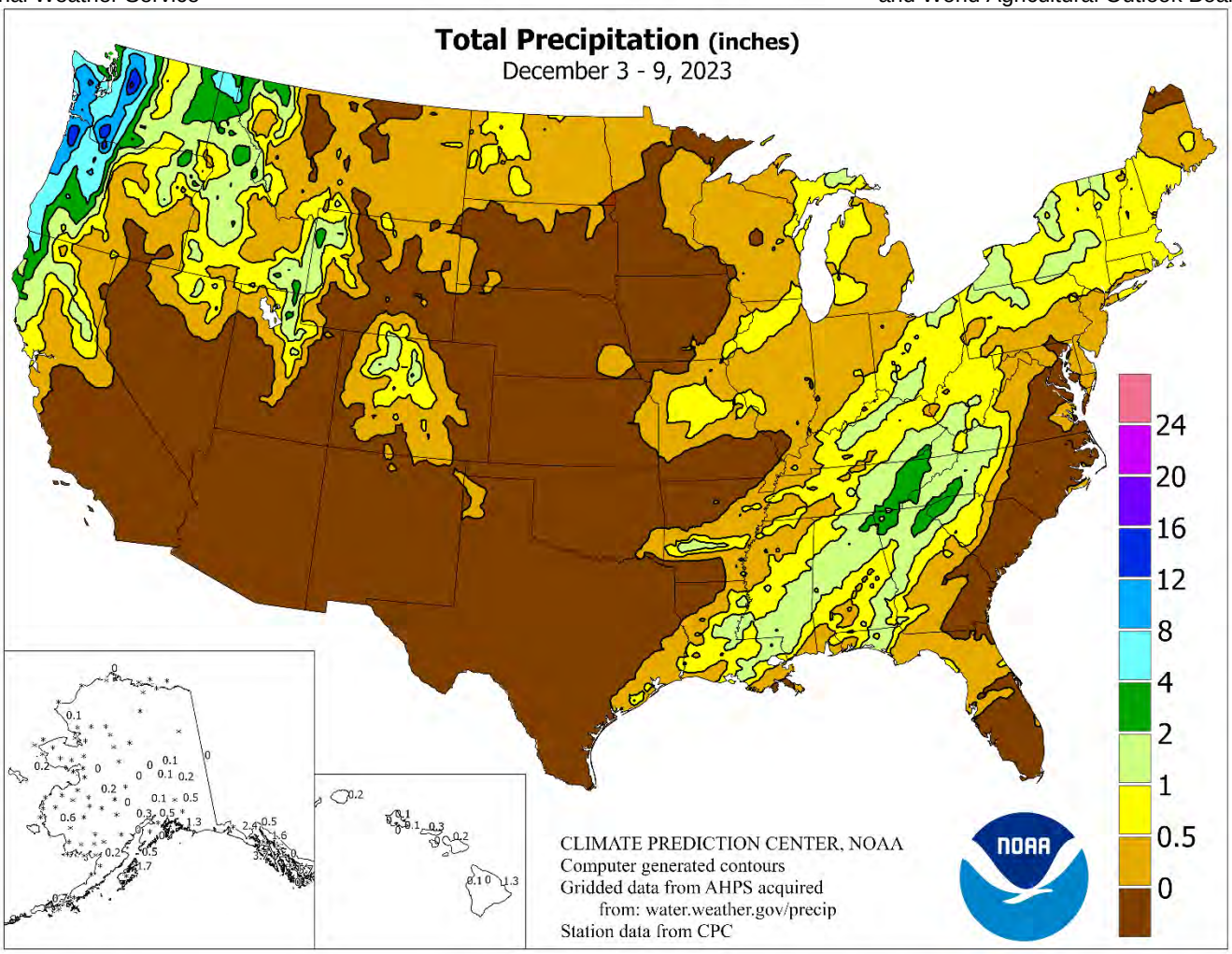
Volume 110, No. 50 www.usda.gov/oce/weather-drought-monitor December 12, 2023

# WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board




## HIGHLIGHTS

## December 3 – 9, 2023

*Highlights provided by USDA/WAOB*

Heavy rain and melting snow sparked **Northwestern** flooding, especially in **western sections of Washington and Oregon**. Warm, wet weather extended as far inland as the **northern Rockies** and **northern Intermountain West**. Meanwhile, warm, dry weather prevailed from **southern California to the southern Rockies**. Farther east, mild, dry weather also dominated the **Plains**, except **Montana** and **North Dakota**. The **Plains'** tranquil weather favored overwintering wheat, despite the absence of a protective snow cover. Late in the week, a potent cold

*(Continued on page 3)*

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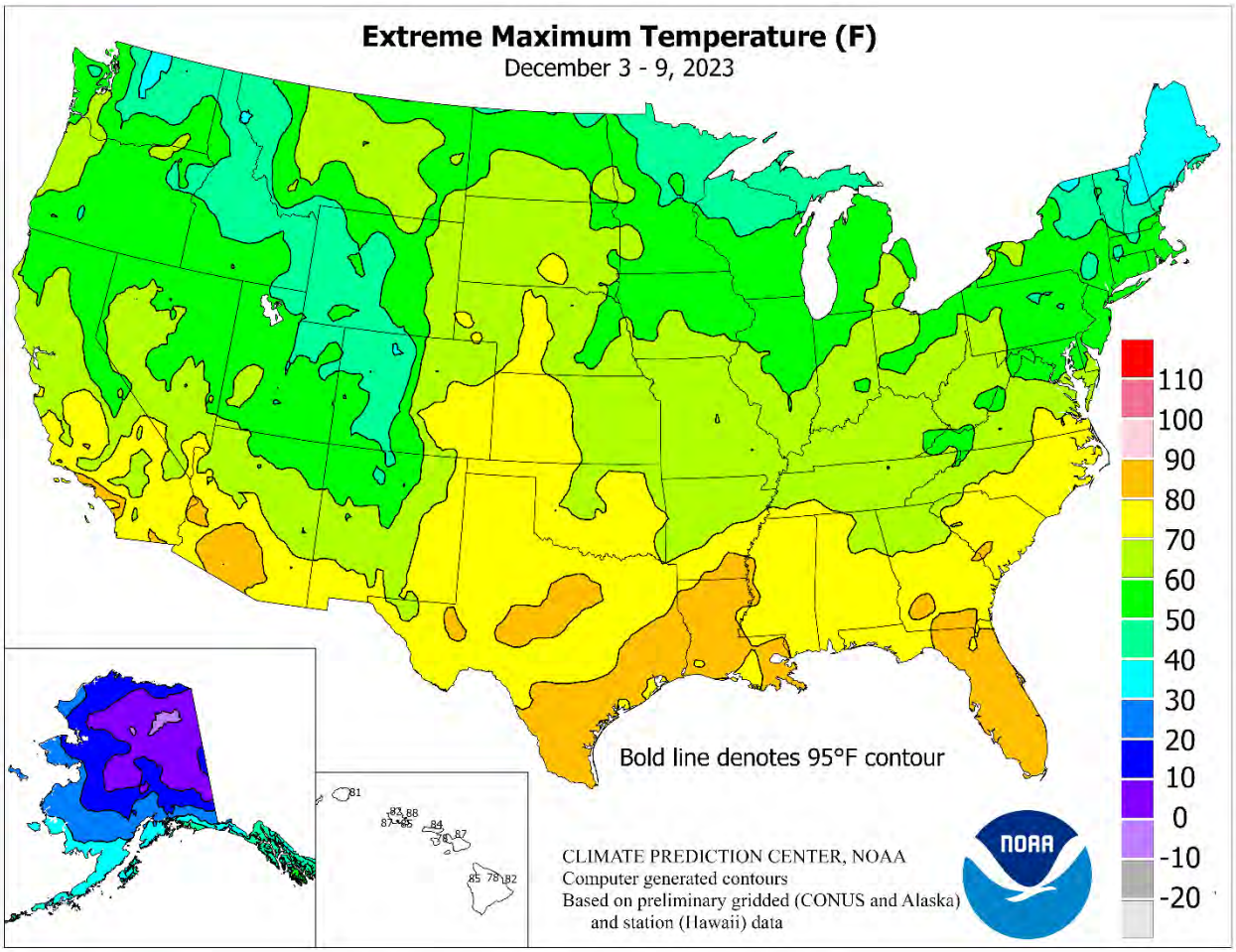
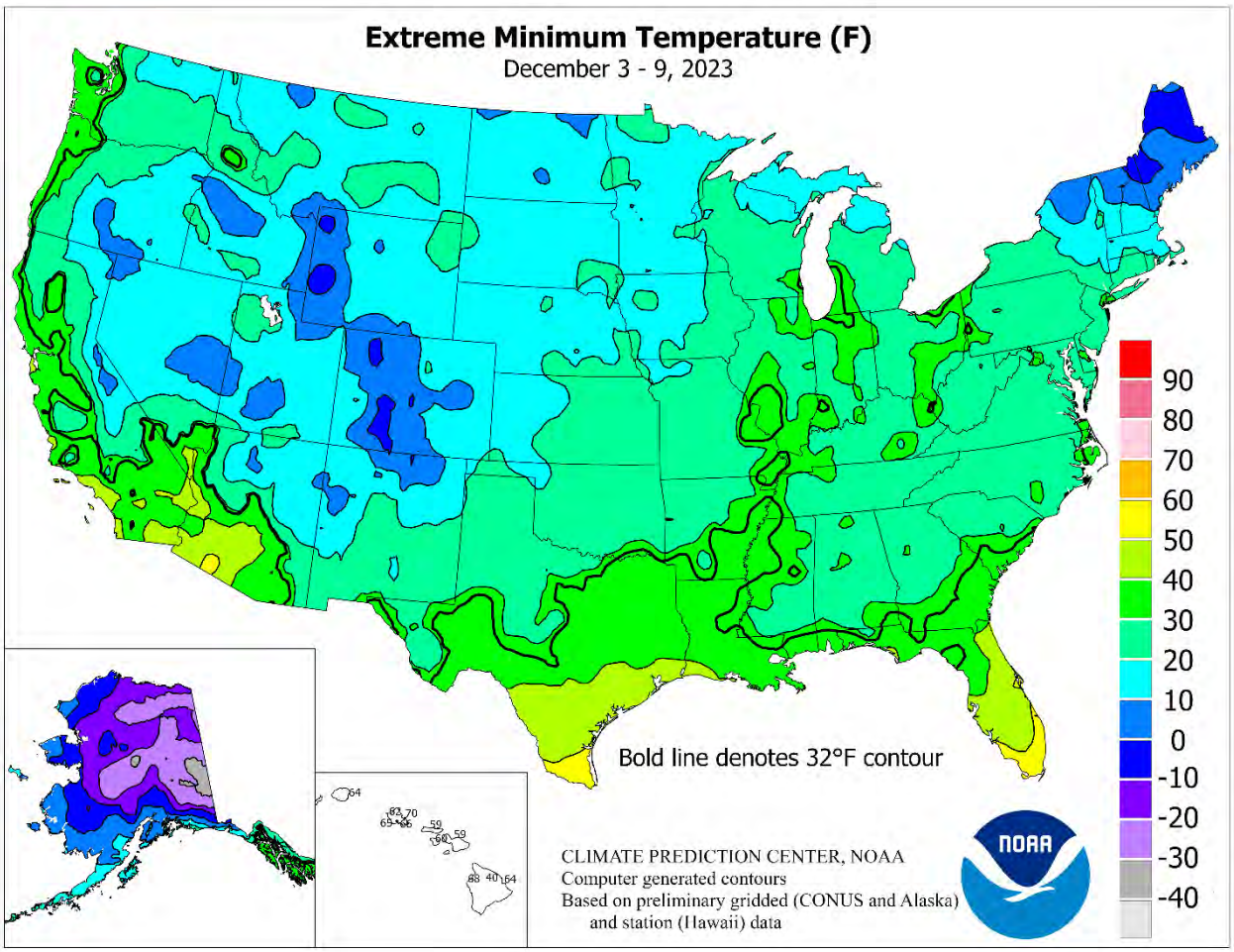
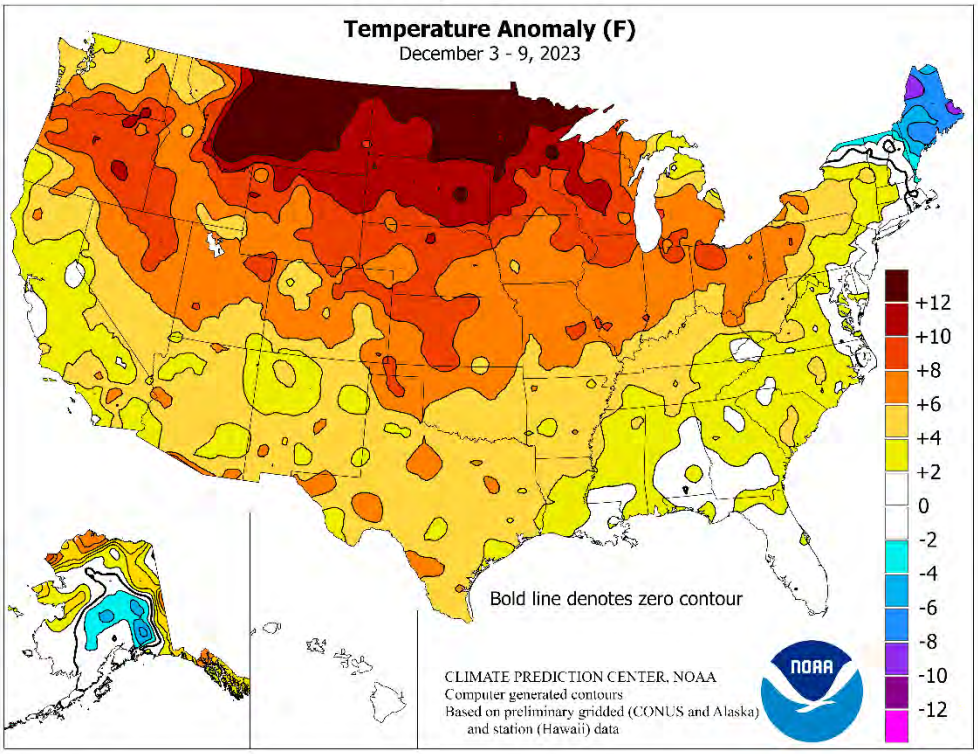

Extreme Maximum Temperature (F)
December 3 - 9, 2023
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
December 3 - 9, 2023
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA

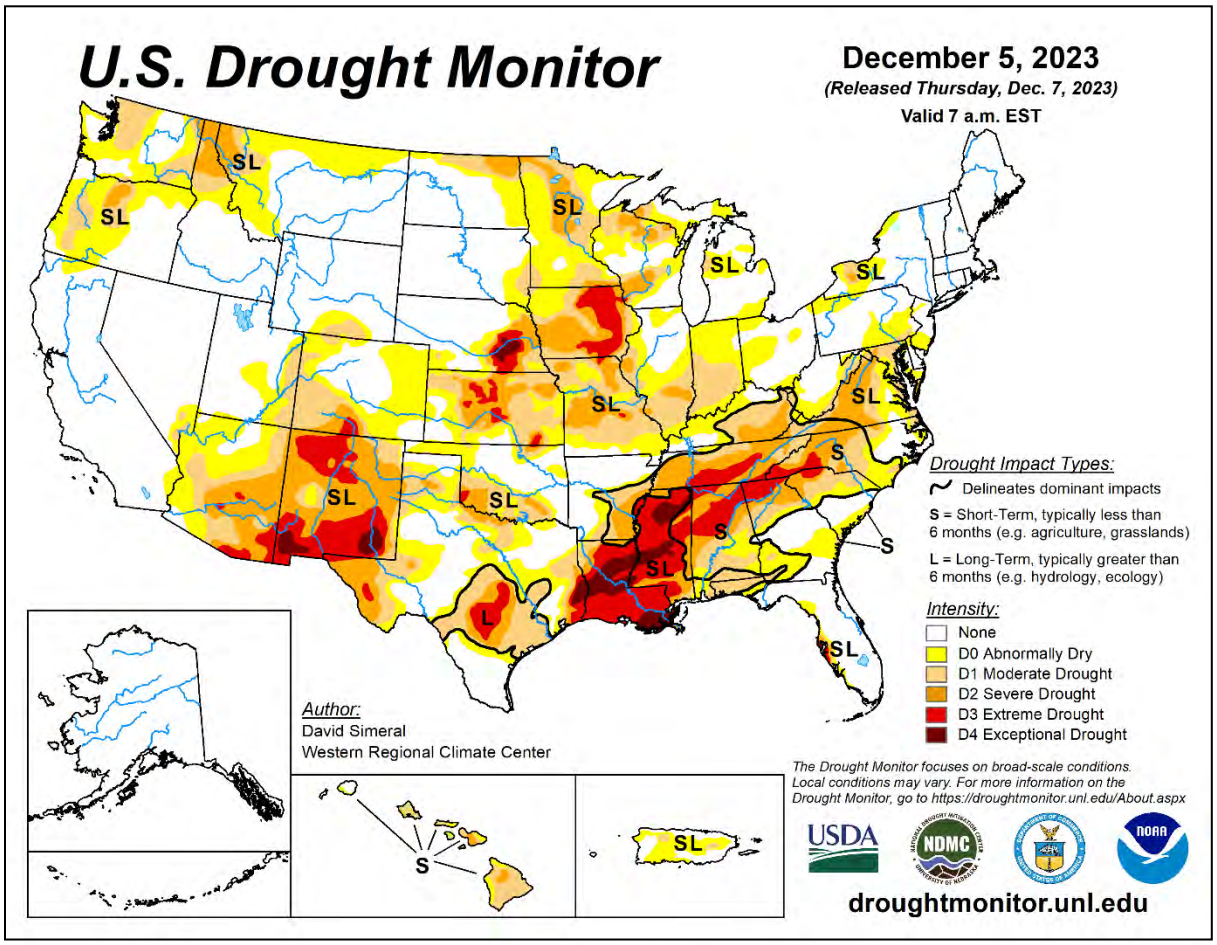
*(Continued from front cover)*
front delivered suddenly unsettled weather from the **Mississippi Valley eastward**. Cool air trailing the front tempered a winter warm spell, while rain in the vicinity of the front totaled 2 inches or more in the **southern Appalachians** and environs. (Additional heavy rain fell in the **eastern U.S.** on Sunday, December 10.) The cold front also sparked a severe weather outbreak, which peaked across the **South** on December 9, with more than two dozen tornadoes and several fatalities reported. Early-December warmth was especially prominent across the **northern Plains** and **upper Midwest**, where temperatures averaged at least 10 to 15°F above normal. Weekly readings averaged more than 5°F above normal across a much broader area, stretching from the **Pacific Northwest and Intermountain West to the Plains, Midwest, and mid-South**. However, a notable chill lingered across **northern New England**, including **Maine**, where weekly readings generally averaged 5 to 10°F below normal.

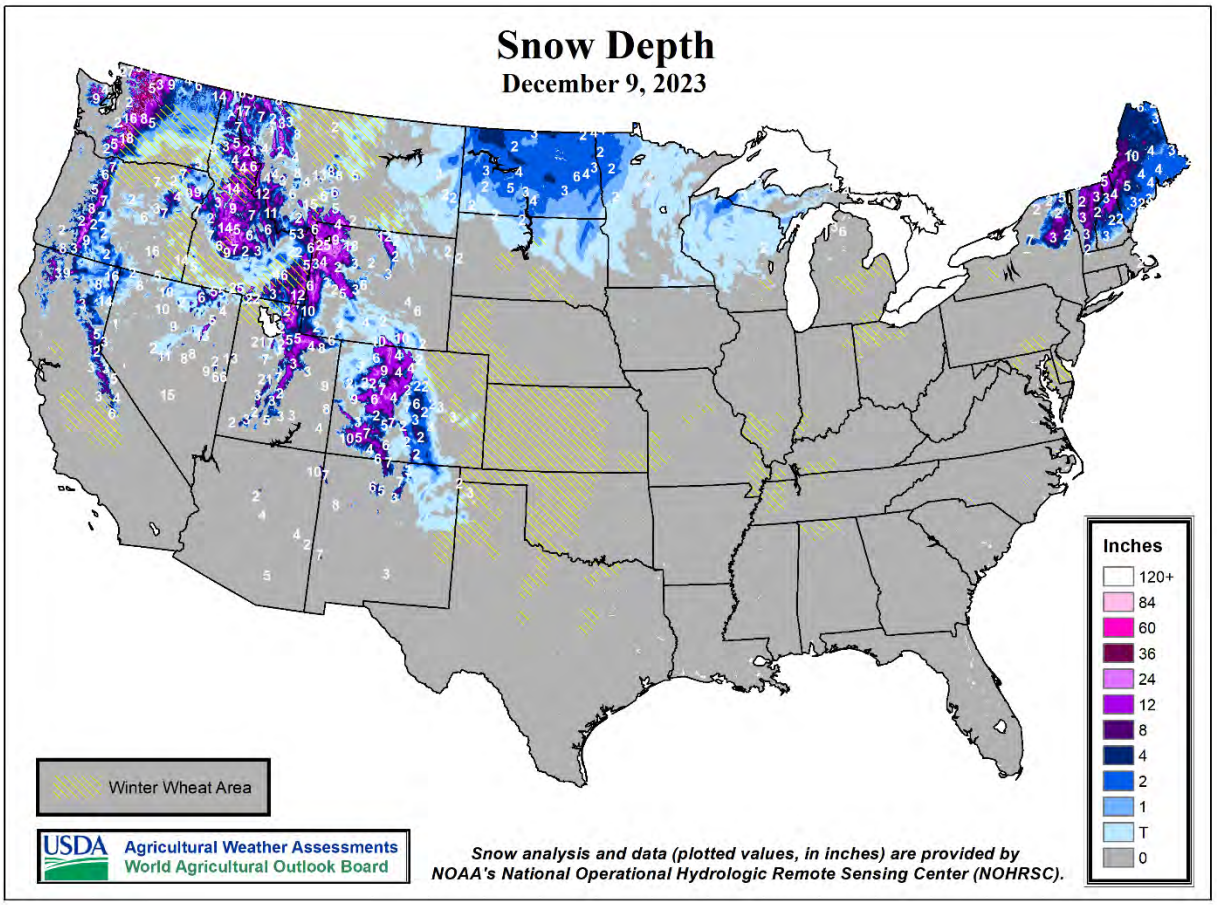



Record-setting warmth was confined to **Florida** as the week began, but quickly pivoted to the **Northwest**. Daily-record highs in **Florida** for December 3 rose to 89°F in **Miami** and 87°F in **Lakeland**. **Miami's** reading also tied a monthly record, most recently achieved on December 10, 2009. Farther west, **Portland, OR**, set a monthly record with a high of 67°F on December 4. Previously, **Portland's** highest December reading had occurred in 1993, with a temperature of 65°F on December 10. **Pacific Northwestern** warmth generally peaked on December 4-5, with consecutive daily-record highs in locations such as **Vancouver, WA** (66 and 64°F), and **Hillsboro, OR** (63 and 61°F). Warmth expanded to other areas of the **West**, with **Phoenix, AZ**, notching a pair of daily-record highs (82 and 84°F, respectively) on December 5-6. In **California's Central Valley**, record-setting highs for December 6 reached 80°F in **Bakersfield** and 77°F in **Fresno**. By the 6th, record-setting warmth arrived on the **Plains**, where **Bismarck, ND** (66°F), tied a monthly record previously set on December 6, 1939, and December 1, 2021. Daily-record highs on the 6th rose to 77°F in **Pueblo, CO**; 72°F in **Russell, KS**; and 64°F in **Great Falls, MT**. December 7 was another balmy day across the **nation's mid-section**, with daily-record highs soaring to 80°F in **Gage, OK**; 77°F in **Borger, TX**; 76°F in **Garden City, KS**; and 73°F in **Broken Bow, NE**. Late in the week, warmth briefly overspread the **South**, **East**, and **lower Midwest**. **Dallas-Ft. Worth, TX**, collected a daily record-tying high of 80°F on December 8. The following day, **Southern** record-setting highs for the 9th climbed to 84°F in **Victoria, LA**, and **Baton Rouge, LA**. Meanwhile in the **mid-South** and **Midwest**, daily-record highs surged to 82°F in **Monticello, AR**; 65°F in **Indianapolis, IN**; and 63°F in **Flint, MI**.

Sudden warmth in the **Northwest** melted lower- and middle-elevation snow that had fallen in late November and early December, adding runoff to already rain-swollen streams and rivers. On the night of December 5-6, the **Skagit River at Concrete, WA**, rose 5.83 feet above flood stage—the highest water level at that gauge site since mid-November 2021. In advance of the flooding, daily-record rainfall totals for December 4 in **western Washington** included 4.19 inches in **Quillayute** and 2.93 inches in **Hoquiam**. Daily records were set on December 5 with totals of 2.96 inches in **Olympia, WA**, and 2.52 inches in **Astoria, OR**. During the first 10 days of December, rainfall topped the 8-inch mark in **Quillayute** (8.95 inches), **Olympia** (8.75 inches), and **Hoquiam** (8.22 inches). Eventually, precipitation spread eastward, with **Bismarck, ND**, reporting a 2.5-inch snowfall on December 8. Meanwhile, cold weather lingered across **northern New England**, accompanied by a burst of snow. In **Maine**, **Bangor** received a daily-record snowfall of 6.4 inches on December 4. Subsequently, **Bangor** reported a trio of sub-zero minimum temperatures (-2, -1, and -2°F) from December 6-8. Late in the week, showers and thunderstorms erupted across the **lower Mississippi Valley** and the **mid-South**. On December 9, a pair of deadly tornadoes touched down in **Tennessee**, with the first—an EF3 with estimated winds near 150 mph and a path length of more than 11 miles—tracking from **Montgomery County, TN**, where three fatalities occurred, into **Todd County, KY**. The second deadly tornado, an EF2 with estimated winds near 125 mph, also resulted in three fatalities (in **Davidson County, TN**) while traversing a nearly 30-mile path from about 5 miles north of **Nashville** into **Sumner County**. Elsewhere, a period of windy weather in **southern California** led to widespread gusts above 60 mph. **Sandberg, CA**, clocked a gust to 66 mph on December 7, followed by a gust to 64 mph two days later.

Cold conditions developed across parts of **interior Alaska**, while near- or above-normal temperatures covered the remainder of the state. In **southern Alaska**, **Yakutat** tied a daily record with a high of 46°F on December 4. **Yakutat** also received precipitation totaling 4.02 inches from December 4-8. Similarly, December 3-9 rainfall totaled 5.66 inches in **Ketchikan** and 3.84 inches in **Sitka**. As colder air arrived late in the week across **southern Alaska**, December 7-9 snowfall totaled 11.6 inches in **Anchorage** and 4.9 inches in **Juneau**. Meanwhile, December 9 low temperatures dipped to -28°F in **McGrath** and -25°F in **Fairbanks**. Farther south, **Hawaii** experienced a return to tranquil conditions, following the previous week's rainfall. During the week, both **Kahului, Maui** (0.015 inch on December 4), and **Honolulu, Oahu** (0.01 inch on December 5), reported a single day with measurable rainfall.


U.S. Drought Monitor
December 5, 2023
(Released Thursday, Dec. 7, 2023)
Valid 7 a.m. EST
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
David Simeral
Western Regional Climate Center
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
USDA
NDMC
NOAA
droughtmonitor.unl.edu


Snow Depth
December 9, 2023
Inches
120+
84
60
36
24
12
8
4
2
1
T
0
Winter Wheat Area
USDA Agricultural Weather Assessments
World Agricultural Outlook Board
Snow analysis and data (plotted values, in inches) are provided by NOAA's National Operational Hydrologic Remote Sensing Center (NOHRSC).

# National Weather Data for Selected Cities

## Weather Data for the Week Ending December 9, 2023

**Data Provided by Climate Prediction Center**

| STATES AND STATIONS | | TEMPERATURE ˚F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | TEMP. ˚F | | PRECIP | |
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE DEC 1 | PCT. NORMAL SINCE DEC 1 | TOTAL, IN., SINCE JAN 1 | PCT. NORMAL SINCE JAN 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| AK | ANCHORAGE | 24 | 15 | 30 | 9 | 20 | -1 | 0.56 | 0.27 | 0.22 | 0.56 | 152 | 24.41 | 156 | 87 | 58 | 0 | 7 | 4 | 0 |
| | BARROW | 13 | 3 | 19 | -8 | 8 | 0 | 0.00 | -0.06 | 0.00 | 0.00 | 0 | 4.59 | 89 | 90 | 79 | 0 | 7 | 0 | 0 |
| | FAIRBANKS | 1 | -12 | 10 | -25 | -5 | -3 | 0.08 | -0.05 | 0.07 | 0.08 | 48 | 9.57 | 84 | 76 | 67 | 0 | 7 | 2 | 0 |
| | JUNEAU | 40 | 35 | 44 | 31 | 37 | 6 | 1.60 | 0.03 | 0.64 | 1.60 | 78 | 66.72 | 106 | 93 | 77 | 0 | 3 | 7 | 1 |
| | KODIAK | 37 | 27 | 42 | 17 | 32 | -1 | 1.73 | -0.16 | 1.06 | 2.66 | 110 | 60.93 | 84 | 86 | 53 | 0 | 5 | 4 | 1 |
| | NOME | 20 | 6 | 28 | -2 | 13 | 1 | 0.20 | -0.05 | 0.11 | 0.22 | 69 | 21.62 | 131 | 86 | 67 | 0 | 7 | 3 | 0 |
| AL | BIRMINGHAM | 63 | 40 | 70 | 30 | 51 | 2 | 0.70 | -0.34 | 0.65 | 0.88 | 65 | 44.41 | 83 | 87 | 44 | 0 | 2 | 2 | 1 |
| | HUNTSVILLE | 62 | 38 | 71 | 31 | 50 | 3 | 0.74 | -0.61 | 0.74 | 2.96 | 173 | 41.57 | 82 | 92 | 47 | 0 | 1 | 1 | 1 |
| | MOBILE | 69 | 47 | 80 | 34 | 58 | 3 | 0.02 | -1.08 | 0.02 | 3.70 | 267 | 53.52 | 84 | 92 | 49 | 0 | 0 | 1 | 0 |
| | MONTGOMERY | 66 | 40 | 77 | 29 | 53 | 1 | 0.04 | -0.98 | 0.04 | 0.13 | 10 | 44.90 | 94 | 94 | 45 | 0 | 1 | 1 | 0 |
| AR | FORT SMITH | 63 | 37 | 70 | 30 | 50 | 5 | 0.01 | -0.80 | 0.01 | 0.01 | 1 | 39.59 | 88 | 89 | 42 | 0 | 2 | 1 | 0 |
| | LITTLE ROCK | 63 | 40 | 68 | 35 | 52 | 7 | 0.27 | -0.91 | 0.27 | 0.28 | 18 | 52.57 | 112 | 83 | 41 | 0 | 0 | 1 | 0 |
| AZ | FLAGSTAFF | 50 | 22 | 59 | 13 | 36 | 5 | 0.00 | -0.40 | 0.00 | 0.07 | 14 | 23.94 | 125 | 80 | 26 | 0 | 7 | 0 | 0 |
| | PHOENIX | 75 | 50 | 84 | 45 | 62 | 5 | 0.00 | -0.16 | 0.00 | 0.00 | 0 | 3.24 | 48 | 60 | 20 | 0 | 0 | 0 | 0 |
| | PRESCOTT | 61 | 28 | 68 | 24 | 44 | 4 | 0.00 | -0.20 | 0.00 | 0.00 | 0 | 9.30 | 76 | 66 | 18 | 0 | 6 | 0 | 0 |
| | TUCSON | 74 | 43 | 83 | 38 | 59 | 5 | 0.00 | -0.22 | 0.00 | 0.19 | 68 | 8.83 | 89 | 56 | 15 | 0 | 0 | 0 | 0 |
| CA | BAKERSFIELD | 64 | 42 | 80 | 36 | 53 | 3 | 0.00 | -0.20 | 0.00 | 0.00 | 0 | 8.59 | 155 | 80 | 43 | 0 | 0 | 0 | 0 |
| | EUREKA | 56 | 46 | 62 | 35 | 51 | 3 | 0.97 | -0.81 | 0.47 | 2.67 | 116 | 30.87 | 89 | 97 | 76 | 0 | 0 | 5 | 0 |
| | FRESNO | 63 | 43 | 76 | 36 | 53 | 4 | 0.00 | -0.33 | 0.00 | 0.00 | 0 | 12.82 | 133 | 85 | 43 | 0 | 0 | 0 | 0 |
| | LOS ANGELES | 70 | 51 | 82 | 46 | 61 | 3 | 0.00 | -0.39 | 0.00 | 0.00 | 0 | 21.80 | 208 | 87 | 29 | 0 | 0 | 0 | 0 |
| | REDDING | 61 | 45 | 70 | 37 | 53 | 5 | 0.56 | -0.84 | 0.48 | 1.17 | 65 | 33.50 | 115 | 90 | 57 | 0 | 0 | 3 | 0 |
| | SACRAMENTO | 61 | 41 | 65 | 33 | 51 | 3 | 0.53 | -0.20 | 0.48 | 0.65 | 70 | 15.00 | 95 | 97 | 60 | 0 | 0 | 2 | 0 |
| | SAN DIEGO | 70 | 49 | 78 | 46 | 59 | 1 | 0.00 | -0.33 | 0.00 | 0.07 | 17 | 13.45 | 157 | 96 | 47 | 0 | 0 | 0 | 0 |
| | SAN FRANCISCO | 62 | 50 | 65 | 44 | 56 | 4 | 0.09 | -0.80 | 0.08 | 0.13 | 11 | 21.47 | 129 | 86 | 58 | 0 | 0 | 2 | 0 |
| | STOCKTON | 63 | 41 | 67 | 32 | 52 | 3 | 0.03 | -0.48 | 0.03 | 0.10 | 15 | 14.04 | 120 | 96 | 52 | 0 | 1 | 1 | 0 |
| CO | ALAMOSA | 48 | 5 | 56 | 1 | 26 | 6 | 0.01 | -0.07 | 0.01 | 0.01 | 10 | 3.85 | 53 | 84 | 28 | 0 | 7 | 1 | 0 |
| | CO SPRINGS | 55 | 24 | 71 | 12 | 39 | 7 | 0.28 | 0.22 | 0.21 | 0.28 | 368 | 25.15 | 159 | 75 | 21 | 0 | 6 | 3 | 0 |
| | DENVER INTL | 54 | 26 | 71 | 19 | 40 | 8 | 0.04 | -0.04 | 0.03 | 0.04 | 40 | 18.40 | 129 | 77 | 25 | 0 | 6 | 2 | 0 |
| | GRAND JUNCTION | 49 | 27 | 55 | 20 | 38 | 7 | 0.08 | -0.06 | 0.08 | 0.14 | 76 | 7.00 | 80 | 87 | 42 | 0 | 6 | 1 | 0 |
| | PUEBLO | 59 | 19 | 77 | 14 | 39 | 6 | 0.28 | 0.20 | 0.16 | 0.28 | 280 | 11.70 | 98 | 79 | 22 | 0 | 7 | 2 | 0 |
| CT | BRIDGEPORT | 46 | 32 | 53 | 25 | 39 | -1 | 0.60 | -0.36 | 0.60 | 0.90 | 73 | 44.16 | 106 | 91 | 66 | 0 | 3 | 1 | 1 |
| | HARTFORD | 44 | 30 | 53 | 21 | 37 | 2 | 0.80 | -0.19 | 0.80 | 0.88 | 69 | 57.39 | 129 | 87 | 62 | 0 | 5 | 1 | 1 |
| DC | WASHINGTON | 53 | 38 | 58 | 32 | 46 | 2 | 0.75 | -0.07 | 0.75 | 0.98 | 93 | 30.11 | 76 | 83 | 46 | 0 | 1 | 1 | 1 |
| DE | WILMINGTON | 48 | 33 | 53 | 27 | 41 | 0 | 0.60 | -0.34 | 0.53 | 0.91 | 76 | 44.25 | 103 | 94 | 60 | 0 | 4 | 3 | 1 |
| FL | DAYTONA BEACH | 74 | 55 | 83 | 45 | 64 | 1 | 0.03 | -0.47 | 0.03 | 0.03 | 4 | 55.66 | 112 | 97 | 51 | 0 | 0 | 1 | 0 |
| | JACKSONVILLE | 71 | 48 | 80 | 37 | 60 | 2 | 0.01 | -0.61 | 0.01 | 1.35 | 172 | 46.59 | 90 | 95 | 45 | 0 | 0 | 1 | 0 |
| | KEY WEST | 80 | 70 | 85 | 64 | 75 | 1 | 0.01 | -0.50 | 0.01 | 0.01 | 1 | 28.81 | 74 | 88 | 61 | 0 | 0 | 1 | 0 |
| | MIAMI | 81 | 67 | 89 | 57 | 74 | 1 | 0.00 | -0.57 | 0.00 | 0.00 | 0 | 73.70 | 112 | 81 | 48 | 0 | 0 | 0 | 0 |
| | ORLANDO | 77 | 57 | 86 | 48 | 67 | 2 | 0.00 | -0.54 | 0.00 | 0.00 | 0 | 44.89 | 90 | 90 | 46 | 0 | 0 | 0 | 0 |
| | PENSACOLA | 68 | 51 | 79 | 40 | 60 | 3 | 0.11 | -1.12 | 0.09 | 2.61 | 169 | 55.74 | 86 | 82 | 48 | 0 | 0 | 2 | 0 |
| | TALLAHASSEE | 70 | 46 | 78 | 31 | 58 | 2 | 0.75 | -0.16 | 0.75 | 5.03 | 436 | 53.76 | 96 | 96 | 53 | 0 | 1 | 1 | 1 |
| | TAMPA | 76 | 58 | 81 | 46 | 67 | 0 | 0.46 | -0.05 | 0.46 | 0.46 | 71 | 32.49 | 68 | 90 | 50 | 0 | 0 | 1 | 0 |
| | WEST PALM BEACH | 79 | 64 | 86 | 53 | 71 | 1 | 0.07 | -0.70 | 0.07 | 0.23 | 23 | 68.63 | 115 | 87 | 48 | 0 | 0 | 1 | 0 |
| GA | ATHENS | 62 | 37 | 69 | 28 | 49 | 1 | 0.41 | -0.48 | 0.33 | 0.50 | 44 | 45.40 | 99 | 90 | 40 | 0 | 3 | 2 | 0 |
| | ATLANTA | 64 | 42 | 69 | 32 | 53 | 4 | 0.52 | -0.40 | 0.43 | 0.66 | 56 | 37.72 | 80 | 85 | 41 | 0 | 1 | 2 | 0 |
| | AUGUSTA | 67 | 38 | 79 | 27 | 52 | 1 | 0.00 | -0.73 | 0.00 | 0.00 | 0 | 57.47 | 139 | 95 | 37 | 0 | 3 | 0 | 0 |
| | COLUMBUS | 65 | 41 | 73 | 30 | 53 | 1 | 0.12 | -0.89 | 0.12 | 0.22 | 17 | 44.94 | 99 | 93 | 46 | 0 | 1 | 1 | 0 |
| | MACON | 68 | 39 | 78 | 28 | 53 | 2 | 0.00 | -0.91 | 0.00 | 0.07 | 6 | 41.73 | 96 | 94 | 40 | 0 | 2 | 0 | 0 |
| | SAVANNAH | 69 | 46 | 80 | 34 | 58 | 3 | 0.02 | -0.66 | 0.02 | 0.03 | 3 | 36.87 | 80 | 89 | 43 | 0 | 0 | 1 | 0 |
| HI | HILO | 80 | 67 | 82 | 64 | 74 | 1 | 1.26 | -1.79 | 0.56 | 1.41 | 36 | 94.66 | 84 | 98 | 65 | 0 | 0 | 3 | 2 |
| | HONOLULU | 82 | 70 | 85 | 66 | 76 | -1 | 0.01 | -0.41 | 0.01 | 0.37 | 67 | 12.89 | 87 | 95 | 62 | 0 | 0 | 1 | 0 |
| | KAHULUI | 85 | 67 | 87 | 59 | 76 | 0 | 0.16 | -0.40 | 0.16 | 0.16 | 22 | 10.62 | 75 | 90 | 51 | 0 | 0 | 1 | 0 |
| | LIHUE | 81 | 69 | 81 | 64 | 75 | 0 | 0.19 | -0.85 | 0.14 | 0.54 | 40 | 38.62 | 117 | 92 | 67 | 0 | 0 | 4 | 0 |
| IA | BURLINGTON | 47 | 33 | 60 | 25 | 40 | 7 | 0.30 | -0.17 | 0.19 | 0.90 | 144 | 26.04 | 71 | 96 | 68 | 0 | 5 | 4 | 0 |
| | CEDAR RAPIDS | 45 | 29 | 56 | 21 | 37 | 9 | 0.13 | -0.28 | 0.04 | 0.28 | 52 | 17.59 | 50 | 94 | 67 | 0 | 6 | 4 | 0 |
| | DES MOINES | 48 | 30 | 61 | 21 | 39 | 8 | 0.00 | -0.40 | 0.00 | 0.00 | 0 | 23.24 | 65 | 87 | 56 | 0 | 4 | 0 | 0 |
| | DUBUQUE | 42 | 31 | 54 | 23 | 37 | 9 | 0.44 | -0.03 | 0.23 | 0.63 | 103 | 30.01 | 81 | 95 | 71 | 0 | 6 | 5 | 0 |
| | SIOUX CITY | 47 | 26 | 58 | 19 | 36 | 9 | 0.00 | -0.24 | 0.00 | 0.00 | 0 | 23.17 | 81 | 91 | 55 | 0 | 6 | 0 | 0 |
| | WATERLOO | 46 | 26 | 57 | 20 | 36 | 7 | 0.00 | -0.35 | 0.00 | 0.01 | 2 | 21.41 | 60 | 88 | 57 | 0 | 6 | 0 | 0 |
| ID | BOISE | 49 | 35 | 61 | 24 | 42 | 8 | 0.58 | 0.24 | 0.30 | 0.99 | 228 | 10.66 | 102 | 87 | 56 | 0 | 2 | 3 | 0 |
| | LEWISTON | 52 | 39 | 60 | 29 | 45 | 9 | 0.27 | 0.02 | 0.11 | 0.41 | 123 | 9.84 | 81 | 81 | 54 | 0 | 2 | 4 | 0 |
| | POCATELLO | 43 | 28 | 56 | 16 | 35 | 8 | 0.65 | 0.39 | 0.27 | 0.83 | 249 | 13.89 | 126 | 94 | 64 | 0 | 5 | 3 | 0 |
| IL | CHICAGO/O_HARE | 46 | 36 | 56 | 32 | 41 | 8 | 0.64 | 0.11 | 0.28 | 1.29 | 187 | 31.59 | 86 | 90 | 65 | 0 | 3 | 3 | 0 |
| | MOLINE | 46 | 33 | 60 | 27 | 40 | 8 | 0.56 | 0.06 | 0.24 | 1.11 | 172 | 27.20 | 73 | 92 | 66 | 0 | 4 | 5 | 0 |
| | PEORIA | 48 | 35 | 60 | 30 | 42 | 8 | 0.36 | -0.16 | 0.26 | 0.99 | 146 | 31.39 | 87 | 92 | 65 | 0 | 2 | 4 | 0 |
| | ROCKFORD | 44 | 34 | 57 | 32 | 39 | 9 | 1.07 | 0.58 | 0.55 | 1.59 | 249 | 30.46 | 84 | 92 | 69 | 0 | 2 | 4 | 1 |
| | SPRINGFIELD | 50 | 35 | 60 | 31 | 42 | 7 | 0.22 | -0.28 | 0.11 | 1.20 | 185 | 31.96 | 87 | 93 | 66 | 0 | 2 | 3 | 0 |
| IN | EVANSVILLE | 55 | 36 | 65 | 31 | 46 | 6 | 0.53 | -0.38 | 0.30 | 0.92 | 79 | 39.04 | 86 | 89 | 54 | 0 | 3 | 3 | 0 |
| | FORT WAYNE | 48 | 35 | 62 | 31 | 41 | 8 | 0.30 | -0.27 | 0.16 | 0.62 | 83 | 32.01 | 84 | 89 | 67 | 0 | 2 | 2 | 0 |
| | INDIANAPOLIS | 49 | 36 | 65 | 30 | 42 | 6 | 0.15 | -0.51 | 0.06 | 0.33 | 39 | 33.13 | 79 | 89 | 63 | 0 | 3 | 3 | 0 |
| | SOUTH BEND | 46 | 36 | 59 | 33 | 41 | 9 | 0.38 | -0.16 | 0.16 | 1.13 | 160 | 37.54 | 100 | 89 | 66 | 0 | 0 | 4 | 0 |
| KS | CONCORDIA | 55 | 33 | 65 | 27 | 44 | 10 | 0.05 | -0.20 | 0.05 | 0.05 | 15 | 22.46 | 81 | 78 | 38 | 0 | 3 | 1 | 0 |
| | DODGE CITY | 60 | 29 | 73 | 22 | 44 | 9 | 0.00 | -0.20 | 0.00 | 0.00 | 0 | 21.06 | 98 | 79 | 24 | 0 | 6 | 0 | 0 |
| | GOODLAND | 59 | 23 | 74 | 17 | 41 | 9 | 0.00 | -0.10 | 0.00 | 0.00 | 0 | 19.76 | 105 | 75 | 22 | 0 | 7 | 0 | 0 |
| | TOPEKA | 56 | 32 | 66 | 24 | 44 | 8 | 0.05 | -0.33 | 0.04 | 0.15 | 31 | 20.94 | 58 | 87 | 43 | 0 | 5 | 2 | 0 |

**Based on 1991-2020 normals** ***** Not Available**

## Weather Data for the Week Ending December 9, 2023

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY PERCENT | | NUMBER OF DAYS TEMP. °F | | NUMBER OF DAYS PRECIP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE DEC 1 | PCT. NORMAL SINCE DEC 1 | TOTAL, IN., SINCE JAN 1 | PCT. NORMAL SINCE JAN 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| | WICHITA | 55 | 32 | 66 | 25 | 44 | 6 | 0.00 | -0.30 | 0.00 | 0.00 | 0 | 27.79 | 83 | 88 | 43 | 0 | 4 | 0 | 0 |
| KY | LEXINGTON | 54 | 37 | 63 | 30 | 45 | 5 | 0.85 | -0.14 | 0.68 | 1.44 | 114 | 39.81 | 84 | 87 | 59 | 0 | 3 | 4 | 1 |
| | LOUISVILLE | 55 | 38 | 63 | 33 | 47 | 5 | 0.76 | -0.20 | 0.55 | 0.91 | 74 | 37.57 | 82 | 83 | 53 | 0 | 0 | 4 | 1 |
| | PADUCAH | 57 | 35 | 64 | 30 | 46 | 5 | 0.45 | -0.56 | 0.43 | 0.91 | 70 | 53.11 | 112 | 91 | 52 | 0 | 4 | 2 | 0 |
| LA | BATON ROUGE | 71 | 45 | 84 | 34 | 58 | 3 | 0.57 | -0.49 | 0.57 | 3.75 | 280 | 46.07 | 79 | 91 | 44 | 0 | 0 | 1 | 1 |
| | LAKE CHARLES | 70 | 48 | 79 | 41 | 59 | 2 | 0.35 | -0.62 | 0.34 | 0.73 | 58 | 40.98 | 72 | 94 | 46 | 0 | 0 | 2 | 0 |
| | NEW ORLEANS | 69 | 52 | 83 | 41 | 60 | 2 | 0.01 | -0.96 | 0.01 | 5.28 | 427 | 35.28 | 59 | 92 | 54 | 0 | 0 | 1 | 0 |
| | SHREVEPORT | 70 | 44 | 81 | 37 | 57 | 6 | *** | *** | *** | *** | *** | *** | *** | 86 | 36 | 0 | 0 | *** | *** |
| MA | BOSTON | 43 | 31 | 52 | 21 | 37 | -1 | 0.87 | -0.16 | 0.80 | 0.93 | 70 | 42.43 | 104 | 89 | 65 | 0 | 4 | 2 | 1 |
| | WORCESTER | 41 | 28 | 52 | 19 | 35 | 2 | 0.87 | -0.18 | 0.83 | 0.95 | 71 | 56.68 | 125 | 89 | 64 | 0 | 4 | 2 | 1 |
| MD | BALTIMORE | 52 | 34 | 57 | 28 | 43 | 2 | 0.52 | -0.36 | 0.51 | 0.72 | 64 | 35.49 | 83 | 87 | 49 | 0 | 4 | 2 | 1 |
| ME | CARIBOU | 26 | 8 | 35 | -2 | 17 | -7 | 0.11 | -0.75 | 0.10 | 0.26 | 23 | 36.28 | 94 | 90 | 70 | 0 | 7 | 2 | 0 |
| | PORTLAND | 35 | 22 | 46 | 13 | 28 | -5 | 0.74 | -0.33 | 0.61 | 0.82 | 60 | 49.31 | 109 | 96 | 73 | 0 | 7 | 2 | 1 |
| MI | ALPENA | 40 | 25 | 58 | 14 | 33 | 3 | 0.33 | -0.13 | 0.28 | 0.33 | 55 | 28.07 | 98 | 97 | 71 | 0 | 6 | 3 | 0 |
| | GRAND RAPIDS | 45 | 34 | 58 | 30 | 39 | 6 | 0.33 | -0.26 | 0.28 | 0.82 | 107 | 34.16 | 90 | 92 | 68 | 0 | 2 | 3 | 0 |
| | HOUGHTON LAKE | 45 | 33 | 53 | 30 | 39 | 11 | 0.05 | -0.21 | 0.04 | 0.05 | 12 | 19.57 | 91 | 94 | 71 | 0 | 2 | 2 | 0 |
| | LANSING | 45 | 33 | 59 | 28 | 39 | 7 | 0.29 | -0.16 | 0.22 | 0.90 | 152 | 34.96 | 109 | 89 | 66 | 0 | 3 | 3 | 0 |
| | MUSKEGON | 47 | 37 | 58 | 33 | 42 | 8 | 0.40 | -0.20 | 0.31 | 0.69 | 88 | 29.83 | 89 | 82 | 61 | 0 | 0 | 3 | 0 |
| | TRAVERSE CITY | 43 | 30 | 55 | 23 | 37 | 5 | 0.39 | -0.05 | 0.19 | 0.39 | 67 | 23.35 | 83 | 91 | 67 | 0 | 5 | 4 | 0 |
| MN | DULUTH | 38 | 26 | 46 | 19 | 32 | 11 | 0.15 | -0.20 | 0.10 | 0.15 | 33 | 31.71 | 105 | 91 | 68 | 0 | 6 | 2 | 0 |
| | INT_L FALLS | 38 | 24 | 46 | 18 | 31 | 15 | 0.01 | -0.21 | 0.01 | 0.01 | 4 | 22.68 | 91 | 90 | 68 | 0 | 7 | 1 | 0 |
| | MINNEAPOLIS | 42 | 28 | 51 | 22 | 35 | 10 | 0.13 | -0.15 | 0.07 | 0.13 | 35 | 27.01 | 87 | 91 | 63 | 0 | 6 | 3 | 0 |
| | ROCHESTER | 41 | 24 | 54 | 17 | 33 | 8 | 0.02 | -0.31 | 0.01 | 0.02 | 5 | 28.16 | 83 | 97 | 71 | 0 | 7 | 2 | 0 |
| | ST. CLOUD | 41 | 22 | 53 | 17 | 32 | 11 | 0.12 | -0.08 | 0.07 | 0.12 | 44 | 24.43 | 87 | 91 | 66 | 0 | 7 | 2 | 0 |
| MO | COLUMBIA | 53 | 36 | 68 | 25 | 44 | 7 | 0.77 | 0.29 | 0.59 | 1.53 | 244 | 32.14 | 80 | 92 | 56 | 0 | 1 | 3 | 1 |
| | KANSAS CITY | 53 | 33 | 66 | 23 | 43 | 7 | 0.11 | -0.28 | 0.08 | 0.49 | 96 | 32.74 | 85 | 92 | 51 | 0 | 5 | 3 | 0 |
| | SAINT LOUIS | 56 | 40 | 68 | 35 | 48 | 9 | 0.34 | -0.22 | 0.28 | 0.73 | 100 | 30.58 | 76 | 80 | 49 | 0 | 0 | 4 | 0 |
| | SPRINGFIELD | 56 | 35 | 67 | 22 | 45 | 6 | 0.00 | -0.59 | 0.00 | 0.07 | 9 | 41.74 | 97 | 88 | 45 | 0 | 3 | 0 | 0 |
| MS | JACKSON | 68 | 40 | 78 | 30 | 54 | 3 | 1.09 | -0.02 | 1.06 | 1.63 | 115 | 38.33 | 71 | 93 | 39 | 0 | 1 | 2 | 1 |
| | MERIDIAN | 67 | 39 | 77 | 29 | 53 | 2 | 0.54 | -0.58 | 0.50 | 1.30 | 89 | 52.62 | 99 | 95 | 45 | 0 | 2 | 2 | 1 |
| | TUPELO | 64 | 39 | 76 | 31 | 51 | 3 | 0.34 | -1.09 | 0.32 | 1.42 | 77 | 44.91 | 83 | 92 | 46 | 0 | 1 | 2 | 0 |
| MT | BILLINGS | 49 | 35 | 61 | 24 | 42 | 13 | 0.08 | -0.05 | 0.08 | 0.08 | 48 | 16.61 | 119 | 58 | 30 | 0 | 2 | 1 | 0 |
| | BUTTE | 43 | 22 | 54 | -1 | 33 | 13 | 0.09 | -0.02 | 0.08 | 0.15 | 100 | 17.45 | 140 | 85 | 44 | 0 | 5 | 2 | 0 |
| | CUT BANK | 47 | 27 | 60 | 14 | 37 | 13 | 0.02 | -0.04 | 0.02 | 0.02 | 23 | 7.83 | 74 | 82 | 44 | 0 | 5 | 1 | 0 |
| | GLASGOW | 45 | 28 | 62 | 21 | 36 | 15 | 0.08 | -0.01 | 0.06 | 0.08 | 69 | 12.81 | 97 | 88 | 57 | 0 | 5 | 2 | 0 |
| | GREAT FALLS | 50 | 29 | 64 | 17 | 39 | 12 | 0.00 | -0.12 | 0.00 | 0.00 | 0 | 17.07 | 118 | 77 | 36 | 0 | 5 | 0 | 0 |
| | HAVRE | 47 | 31 | 63 | 22 | 39 | 15 | 0.12 | 0.04 | 0.12 | 0.12 | 114 | 11.24 | 97 | 84 | 47 | 0 | 5 | 1 | 0 |
| | MISSOULA | 41 | 29 | 49 | 19 | 35 | 9 | 0.12 | -0.12 | 0.06 | 0.17 | 55 | 12.65 | 94 | 89 | 68 | 0 | 5 | 3 | 0 |
| NC | ASHEVILLE | 58 | 33 | 67 | 25 | 46 | 3 | 1.17 | 0.22 | 1.11 | 1.43 | 119 | 33.09 | 71 | 90 | 36 | 0 | 4 | 3 | 1 |
| | CHARLOTTE | 62 | 39 | 72 | 30 | 50 | 4 | 0.06 | -0.68 | 0.03 | 0.23 | 24 | 39.05 | 95 | 85 | 36 | 0 | 1 | 2 | 0 |
| | GREENSBORO | 58 | 37 | 67 | 27 | 47 | 3 | 0.31 | -0.41 | 0.29 | 0.32 | 35 | 37.91 | 91 | 87 | 38 | 0 | 2 | 2 | 0 |
| | HATTERAS | 61 | 46 | 71 | 41 | 53 | -1 | 0.45 | -0.59 | 0.43 | 0.46 | 34 | 42.90 | 74 | 89 | 60 | 0 | 0 | 2 | 0 |
| | RALEIGH | 63 | 39 | 72 | 29 | 51 | 5 | 0.09 | -0.63 | 0.07 | 0.15 | 16 | 37.69 | 86 | 85 | 41 | 0 | 2 | 2 | 0 |
| | WILMINGTON | 66 | 42 | 77 | 29 | 54 | 2 | 0.00 | -0.78 | 0.00 | 0.03 | 3 | 49.83 | 86 | 89 | 44 | 0 | 1 | 0 | 0 |
| ND | BISMARCK | 45 | 20 | 66 | 10 | 33 | 12 | 0.21 | 0.08 | 0.21 | 0.21 | 126 | 20.16 | 108 | 93 | 56 | 0 | 7 | 1 | 0 |
| | DICKINSON | 44 | 23 | 63 | 16 | 33 | 11 | 0.15 | 0.11 | 0.15 | 0.15 | 271 | 14.78 | 95 | 93 | 54 | 0 | 6 | 1 | 0 |
| | FARGO | 42 | 26 | 62 | 21 | 34 | 15 | 0.06 | -0.13 | 0.04 | 0.06 | 23 | 18.78 | 80 | 89 | 64 | 0 | 6 | 2 | 0 |
| | GRAND FORKS | 39 | 21 | 56 | 12 | 30 | 14 | 0.23 | 0.08 | 0.15 | 0.23 | 120 | 14.04 | 65 | 90 | 70 | 0 | 7 | 2 | 0 |
| | JAMESTOWN | 45 | 21 | 61 | 12 | 33 | 14 | 0.09 | 0.01 | 0.09 | 0.09 | 88 | 15.98 | 82 | 87 | 58 | 0 | 7 | 1 | 0 |
| NE | GRAND ISLAND | 50 | 26 | 62 | 21 | 38 | 7 | 0.03 | -0.17 | 0.03 | 0.07 | 26 | 14.33 | 55 | 81 | 43 | 0 | 7 | 1 | 0 |
| | LINCOLN | 51 | 26 | 62 | 17 | 38 | 7 | 0.23 | -0.04 | 0.22 | 0.23 | 64 | 18.52 | 64 | 86 | 48 | 0 | 6 | 2 | 0 |
| | NORFOLK | 49 | 27 | 60 | 18 | 38 | 10 | 0.00 | -0.21 | 0.00 | 0.00 | 0 | 24.85 | 94 | 82 | 44 | 0 | 5 | 0 | 0 |
| | NORTH PLATTE | 55 | 19 | 72 | 14 | 37 | 7 | 0.00 | -0.09 | 0.00 | 0.00 | 0 | 20.87 | 100 | 90 | 33 | 0 | 7 | 0 | 0 |
| | OMAHA | 49 | 28 | 61 | 24 | 38 | 7 | 0.00 | -0.29 | 0.00 | 0.00 | 0 | 23.09 | 74 | 88 | 52 | 0 | 5 | 0 | 0 |
| | SCOTTSBLUFF | 53 | 24 | 71 | 18 | 38 | 9 | 0.05 | -0.06 | 0.04 | 0.05 | 36 | 19.50 | 127 | 90 | 39 | 0 | 7 | 2 | 0 |
| | VALENTINE | 52 | 21 | 70 | 16 | 37 | 8 | 0.00 | -0.11 | 0.00 | 0.00 | 0 | 30.87 | 149 | 89 | 34 | 0 | 7 | 0 | 0 |
| NH | CONCORD | 38 | 23 | 49 | 14 | 31 | 0 | 0.80 | -0.09 | 0.57 | 0.90 | 79 | 35.48 | 90 | 92 | 69 | 0 | 6 | 2 | 1 |
| NJ | ATLANTIC_CITY | 50 | 31 | 60 | 24 | 41 | 0 | 0.41 | -0.63 | 0.41 | 0.67 | 50 | 35.28 | 82 | 92 | 57 | 0 | 5 | 1 | 0 |
| | NEWARK | 49 | 36 | 59 | 31 | 43 | 2 | 0.72 | -0.25 | 0.72 | 1.10 | 88 | 44.24 | 101 | 84 | 55 | 0 | 1 | 1 | 1 |
| NM | ALBUQUERQUE | 54 | 30 | 60 | 27 | 42 | 4 | 0.00 | -0.13 | 0.00 | 0.00 | 0 | 4.30 | 50 | 68 | 29 | 0 | 6 | 0 | 0 |
| NV | ELY | 47 | 21 | 59 | 4 | 34 | 7 | 0.02 | -0.11 | 0.02 | 0.04 | 21 | 11.43 | 128 | 84 | 34 | 0 | 7 | 1 | 0 |
| | LAS VEGAS | 64 | 47 | 72 | 41 | 55 | 6 | 0.00 | -0.08 | 0.00 | 0.00 | 0 | 4.15 | 108 | 46 | 21 | 0 | 0 | 0 | 0 |
| | RENO | 53 | 30 | 63 | 21 | 42 | 4 | 0.00 | -0.22 | 0.00 | 0.00 | 0 | 10.09 | 154 | 77 | 33 | 0 | 5 | 0 | 0 |
| | WINNEMUCCA | 50 | 28 | 60 | 13 | 39 | 7 | 0.14 | -0.07 | 0.12 | 0.26 | 98 | 8.32 | 124 | 85 | 42 | 0 | 5 | 2 | 0 |
| NY | ALBANY | 41 | 29 | 54 | 17 | 35 | 2 | 0.92 | 0.13 | 0.81 | 0.99 | 98 | 41.91 | 109 | 91 | 72 | 0 | 4 | 5 | 1 |
| | BINGHAMTON | 41 | 32 | 54 | 24 | 37 | 6 | 0.91 | 0.15 | 0.80 | 1.16 | 120 | 40.48 | 101 | 89 | 66 | 0 | 5 | 5 | 1 |
| | BUFFALO | 44 | 35 | 60 | 28 | 40 | 6 | 0.94 | 0.11 | 0.37 | 1.35 | 125 | 36.98 | 97 | 95 | 64 | 0 | 3 | 5 | 0 |
| | ROCHESTER | 45 | 35 | 63 | 27 | 40 | 6 | 0.81 | 0.17 | 0.56 | 1.19 | 145 | 34.77 | 104 | 86 | 64 | 0 | 3 | 6 | 1 |
| | SYRACUSE | 45 | 33 | 58 | 25 | 39 | 6 | 0.87 | 0.10 | 0.66 | 1.05 | 107 | 39.64 | 105 | 84 | 65 | 0 | 4 | 5 | 1 |
| OH | AKRON-CANTON | 46 | 35 | 58 | 28 | 40 | 5 | 0.52 | -0.15 | 0.39 | 0.73 | 84 | 35.24 | 89 | 93 | 57 | 0 | 2 | 3 | 0 |
| | CINCINNATI | 53 | 35 | 61 | 29 | 44 | 6 | 0.50 | -0.36 | 0.29 | 0.79 | 72 | 37.81 | 88 | 93 | 67 | 0 | 3 | 2 | 0 |
| | CLEVELAND | 48 | 38 | 58 | 33 | 43 | 6 | 0.85 | 0.15 | 0.50 | 1.20 | 133 | 41.79 | 107 | 86 | 60 | 0 | 0 | 4 | 1 |
| | COLUMBUS | 50 | 38 | 60 | 32 | 44 | 7 | 1.06 | 0.37 | 0.86 | 1.31 | 150 | 39.09 | 99 | 90 | 55 | 0 | 2 | 3 | 1 |
| | DAYTON | 50 | 36 | 59 | 30 | 43 | 6 | 0.83 | 0.15 | 0.73 | 1.12 | 129 | 33.31 | 85 | 83 | 58 | 0 | 3 | 4 | 1 |
| | MANSFIELD | 46 | 35 | 57 | 28 | 41 | 6 | 0.73 | 0.05 | 0.64 | 0.92 | 105 | 40.27 | 99 | 87 | 64 | 0 | 3 | 3 | 1 |

**Based on 1991-2020 normals** ***** Not Available**

## Weather Data for the Week Ending December 9, 2023

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY PERCENT | | NUMBER OF DAYS TEMP. °F | | NUMBER OF DAYS PRECIP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE DEC 1 | PCT. NORMAL SINCE DEC 1 | TOTAL, IN., SINCE JAN 1 | PCT. NORMAL SINCE JAN 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| | TOLEDO | 49 | 36 | 65 | 29 | 42 | 7 | 0.39 | -0.17 | 0.27 | 0.84 | 114 | 29.91 | 89 | 89 | 63 | 0 | 1 | 3 | 0 |
| | YOUNGSTOWN | 47 | 37 | 60 | 30 | 42 | 8 | 0.51 | -0.20 | 0.34 | 0.71 | 78 | 33.92 | 87 | 87 | 53 | 0 | 2 | 4 | 0 |
| OK | OKLAHOMA CITY | 61 | 35 | 68 | 25 | 48 | 6 | 0.00 | -0.41 | 0.00 | 0.00 | 0 | 33.05 | 94 | 84 | 33 | 0 | 3 | 0 | 0 |
| | TULSA | 62 | 36 | 73 | 29 | 49 | 6 | 0.00 | -0.56 | 0.00 | 0.00 | 0 | 35.06 | 89 | 82 | 36 | 0 | 3 | 0 | 0 |
| OR | ASTORIA | 55 | 44 | 60 | 38 | 49 | 6 | 7.45 | 5.00 | 2.92 | 8.53 | 269 | 53.83 | 85 | 97 | 80 | 0 | 0 | 7 | 5 |
| | BURNS | 46 | 27 | 59 | 14 | 37 | 9 | 0.48 | 0.14 | 0.37 | 0.68 | 156 | 12.73 | 136 | 90 | 57 | 0 | 4 | 4 | 0 |
| | EUGENE | 56 | 45 | 65 | 31 | 50 | 9 | 3.55 | 1.85 | 1.77 | 4.78 | 216 | 26.64 | 74 | 93 | 74 | 0 | 1 | 7 | 2 |
| | MEDFORD | 51 | 41 | 58 | 29 | 46 | 6 | 0.78 | -0.02 | 0.52 | 1.72 | 165 | 12.51 | 78 | 100 | 74 | 0 | 1 | 4 | 1 |
| | PENDLETON | 56 | 41 | 67 | 29 | 48 | 13 | 0.50 | 0.18 | 0.30 | 0.71 | 167 | 9.24 | 78 | 86 | 52 | 0 | 2 | 4 | 0 |
| | PORTLAND | 56 | 46 | 67 | 35 | 51 | 9 | 4.38 | 3.02 | 1.85 | 5.83 | 328 | 32.52 | 98 | 89 | 70 | 0 | 0 | 6 | 3 |
| | SALEM | 55 | 44 | 63 | 32 | 49 | 7 | 4.43 | 2.81 | 2.15 | 5.30 | 251 | 33.70 | 95 | 95 | 77 | 0 | 1 | 7 | 3 |
| PA | ALLENTOWN | 46 | 32 | 53 | 25 | 38 | 1 | 0.56 | -0.41 | 0.52 | 0.77 | 62 | 38.14 | 85 | 90 | 62 | 0 | 4 | 3 | 1 |
| | ERIE | 47 | 38 | 61 | 32 | 42 | 6 | 1.20 | 0.25 | 0.72 | 1.59 | 131 | 40.32 | 100 | 89 | 56 | 0 | 1 | 6 | 1 |
| | MIDDLETOWN | 47 | 33 | 54 | 29 | 40 | 2 | 0.43 | -0.41 | 0.40 | 0.61 | 57 | 32.97 | 78 | 89 | 58 | 0 | 4 | 2 | 0 |
| | PHILADELPHIA | 49 | 35 | 53 | 30 | 42 | 1 | 0.69 | -0.26 | 0.68 | 1.11 | 92 | 35.04 | 84 | 89 | 56 | 0 | 3 | 2 | 1 |
| | PITTSBURGH | 50 | 38 | 61 | 32 | 44 | 8 | 0.67 | 0.00 | 0.55 | 0.83 | 97 | 29.14 | 77 | 83 | 49 | 0 | 1 | 3 | 1 |
| | WILKES-BARRE | 45 | 35 | 55 | 28 | 40 | 4 | 0.44 | -0.25 | 0.35 | 0.48 | 54 | 40.07 | 108 | 89 | 59 | 0 | 3 | 4 | 0 |
| | WILLIAMSPORT | 46 | 34 | 51 | 29 | 40 | 5 | 0.78 | -0.06 | 0.71 | 0.85 | 79 | 36.98 | 89 | 91 | 59 | 0 | 3 | 3 | 1 |
| RI | PROVIDENCE | 44 | 30 | 54 | 22 | 37 | -1 | 0.67 | -0.49 | 0.67 | 0.70 | 47 | 50.55 | 113 | 94 | 63 | 0 | 5 | 1 | 1 |
| SC | CHARLESTON | 68 | 47 | 74 | 33 | 57 | 3 | 0.00 | -0.71 | 0.00 | 0.00 | 0 | 46.69 | 93 | 87 | 43 | 0 | 0 | 0 | 0 |
| | COLUMBIA | 65 | 39 | 76 | 28 | 52 | 3 | 0.00 | -0.72 | 0.00 | 0.00 | 0 | 50.08 | 118 | 95 | 44 | 0 | 2 | 0 | 0 |
| | FLORENCE | 65 | 40 | 77 | 26 | 53 | 3 | 0.00 | -0.67 | 0.00 | 0.03 | 3 | 37.44 | 87 | 90 | 39 | 0 | 2 | 0 | 0 |
| | GREENVILLE | 60 | 37 | 70 | 26 | 49 | 2 | 0.68 | -0.31 | 0.60 | 0.95 | 75 | 46.50 | 100 | 83 | 36 | 0 | 2 | 2 | 1 |
| SD | ABERDEEN | 46 | 19 | 63 | 11 | 32 | 11 | 0.03 | -0.11 | 0.03 | 0.03 | 17 | 21.79 | 101 | 91 | 60 | 0 | 7 | 1 | 0 |
| | HURON | 49 | 24 | 66 | 15 | 36 | 12 | 0.00 | -0.16 | 0.00 | 0.00 | 0 | 17.37 | 76 | 91 | 51 | 0 | 6 | 0 | 0 |
| | RAPID CITY | 51 | 22 | 65 | 15 | 37 | 10 | 0.00 | -0.07 | 0.00 | 0.00 | 0 | 20.59 | 119 | 78 | 35 | 0 | 7 | 0 | 0 |
| | SIOUX FALLS | 47 | 27 | 61 | 22 | 37 | 11 | 0.00 | -0.20 | 0.00 | 0.00 | 0 | 16.81 | 61 | 84 | 51 | 0 | 6 | 0 | 0 |
| TN | BRISTOL | 55 | 32 | 66 | 24 | 44 | 2 | 0.87 | -0.02 | 0.43 | 1.84 | 160 | 37.14 | 89 | 97 | 52 | 0 | 3 | 5 | 0 |
| | CHATTANOOGA | 61 | 38 | 66 | 30 | 49 | 4 | 1.21 | -0.06 | 1.21 | 3.15 | 195 | 43.90 | 85 | 91 | 43 | 0 | 1 | 1 | 1 |
| | KNOXVILLE | 58 | 37 | 65 | 27 | 47 | 4 | 1.20 | -0.01 | 0.94 | 3.75 | 244 | 44.14 | 91 | 92 | 47 | 0 | 3 | 3 | 1 |
| | MEMPHIS | 62 | 41 | 73 | 35 | 51 | 5 | 0.70 | -0.62 | 0.67 | 1.21 | 71 | 52.52 | 102 | 91 | 45 | 0 | 0 | 2 | 1 |
| | NASHVILLE | 60 | 37 | 68 | 31 | 49 | 4 | 0.90 | -0.19 | 0.89 | 1.51 | 108 | 35.84 | 75 | 87 | 44 | 0 | 2 | 2 | 1 |
| TX | ABILENE | 71 | 40 | 80 | 30 | 56 | 6 | 0.00 | -0.28 | 0.00 | 0.02 | 5 | 21.23 | 87 | 73 | 26 | 0 | 1 | 0 | 0 |
| | AMARILLO | 62 | 31 | 75 | 24 | 46 | 6 | 0.02 | -0.13 | 0.02 | 0.02 | 10 | 15.67 | 81 | 76 | 22 | 0 | 6 | 1 | 0 |
| | AUSTIN | 71 | 47 | 75 | 39 | 59 | 4 | 0.00 | -0.59 | 0.00 | 0.00 | 0 | 23.09 | 67 | 87 | 39 | 0 | 0 | 0 | 0 |
| | BEAUMONT | 72 | 49 | 83 | 42 | 61 | 3 | 0.24 | -0.89 | 0.24 | 0.43 | 29 | 36.17 | 61 | 93 | 43 | 0 | 0 | 1 | 0 |
| | BROWNSVILLE | 78 | 63 | 84 | 59 | 70 | 4 | 0.00 | -0.27 | 0.00 | 0.00 | 0 | 20.75 | 80 | 96 | 65 | 0 | 0 | 0 | 0 |
| | CORPUS CHRISTI | 77 | 56 | 83 | 49 | 66 | 5 | 0.00 | -0.42 | 0.00 | 0.08 | 15 | 25.80 | 85 | 97 | 48 | 0 | 0 | 0 | 0 |
| | DEL RIO | 76 | 48 | 79 | 40 | 62 | 7 | 0.00 | -0.16 | 0.00 | 0.00 | 0 | 14.11 | 73 | 84 | 35 | 0 | 0 | 0 | 0 |
| | EL PASO | 68 | 40 | 74 | 33 | 54 | 7 | 0.00 | -0.13 | 0.00 | 0.02 | 11 | 4.04 | 48 | 45 | 15 | 0 | 0 | 0 | 0 |
| | FORT WORTH | 70 | 45 | 80 | 38 | 58 | 7 | 0.00 | -0.63 | 0.00 | 0.00 | 0 | 24.70 | 70 | 76 | 32 | 0 | 0 | 0 | 0 |
| | GALVESTON | 70 | 57 | 79 | 54 | 64 | 3 | 0.03 | -1.01 | 0.02 | 1.35 | 99 | 26.85 | 60 | 90 | 56 | 0 | 0 | 2 | 0 |
| | HOUSTON | 74 | 49 | 81 | 42 | 62 | 5 | 0.16 | -0.78 | 0.12 | 0.59 | 48 | 38.87 | 79 | 90 | 39 | 0 | 0 | 2 | 0 |
| | LUBBOCK | 66 | 32 | 78 | 24 | 49 | 6 | 0.00 | -0.16 | 0.00 | 0.00 | 0 | 15.89 | 89 | 70 | 22 | 0 | 5 | 0 | 0 |
| | MIDLAND | 68 | 38 | 77 | 33 | 53 | 5 | 0.00 | -0.14 | 0.00 | 0.00 | 0 | 6.84 | 52 | 81 | 23 | 0 | 0 | 0 | 0 |
| | SAN ANGELO | 71 | 38 | 82 | 29 | 55 | 5 | 0.00 | -0.19 | 0.00 | 0.04 | 16 | 17.04 | 84 | 89 | 31 | 0 | 3 | 0 | 0 |
| | SAN ANTONIO | 73 | 47 | 79 | 42 | 60 | 5 | 0.02 | -0.44 | 0.02 | 0.02 | 4 | 18.54 | 59 | 84 | 41 | 0 | 0 | 1 | 0 |
| | VICTORIA | 76 | 49 | 84 | 44 | 62 | 5 | 0.00 | -0.53 | 0.00 | 0.05 | 7 | 29.21 | 75 | 96 | 45 | 0 | 0 | 0 | 0 |
| | WACO | 70 | 41 | 77 | 33 | 55 | 4 | 0.00 | -0.60 | 0.00 | 0.00 | 0 | 25.79 | 75 | 92 | 37 | 0 | 0 | 0 | 0 |
| | WICHITA FALLS | 67 | 35 | 75 | 25 | 51 | 5 | 0.00 | -0.39 | 0.00 | 0.04 | 7 | 20.25 | 75 | 80 | 31 | 0 | 2 | 0 | 0 |
| UT | SALT LAKE CITY | 49 | 33 | 57 | 24 | 41 | 7 | 0.60 | 0.29 | 0.56 | 0.74 | 181 | 17.33 | 119 | 97 | 51 | 0 | 3 | 3 | 1 |
| VA | LYNCHBURG | 57 | 34 | 69 | 26 | 46 | 5 | 0.28 | -0.57 | 0.27 | 0.64 | 58 | 38.61 | 95 | 89 | 37 | 0 | 5 | 2 | 0 |
| | NORFOLK | 59 | 41 | 71 | 32 | 50 | 2 | 0.03 | -0.67 | 0.03 | 0.15 | 16 | 42.25 | 90 | 87 | 50 | 0 | 1 | 1 | 0 |
| | RICHMOND | 59 | 34 | 68 | 26 | 46 | 3 | 0.54 | -0.27 | 0.51 | 0.74 | 71 | 34.72 | 80 | 86 | 41 | 0 | 4 | 2 | 1 |
| | ROANOKE | 59 | 39 | 71 | 34 | 49 | 6 | 0.29 | -0.48 | 0.16 | 0.59 | 59 | 29.41 | 72 | 79 | 34 | 0 | 0 | 3 | 0 |
| | WASH/DULLES | 53 | 35 | 60 | 28 | 44 | 4 | 0.48 | -0.31 | 0.48 | 0.69 | 66 | 29.58 | 72 | 87 | 45 | 0 | 3 | 1 | 0 |
| VT | BURLINGTON | 37 | 27 | 52 | 19 | 32 | 0 | 0.75 | 0.14 | 0.46 | 0.99 | 126 | 39.32 | 109 | 85 | 69 | 0 | 5 | 2 | 0 |
| WA | OLYMPIA | 54 | 41 | 62 | 34 | 47 | 8 | 6.56 | 4.74 | 3.62 | 8.03 | 342 | 38.30 | 84 | 92 | 78 | 0 | 0 | 7 | 3 |
| | QUILLAYUTE | 53 | 42 | 57 | 36 | 48 | 6 | 6.79 | 3.63 | 3.73 | 8.55 | 208 | 75.07 | 82 | 87 | 78 | 0 | 0 | 7 | 3 |
| | SEATTLE-TACOMA | 51 | 42 | 59 | 35 | 46 | 4 | 5.28 | 3.96 | 2.78 | 6.23 | 366 | 32.36 | 91 | 95 | 76 | 0 | 0 | 6 | 3 |
| | SPOKANE | 43 | 33 | 52 | 26 | 38 | 7 | 1.68 | 1.15 | 0.59 | 2.28 | 333 | 12.41 | 83 | 96 | 77 | 0 | 4 | 6 | 2 |
| | YAKIMA | 49 | 32 | 60 | 26 | 40 | 9 | 0.82 | 0.52 | 0.55 | 0.95 | 245 | 6.46 | 92 | 95 | 61 | 0 | 4 | 5 | 1 |
| WI | EAU CLAIRE | 41 | 28 | 52 | 23 | 35 | 11 | 0.10 | -0.24 | 0.05 | 0.10 | 23 | 24.78 | 77 | 92 | 66 | 0 | 6 | 4 | 0 |
| | GREEN BAY | 41 | 29 | 52 | 21 | 35 | 7 | 0.46 | 0.03 | 0.24 | 0.46 | 81 | 24.72 | 81 | 92 | 68 | 0 | 5 | 2 | 0 |
| | LA CROSSE | 43 | 31 | 54 | 25 | 37 | 9 | 0.19 | -0.19 | 0.19 | 0.19 | 39 | 22.58 | 66 | 90 | 63 | 0 | 6 | 1 | 0 |
| | MADISON | 42 | 32 | 55 | 30 | 37 | 9 | 0.55 | 0.11 | 0.27 | 0.58 | 102 | 28.28 | 78 | 95 | 67 | 0 | 6 | 3 | 0 |
| | MILWAUKEE | 47 | 37 | 58 | 34 | 42 | 9 | 0.69 | 0.21 | 0.33 | 1.09 | 179 | 31.90 | 95 | 83 | 58 | 0 | 0 | 3 | 0 |
| WV | BECKLEY | 51 | 34 | 63 | 26 | 42 | 5 | 0.48 | -0.30 | 0.28 | 0.89 | 89 | 38.24 | 92 | 87 | 45 | 0 | 3 | 4 | 0 |
| | CHARLESTON | 56 | 35 | 68 | 27 | 46 | 5 | 0.38 | -0.48 | 0.25 | 0.54 | 49 | 33.74 | 77 | 98 | 42 | 0 | 3 | 4 | 0 |
| | ELKINS | 52 | 32 | 66 | 27 | 42 | 5 | 0.36 | -0.50 | 0.26 | 0.60 | 54 | 40.07 | 89 | 94 | 50 | 0 | 4 | 3 | 0 |
| | HUNTINGTON | 56 | 38 | 65 | 32 | 47 | 6 | 0.36 | -0.50 | 0.16 | 0.56 | 50 | 30.92 | 72 | 84 | 42 | 0 | 1 | 4 | 0 |
| WY | CASPER | 44 | 26 | 56 | 15 | 35 | 9 | 0.01 | -0.13 | 0.01 | 0.01 | 6 | 15.20 | 128 | 79 | 44 | 0 | 6 | 1 | 0 |
| | CHEYENNE | 47 | 27 | 64 | 18 | 37 | 7 | 0.00 | -0.11 | 0.00 | 0.00 | 0 | 18.65 | 123 | 73 | 30 | 0 | 6 | 0 | 0 |
| | LANDER | 41 | 22 | 50 | 15 | 31 | 8 | 0.03 | -0.13 | 0.03 | 0.03 | 15 | 17.08 | 133 | 80 | 42 | 0 | 7 | 1 | 0 |
| | SHERIDAN | 49 | 26 | 64 | 14 | 38 | 12 | 0.07 | -0.06 | 0.04 | 0.07 | 42 | 22.30 | 153 | 84 | 44 | 0 | 5 | 2 | 0 |

**Based on 1991-2020 normals** ***** Not Available**

# November Weather and Crop Summary

## Weather

*Weather summary provided by USDA/WAOB*

**Highlights:** During November, harvest for a variety of summer crops—including corn and soybeans—began to wind down, mostly on schedule or ahead of schedule. Harvest progress was a little slower in the eastern Corn Belt, mainly due to late crop maturation and a few weather challenges, including late-month rain and snow. The U.S. soybean harvest was 95 percent complete by November 12, ahead of the 5-year average of 91 percent. The U.S. corn harvest reached the 95-percent threshold less than 2 weeks later, and by November 26, only 4 percent of that crop's acreage remained uncut.

Meanwhile, the newly planted winter wheat crop got off to a mixed start, with some areas faring well and others still contending with drought. With 38 to 44 percent of the nation's winter wheat production area in drought during November, according to the *U.S. Drought Monitor*, emerging wheat struggled in several areas. By November 26, fifteen percent of the national wheat crop was reported to be in very poor to poor condition, according to USDA/NASS, with higher values noted in Kansas (32 percent very poor to poor), Oregon (23 percent), and Texas (19 percent). During the mid- to late-month period, however, some of the driest wheat-production areas received highly beneficial precipitation, including post-Thanksgiving snow across the central Plains and environs.

Nationally, drought coverage was nearly unchanged during November, ranging from 36 to 37 percent, based on statistics from the *U.S. Drought Monitor*. However, late-month storminess provided much-needed rainfall in much of the South, which has been dealing with drought—and the lingering effects of record-setting summer heat—for months. Despite the drought-easing rain, more than one-half of the pastures were still rated in very poor to poor condition on November 26 in six Southern States: Alabama (74 percent), Mississippi (69 percent), Tennessee (60 percent), Louisiana (58 percent), Texas (58 percent), and South Carolina (51 percent).

Elsewhere, unusually dry weather was observed across the upper Midwest, where it was the driest November on record in Eau Claire, WI. Eau Claire received November precipitation totaling just 0.05 inch, well below the November average value of 1.79 inches. Generally drier-than-normal late-autumn weather also stretched from California into parts of the Southwest, but November storminess from the Pacific Northwest to northern Montana reduced drought coverage and intensity.

November's warmest weather, relative to normal, was focused across the Plains and upper Midwest. Monthly temperatures averaged more than 5°F above normal across portions of the northern High Plains, including Montana locations such as Havre, Great Falls, and Cut Bank. Meanwhile, cooler-than-normal conditions dominated several regions, including the Northeast and portions of the Far West. November temperatures averaged at least 3°F below normal in New England locations such as Portland, ME, and Providence, RI.

**Historical Perspective:** According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 19th-warmest, 12th-driest November during the 1895-2023 period of record. The average temperature across the Lower 48 States averaged 44.4°F, 2.7°F above the 1901-2000 mean, while precipitation averaged 1.38 inches—just 62 percent of normal. In the last three decades, November's average temperature was higher ten times: in 1998, 1999, 2001, 2005, 2009, 2015, 2016, 2017, 2020, and 2021. During the same period, November has been similarly dry four times: in 1999, 2007, 2012, and 2021.

Many states ranked in the "warmest" one-third of the November temperature distribution. Individual state rankings ranged from the 47th-coolest November in Massachusetts and Vermont to the 12th-warmest November in New Mexico (figure 1).

Meanwhile, nearly the entire country ranked in the driest one-half of the November precipitation distribution. Rankings ranged from top-ten dryness in Indiana, Illinois, Kentucky, Missouri, and Wisconsin, to the 17th-wettest November in Florida, the lone "wet" state (figure 2).

**Figure 1** Statewide Average Temperature Ranks
November 2023
Period: 1895–2023

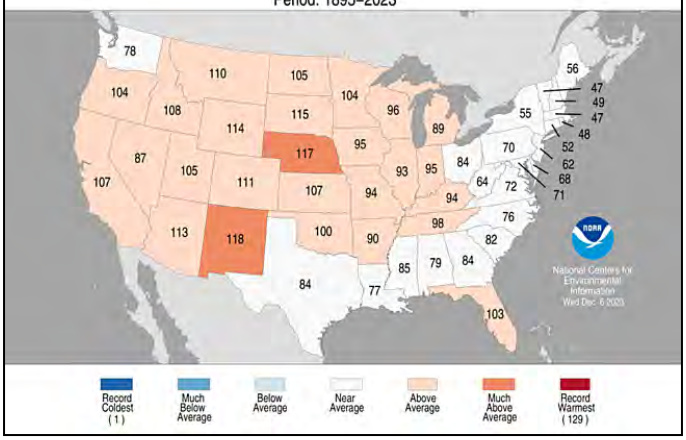
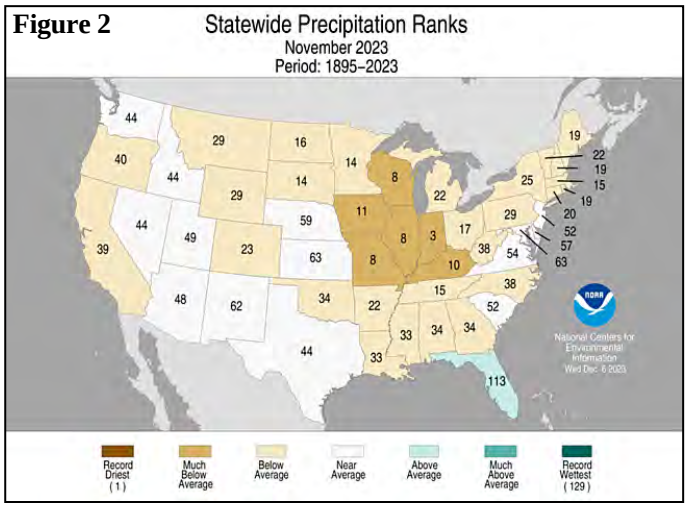


**Figure 2**




**Summary:** Across the central and eastern U.S., an early-season cold wave subsided as November began. In Missouri, Vichy-Rolla tallied a trio of daily-record lows (22, 22, and 19°F) from October 30 – November 1. Farther north, daily-record lows on October 31 included -4°F in Dickinson, ND, and 5°F in Hibbing, MN. Another daily record (4°F) occurred in Hibbing on November 1. In fact, November began with a slew of daily-record lows, including two in a row in Macon, GA (31 and 26°F); Parkersburg, WV (26 and 23°F); Bristol, TN (26 and 21°F); and Lynchburg, VA (25 and 21°F). Similarly, a pair of daily-record lows occurred on November 2-3 in Danville, VA (23 and 24°F), and Martinsburg, WV (20 and 21°F). Farther west, Midwestern daily-record lows below the 20-degree mark occurred on November 1 in locations such as St. Joseph, MO (15°F); Appleton, WI (16°F); and Ottumwa, IA (17°F). Farther west, however, warmth developed in early November along the Pacific Coast, resulting in daily-record highs in Oceanside, CA (85°F on the 1st), and Portland, OR (68°F on the 2nd). Subsequently, record-setting warmth spread across the southern High Plains, including the northern panhandle of Texas, where highs for November 3 rose to 84°F in Borger and 82°F in Dalhart.

Early-month precipitation was focused across the Northwest, where Bellingham, WA, collected a record-setting sum (1.46 inches) for November 2. Additional Northwestern daily records (for November 4) included 0.90 inch in Dallesport, WA, and 0.70 inch in Pendleton, OR. Elsewhere in Oregon, Roseburg's 2.14-inch total on the 4th represented the wettest November day in that location since November 20, 2012, when 2.19 inches fell. As precipitation spread into the Great Lakes region, Sault Ste. Marie, MI, netted a daily-record total of 1.13 inches on November 6. Two days later, another round of precipitation near the Great Lakes led to record-setting amounts for the 8th in Appleton, WI (1.55 inches), and Muskegon, MI (0.94 inch). Marquette, MI, received 3.5 inches of snow from November 6-8, while Sault Ste. Marie measured 1.7 inches. Meanwhile, measurable precipitation fell on each of the first 13 days of November in parts of the Pacific Northwest, including Quillayute, where rainfall during that time totaled 10.76 inches. Elsewhere in western Washington, November 1-13 rainfall reached 7.66 inches in Hoquiam, 5.53 inches in Olympia, and 5.09 inches in Seattle. Eventually, rainfall increased across southern Texas, where Harlingen reported a daily-record total (1.57 inches) for November 10. Two days later in Texas, record-setting totals for the 12th included 1.70 inches in Corpus Christi and 1.32 inches in McAllen. November 9-13 rainfall topped 4 inches in Deep South Texas locations such as Port Isabel (4.35 inches) and Brownsville (4.31 inches). Farther west, snow dusted the southern Rockies and environs, with Albuquerque, NM, receiving a daily-record total (0.3 inch on November 10) mere days after noting consecutive daily-record highs (78 and 76°F, respectively, on November 6-7).

During an early-month warm spell in the central and eastern U.S., temperatures topped 80°F as far north as the central Plains, lower Ohio Valley, and middle Atlantic States. Goodland, KS, tied a monthly record with a high temperature of 87°F on November 7. Readings occasionally topped the 90-degree mark in a few areas, including parts of the southern Plains and the Desert Southwest. Borger, TX, set a monthly record with a high of 91°F on November 7. The following day, Abilene, TX, also achieved a monthly standard with a temperature of 93°F. Meanwhile, daily-record highs temperatures were set in dozens of locations across a broad area, starting in the Southwest. For example, record-setting highs for November 5 surged to 94°F in Tucson, AZ, and 89°F in Barstow-Daggett, CA. The following day, warmth surged across the mid-South, with daily-record highs for November 6 surpassing the 80-degree mark in locations such as Russellville, AR (85°F), and Memphis, TN (81°F). The following day, Memphis attained 83°F, another daily record. Elsewhere on the 7th, Tucson attained the 90-degree mark for the fourth consecutive day (90, 94, 92, and 91°F), while daily-record highs climbed to 89°F in Midland, TX; Lawton, OK; and Roswell, NM. Farther east, record-setting highs for the 7th rose to 84°F in Joplin, MO, and 83°F in Chattanooga, TN. November 8 featured a final day of record-setting warmth as far north as the Ohio Valley, with daily-record highs reaching 84°F in Memphis—a third consecutive record—along with 84°F in St. Louis, MO; 83°F in Louisville, KY; and 82°F in Evansville, IN. Lawton, OK, topped its earlier reading with a November 8 high of 90°F, while Greenville, MS, tied a monthly record with a reading of 88°F. Soon, lingering warmth was confined to the East—and eventually, Florida. On November 9, daily-record highs surged to 83°F in

Richmond, VA, and Raleigh-Durham, NC. On November 10-11, Florida locations such as Miami (89°F both days) and Gainesville (87 and 89°F, respectively) notched consecutive daily-record highs. Elsewhere in Florida, November 11 highs of 91°F in Brooksville, Fort Myers, and Punta Gorda were records for the date. In contrast, a chill settled across the Far West, including southern California, where daily-record lows for November 10 dipped to 24°F in Ramona and 44°F in San Diego.

During the mid-month period, most areas of the country continued to experience drier-than-normal weather. Across Florida's peninsula, however, a non-tropical storm delivered as much as 4 to 10 inches of rain, with locally higher amounts. November 13-16 totals in southern Florida reached 12.47 inches in North Fort Lauderdale; 10.76 inches in Fort Lauderdale; 10.26 inches in Pembroke Pines; 9.89 inches in Opa Locka; and 8.84 inches in Miami. For all those locations, the heaviest rain fell on November 15, with Miami reporting 7.53 inches. That represented the wettest November day in Miami since November 18, 1992, when 7.56 inches fell. It was also Miami's wettest day during any time of year since May 22, 2012, when rainfall totaled 9.70 inches. Meanwhile, Marathon, FL—with 6.68 inches on the 15th—experienced its wettest November day on record (previously, 4.58 inches on November 14, 1954). Significant winds accompanied Florida's rain, with gusts on November 16 clocked to 57 mph in West Palm Beach; 51 mph in Fort Lauderdale; and 48 mph in Miami. Early on the 16th, an unofficial gust to 86 mph was recorded at Carysfort Reef Light, about 8 miles east-southeast of North Key Largo, FL. Florida's rain eventually shifted northward, with Fort Pierce noting a daily-record sum (4.33 inches) for November 16. Fort Pierce collected another record-setting total, 2.37 inches, on November 17. Meanwhile, the West experienced a mid-month arrival of showery weather. In Montana, Chinook reported precipitation totaling 0.40 inch, including 2.0 inches of snow, in a 24-hour period on November 15-16. Meanwhile in Utah, 24-hour precipitation totals on November 15-16 topped an inch in locations such as Deer Creek Dam (1.39 inches) and Mountain Dell Dam (1.12 inches). Later, additional Western precipitation led to daily-record totals for November 18 in Paso Robles, CA (1.74 inches), and Yuma, AZ (0.25 inch).

Mid-November warmth was initially focused across southern Florida, where daily-record highs for November 12 included 92°F in Punta Gorda and 89°F in Naples. A few days later, a late-season warm spell developed across the nation's mid-section. By November 14, International Falls, MN, posted a daily-record high of 58°F. Midwestern warmth generally peaked on November 16, when daily-record highs surged to 70°F in Eau Claire, WI; 69°F in Minneapolis-St. Paul, MN; and 65°F in Pellston, MI. Warm weather extended to other regions, with daily records for the 16th reaching 78°F in Huntsville, AL, and 63°F in Ontario, OR. Southern warmth peaked a few days later, with daily-record highs for November 20 soaring to 84°F in Lafayette, LA, and 82°F in Jackson, MS. Some warmth also briefly appeared in coastal California, where San Francisco International Airport tied a daily record with a high of 69°F on the 20th. The Western warmth led to a few additional daily-record highs, including 59°F in Laramie, WY, on November 22. However, just 3 days later, on the 25th, the temperature in Laramie dipped to 2°F. Sub-zero readings were reported on November 25 in several Wyoming locations, including Casper (-10°F), Big Piney (-6°F), and Douglas (-5°F). Chilly conditions extended to the Pacific Coast, where North Bend, OR, posted a daily-record low of 28°F on November 25. At month's end, cold weather was particularly persistent across the Rockies and Intermountain West. Riverton, WY, reported low temperatures ranging from -1 to -9°F on each of the last 6 days of November. Elsewhere in Wyoming, Lander's four consecutive lows of -1°F (from November 26-29) followed 22.9 inches of snow on November 23-24. Farther east, snow dusted parts of the Midwest on November 25-26. In Iowa, 2-day snowfall totals included 2.6 inches in Des Moines and 2.1 inches in Waterloo. Subsequently, Waterloo noted a low of 0°F on November 28. Sub-zero readings occurred on the 28th in Iowa locations such as Mason City (-1°F) and Fayette (-5°F). Chilly air eventually settled into the East, where record-setting lows for November 29 dipped to 15°F in Danville, VA, and 21°F in Elizabeth City, NC. In contrast, temperatures quickly rebounded in the north-central U.S. By November 29, Grand Forks, ND, posted a daily-record high of 50°F, just 2 days after recording a low of 0°F.

Drought-easing rain fell on November 20-22 across the South, East, and lower Midwest, halting late-season fieldwork but greatly benefiting pastures and recently planted winter grains and cover crops. McComb, MS, collected a daily-record rainfall of 3.06 inches on the 20th, the same day more than a dozen tornadoes were spotted in the central Gulf Coast States. By November 21, daily-record rainfall topped 2 inches in locations such as Harrisburg, PA (2.31 inches); Martinsburg, WV (2.27 inches); Roanoke, VA (2.23 inches); and Gulfport, MS (2.21 inches). The rainfall effectively ended the Eastern wildfire season, shortly after the Matts Creek Fire near Big Island, VA, grew to more than 11,000 acres. On November 22, lingering downpours along the Atlantic Coast resulted in daily-record rainfall totals in Wilmington, NC (2.56 inches), and Bridgeport, CT (2.37 inches). At the height of the storm, on November 21, daily-record precipitation totals extended as far west as Michigan,

where Lansing netted 0.92 inch. In some Northern areas, precipitation fell as wet snow, with Worcester, MA, collecting 2.8 inches on November 21-22, prior to a transition to freezing rain and rain. Farther west, heavy snow developed in the Rockies. In Wyoming, November 23-24 snowfall included 8.5 inches in Cheyenne, 10.5 inches in Casper, and 22.9 inches in Lander. Much of Lander's snow, 18.8 inches, fell on November 23, Thanksgiving Day, becoming the ninth-snowiest day on record in that location. It was also Lander's snowiest November day since 1985, when 20.7 inches fell on the 13th. Snow extended to other Northwestern locations, with Pocatello, ID, reporting daily-record snowfall totals of 4.9 and 5.5 inches, respectively, on November 19 and 23. By November 24, snow began to spread across the central Plains, where North Platte, NE, measured a daily-record sum of 4.4 inches. The following day in Kansas, snowfall records for the 25th included 7.8 inches in Wichita, 6.3 inches in Topeka, and 5.3 inches in Dodge City. For Wichita, November snowfall totals exceeding one-half foot have occurred in November only six other times: in 1888, 1906, 1951, 1952, 1984, and 1987, with a monthly maximum value of 9.0 inches in 1888.

Heavy precipitation developed in late November in a few areas, including the Pacific Northwest and the drought-affected Gulf Coast region. Precipitation extended as far north as the southern and eastern Corn Belt, but the upper Midwest completed a very dry November. Late-month rain also fell in the East, where record-setting precipitation totals for November 26 included 2.28 inches in Jacksonville, FL, and 0.84 inch in Scranton, PA. On the 27th, Bangor, ME, reported rainfall totaling 0.94 inch, accompanied by a south-southeasterly wind gust to 60 mph. Meanwhile, snow squalls developed downwind of the Great Lakes. Sault Ste. Marie, MI, received at least an inch of snow each day from November 26-29, totaling 17.6 inches. The bulk of Sault Ste. Marie's snow, 11.7 inches, fell on the 27th. Farther south, Harlingen, TX, netted a daily-record total of 1.09 inches on the 29th. On the last day of November, rain continued along the Gulf Coast and spread across the mid-South and lower Midwest. Galveston, TX, collected a record-setting sum (3.93 inches) for the 30th, along with Little Rock, AR (2.23 inches). Windy weather trailed the heavy rain in Harlingen, where a southerly gust to 58 mph was reported on November 30. Meanwhile in the West, Spokane, WA, received 5.6 inches of snow from November 30 – December 2. In Utah, Alta received more snow during the first 4 days of December—36.3 inches—than during all of November, when the monthly total of 35.2 inches was 65 percent of normal.

Despite a few days of cold weather, November temperatures averaged more than 10°F above normal in several Alaskan locations, including Bettles, Delta Junction, and Fairbanks. At times, warmth spread to other areas, including the Aleutians, where Cold Bay opened the month with consecutive daily-record highs of 53°F on November 1-2. Later, Cold Bay reported its highest wind gust of the month, 70 mph, on November 15. Two days later, on the 17th, the first sub-zero reading of the season occurred in locations such as Fairbanks (-8°F) and Kotzebue (-1°F). In south-central Alaska, Anchorage reported its first sub-zero reading (-2°F) on November 20. Anchorage also achieved its snowiest (38.8 inches) and wettest (2.84 inches) November on record, with the bulk of the precipitation falling during the first half of the month. In fact, Anchorage received more than 6 inches of snow on November 5, 8, 9, and 13. Anchorage received only 1.3 inches of snow during the second half of the month, with the snow depth decreasing from 23 to 10 inches between November 14 and 30. Southeastern Alaska also experienced a very wet month, contributing to a deadly landslide—with six fatalities—on the evening of November 20 near Wrangell. More than 150 miles to the north, in Juneau, measurable precipitation fell on each of the 16 days from November 13-28, totaling 5.27 inches. Juneau also received 6.5 inches of snow, all on November 14 and 19-21. Elsewhere in southeastern Alaska, November precipitation ranged from 140 to 150 percent of normal in Ketchikan (24.86 inches), Yakutat (19.27 inches), and Sitka (14.80 inches), despite less stormy weather late in the month. A particularly wet period occurred from November 16-20, when rainfall in Ketchikan totaled 11.32 inches. Late-month Alaskan warmth boosted the November 24 maximum temperature in Anchorage to 44°F, the highest reading in that location since October 18. On the 25th, daily-record highs rose to 48°F in King Salmon and 41°F in Bethel.

Hawaiian drought coverage peaked at 94 percent for several weeks in November, according to the *U.S. Drought Monitor*. However, late-month downpours delivered substantial drought relief and even led to some flash flooding. During the first half of the month, however, breezy to windy conditions contributed to a temporary increase in wildfire activity. On Maui, Kahului reported peak wind gusts of 40 mph or greater on November 4-7, 9, and 11-12, with a gust clocked to 48 mph on the 12th. Two days later, on November 14, gusts included 47 mph in Honolulu, Oahu, and 40 mph in Lihue, Kauai. As the month ended, a "Kona low" dented the autumn dry spell. November 30 featured 6.24 inches of rain, a record for the date, in Hilo, on the Big Island. That boosted Hilo's November rainfall to 11.17 inches (78 percent of normal). At the state's other major airport observation sites, November rainfall ranged from 0.90 inch (50 percent of normal) in Kahului, Maui, to 5.18 inches (129 percent) in Lihue, Kauai. In several locations, including

Honolulu, Oahu (1.54 inches), and Lihue (1.45 inches), the wettest day of the month occurred on November 29.

## Fieldwork

*Fieldwork summary provided by USDA/NASS*

Most of the nation recorded above-normal November temperatures. Parts of the Great Plains and northern Rockies recorded monthly temperatures 6°F or more above normal. In contrast, most of the mid-Atlantic and Northeast, as well as parts of the Great Lakes, Southeast, southern Texas, and the West, were slightly cooler than normal. Meanwhile, most of the nation was drier than normal in November, although at least twice the normal amount of monthly precipitation was recorded in parts of southern Texas, Florida, the Rockies, and the Southwest.

Seventy-one percent of the 2023 corn acreage was harvested by October 29, three percentage points behind last year but 5 points ahead of the 5-year average. Eighty-eight percent of the 2023 corn acreage was harvested by November 12, four percentage points behind last year but 2 points ahead of average. Ninety-six percent of the 2023 corn acreage was harvested by November 26, three percentage points behind last year but 1 point ahead of average. On that date, harvest progress was complete or nearing completion in 14 of the 18 estimating states.

Soybean harvest across the nation was 85 percent complete by October 29, two percentage points behind last year but 7 points ahead of the 5-year average. Soybean harvest across the nation was 95 percent complete by November 12, one percentage point behind last year but 4 points ahead of average. On that date, soybean harvest was ahead of the 5-year average pace in 16 of the 18 estimating States.

Nationwide, producers had sown 84 percent of the intended 2024 winter wheat acreage by October 29, two percentage points behind last year and 1 point behind the 5-year average. Sixty-four percent of the winter wheat acreage had emerged by October 29, four percentage points ahead of last year but equal to the average. Nationwide, producers had sown 93 percent of the intended 2024 winter wheat acreage by November 12, two percentage points behind last year but equal to the average. Eighty-one percent of the winter wheat acreage had emerged by November 12, one percentage point ahead of both last year and the 5-year average. Nationwide, 91 percent of the winter wheat acreage had emerged by November 26, one percentage point ahead of last year and 2 points ahead of average. As of November 26, fifty percent of the 2024 winter wheat acreage was reported in good to excellent condition, 16 percentage points above the same time last year.

By October 29, ninety-three percent of the nation's cotton had open bolls, 2 percentage points behind both last year and the 5-year average. On that date, 49 percent of the nation's cotton acreage was harvested, 5 percentage points behind last year but 2 points ahead of average. On October 29, twenty-nine percent of the 2023 cotton acreage was rated in good to excellent condition, 1 percentage point below the previous year. By November 12, sixty-seven percent of the nation's cotton acreage was harvested, 3 percentage points behind last year but 4 points ahead of average. By November 26, eighty-three percent of the nation's cotton acreage was harvested, equal to last year but 4 percentage points ahead of the 5-year average.

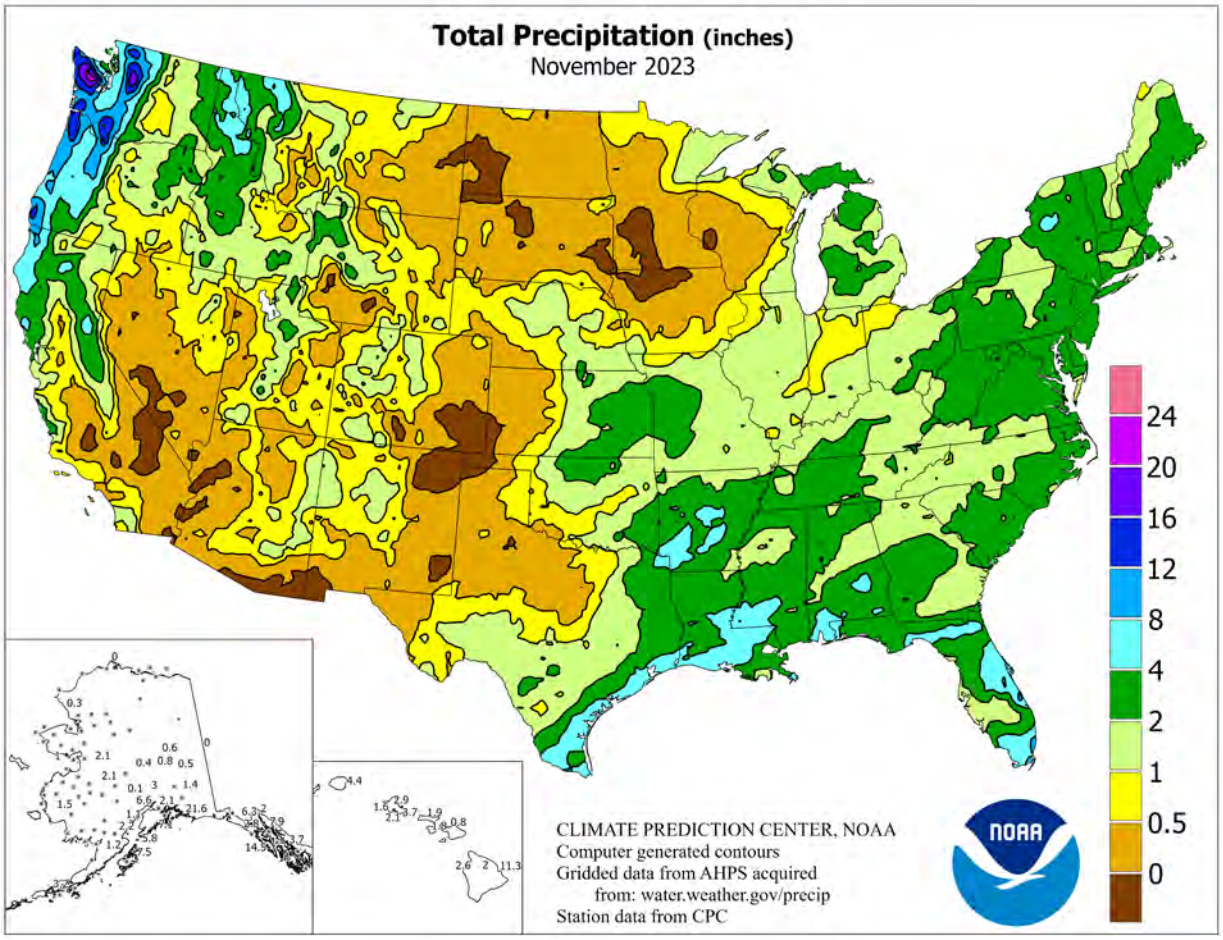
Seventy-seven percent of the 2023 sorghum acreage had been harvested by October 29, one percentage point ahead of last year and 6 points ahead of the 5-year average. Ninety-two percent of the 2023 sorghum acreage had been harvested by November 12, equal to last year but 5 percentage points ahead of average. On that date, harvest progress was at or ahead of the 5-year average pace in all six estimating states.

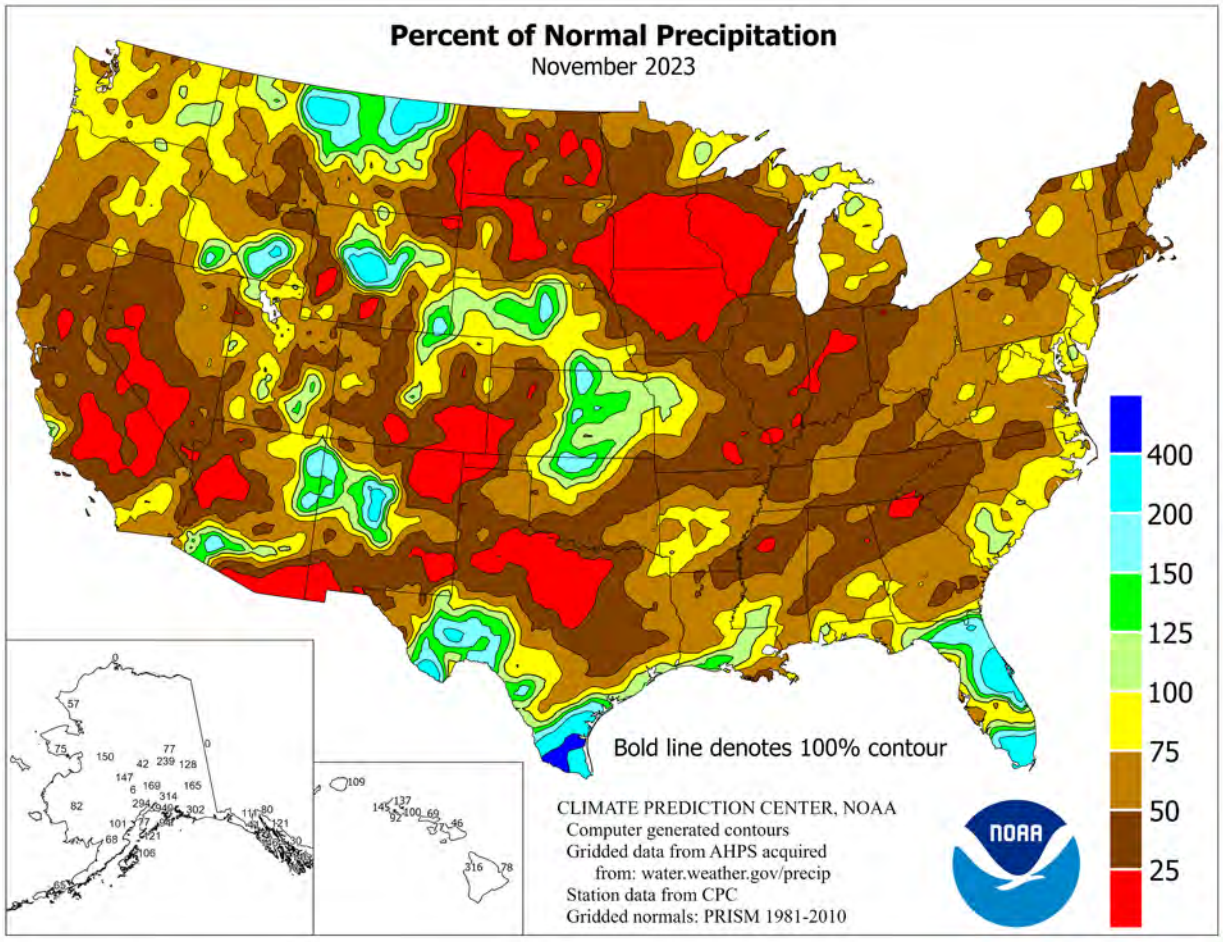
Nationally, 95 percent of the rice acreage was harvested by October 29, two percentage points behind last year and 1 point behind the 5-year average.

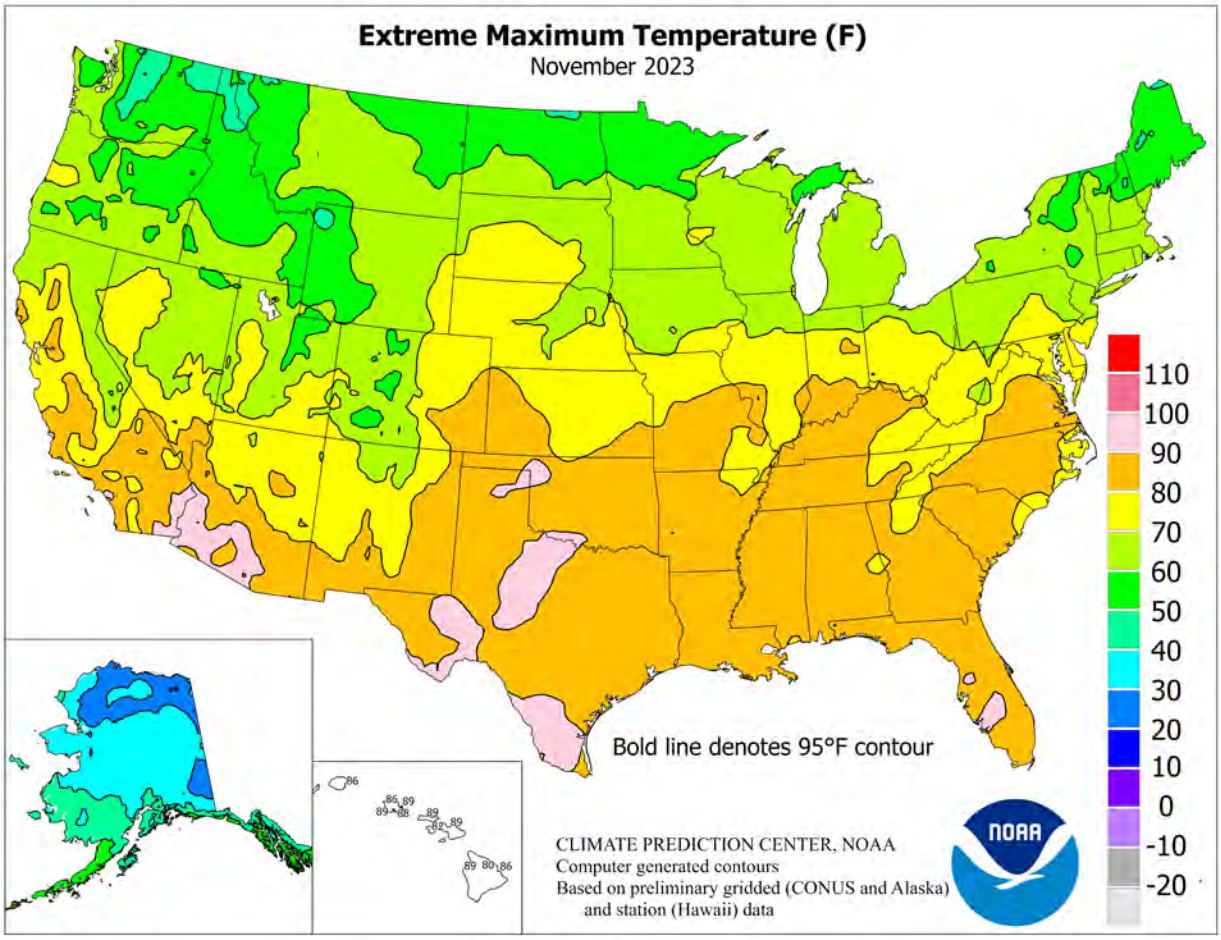
Sixty-nine percent of the nation's peanut acreage was harvested by October 29, eight percentage points behind last year and 1 point behind the 5-year average. Eighty-seven percent of the nation's peanut acreage was harvested by November 12, three percentage points behind last year but 1 point ahead of average. Ninety-six percent of the nation's peanut acreage was harvested by November 26, one percentage point behind last year but 1 point ahead of average.

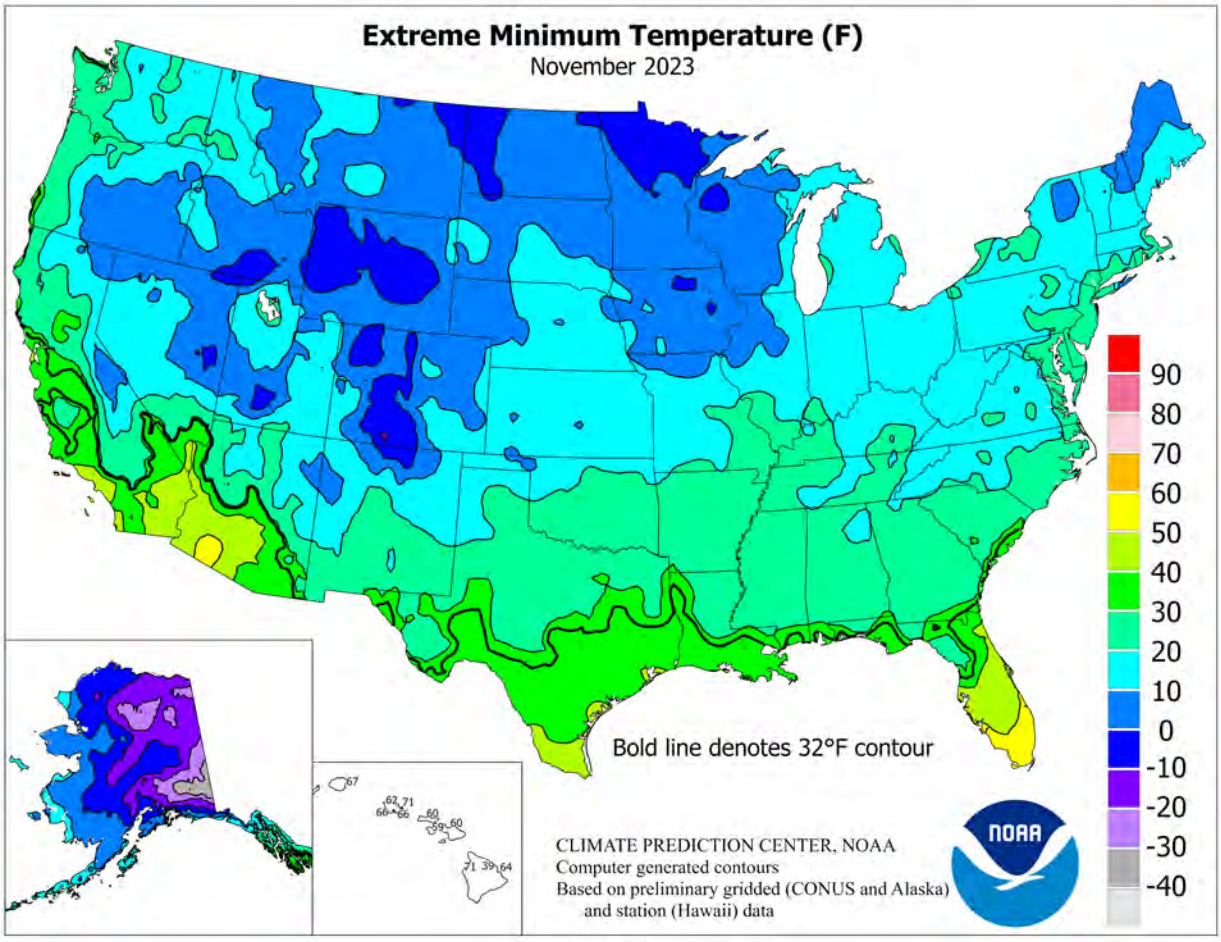
By November 5, sugarbeet producers had harvested 95 percent of the nation's crop, 2 percentage points ahead of last year and 4 points ahead of the 5-year average.

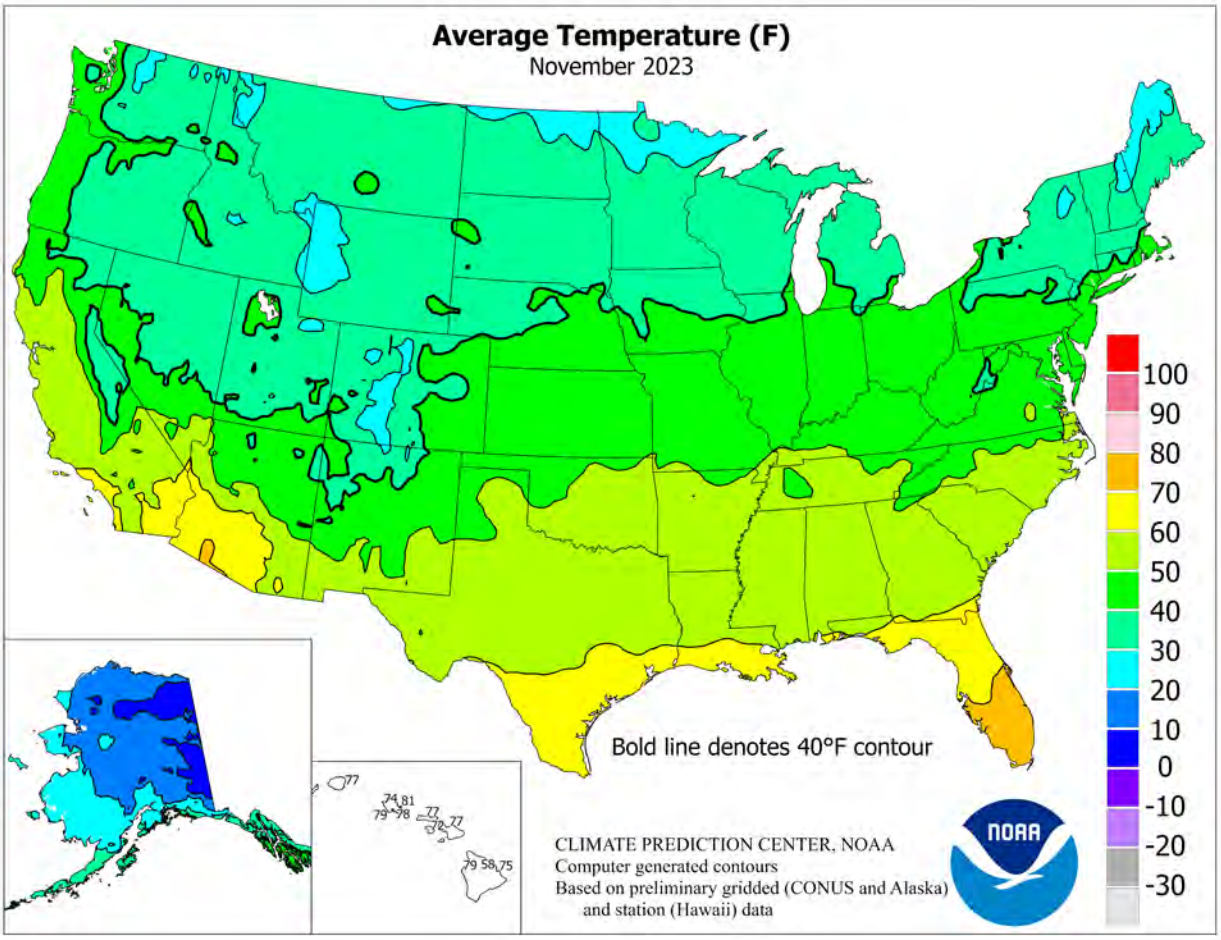
By October 29, forty percent of this year's sunflower crop was harvested, 16 percentage points behind last year and 4 points behind the 5-year average. By November 12, sixty-eight percent of this year's sunflower crop was harvested, 22 percentage points behind last year and 4 points behind average. By November 26, eighty-six percent of this year's sunflower crop was harvested, 12 percentage points behind last year but 2 points ahead of average.

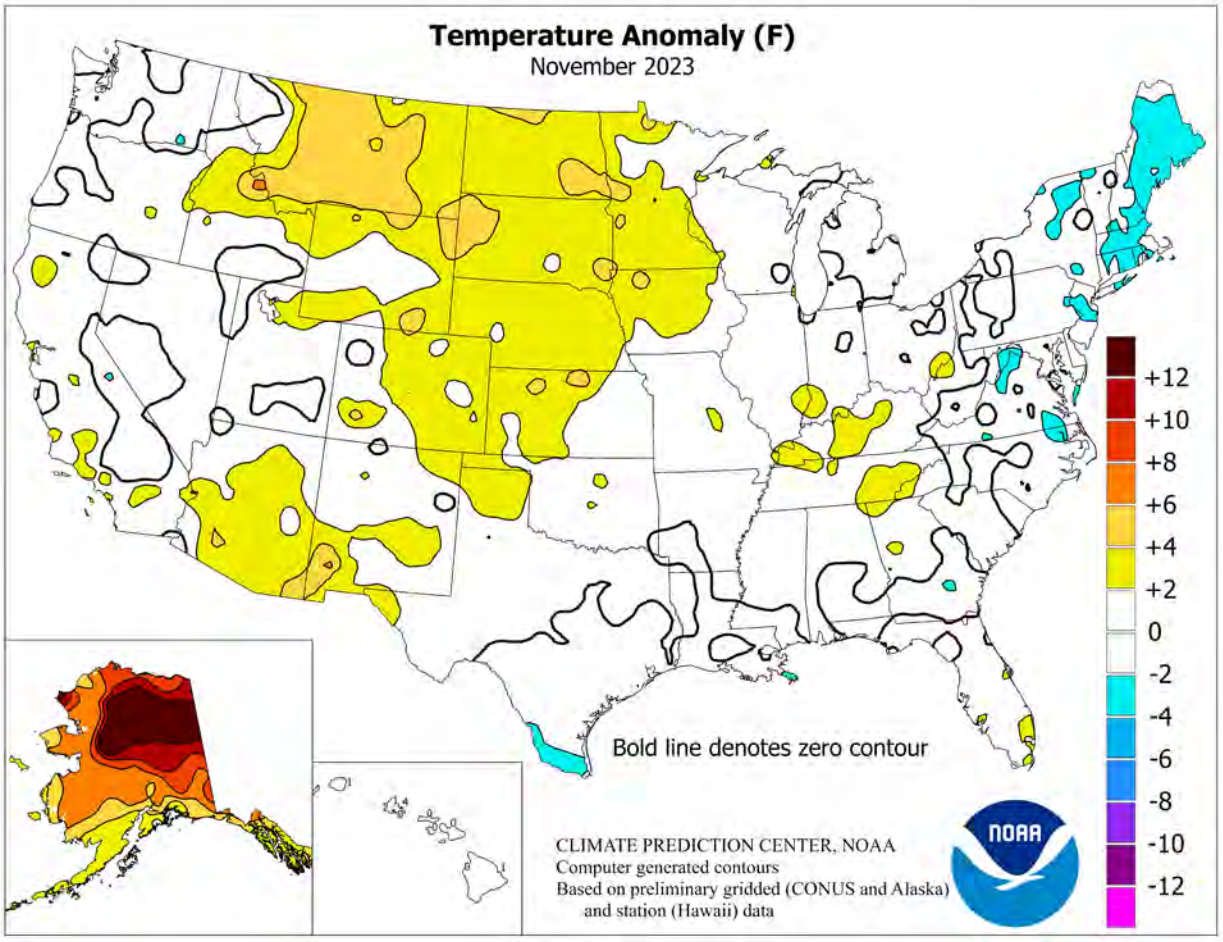

Total Precipitation (inches)
November 2023
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
NOAA


Percent of Normal Precipitation
November 2023
400
200
150
125
100
75
50
25
Bold line denotes 100% contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
Gridded normals: PRISM 1981-2010
NOAA


Extreme Maximum Temperature (F)
November 2023
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
November 2023
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Average Temperature (F)
November 2023
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
Bold line denotes 40°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Temperature Anomaly (F)
November 2023
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
Bold line denotes zero contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA

# National Weather Data for Selected Cities

## November 2023

### Data Provided by Climate Prediction Center

| STATES AND STATIONS | TEMP, ˚F | | PRECIP. | | STATES AND STATIONS | TEMP, ˚F | | PRECIP. | | STATES AND STATIONS | TEMP, ˚F | | PRECIP. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AVERAGE | DEPARTURE | TOTAL | DEPARTURE | | AVERAGE | DEPARTURE | TOTAL | DEPARTURE | | AVERAGE | DEPARTURE | TOTAL | DEPARTURE |
| AK ANCHORAGE | 29 | 6 | 3.50 | 2.31 | WICHITA | 47 | 1 | 2.82 | 1.46 | TOLEDO | 42 | 0 | 0.86 | -1.79 |
| BARROW | 15 | 0 | 0.00 | -0.37 | KY LEXINGTON | 48 | 2 | 1.70 | -1.67 | YOUNGSTOWN | 41 | 0 | 1.83 | -1.13 |
| FAIRBANKS | 16 | 11 | 0.57 | -0.17 | LOUISVILLE | 51 | 2 | 1.30 | -2.13 | OK OKLAHOMA CITY | 52 | 3 | 1.32 | -0.36 |
| JUNEAU | 39 | 5 | 7.91 | 1.37 | PADUCAH | 50 | 2 | 1.01 | -3.08 | TULSA | 52 | 2 | 0.87 | -1.78 |
| KODIAK | 36 | 1 | 7.48 | 0.41 | LA BATON ROUGE | 61 | 1 | 3.67 | -0.23 | OR ASTORIA | 47 | 0 | 7.23 | -3.82 |
| NOME | 24 | 6 | 0.95 | -0.31 | LAKE CHARLES | 61 | -1 | 6.04 | 1.91 | BURNS | 36 | 1 | 1.01 | 0.00 |
| AL BIRMINGHAM | 55 | 1 | 0.93 | -3.30 | NEW ORLEANS | 63 | 0 | 2.86 | -1.01 | EUGENE | 47 | 2 | 3.00 | -2.98 |
| HUNTSVILLE | 54 | 1 | 1.96 | -2.29 | SHREVEPORT | 58 | 2 | *** | *** | MEDFORD | 47 | 2 | 1.65 | -0.97 |
| MOBILE | 60 | 1 | 4.59 | -0.01 | MA BOSTON | 43 | -2 | 1.87 | -1.79 | PENDLETON | 41 | 1 | 1.62 | 0.22 |
| MONTGOMERY | 56 | 0 | 3.29 | -0.56 | WORCESTER | 39 | -1 | 1.47 | -2.53 | PORTLAND | 48 | 1 | 5.23 | -0.22 |
| AR FORT SMITH | 54 | 2 | 1.17 | -2.69 | MD BALTIMORE | 47 | 0 | 2.73 | -0.40 | SALEM | 45 | -1 | 5.15 | -0.79 |
| LITTLE ROCK | 55 | 3 | 4.01 | -0.71 | ME CARIBOU | 31 | -2 | 1.89 | -1.46 | PA ALLENTOWN | 41 | -3 | 2.87 | -0.37 |
| AZ FLAGSTAFF | 40 | 3 | 0.81 | -0.74 | PORTLAND | 37 | -3 | 3.16 | -1.09 | ERIE | 43 | 0 | 2.51 | -1.24 |
| PHOENIX | 69 | 4 | 0.27 | -0.31 | MI ALPENA | 36 | 0 | 1.46 | -0.61 | MIDDLETOWN | 45 | 0 | 2.49 | -0.48 |
| PRESCOTT | 49 | 1 | 0.25 | -0.44 | GRAND RAPIDS | 39 | -1 | 1.59 | -1.51 | PHILADELPHIA | 47 | -1 | 2.70 | -0.20 |
| TUCSON | 65 | 4 | 0.27 | -0.28 | HOUGHTON LAKE | 36 | 0 | 0.20 | -1.59 | PITTSBURGH | 43 | 1 | 1.76 | -1.10 |
| CA BAKERSFIELD | 59 | 3 | 0.02 | -0.49 | LANSING | 39 | -1 | 2.03 | -0.43 | WILKES-BARRE | 40 | -2 | 2.37 | -0.48 |
| EUREKA | 52 | 1 | 3.09 | -1.80 | MUSKEGON | 41 | 1 | 1.56 | -1.36 | WILLIAMSPORT | 41 | -1 | 1.51 | -1.73 |
| FRESNO | 58 | 3 | 0.20 | -0.67 | TRAVERSE CITY | 39 | 0 | 1.04 | -1.20 | RI PROVIDENCE | 41 | -3 | 2.82 | -1.46 |
| LOS ANGELES | 64 | 1 | 0.12 | -0.70 | MN DULUTH | 32 | 2 | 1.31 | -0.65 | SC CHARLESTON | 59 | 0 | 1.69 | -0.98 |
| REDDING | 55 | 2 | 2.06 | -1.47 | INT_L FALLS | 29 | 2 | 1.25 | -0.14 | COLUMBIA | 54 | 0 | 2.96 | 0.20 |
| SACRAMENTO | 55 | 2 | 0.37 | -1.30 | MINNEAPOLIS | 38 | 4 | 0.05 | -1.56 | FLORENCE | 55 | -1 | 2.22 | -0.41 |
| SAN DIEGO | 62 | -1 | 0.43 | -0.36 | ROCHESTER | 36 | 2 | 0.12 | -1.68 | GREENVILLE | 51 | 0 | 1.07 | -2.77 |
| SAN FRANCISCO | 60 | 4 | 1.38 | -0.66 | ST. CLOUD | 35 | 4 | 0.09 | -1.29 | SD ABERDEEN | 35 | 4 | 0.25 | -0.49 |
| STOCKTON | 55 | 1 | 0.46 | -0.94 | MO COLUMBIA | 46 | 1 | 0.86 | -1.82 | HURON | 37 | 4 | 0.13 | -0.69 |
| CO ALAMOSA | 32 | 2 | 0.00 | -0.37 | KANSAS CITY | 45 | 2 | 1.53 | -0.47 | RAPID CITY | 39 | 5 | 0.17 | -0.31 |
| CO SPRINGS | 43 | 3 | 0.10 | -0.27 | SAINT LOUIS | 49 | 3 | 0.94 | -2.48 | SIOUX FALLS | 40 | 5 | 0.01 | -1.20 |
| DENVER INTL | 43 | 4 | 0.18 | -0.46 | SPRINGFIELD | 49 | 2 | 1.24 | -2.32 | TN BRISTOL | 48 | 1 | 1.13 | -2.01 |
| GRAND JUNCTION | 41 | 2 | 0.69 | 0.07 | MS JACKSON | 57 | 1 | 1.93 | -2.47 | CHATTANOOGA | 54 | 3 | 2.85 | -1.95 |
| PUEBLO | 43 | 3 | 0.06 | -0.41 | MERIDIAN | 56 | 0 | 1.73 | -2.47 | KNOXVILLE | 52 | 3 | 1.85 | -2.36 |
| CT BRIDGEPORT | 43 | -3 | 2.71 | -0.40 | TUPELO | 55 | 2 | 1.20 | -3.28 | MEMPHIS | 55 | 2 | 3.02 | -1.67 |
| HARTFORD | 40 | -2 | 1.80 | -1.71 | MT BILLINGS | 41 | 5 | 0.04 | -0.56 | NASHVILLE | 53 | 2 | 1.37 | -2.49 |
| DC WASHINGTON | 49 | -1 | 2.44 | -0.46 | BUTTE | 32 | 4 | 0.30 | -0.30 | TX ABILENE | 57 | 2 | 0.13 | -1.27 |
| DE WILMINGTON | 44 | -3 | 3.09 | 0.04 | CUT BANK | 36 | 6 | 0.41 | -0.01 | AMARILLO | 50 | 2 | 0.35 | -0.40 |
| FL DAYTONA BEACH | 67 | 0 | 9.18 | 6.42 | GLASGOW | 35 | 5 | 0.26 | -0.22 | AUSTIN | 59 | -2 | 1.16 | -1.76 |
| JACKSONVILLE | 61 | -1 | 3.52 | 1.52 | GREAT FALLS | 39 | 6 | 0.22 | -0.46 | BEAUMONT | 61 | 0 | 4.02 | 0.13 |
| KEY WEST | 78 | 1 | 1.57 | -0.48 | HAVRE | 37 | 6 | 0.59 | 0.10 | BROWNSVILLE | 68 | -3 | 5.09 | 3.33 |
| MIAMI | 78 | 3 | 9.34 | 5.81 | MISSOULA | 34 | 2 | 0.57 | -0.61 | CORPUS CHRISTI | 65 | -1 | 4.00 | 1.97 |
| ORLANDO | 70 | 1 | 5.19 | 3.40 | NC ASHEVILLE | 48 | 1 | 0.91 | -2.81 | DEL RIO | 62 | 1 | 0.71 | -0.20 |
| PENSACOLA | 62 | 0 | 4.12 | -0.30 | CHARLOTTE | 53 | 1 | 2.45 | -0.86 | EL PASO | 58 | 4 | 0.28 | -0.16 |
| TALLAHASSEE | 61 | 1 | 3.32 | 0.22 | GREENSBORO | 49 | 0 | 1.62 | -1.65 | FORT WORTH | 58 | 1 | 0.47 | -2.06 |
| TAMPA | 70 | 0 | 1.88 | 0.48 | HATTERAS | 57 | -2 | 4.55 | -0.21 | GALVESTON | 64 | -1 | 5.37 | 1.09 |
| WEST PALM BEACH | 75 | 2 | 4.43 | 0.81 | RALEIGH | 52 | 0 | 1.48 | -1.84 | HOUSTON | 61 | -1 | 2.33 | -1.54 |
| GA ATHENS | 53 | 0 | 1.58 | -2.19 | WILMINGTON | 56 | 0 | 4.14 | 0.58 | LUBBOCK | 52 | 2 | 0.11 | -0.69 |
| ATLANTA | 56 | 2 | 2.01 | -1.97 | ND BISMARCK | 33 | 3 | 0.13 | -0.56 | MIDLAND | 54 | 0 | 0.58 | -0.14 |
| AUGUSTA | 54 | -2 | 1.89 | -0.77 | DICKINSON | 34 | 4 | 0.00 | -0.47 | SAN ANGELO | 56 | 0 | 0.75 | -0.41 |
| COLUMBUS | 56 | -1 | 2.91 | -1.04 | FARGO | 34 | 4 | 0.13 | -0.84 | SAN ANTONIO | 61 | 0 | 1.30 | -0.78 |
| MACON | 56 | 0 | 1.61 | -1.76 | GRAND FORKS | 31 | 4 | 0.10 | -0.82 | VICTORIA | 62 | 0 | 3.12 | 0.19 |
| SAVANNAH | 59 | 0 | 1.00 | -1.39 | JAMESTOWN | 32 | 3 | 0.08 | -0.35 | WACO | 57 | 0 | 1.93 | -0.79 |
| HI HILO | 75 | 1 | 11.29 | -3.10 | NE GRAND ISLAND | 43 | 4 | 0.78 | -0.32 | WICHITA FALLS | 55 | 2 | 0.28 | -1.35 |
| HONOLULU | 78 | 0 | 2.07 | -0.18 | LINCOLN | 43 | 3 | 0.46 | -0.84 | UT SALT LAKE CITY | 44 | 2 | 1.71 | 0.39 |
| KAHULUI | 77 | 0 | 0.84 | -0.98 | NORFOLK | 41 | 5 | 0.53 | -0.69 | VA LYNCHBURG | 46 | 0 | 2.26 | -1.13 |
| LIHUE | 77 | 1 | 4.41 | 0.37 | NORTH PLATTE | 40 | 3 | 0.56 | 0.07 | NORFOLK | 52 | -1 | 2.41 | -0.70 |
| IA BURLINGTON | 41 | 0 | 0.41 | -1.88 | OMAHA | 42 | 2 | 0.42 | -1.03 | RICHMOND | 49 | 0 | 2.07 | -0.99 |
| CEDAR RAPIDS | 39 | 2 | 0.27 | -1.73 | SCOTTSBLUFF | 40 | 3 | 0.54 | -0.06 | ROANOKE | 49 | 1 | 2.28 | -0.75 |
| DES MOINES | 43 | 4 | 0.25 | -1.67 | VALENTINE | 40 | 3 | 0.15 | -0.42 | WASH/DULLES | 46 | 0 | 2.49 | -0.64 |
| DUBUQUE | 38 | 2 | 0.51 | -1.70 | NH CONCORD | 36 | -3 | 2.11 | -1.33 | VT BURLINGTON | 37 | -2 | 2.50 | -0.19 |
| SIOUX CITY | 40 | 4 | 0.20 | -1.06 | NJ ATLANTIC_CITY | 44 | -2 | 2.78 | -0.59 | WA OLYMPIA | 44 | 1 | 6.10 | -2.11 |
| WATERLOO | 39 | 2 | 0.24 | -1.61 | NEWARK | 47 | 0 | 2.47 | -0.85 | QUILLAYUTE | 47 | 2 | 12.33 | -2.93 |
| ID BOISE | 43 | 3 | 1.20 | 0.01 | NM ALBUQUERQUE | 47 | 1 | 0.99 | 0.42 | SEATTLE-TACOMA | 45 | -2 | 5.71 | -0.61 |
| LEWISTON | 42 | 1 | 1.70 | 0.48 | NV ELY | 35 | 0 | 0.77 | 0.14 | SPOKANE | 36 | 0 | 1.84 | -0.22 |
| POCATELLO | 35 | 0 | 1.83 | 0.88 | LAS VEGAS | 59 | 1 | 0.08 | -0.22 | YAKIMA | 38 | 0 | 0.59 | -0.27 |
| IL CHICAGO/O_HARE | 43 | 1 | 0.83 | -1.59 | RENO | 44 | 0 | 0.27 | -0.35 | WI EAU CLAIRE | 35 | 2 | 0.05 | -1.74 |
| MOLINE | 42 | 1 | 0.71 | -1.59 | WINNEMUCCA | 38 | -1 | 0.16 | -0.45 | GREEN BAY | 37 | 1 | 0.40 | -1.59 |
| PEORIA | 44 | 2 | 1.00 | -1.69 | NY ALBANY | 39 | -1 | 1.83 | -1.17 | LA CROSSE | 39 | 1 | 0.14 | -1.70 |
| ROCKFORD | 39 | 0 | 1.05 | -1.23 | BINGHAMTON | 38 | 0 | 1.35 | -1.76 | MADISON | 38 | 1 | 0.96 | -1.26 |
| SPRINGFIELD | 44 | 1 | 0.80 | -1.91 | BUFFALO | 40 | -1 | 2.61 | -0.89 | MILWAUKEE | 42 | 2 | 1.72 | -0.52 |
| IN EVANSVILLE | 49 | 2 | 0.74 | -3.37 | ROCHESTER | 40 | -2 | 2.44 | -0.33 | WV BECKLEY | 44 | 0 | 1.65 | -1.15 |
| FORT WAYNE | 41 | 0 | 0.64 | -2.32 | SYRACUSE | 40 | 0 | 2.72 | -0.51 | CHARLESTON | 46 | -1 | 1.79 | -1.41 |
| INDIANAPOLIS | 45 | 2 | 0.90 | -2.55 | OH AKRON-CANTON | 41 | -2 | 1.53 | -1.55 | ELKINS | 41 | -1 | 2.61 | -0.26 |
| SOUTH BEND | 42 | 2 | 0.69 | -2.08 | CINCINNATI | 46 | 1 | 1.38 | -1.85 | HUNTINGTON | 47 | 1 | 1.17 | -1.90 |
| KS CONCORDIA | 47 | 5 | 1.31 | 0.14 | CLEVELAND | 43 | -1 | 1.69 | -1.68 | WY CASPER | 36 | 2 | 0.41 | -0.23 |
| DODGE CITY | 47 | 3 | 0.49 | -0.31 | COLUMBUS | 44 | 0 | 1.81 | -0.98 | CHEYENNE | 39 | 3 | 0.62 | 0.02 |
| GOODLAND | 43 | 3 | 0.28 | -0.26 | DAYTON | 44 | 0 | 1.48 | -1.58 | LANDER | 34 | 2 | 1.26 | 0.48 |
| TOPEKA | 45 | 1 | 1.56 | -0.22 | MANSFIELD | 41 | 0 | 1.80 | -1.35 | SHERIDAN | 39 | 5 | 0.51 | -0.25 |

**Based on 1991-2020 normals**

***** Not Available**

# International Weather and Crop Summary

**December 3-9, 2023**

***International Weather and Crop Highlights and Summaries provided by USDA/WAOB***

## HIGHLIGHTS

**EUROPE:** Cold weather prevailed for much of the period, with additional moderate to heavy rain in western and southern Europe giving way to light snow in northeastern portions of the continent.

**MIDDLE EAST**: Unseasonable warmth continued, with additional heavy rain in Turkey and Syria contrasting with intensifying short-term dryness in parts of Iran.

**NORTHWESTERN AFRICA**: Drought-easing rain in the east juxtaposed with increasing drought concerns in Morocco.

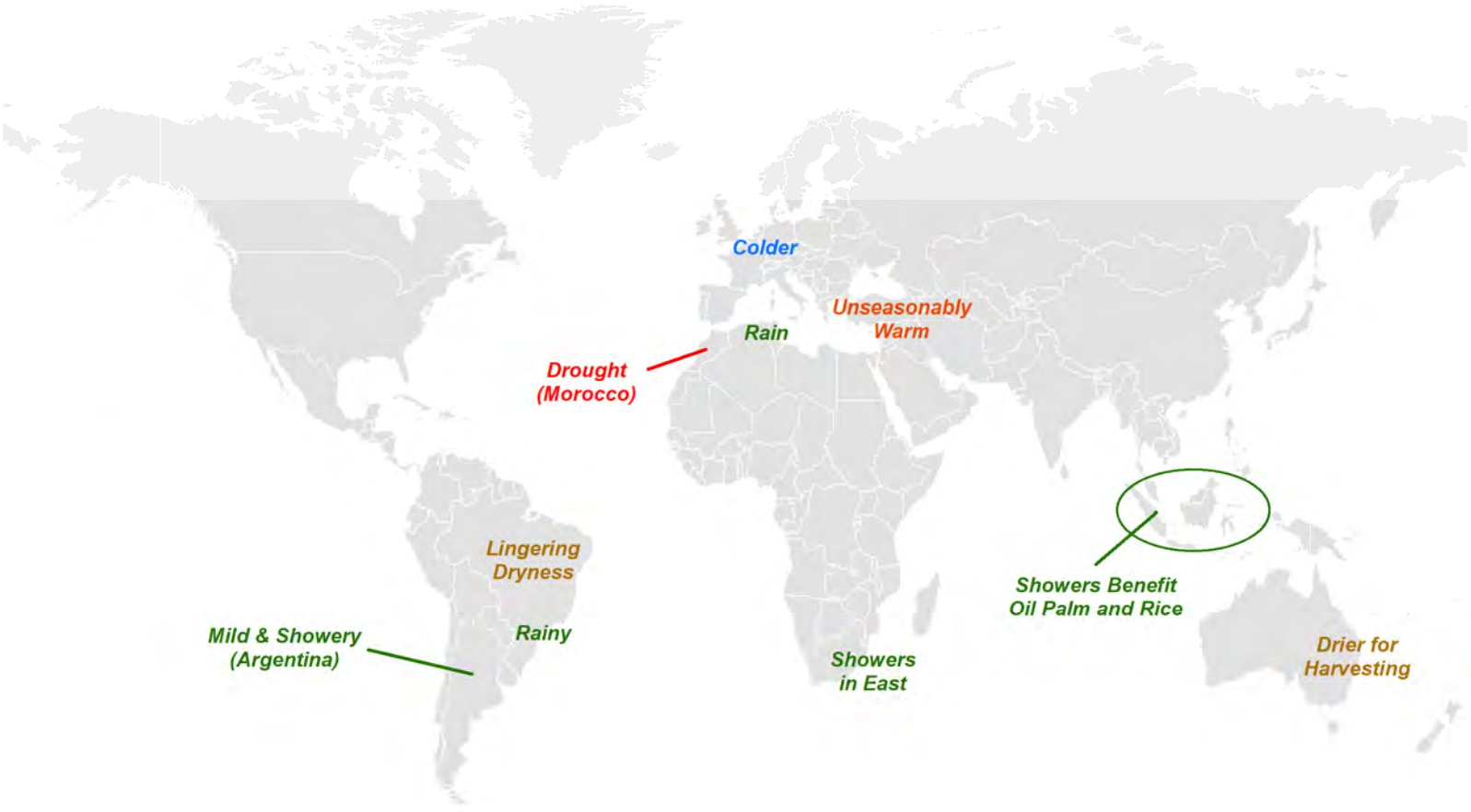
**SOUTHEAST ASIA:** Showers across Indonesia and Malaysia benefited rice and oil palm.

**AUSTRALIA:** Drier weather overspread the south and east, allowing winter crop harvesting to regain momentum.

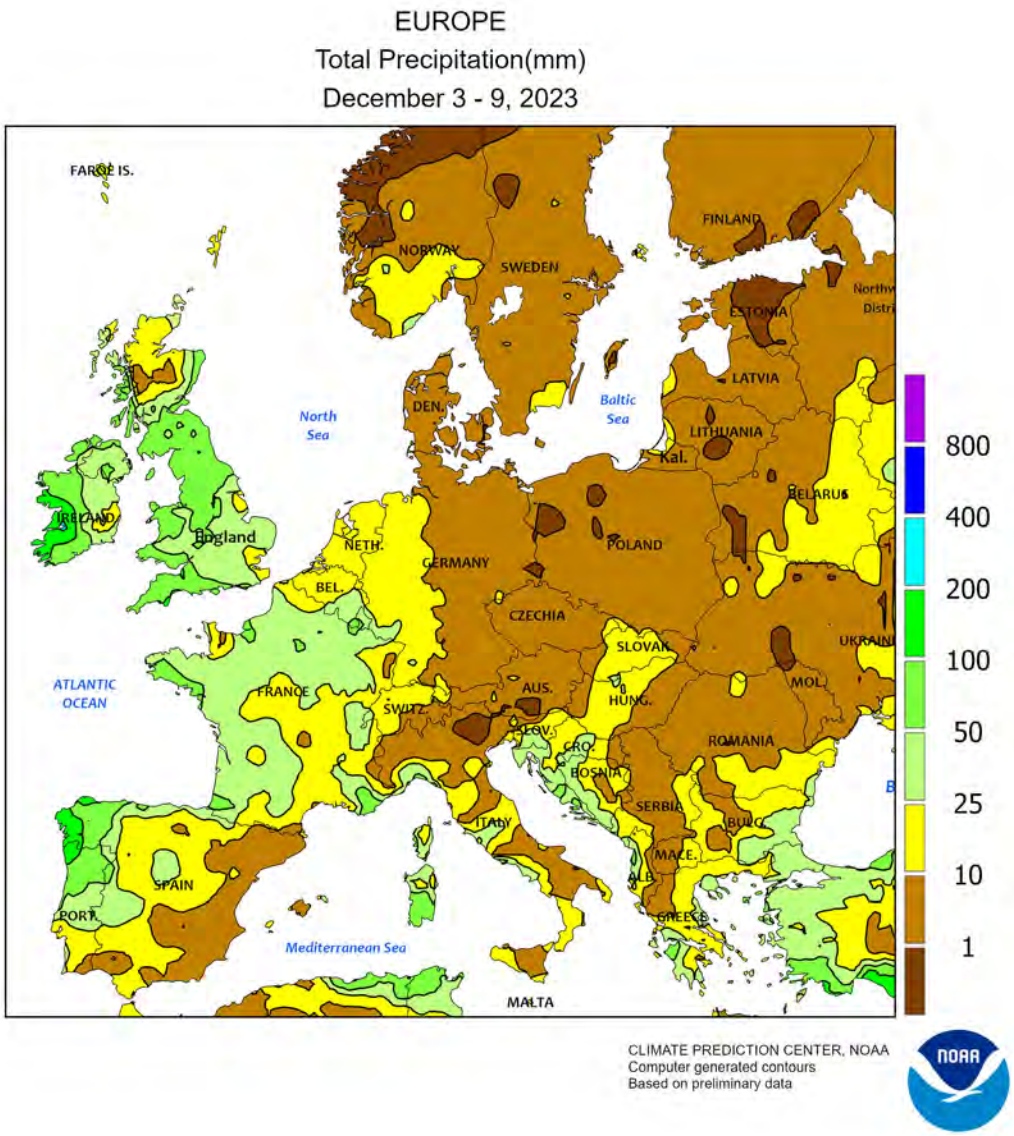
**SOUTH AFRICA**: Showers returned to eastern farming areas, but dryness persisted in western sections of the corn belt.

**ARGENTINA**: Generally mild, showery weather benefited emerging summer crops.

**BRAZIL:** Showers were widespread, although pockets of dryness lingered from Mato Grosso eastward.



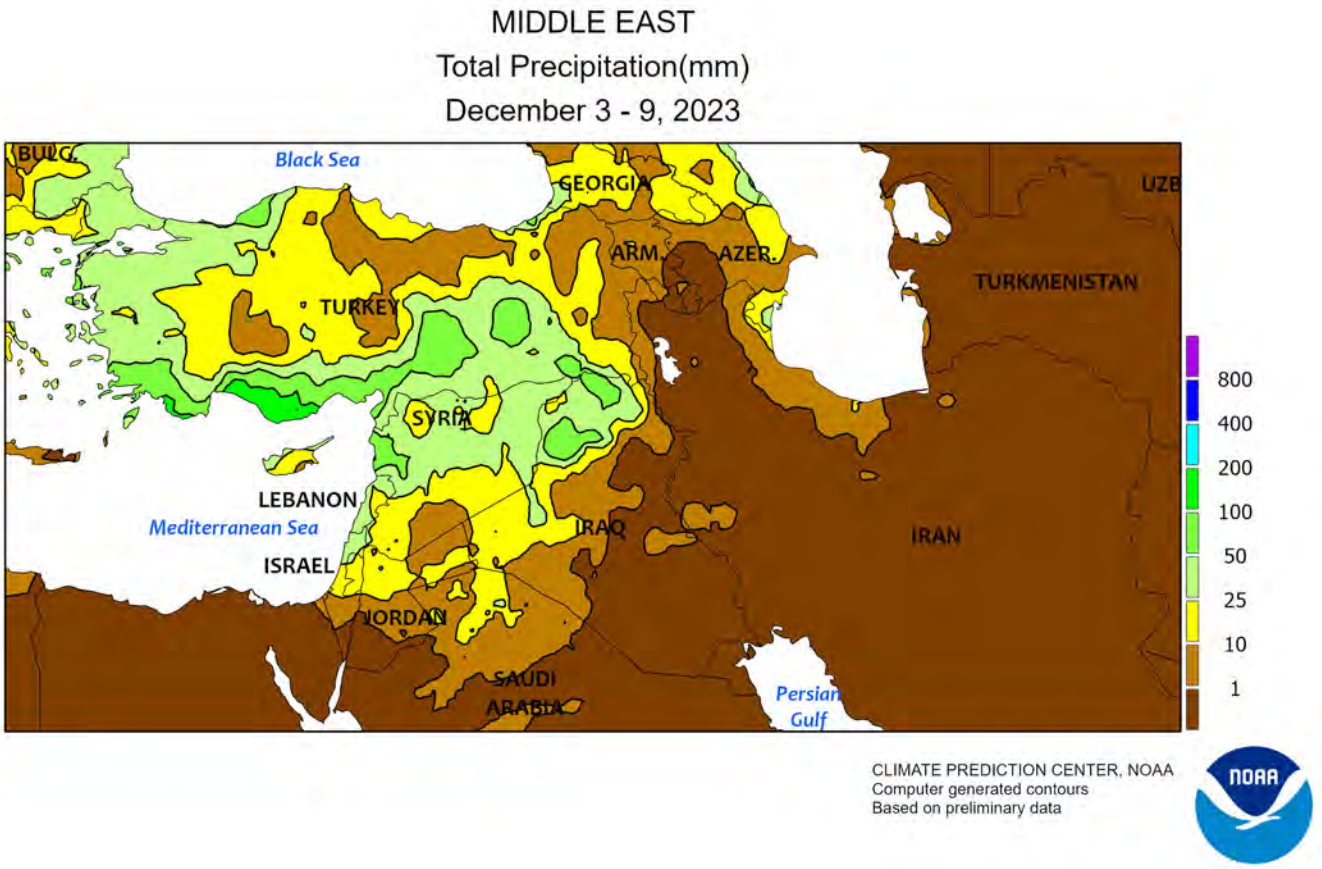

**For additional information contact:** mark.brusberg@usda.gov




## EUROPE

Cold weather lingered for much of the period, with additional rain in the west and south giving way to light snow in northeastern crop areas. Temperatures for the week averaged 2 to 6°C below normal over central and eastern portions of the continent and 5 to 15°C below normal over Scandinavia and the Baltic States. The cold temperatures were accompanied by additional light snow (2-10 mm liquid equivalent) over northeastern Europe, with snow depths at week's end ranging from 5 to 30 cm. Meanwhile, a series of Atlantic storms triggered moderate to heavy showers (10-100 mm, locally more) over Portugal, western and northern Spain, France, England, and western Germany. Similar showers were observed from western and central Italy eastward into Greece and the southeastern Balkans. The rain continued to hamper late-season fieldwork — including already delayed summer crop harvesting — but maintained abundant moisture reserves for dormant winter grains and oilseeds. Most notably, the recent spell of wet weather in the lower Danube River Valley has eliminated autumn drought and any lingering rainfall deficits. A change in the weather pattern brought an abrupt end to the recent cold snap at the end of the week, with much-below-normal temperatures replaced by abnormal warmth.

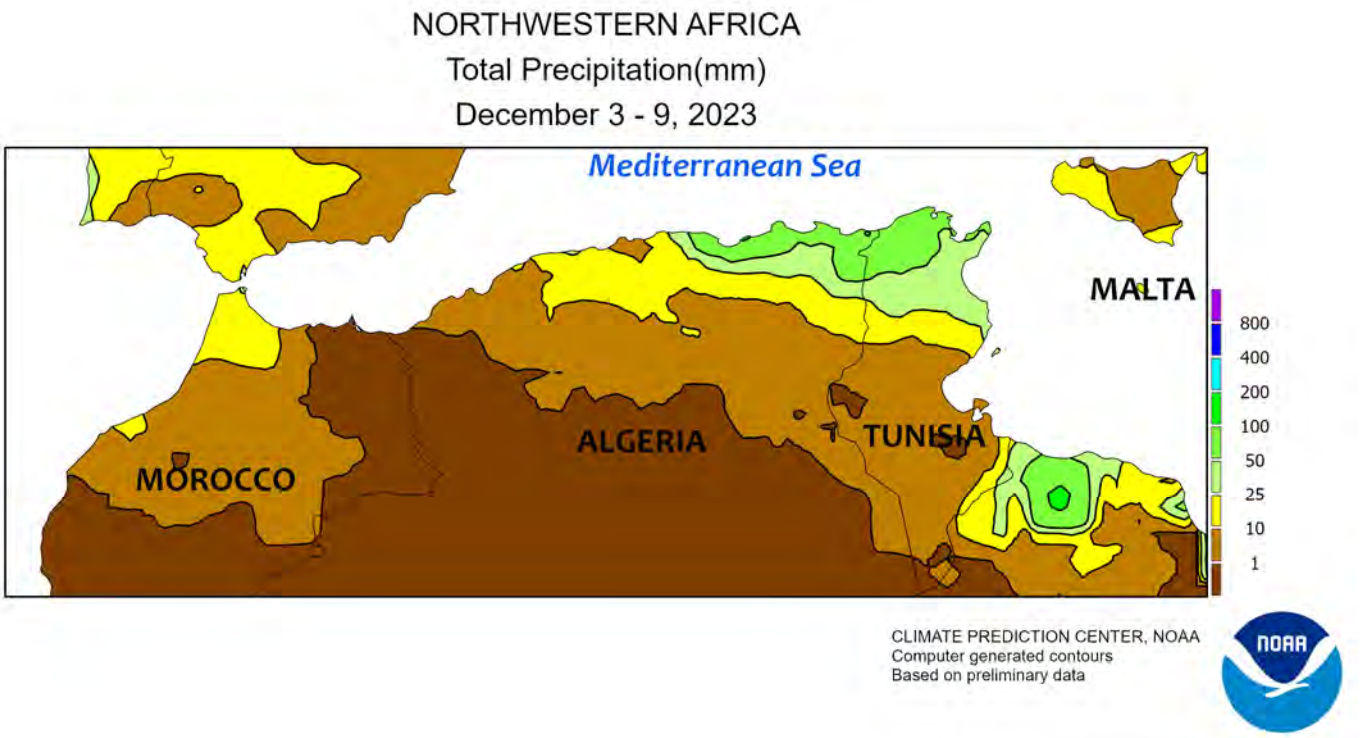
**For additional information contact:** mark.brusberg@usda.gov




## MIDDLE EAST

Warm weather prevailed over much of the region, with additional rain in the west contrasting with dry conditions in the east. In Turkey, another week of widespread moderate to heavy showers and thunderstorms (10-100 mm) across many of the country's primary growing areas further boosted prospects for winter wheat and barley establishment. Similar rainfall totals were reported along the eastern Mediterranean Coast, keeping soils favorably moist for winter grain germination. Conversely, mostly dry weather prevailed from central Iraq into Iran; dryness concerns were greatest in northeastern Iran's Khorasan Province, where little to no rain has fallen since mid-October. Temperatures averaged 4 to 6°C above normal across the entire region, keeping winter crops from going dormant in the climatologically colder northern growing areas while accelerating wheat and barley development in central and southern portions of the Middle East.

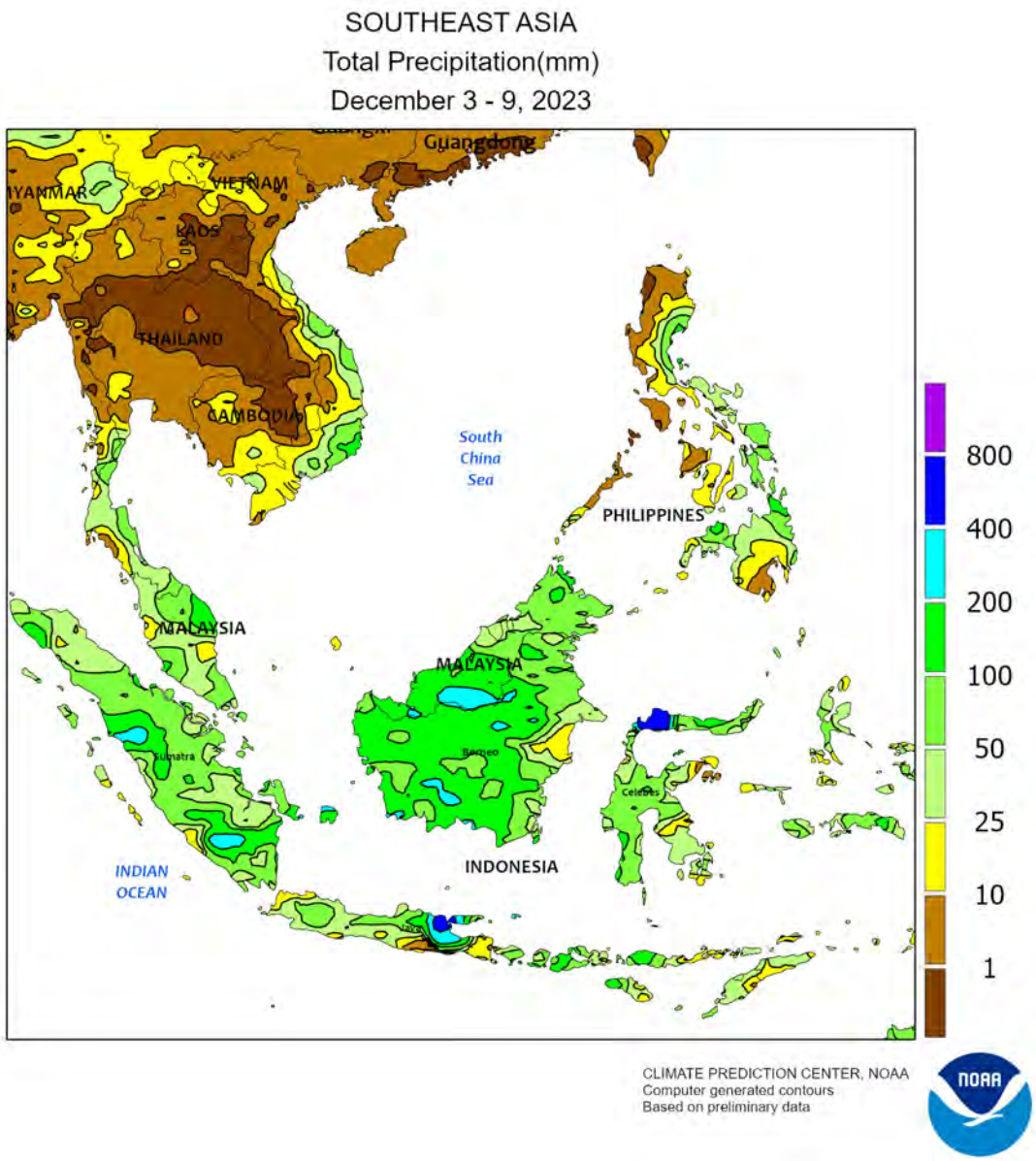
**For additional information contact:** mark.brusberg@usda.gov




## NORTHWESTERN AFRICA

Drought-easing rain in the east contrasted with heightened drought concerns in Morocco. In Morocco, light showers (1-10 mm) did little to ease increasing short-term drought in Morocco's primary growing areas, where season-to-date rainfall (since September 1) remained mired near 50 percent of normal. The heaviest rain in northern Morocco (10-35 mm) fell outside of the country's primary growing areas. Similar dryness also continued to afflict western Algeria's wheat and barley areas. Conversely, moderate to heavy rain (20-75 mm) from north-central Algeria into northern Tunisia eased drought and improved prospects for winter grain establishment and early development.

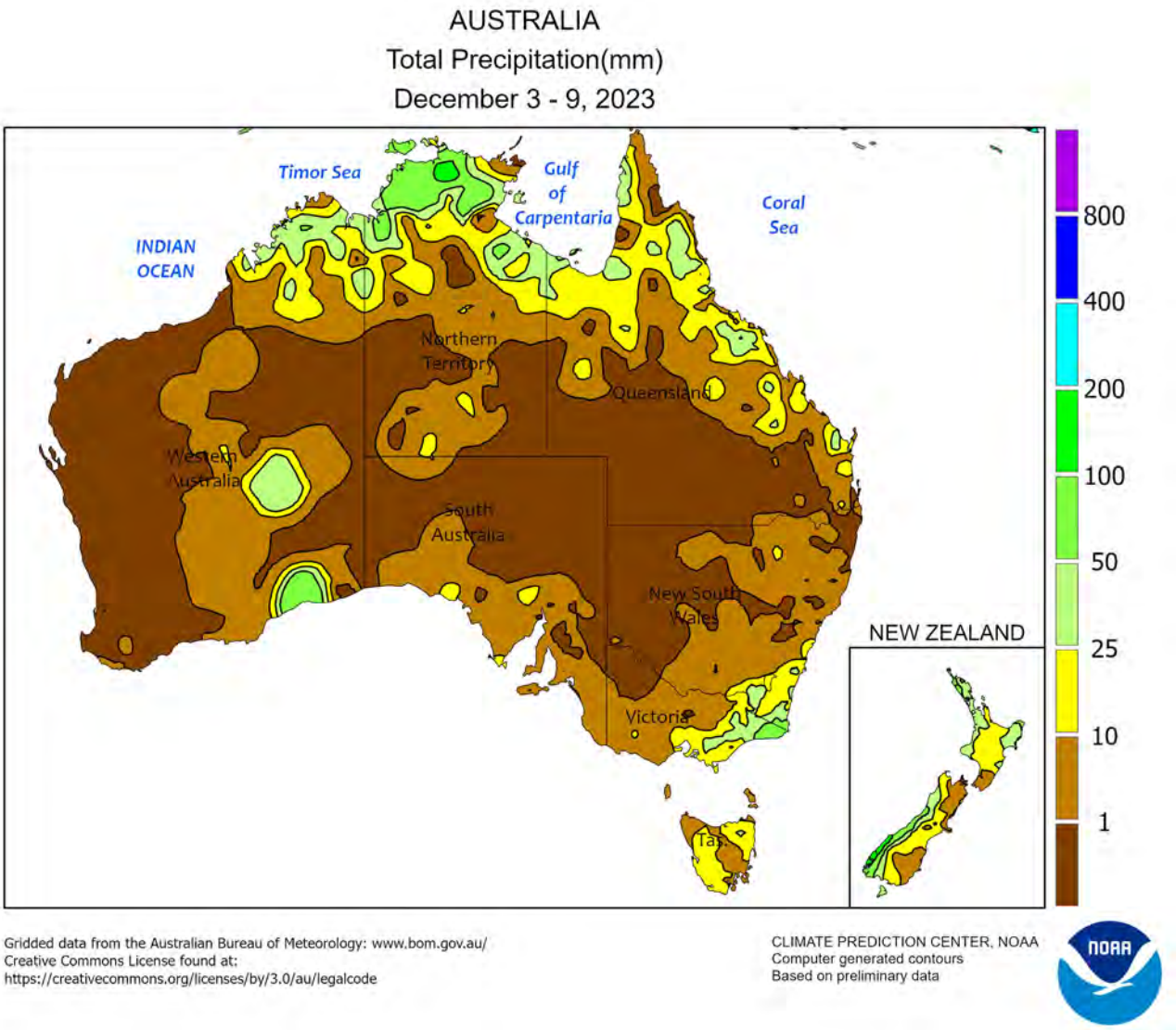
**For additional information contact:** mark.brusberg@usda.gov




## SOUTHEAST ASIA

The rainy season largely became established over the bulk of Java, Indonesia, following a lengthy delay. Rainfall totals averaged 40 mm across the island, improving moisture conditions and aiding establishment of rice and other seasonal crops. Meanwhile, seasonably wet weather (25-100 mm or more of rain) in oil palm areas of Indonesia (Sumatra and Kalimantan) and neighboring locales of Malaysia further improved long-term (90-day) moisture conditions for trees following poor October rainfall. At the same time, inundating rainfall of the last couple of weeks on the eastern Malaysian peninsula abated. Elsewhere, showers eased in the Philippines after last week's downpours, with most traditionally wetter eastern and southern locales recording totals below 50 mm.

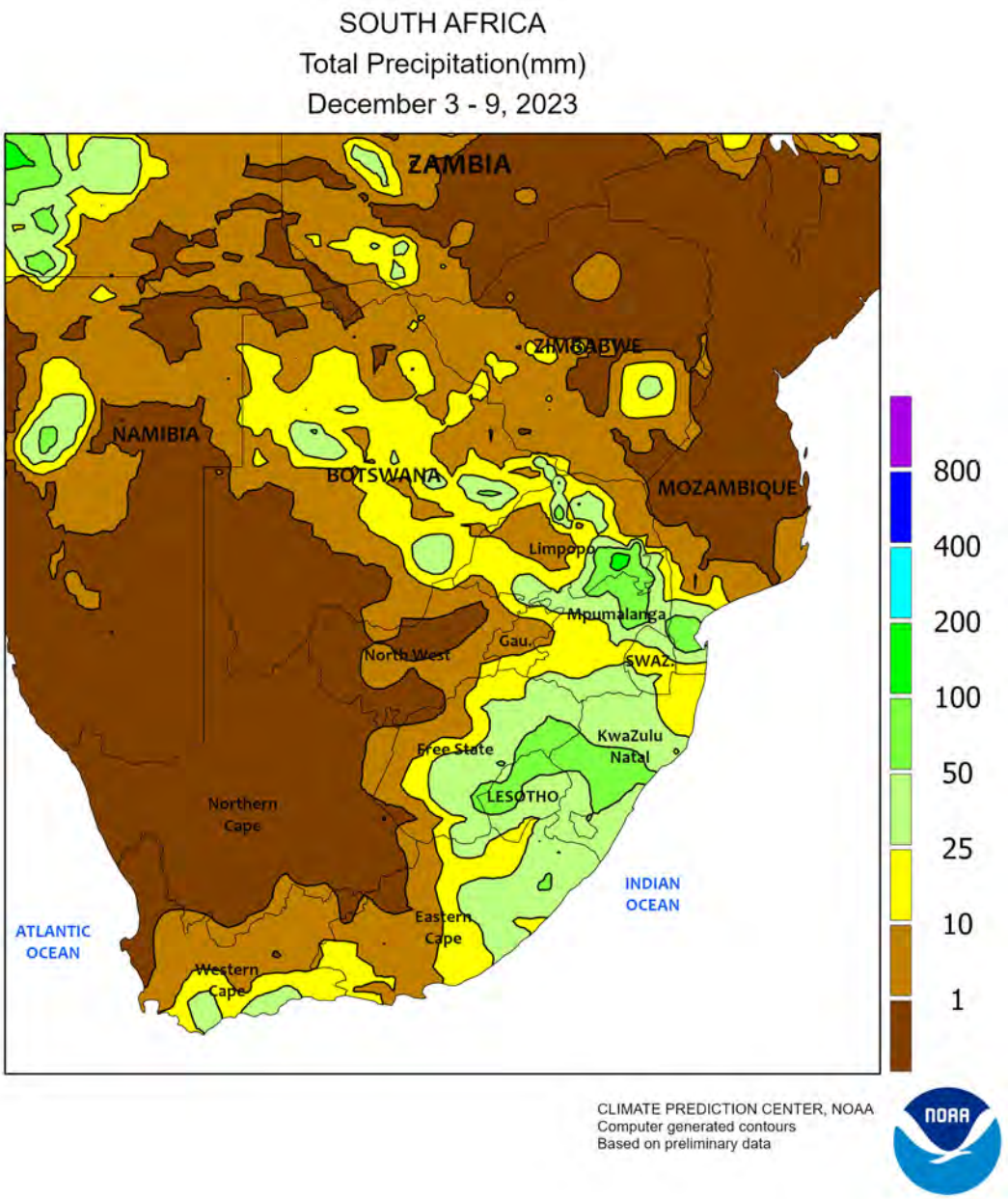
**For additional information contact:** mark.brusberg@usda.gov




## AUSTRALIA

Scattered, mostly light showers (generally less than 5 mm) fell across southern and eastern Australia. The rain did not significantly increase soil moisture, but moisture supplies remained adequate for recently sown summer crops. Indeed, mostly sunny skies and reasonably moist soils promoted summer crop emergence and establishment and encouraged additional sorghum planting. In the wake of recent soaking rains, the sunny skies also helped dry mature winter crops and enabled harvesting to regain momentum. Likewise, seasonably warm, dry weather in the west favored wheat, barley, and canola harvesting. Temperatures averaged near normal in the west with maximum temperatures mostly in the middle 30s (degrees C). In the south and east, temperatures averaged 2 to 4°C above normal with maximum temperatures creeping into the lower 40s in isolated locations.

**For additional information contact:** mark.brusberg@usda.gov




## SOUTH AFRICA

Beneficial rain intensified over eastern farming areas, although heat and dryness kept fields too dry for planting in western sections of the corn belt. Rainfall totaled 10 to 75 mm from southern Limpopo southward through KwaZulu-Natal into eastern sections of Eastern Cape. Weekly temperatures averaged near to slightly above normal in the aforementioned areas, although temperatures were somewhat less extreme than the previous week, with highs mostly in the lower and middle 30s (degrees C). Farther west, hot (highs reaching 40°C), dry weather lingered over North West and environs, where farmers were awaiting the onset of rainfall before planting of corn and other rainfed crops can begin. Elsewhere, hot, sunny weather spurred rapid growth of irrigated crops – including corn and cotton – in the Orange River Valley. In contrast, unseasonable rain (5-25 mm) swept along the southern coast of Western Cape, providing moisture for irrigated tree and vine crops.

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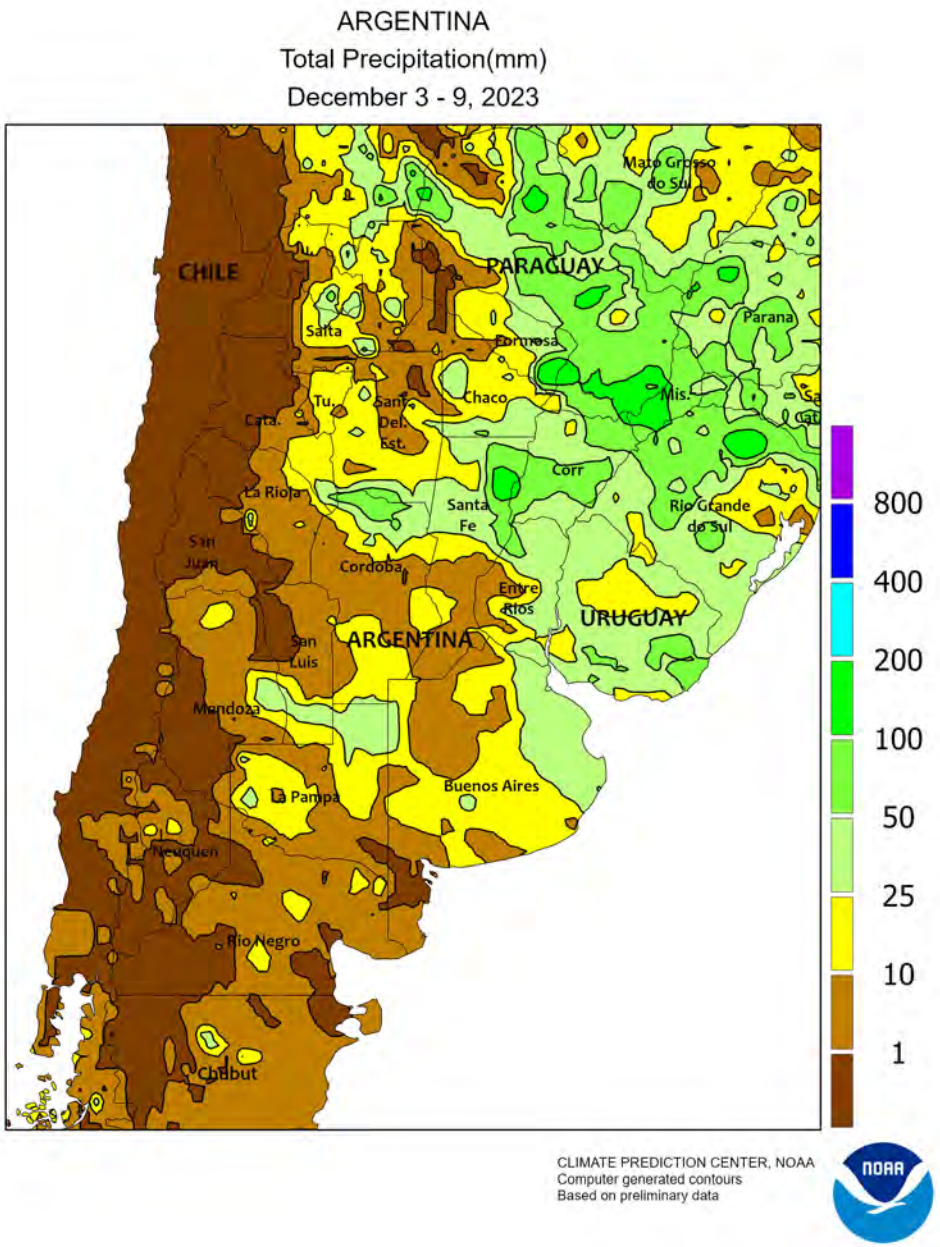
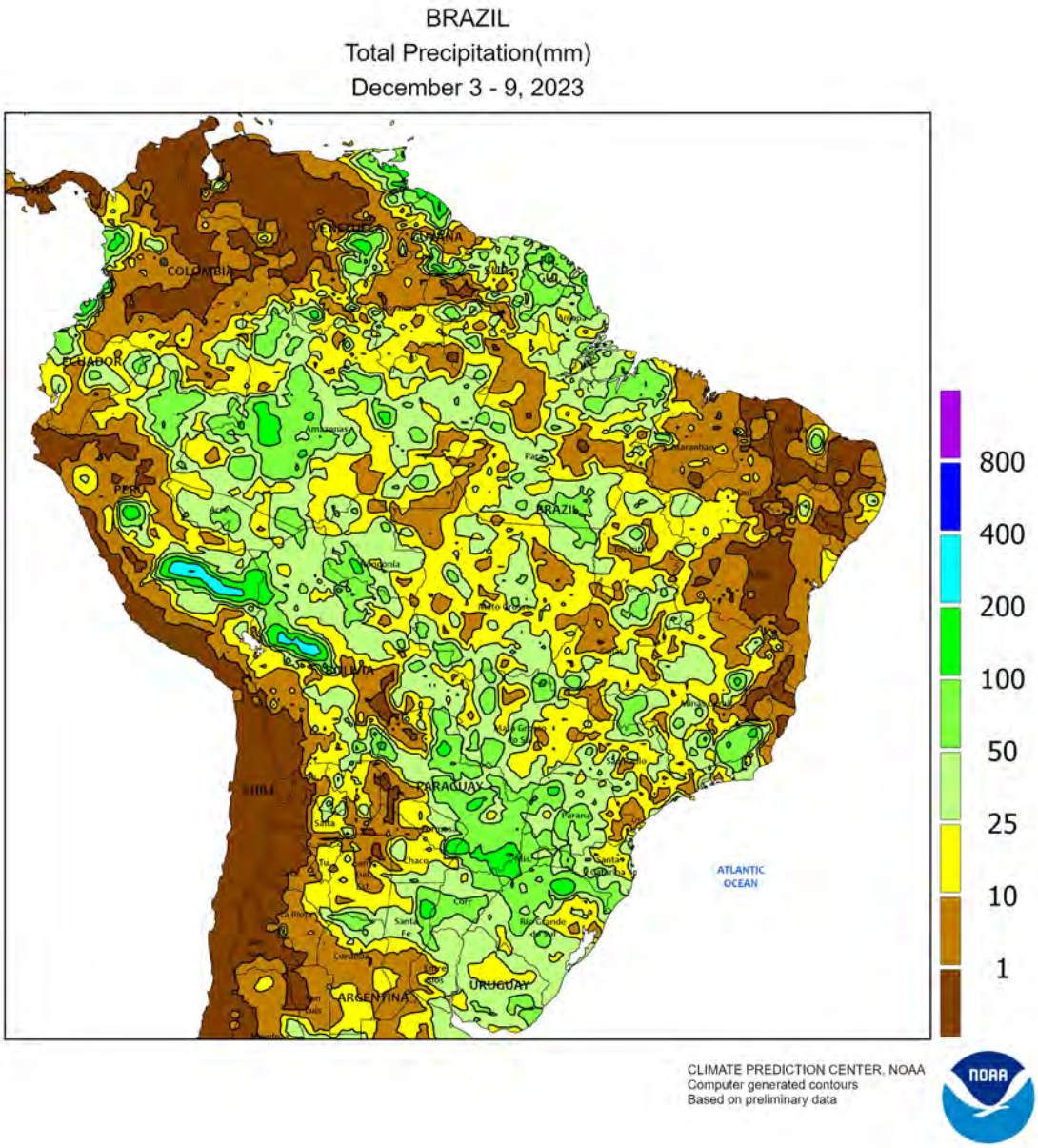



## ARGENTINA

Showers continued across northern and central Argentina, increasing moisture for emerging summer grains, oilseeds, and cotton. Most locations recorded at least 10 mm, with higher amounts (50 mm or more) recorded in La Pampa, northern Cordoba, and the northeast, including cotton areas from northern Santa Fe to eastern Formosa. Weekly temperatures averaged as much as 4°C below normal in western and southern farming areas, although daytime highs still reached the middle and upper 30s (degrees C) on several days in traditionally warmer locations of the northwest. Additionally, nighttime lows dropped below 5°C in southern production areas in Buenos Aires though no freeze occurred. According to the government of Argentina, sunflowers and corn were 98 and 54 percent planted, respectively, as of December 7, with soybean planting reaching 55 percent completed; cotton was 37 percent planted, compared with 36 percent last year, while wheat was 47 percent harvested, 7 points behind last year's pace.

**For additional information contact:** mark.brusberg@usda.gov




## BRAZIL

Conditions remained overall favorable for summer crops in key southern production areas. Rainfall totaled 25 to 100 mm from Mato Grosso do Sul to Rio Grande do Sul, while somewhat lighter rain (5-50 mm, locally higher) fell in São Paulo and Minas Gerais. Highest daytime temperatures reached the middle 30s (degrees C) in Mato Grosso do Sul and São Paulo, with highs mostly ranging in the upper 20s and lower 30s farther south. According to the government of Rio Grande do Sul, corn was 87 percent planted as of December 7, with nearly 70 percent of the crop currently in the ground ranging from flowering to mature; 76 percent of soybeans were planted, with none having reached flowering. In Paraná, 67 percent of the first-crop corn had reached reproduction as of December 4, as had nearly 50 percent of soybeans. Farther north, showers were scattered and locally light, with pockets of dryness (rainfall totaling below 25 mm, locally below 10 mm) persisting in eastern Mato Grosso and from Goiás northward to Maranhão. As in recent weeks, above-normal temperatures accompanied the dryness, with daytime highs reaching the upper 30s (degrees C). A quick return to seasonable temperatures and more widespread rain is needed to ensure current yield potential of soybeans, particularly those in Mato Grosso replanted due to earlier periods of stress.

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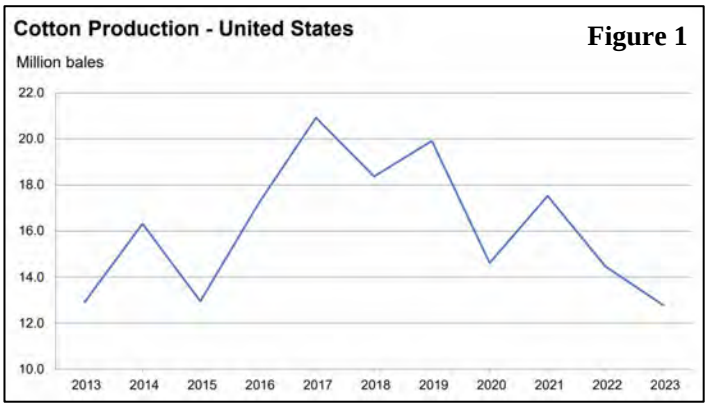
# U.S. Crop Production Highlights

*The following information was released by USDA's Agricultural Statistics Board on December 8, 2023. Forecasts refer to December 1.*

**All cotton** production is forecast at 12.8 million 480-pound bales (figure 1), down 2 percent from the previous forecast and down 12 percent from 2022. U.S. yields are expected to average 765 pounds per harvested acre, down 18 pounds from the previous forecast and down 185 pounds from 2022. Upland cotton production is forecast at 12.4 million 480-pound bales, down 2 percent from the previous forecast and down 11 percent from 2022. Pima cotton production is forecast at 331,000 bales, down 6 percent from the previous forecast and down 30 percent from 2022. All cotton area harvested is forecast at 8.02 million acres, unchanged from the previous forecast but up 10 percent from 2022.




The **U.S all orange** forecast for the 2023-2024 season is 2.74 million tons, unchanged from the previous forecast but up 10 percent from the 2022-2023 final utilization.

The Florida all orange forecast, at 20.5 million boxes (923,000 tons), is unchanged from the previous forecast but up 30 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 7.50 million boxes (338,000 tons), unchanged from the previous forecast but up 22 percent from last season's final utilization. The Florida Valencia orange forecast, at 13.0 million boxes (585,000 tons), is unchanged from the previous forecast but up 35 percent from last season's final utilization.

California and Texas orange production forecasts were carried forward from the previous forecast.

For oranges, the December 1 production forecasts will not be revised. A new forecast will be made each month throughout the growing season. End-of-season estimates will be published in the *Citrus Fruits* summary to be released in August. The production estimates are based on all data available at the end of the marketing season, including information from marketing orders, shipments, and processor records. Allowances are made for recorded local utilization and home use.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