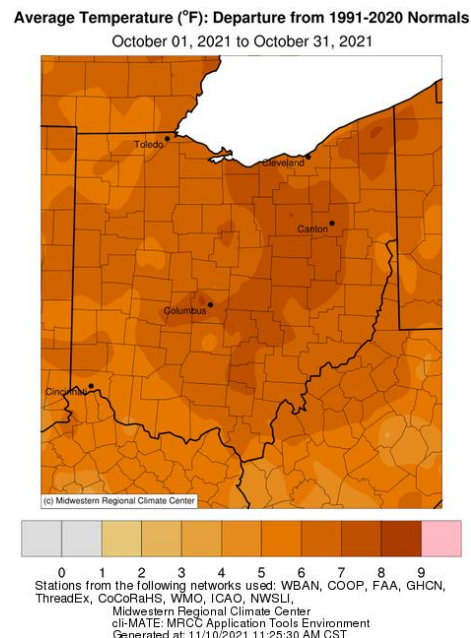


Figure 6: Departure from Normal Average October Temperature in °F. Courtesy of the Midwestern Regional Climate Center.

Almost every county averaged its warmest October temperature, but Lawrence County was the warmest at 61.8°F. Ashtabula and Columbiana County tied for the coolest county, both averaging 58.6°F, but this was the 2nd warmest October for both counties (Fig. 7). Historically, the coolest October average temperature during the period was 44.7°F in 1925 and the warmest average temperature was 60.6°F in 2021 (Fig. 8).

Figure 7: Ohio County Temperature Ranking (NCEI, NOAA)

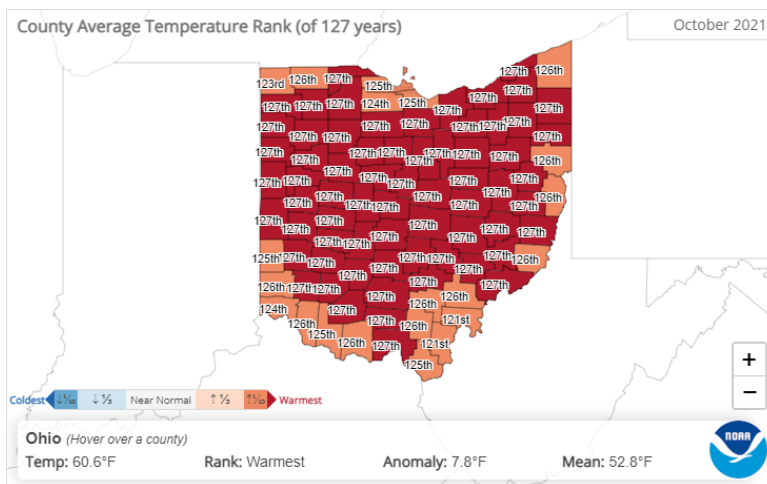
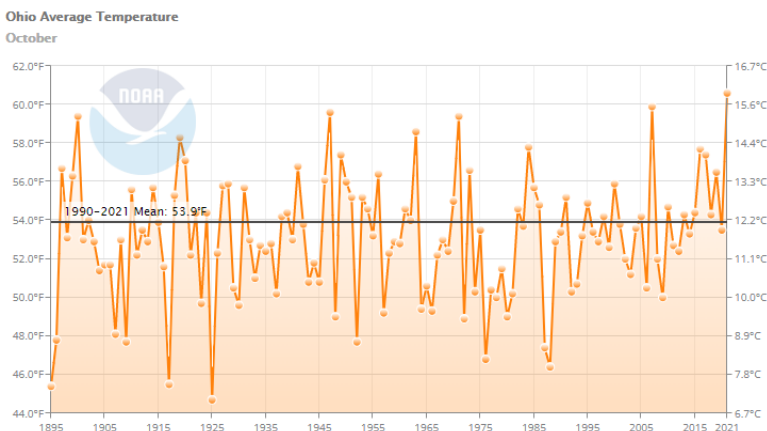


Figure 8: Ohio Historical Temperature Time Series (NCEI, NOAA)



Wesley Collins
 Atmospheric Science
 College of Arts and Sciences
 Social Media & Outreach Chair | Dragon Phoenix Wushu
 Student Assistant | Byrd Polar & Climate Research Center
 108D Scott Hall, 1090 Carmack Rd, Columbus, OH 43210
 collins.1798@osu.edu

Aaron B. Wilson, PhD
 CFAES-OSU Extension | Climate Specialist
 Byrd Polar & Climate Research Center | Research Scientist
 State Climate Office of Ohio
 Affiliated Faculty, Sustainability Institute
 171 Scott Hall, 1090 Carmack Rd., Columbus, OH 43210
 (614) 292-7930 Office
 wilson.1010@osu.edu osu.edu