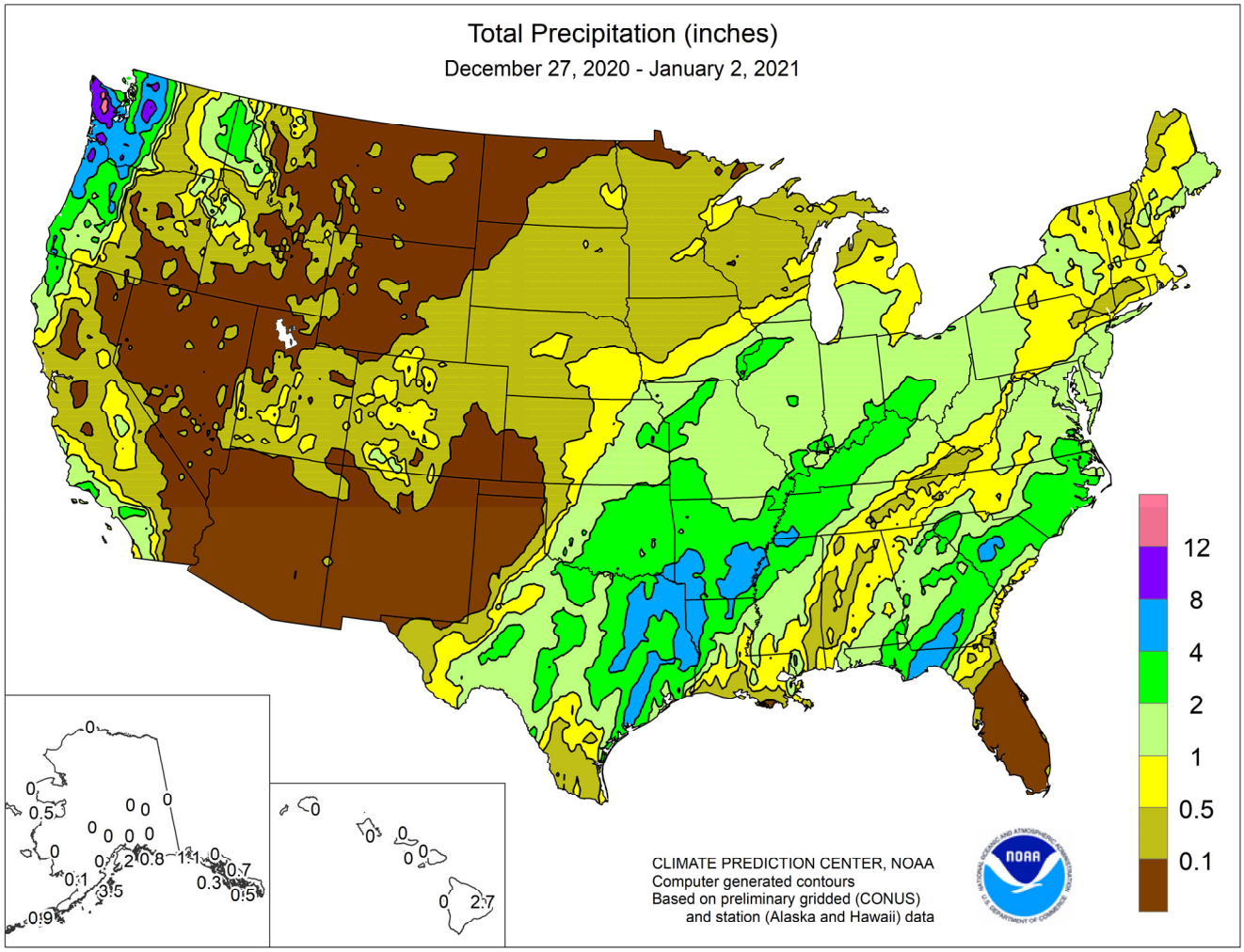
Volume 108, No. 1 www.usda.gov/oce/weather-drought-monitor January 5, 2021

# 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

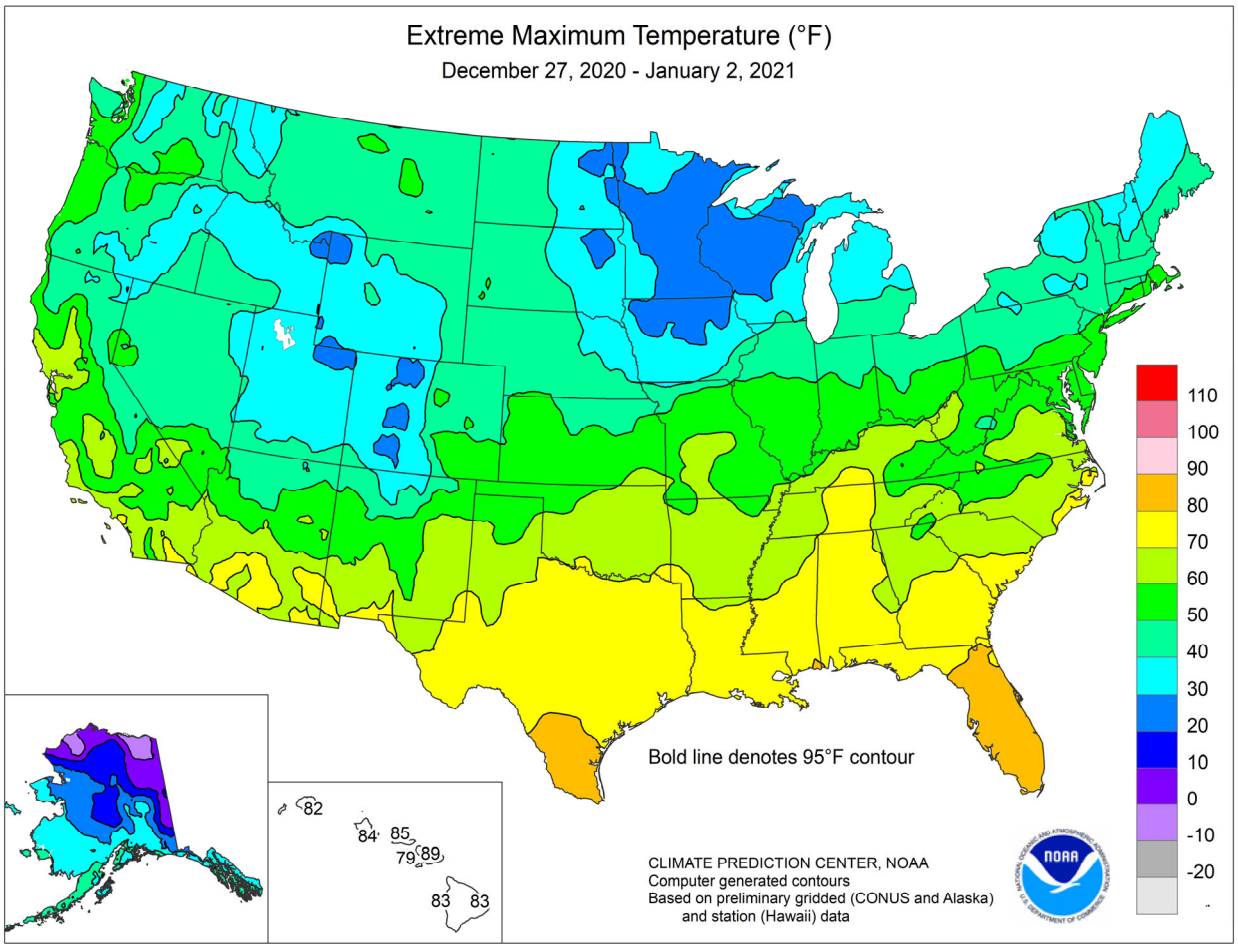
### December 27, 2020 – January 2, 2021

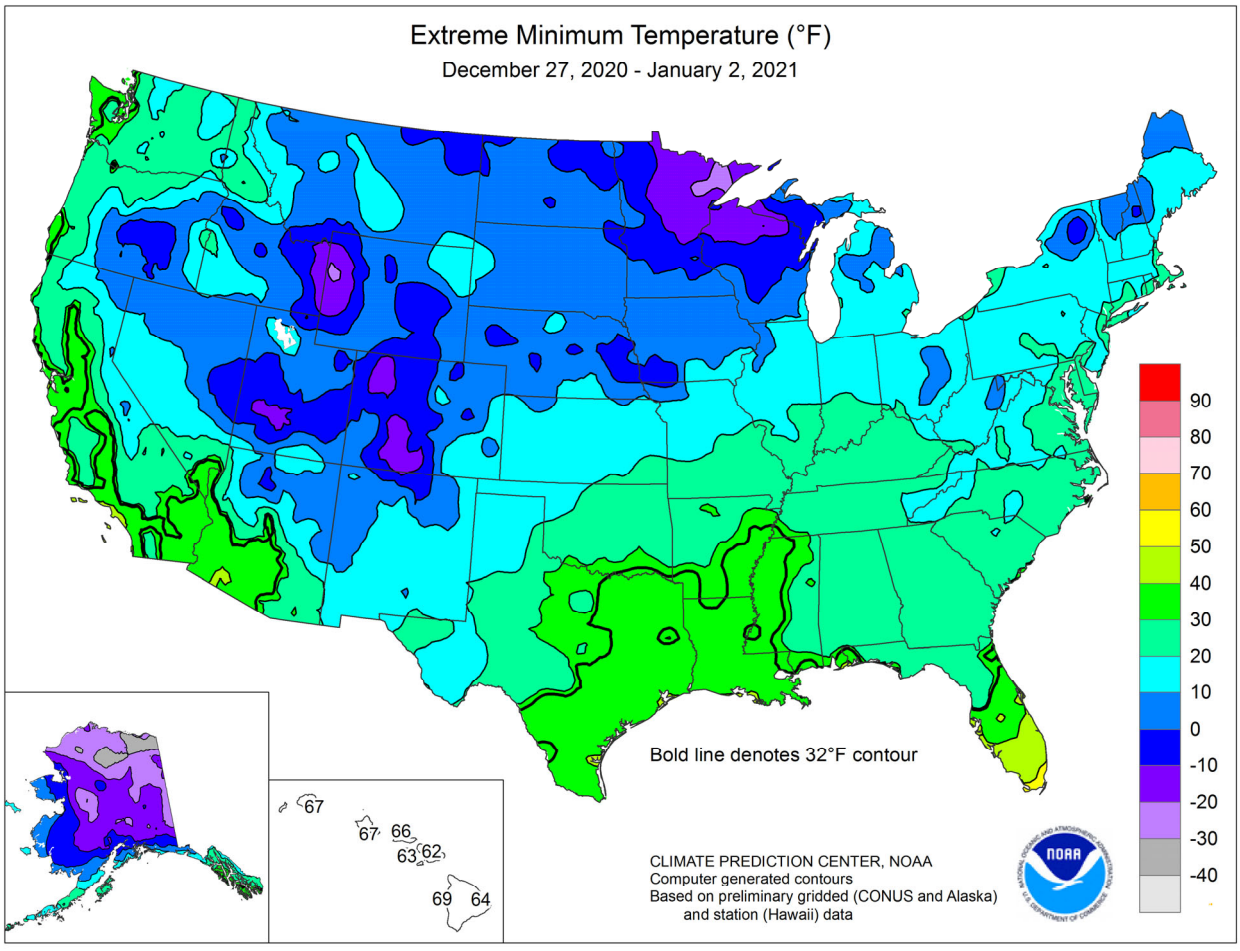
*Highlights provided by USDA/WAOB*

A quiet start to the week was followed by a spate of stormy weather as 2020 ended, especially in the **Pacific Northwest** and across the **eastern half of the country**. Significant snow fell in several areas, stretching from the **southern Plains into the Corn Belt**, although only light precipitation affected the **High Plains** and **far upper Midwest**. Meanwhile, soaking rain (2 to 4 inches or more) fell from **eastern Texas into parts of the Ohio Valley**. A separate area of heavy rain drenched portions of the **southern Atlantic States**, hampering final harvest efforts

*(Continued on page 3)*

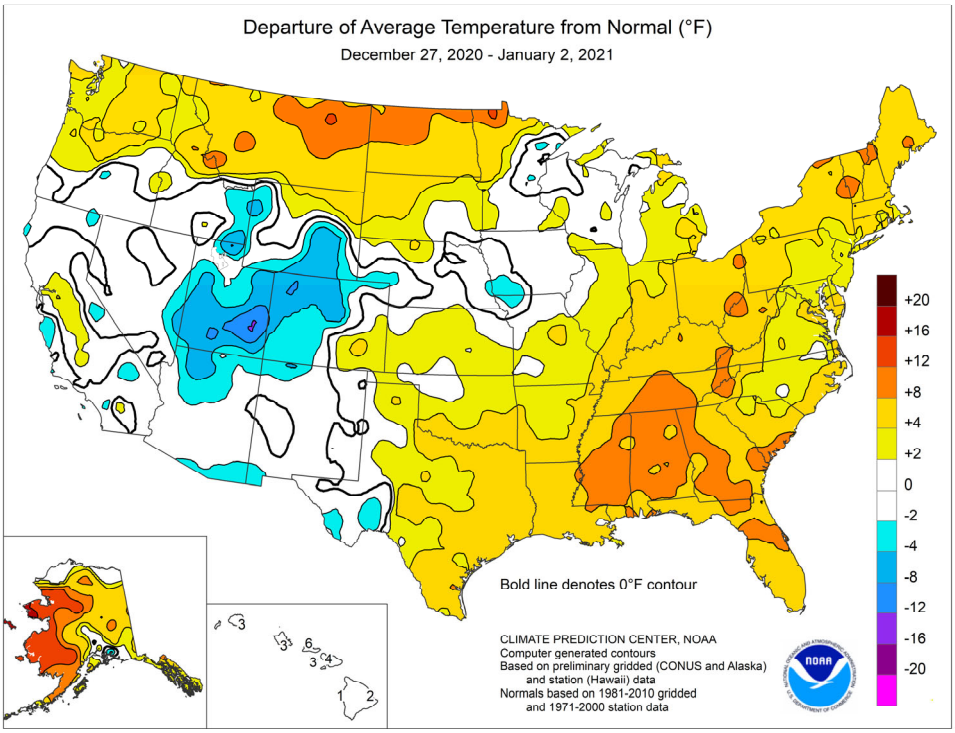
**Contents**


Extreme Maximum Temperature (°F)
December 27, 2020 - January 2, 2021
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
82
84
85
79
89
83
83
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 27, 2020 - January 2, 2021
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
67
67
66
63
62
69
64
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)*

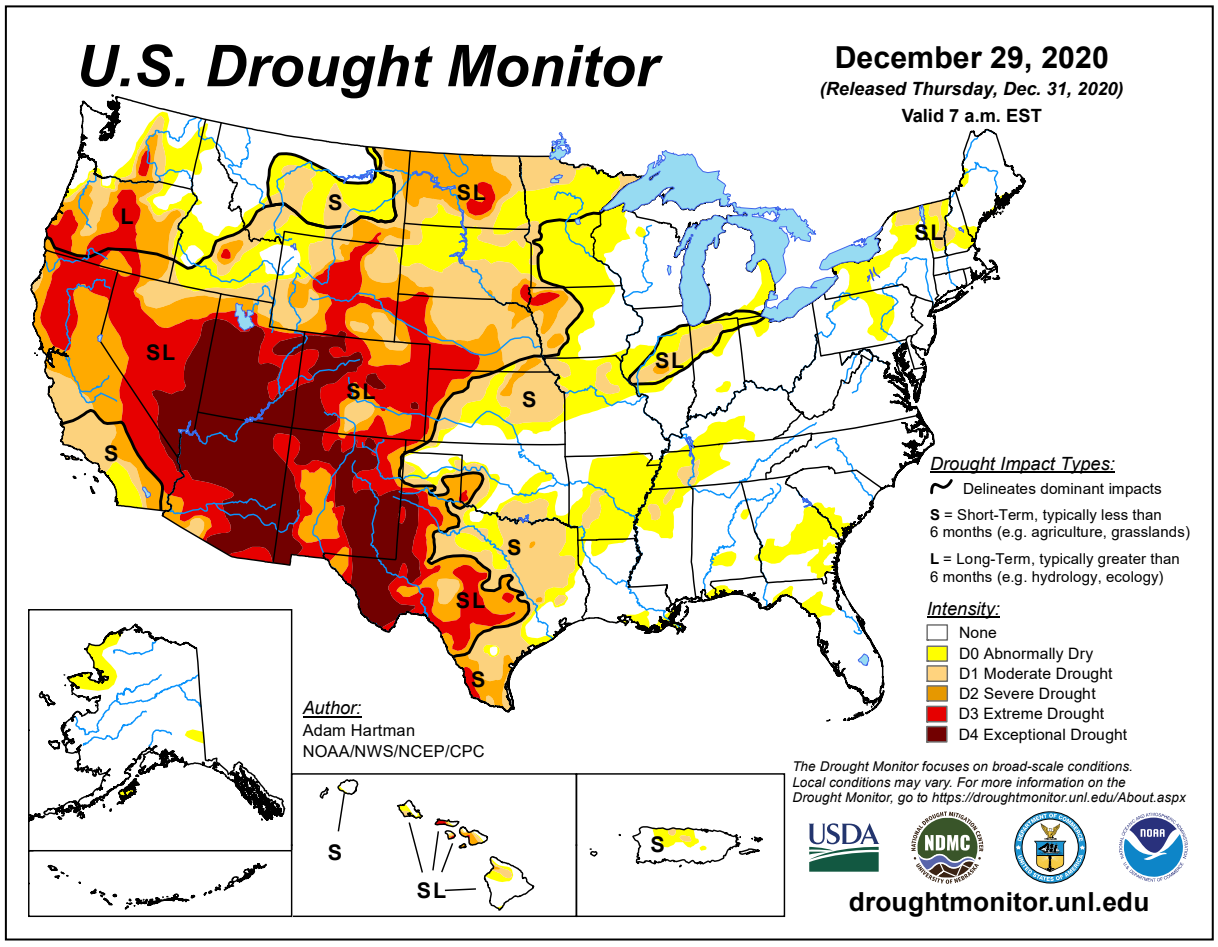
and leading to local flooding. In contrast, **Florida's peninsula** experienced warm, dry weather. In the **West**, beneficial precipitation briefly spread as far south as **southern California**. Some other drought-affected areas of the **western U.S.** also received spotty rain and snow showers. However, consequential precipitation was limited to the **Pacific Northwest**, where multiple disturbances moved ashore. For the second week in a row, near- or above-normal temperatures dominated most of the country, although cooler-than-normal conditions were common across the **central Rockies**, **Intermountain West**, and **Southwest**. The most dramatic week-over-week change occurred in the **Southeast**, where cool weather was replaced by temperatures averaging as much as 10°F above normal. Above-normal temperatures again prevailed across the **nation's northern tier**, with some of the most persistent warmth (temperatures at least 5 to 10°F above normal) covering much of **Montana** and the **Dakotas**, as well as **New York** and **New England**.

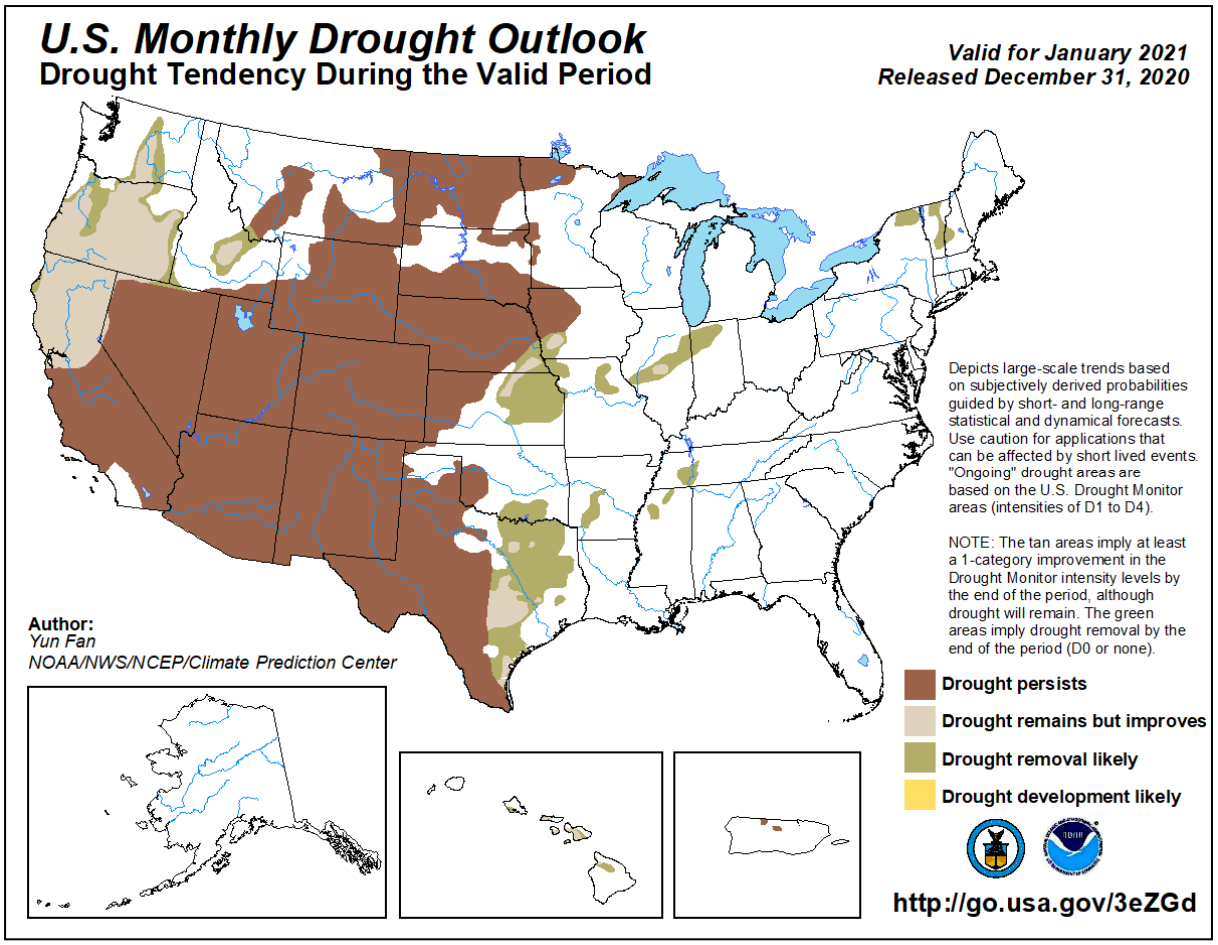



Early in the week, a disturbance crossing the **West** delivered daily-record precipitation totals for December 28 to **Colorado Springs, CO** (0.33 inch), and **Eureka, NV** (0.15 inches). **Colorado Springs** also received 2.8 inches of snow. By December 29, much heavier precipitation (rain and snow) erupted across the **nation's mid-section**, where daily-record totals topped an inch in **Moline, IL** (1.34 inches); **Topeka, KS** (1.21 inches); and **Kansas City, MO** (1.19 inches). On the same date, more than one-half foot of snow fell, setting records for the 29th, in **Des Moines, IA** (9.6 inches); **Norfolk, NE** (7.5 inches); and **Lincoln, NE** (6.5 inches). A second wave of precipitation quickly followed the first. December 30-31 precipitation reached 1.70 inches in **Tulsa, OK**, and 1.45 inches in **Wichita Falls, TX**. In **Texas**, New Year's Eve featured daily-record snowfall totals of 3.5 inches in **Midland**, 2.6 inches in **Abilene**, and 1.7 inches in **San Angelo**. Meanwhile, heavy rain erupted across **eastern Texas** and spread northeastward. Record-setting rainfall totals for December 31 included 3.75 inches in **Shreveport, LA**; 2.88 inches in **Texarkana, AR**; and 2.12 inches in **Longview, TX**. A separate area of rain near the **East Coast** set New Year's Eve records for wetness in **New Bern, NC** (1.70 inches), and **North Myrtle Beach, SC** (1.29 inches). By January 2, **Southeastern** daily-record totals reached 4.22 inches in **Valdosta, GA**, and 3.53 inches in **Tallahassee, FL**. Farther west, heavy snow lingered into New Year's Day across the **central and southern Plains**, where record-setting amounts for January 1 included 6.5 inches in **Wichita, KS**, and 5.1 inches in **Oklahoma City, OK**. For **Wichita**, it was the snowiest day since February 4, 2014, when 8.7 inches fell, and the snowiest January day since January 27, 2000, when 6.7 inches fell. Elsewhere, 2020 ended amid widespread **Northwestern** precipitation; in **Washington**, **Spokane** reported a daily-record snowfall of 8.1 inches on December 31. **Quillayute, WA**, noted a monthly rainfall sum of 17.64 inches (136 percent of normal), aided by totals in excess of an inch on December 7, 18, 19, 21, 25, 26, and 30. The **Northwestern** precipitation persisted into 2021, as daily-record totals in **Washington** for January 2 included 2.77 inches in **Quillayute** and 2.72 inches in **Hoquiam**.

With **Arctic** air blocked from reaching the **continental U.S.**, temperatures rarely strayed into record-setting territory. On December 30, warmth in advance of a cold front led to a daily record-tying high of 75°F in **Galveston, TX**. **Vero Beach, FL**, reported a low of 71°F on December 31, marking the record-breaking 204th day of the year with a minimum temperature of 70°F or greater (previously, 202 days in 2015). Later, the warmest New Year's Day on record occurred in **Eastern** locations such as **Daytona Beach, FL** (84°F), and **Charleston, SC** (80°F). The balmy start to 2021 followed the warmest year on record in numerous **Southeastern** cities, including **Miami, FL** (annual average temperature of 79.3°F); **Naples, FL** (77.8°F); and **Savannah, GA** (70.4°F). In all listed cases, previous records had been set in 2015, 2017, or 2019, or a combination of those years. With an annual average temperature of 59.5°F, **Roanoke, VA**, tied a record set in 2012 and 2019. Meanwhile, the wettest year on record was reported in **Crossville, TN** (75.32 inches), and **Roanoke** (62.65 inches). Previous records, 74.88 and 62.45 inches, respectively, had been set in 2018.

Mild weather covered **Alaska**, with weekly temperatures averaging at least 5 to 15°F above normal across much of the state's western tier. On December 29-30 in **Nome**, the temperature crept above the freezing mark (34 and 35°F, respectively) for the first time since November 25. A few areas in **southern Alaska** received significant precipitation, with **Kodiak** reporting 2.99 inches during the last 5 days of December—and a monthly sum of 13.21 inches (151 percent of normal). Farther south, warm, mostly dry weather prevailed in **Hawaii**, although showers dotted some windward locations. **Kahului, Maui**, tied a monthly record with a high of 90°F on December 29. Previously, **Kahului** had attained a 90-degree reading during the last month of the year on December 24, 2019, and several earlier dates. Not surprisingly, **Kahului** also wrapped up its warmest year on record, with an annual average temperature of 78.6°F (previously, 78.4°F in 2019). On the **Big Island**, **Hilo** (76.8°F) secured its warmest year on record, toppling the 2015 standard of 76.2°F. Meanwhile, late-year rainfall across **Hawaii** was highly variable. At the state's major airport observation sites, December rainfall ranged from 0.16 inch (5 percent of normal) in **Kahului** to 14.06 inches (122 percent) in **Hilo**, with data missing for the 31st.


U.S. Drought Monitor
December 29, 2020
(Released Thursday, Dec. 31, 2020)
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:
Adam Hartman
NOAA/NWS/NCEP/CPC
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
droughtmonitor.unl.edu


U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period
Valid for January 2021
Released December 31, 2020
Author:
Yun Fan
NOAA/NWS/NCEP/Climate Prediction Center
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).
Drought persists
Drought remains but improves
Drought removal likely
Drought development likely
http://go.usa.gov/3eZGd

# National Weather Data for Selected Cities

## Weather Data for the Week Ending January 2, 2021

**Data Provided by Climate Prediction Center**

| 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 |
| AK | ANCHORAGE | 24 | 14 | 40 | -1 | 19 | 1 | 0.06 | -0.17 | 0.06 | 1.45 | 123 | 0.00 | 0 | 91 | 75 | 0 | 7 | 1 | 0 |
| | BARROW | -3 | -14 | 5 | -20 | -9 | 0 | 0.00 | -0.04 | 0.00 | 0.74 | 417 | 0.00 | 0 | 79 | 70 | 0 | 7 | 0 | 0 |
| | FAIRBANKS | 6 | -11 | 20 | -19 | -2 | 0 | 0.00 | -0.15 | 0.00 | 0.23 | 33 | 0.00 | 0 | 80 | 71 | 0 | 7 | 0 | 0 |
| | JUNEAU | 36 | 32 | 39 | 28 | 34 | 5 | 0.39 | -0.80 | 0.22 | 13.02 | 210 | 0.12 | 36 | 93 | 79 | 0 | 4 | 4 | 0 |
| | KODIAK | 38 | 30 | 41 | 25 | 34 | 3 | 3.53 | 1.57 | 1.03 | 13.68 | 146 | 0.63 | 110 | 95 | 73 | 0 | 6 | 7 | 2 |
| | NOME | 29 | 19 | 35 | 3 | 24 | 17 | 0.46 | 0.21 | 0.29 | 1.31 | 113 | 0.00 | 0 | 90 | 65 | 0 | 7 | 4 | 0 |
| AL | BIRMINGHAM | 65 | 42 | 74 | 28 | 54 | 10 | 0.60 | -0.32 | 0.56 | 4.36 | 92 | 0.56 | 207 | 88 | 52 | 0 | 1 | 2 | 1 |
| | HUNTSVILLE | 63 | 39 | 74 | 26 | 51 | 9 | 0.45 | -0.69 | 0.42 | 5.00 | 82 | 0.42 | 135 | 89 | 50 | 0 | 1 | 2 | 0 |
| | MOBILE | 68 | 46 | 76 | 30 | 57 | 6 | 0.37 | -0.80 | 0.35 | 4.59 | 85 | 0.02 | 6 | 100 | 50 | 0 | 1 | 2 | 0 |
| | MONTGOMERY | 69 | 43 | 75 | 26 | 56 | 9 | 0.77 | -0.20 | 0.69 | 2.56 | 50 | 0.69 | 277 | 91 | 53 | 0 | 2 | 2 | 1 |
| AR | FORT SMITH | 51 | 36 | 68 | 29 | 43 | 4 | 1.98 | 1.36 | 1.38 | 3.73 | 108 | 0.08 | 45 | 92 | 58 | 0 | 1 | 5 | 1 |
| | LITTLE ROCK | 51 | 36 | 66 | 32 | 43 | 2 | 3.07 | 2.12 | 1.94 | 5.20 | 99 | 0.44 | 171 | 92 | 71 | 0 | 1 | 4 | 2 |
| AZ | FLAGSTAFF | 40 | 15 | 47 | 9 | 28 | -2 | 0.16 | -0.33 | 0.16 | 0.34 | 16 | 0.00 | 0 | 82 | 35 | 0 | 7 | 1 | 0 |
| | PHOENIX | 65 | 42 | 71 | 39 | 54 | -1 | 0.00 | -0.22 | 0.00 | 0.45 | 45 | 0.00 | 0 | 51 | 21 | 0 | 0 | 0 | 0 |
| | PRESCOTT | 48 | 21 | 54 | 15 | 34 | -3 | 0.03 | -0.22 | 0.03 | 0.06 | 5 | 0.00 | 0 | 81 | 31 | 0 | 7 | 1 | 0 |
| | TUCSON | 65 | 39 | 75 | 32 | 52 | 1 | 0.01 | -0.21 | 0.01 | 0.25 | 24 | 0.00 | 0 | 56 | 19 | 0 | 1 | 1 | 0 |
| CA | BAKERSFIELD | 57 | 41 | 62 | 35 | 49 | 2 | 0.33 | 0.06 | 0.20 | 0.34 | 30 | 0.00 | 0 | 84 | 49 | 0 | 0 | 3 | 0 |
| | EUREKA | 51 | 39 | 54 | 33 | 45 | -3 | 0.46 | -1.23 | 0.25 | 3.96 | 46 | 0.16 | 34 | 95 | 85 | 0 | 0 | 4 | 0 |
| | FRESNO | 56 | 41 | 60 | 38 | 48 | 3 | 0.31 | -0.19 | 0.29 | 1.13 | 58 | 0.00 | 0 | 88 | 57 | 0 | 0 | 2 | 0 |
| | LOS ANGELES | 64 | 45 | 68 | 43 | 55 | -2 | 1.61 | 1.00 | 1.61 | 1.63 | 73 | 0.00 | 0 | 84 | 39 | 0 | 0 | 1 | 1 |
| | REDDING | 55 | 37 | 61 | 32 | 46 | 1 | 0.06 | -1.41 | 0.03 | 2.37 | 35 | 0.01 | 3 | 87 | 46 | 0 | 1 | 3 | 0 |
| | SACRAMENTO | 56 | 40 | 60 | 34 | 48 | 3 | 0.15 | -0.63 | 0.05 | 1.59 | 46 | 0.05 | 22 | 92 | 55 | 0 | 0 | 3 | 0 |
| | SAN DIEGO | 64 | 48 | 69 | 42 | 56 | 0 | 0.57 | 0.14 | 0.56 | 0.60 | 36 | 0.00 | 0 | 82 | 45 | 0 | 0 | 2 | 1 |
| | SAN FRANCISCO | 57 | 45 | 61 | 40 | 51 | 2 | 0.28 | -0.71 | 0.19 | 1.56 | 36 | 0.19 | 66 | 87 | 59 | 0 | 0 | 4 | 0 |
| | STOCKTON | 58 | 41 | 61 | 36 | 49 | 5 | 0.10 | -0.45 | 0.08 | 1.80 | 75 | 0.01 | 7 | 91 | 51 | 0 | 0 | 3 | 0 |
| CO | ALAMOSA | 33 | -3 | 37 | -15 | 15 | -1 | 0.10 | 0.02 | 0.10 | 0.37 | 86 | 0.00 | 0 | 90 | 45 | 0 | 7 | 1 | 0 |
| | CO SPRINGS | 41 | 17 | 48 | 3 | 29 | -1 | 0.35 | 0.28 | 0.27 | 0.52 | 126 | 0.00 | 0 | 74 | 36 | 0 | 7 | 2 | 0 |
| | DENVER INTL | 42 | 20 | 52 | 7 | 31 | 1 | 0.15 | 0.06 | 0.15 | 0.52 | 120 | 0.00 | 0 | 81 | 39 | 0 | 7 | 1 | 0 |
| | GRAND JUNCTION | 33 | 9 | 39 | 1 | 21 | -6 | 0.25 | 0.12 | 0.20 | 0.31 | 49 | 0.00 | 0 | 85 | 54 | 0 | 7 | 2 | 0 |
| | PUEBLO | 48 | 19 | 57 | 10 | 34 | 4 | 0.03 | -0.05 | 0.03 | 0.16 | 36 | 0.00 | 0 | 79 | 28 | 0 | 6 | 1 | 0 |
| CT | BRIDGEPORT | 45 | 27 | 53 | 24 | 36 | 5 | 0.76 | 0.07 | 0.42 | 4.39 | 125 | 0.35 | 166 | 80 | 51 | 0 | 6 | 3 | 0 |
| | HARTFORD | 42 | 23 | 49 | 20 | 33 | 5 | 0.55 | -0.13 | 0.23 | 5.17 | 143 | 0.39 | 198 | 86 | 48 | 0 | 7 | 4 | 0 |
| DC | WASHINGTON | 48 | 34 | 58 | 26 | 41 | 4 | 0.80 | 0.20 | 0.80 | 5.52 | 171 | 0.80 | 472 | 84 | 47 | 0 | 3 | 1 | 1 |
| DE | WILMINGTON | 46 | 27 | 54 | 21 | 36 | 3 | 0.90 | 0.26 | 0.88 | 6.05 | 166 | 0.89 | 491 | 85 | 50 | 0 | 6 | 3 | 1 |
| FL | DAYTONA BEACH | 76 | 54 | 84 | 35 | 65 | 7 | 0.00 | -0.61 | 0.00 | 0.56 | 20 | 0.00 | 0 | 100 | 64 | 0 | 0 | 0 | 0 |
| | JACKSONVILLE | 73 | 47 | 82 | 27 | 60 | 7 | 0.01 | -0.59 | 0.01 | 1.55 | 52 | 0.01 | 7 | 98 | 56 | 0 | 1 | 1 | 0 |
| | KEY WEST | 75 | 67 | 79 | 50 | 71 | 1 | 0.10 | -0.31 | 0.09 | 1.45 | 62 | 0.01 | 10 | 90 | 70 | 0 | 0 | 2 | 0 |
| | MIAMI | 79 | 67 | 82 | 52 | 73 | 4 | 0.01 | -0.38 | 0.01 | 1.57 | 73 | 0.00 | 0 | 83 | 57 | 0 | 0 | 1 | 0 |
| | ORLANDO | 78 | 56 | 83 | 37 | 67 | 7 | 0.00 | -0.53 | 0.00 | 1.04 | 38 | 0.00 | 0 | 96 | 51 | 0 | 0 | 0 | 0 |
| | PENSACOLA | 69 | 49 | 75 | 33 | 59 | 8 | 1.34 | 0.38 | 0.84 | 5.28 | 108 | 0.50 | 184 | 96 | 62 | 0 | 0 | 2 | 2 |
| | TALLAHASSEE | 70 | 44 | 73 | 24 | 57 | 5 | 4.33 | 3.49 | 3.24 | 7.33 | 178 | 4.21 | 900 | 97 | 57 | 0 | 1 | 3 | 2 |
| | TAMPA | 78 | 58 | 83 | 39 | 68 | 7 | 0.03 | -0.45 | 0.03 | 2.67 | 102 | 0.00 | 0 | 86 | 52 | 0 | 0 | 1 | 0 |
| | WEST PALM BEACH | 78 | 65 | 82 | 47 | 72 | 6 | 0.23 | -0.54 | 0.20 | 2.25 | 62 | 0.00 | 0 | 85 | 55 | 0 | 0 | 3 | 0 |
| GA | ATHENS | 60 | 39 | 68 | 27 | 49 | 6 | 1.65 | 0.84 | 1.38 | 4.41 | 112 | 1.38 | 605 | 89 | 60 | 0 | 2 | 2 | 1 |
| | ATLANTA | 61 | 42 | 68 | 29 | 52 | 8 | 1.25 | 0.44 | 1.20 | 3.48 | 84 | 1.20 | 525 | 90 | 61 | 0 | 1 | 2 | 1 |
| | AUGUSTA | 65 | 40 | 74 | 22 | 52 | 7 | 2.81 | 2.02 | 1.20 | 5.07 | 140 | 1.97 | 863 | 94 | 58 | 0 | 3 | 3 | 3 |
| | COLUMBUS | 65 | 43 | 69 | 25 | 54 | 7 | 2.22 | 1.39 | 1.97 | 5.08 | 112 | 1.97 | 862 | 92 | 60 | 0 | 2 | 2 | 1 |
| | MACON | 66 | 42 | 73 | 22 | 54 | 8 | 0.76 | -0.13 | 0.49 | 2.81 | 65 | 0.55 | 220 | 93 | 57 | 0 | 2 | 3 | 0 |
| | SAVANNAH | 71 | 47 | 78 | 28 | 59 | 10 | 0.29 | -0.41 | 0.28 | 2.00 | 63 | 0.28 | 126 | 93 | 57 | 0 | 1 | 2 | 0 |
| HI | HILO | 82 | 66 | 83 | 64 | 74 | 2 | 2.67 | 0.51 | 0.84 | 15.79 | 130 | 1.50 | 263 | 87 | 58 | 0 | 0 | 7 | 3 |
| | HONOLULU | 83 | 71 | 84 | 67 | 77 | 3 | 0.01 | -0.72 | 0.01 | 0.30 | 8 | 0.00 | 0 | 81 | 51 | 0 | 0 | 1 | 0 |
| | KAHULUI | 85 | 67 | 89 | 62 | 76 | 4 | 0.17 | -0.52 | 0.07 | 0.25 | 7 | 0.11 | 54 | 82 | 46 | 0 | 0 | 4 | 0 |
| | LIHUE | 80 | 71 | 82 | 67 | 76 | 3 | 0.04 | -1.01 | 0.04 | 2.04 | 37 | 0.00 | 0 | 88 | 66 | 0 | 0 | 1 | 0 |
| IA | BURLINGTON | 33 | 19 | 49 | 15 | 26 | 0 | 1.19 | 0.82 | 0.78 | 2.10 | 96 | 0.29 | 317 | 96 | 74 | 0 | 7 | 3 | 1 |
| | CEDAR RAPIDS | 27 | 13 | 31 | 6 | 20 | 0 | 0.16 | -0.09 | 0.14 | 0.67 | 44 | 0.00 | 0 | 94 | 77 | 0 | 7 | 2 | 0 |
| | DES MOINES | 29 | 19 | 32 | 10 | 24 | 1 | 0.99 | 0.73 | 0.98 | 1.92 | 128 | 0.00 | 0 | 89 | 67 | 0 | 7 | 2 | 1 |
| | DUBUQUE | 28 | 16 | 35 | 8 | 22 | 2 | 0.51 | 0.21 | 0.40 | 1.31 | 67 | 0.04 | 50 | 93 | 75 | 0 | 7 | 3 | 0 |
| | SIOUX CITY | 29 | 10 | 32 | 1 | 20 | 0 | 0.27 | 0.13 | 0.26 | 0.36 | 41 | 0.00 | 0 | 91 | 71 | 0 | 7 | 2 | 0 |
| | WATERLOO | 28 | 13 | 31 | 3 | 20 | 1 | 0.42 | 0.20 | 0.35 | 0.82 | 64 | 0.00 | 0 | 90 | 72 | 0 | 7 | 2 | 0 |
| ID | BOISE | 36 | 26 | 46 | 20 | 31 | 1 | 0.04 | -0.30 | 0.02 | 0.57 | 34 | 0.02 | 21 | 96 | 71 | 0 | 6 | 2 | 0 |
| | LEWISTON | 41 | 32 | 50 | 26 | 37 | 3 | 0.02 | -0.22 | 0.02 | 0.63 | 58 | 0.00 | 0 | 91 | 65 | 0 | 5 | 1 | 0 |
| | POCATELLO | 31 | 17 | 40 | 9 | 24 | 0 | 0.00 | -0.26 | 0.00 | 0.40 | 30 | 0.00 | 0 | 86 | 63 | 0 | 7 | 0 | 0 |
| IL | CHICAGO/O_HARE | 35 | 22 | 47 | 18 | 29 | 4 | 1.09 | 0.66 | 0.51 | 2.93 | 123 | 0.38 | 293 | 86 | 63 | 0 | 7 | 3 | 1 |
| | MOLINE | 34 | 17 | 50 | 11 | 25 | 2 | 2.12 | 1.73 | 1.32 | 3.41 | 149 | 0.65 | 585 | 88 | 69 | 0 | 7 | 4 | 2 |
| | PEORIA | 35 | 22 | 50 | 16 | 29 | 3 | 1.16 | 0.70 | 0.63 | 1.89 | 73 | 0.65 | 500 | 90 | 69 | 0 | 7 | 4 | 1 |
| | ROCKFORD | 35 | 20 | 46 | 14 | 28 | 5 | 1.29 | 0.93 | 0.58 | 2.27 | 109 | 0.53 | 515 | 81 | 61 | 0 | 7 | 4 | 2 |
| | SPRINGFIELD | 38 | 23 | 54 | 16 | 30 | 3 | 1.06 | 0.56 | 0.58 | 1.78 | 66 | 0.72 | 508 | 96 | 71 | 0 | 7 | 4 | 1 |
| IN | EVANSVILLE | 48 | 31 | 59 | 28 | 40 | 6 | 1.66 | 0.93 | 0.93 | 2.71 | 68 | 0.72 | 368 | 80 | 60 | 0 | 4 | 3 | 2 |
| | FORT WAYNE | 38 | 25 | 49 | 17 | 31 | 6 | 1.11 | 0.52 | 0.67 | 1.93 | 65 | 0.68 | 402 | 87 | 65 | 0 | 6 | 4 | 1 |
| | INDIANAPOLIS | 40 | 26 | 53 | 21 | 33 | 4 | 1.29 | 0.60 | 0.77 | 2.22 | 66 | 0.80 | 408 | 92 | 68 | 0 | 7 | 4 | 1 |
| | SOUTH BEND | 36 | 20 | 46 | 9 | 28 | 3 | 1.26 | 0.70 | 0.92 | 3.47 | 125 | 0.93 | 551 | 88 | 67 | 0 | 7 | 5 | 1 |
| KS | CONCORDIA | 40 | 24 | 48 | 19 | 32 | 3 | 0.62 | 0.49 | 0.61 | 0.67 | 74 | 0.00 | 0 | 89 | 59 | 0 | 7 | 2 | 1 |
| | DODGE CITY | 44 | 24 | 53 | 17 | 34 | 3 | 0.20 | 0.02 | 0.20 | 1.05 | 115 | 0.00 | 0 | 87 | 49 | 0 | 7 | 1 | 0 |
| | GOODLAND | 41 | 18 | 50 | 13 | 29 | 0 | 0.12 | 0.03 | 0.12 | 0.76 | 148 | 0.00 | 0 | 88 | 49 | 0 | 7 | 1 | 0 |
| | TOPEKA | 39 | 22 | 51 | 17 | 30 | 1 | 1.62 | 1.41 | 1.20 | 1.71 | 120 | 0.42 | 823 | 84 | 52 | 0 | 7 | 2 | 1 |

**Based on 1981-2010 normals** ***** Not Available**

## Weather Data for the Week Ending January 2, 2021

| 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 | 44 | 25 | 56 | 17 | 34 | 2 | 1.31 | 1.11 | 1.04 | 1.92 | 153 | 0.27 | 523 | 88 | 51 | 0 | 6 | 2 | 1 |
| KY | LEXINGTON | 50 | 30 | 65 | 23 | 40 | 7 | 2.07 | 1.28 | 1.15 | 3.73 | 90 | 1.17 | 558 | 89 | 63 | 0 | 5 | 4 | 2 |
| | LOUISVILLE | 51 | 33 | 59 | 29 | 42 | 7 | 2.30 | 1.49 | 1.12 | 3.41 | 84 | 0.94 | 426 | 86 | 59 | 0 | 3 | 3 | 2 |
| | PADUCAH | 50 | 33 | 60 | 26 | 42 | 7 | 1.80 | 0.90 | 0.90 | 3.28 | 67 | 0.74 | 313 | 89 | 61 | 0 | 3 | 5 | 2 |
| LA | BATON ROUGE | 68 | 45 | 76 | 32 | 56 | 2 | 0.48 | -0.37 | 0.43 | 4.26 | 90 | 0.04 | 14 | 94 | 59 | 0 | 1 | 3 | 0 |
| | LAKE CHARLES | 67 | 46 | 74 | 37 | 56 | 5 | 0.30 | -0.86 | 0.20 | 4.37 | 87 | 0.00 | 0 | 98 | 63 | 0 | 0 | 2 | 0 |
| | NEW ORLEANS | 71 | 51 | 79 | 40 | 61 | 7 | 0.26 | -0.92 | 0.26 | 4.02 | 72 | 0.00 | 0 | 84 | 53 | 0 | 0 | 1 | 0 |
| | SHREVEPORT | 62 | 44 | 73 | 34 | 53 | 6 | 4.81 | 3.91 | 3.74 | 8.04 | 159 | 0.00 | 0 | 88 | 61 | 0 | 0 | 3 | 2 |
| MA | BOSTON | 42 | 28 | 49 | 24 | 35 | 4 | 0.59 | -0.17 | 0.38 | 3.96 | 99 | 0.50 | 225 | 83 | 46 | 0 | 6 | 3 | 0 |
| | WORCESTER | 39 | 23 | 45 | 19 | 31 | 6 | 0.85 | 0.08 | 0.28 | 6.61 | 164 | 0.56 | 253 | 81 | 50 | 0 | 7 | 4 | 0 |
| MD | BALTIMORE | 48 | 29 | 57 | 22 | 39 | 5 | 1.02 | 0.36 | 1.02 | 5.53 | 156 | 1.02 | 539 | 82 | 42 | 0 | 5 | 1 | 1 |
| ME | CARIBOU | 29 | 12 | 37 | 8 | 21 | 8 | 0.54 | -0.10 | 0.21 | 2.62 | 76 | 0.21 | 115 | 85 | 58 | 0 | 7 | 4 | 0 |
| | PORTLAND | 40 | 20 | 45 | 16 | 30 | 6 | 0.65 | -0.15 | 0.59 | 4.59 | 108 | 0.63 | 283 | 91 | 53 | 0 | 7 | 4 | 1 |
| MI | ALPENA | 32 | 15 | 35 | 2 | 23 | 2 | 0.14 | -0.23 | 0.11 | 1.24 | 66 | 0.00 | 0 | 94 | 65 | 0 | 7 | 2 | 0 |
| | GRAND RAPIDS | 34 | 23 | 41 | 15 | 28 | 3 | 0.87 | 0.34 | 0.37 | 2.35 | 88 | 0.27 | 170 | 94 | 70 | 0 | 7 | 5 | 0 |
| | HOUGHTON LAKE | 29 | 16 | 33 | 9 | 22 | 2 | 0.80 | 0.46 | 0.33 | 2.07 | 116 | 0.31 | 282 | 89 | 67 | 0 | 7 | 5 | 0 |
| | LANSING | 35 | 21 | 42 | 15 | 28 | 3 | 1.01 | 0.61 | 0.42 | 2.53 | 127 | 0.50 | 420 | 95 | 67 | 0 | 7 | 6 | 0 |
| | MUSKEGON | 34 | 24 | 38 | 19 | 29 | 2 | 1.04 | 0.54 | 0.54 | 2.70 | 100 | 0.31 | 216 | 87 | 62 | 0 | 7 | 4 | 1 |
| | TRAVERSE CITY | 33 | 23 | 37 | 10 | 28 | 5 | 0.09 | -0.52 | 0.06 | 0.66 | 24 | 0.00 | 0 | 85 | 61 | 0 | 7 | 3 | 0 |
| MN | DULUTH | 19 | 5 | 25 | -10 | 12 | 1 | 0.29 | 0.04 | 0.20 | 0.82 | 63 | 0.00 | 0 | 86 | 71 | 0 | 7 | 2 | 0 |
| | INT_L FALLS | 21 | 2 | 32 | -19 | 12 | 6 | 0.24 | 0.06 | 0.14 | 0.85 | 96 | 0.00 | 0 | 88 | 72 | 0 | 7 | 2 | 0 |
| | MINNEAPOLIS | 24 | 9 | 26 | 3 | 17 | 0 | 0.21 | -0.03 | 0.18 | 0.75 | 60 | 0.00 | 0 | 93 | 74 | 0 | 7 | 3 | 0 |
| | ROCHESTER | 25 | 11 | 29 | 4 | 18 | 0 | 0.09 | -0.13 | 0.09 | 0.13 | 10 | 0.00 | 0 | 90 | 76 | 0 | 7 | 1 | 0 |
| | ST. CLOUD | 22 | 1 | 24 | -9 | 12 | -1 | 0.33 | 0.15 | 0.32 | 0.44 | 49 | 0.00 | 0 | 92 | 74 | 0 | 7 | 2 | 0 |
| MO | COLUMBIA | 42 | 27 | 60 | 18 | 34 | 5 | 1.30 | 0.83 | 0.82 | 1.54 | 59 | 0.90 | 690 | 87 | 65 | 0 | 6 | 4 | 1 |
| | KANSAS CITY | 38 | 24 | 53 | 17 | 31 | 2 | 1.76 | 1.51 | 1.19 | 1.83 | 114 | 0.57 | 805 | 86 | 61 | 0 | 7 | 2 | 2 |
| | SAINT LOUIS | 42 | 28 | 59 | 25 | 35 | 3 | 1.11 | 0.50 | 0.78 | 2.36 | 78 | 0.78 | 432 | 82 | 67 | 0 | 7 | 3 | 1 |
| | SPRINGFIELD | 42 | 28 | 61 | 23 | 35 | 2 | 1.86 | 1.28 | 0.95 | 2.51 | 78 | 1.02 | 604 | 94 | 76 | 0 | 7 | 5 | 2 |
| MS | JACKSON | 66 | 46 | 74 | 34 | 56 | 10 | 0.85 | -0.17 | 0.62 | 5.23 | 96 | 0.24 | 83 | 93 | 56 | 0 | 0 | 2 | 1 |
| | MERIDIAN | 66 | 43 | 75 | 28 | 55 | 10 | 0.26 | -0.72 | 0.26 | 3.60 | 67 | 0.00 | 0 | 90 | 53 | 0 | 1 | 1 | 0 |
| | TUPELO | 62 | 40 | 70 | 31 | 51 | 9 | 1.41 | 0.26 | 0.66 | 5.48 | 83 | 0.43 | 144 | 90 | 57 | 0 | 1 | 3 | 1 |
| MT | BILLINGS | 42 | 23 | 48 | 18 | 33 | 7 | 0.00 | -0.11 | 0.00 | 0.35 | 64 | 0.00 | 0 | 66 | 33 | 0 | 7 | 0 | 0 |
| | BUTTE | 33 | 9 | 38 | -7 | 21 | 3 | 0.01 | -0.10 | 0.01 | 0.11 | 19 | 0.00 | 0 | 84 | 52 | 0 | 7 | 1 | 0 |
| | CUT BANK | 36 | 21 | 45 | 2 | 28 | 7 | 0.00 | -0.06 | 0.00 | 0.20 | 75 | 0.00 | 0 | 76 | 53 | 0 | 5 | 0 | 0 |
| | GLASGOW | 36 | 17 | 49 | 7 | 26 | 13 | 0.05 | -0.06 | 0.04 | 0.05 | 10 | 0.04 | 125 | 85 | 57 | 0 | 7 | 2 | 0 |
| | GREAT FALLS | 40 | 23 | 47 | 11 | 31 | 7 | 0.00 | -0.12 | 0.00 | 0.10 | 17 | 0.00 | 0 | 70 | 42 | 0 | 6 | 0 | 0 |
| | HAVRE | 36 | 17 | 51 | 6 | 27 | 10 | 0.03 | -0.07 | 0.03 | 0.08 | 17 | 0.00 | 0 | 84 | 61 | 0 | 6 | 1 | 0 |
| | MISSOULA | 35 | 20 | 44 | 12 | 28 | 4 | 0.01 | -0.22 | 0.01 | 0.43 | 38 | 0.00 | 0 | 98 | 73 | 0 | 7 | 1 | 0 |
| NC | ASHEVILLE | 59 | 36 | 73 | 20 | 47 | 10 | 1.62 | 0.90 | 1.55 | 5.55 | 146 | 1.55 | 741 | 98 | 50 | 0 | 2 | 3 | 1 |
| | CHARLOTTE | 55 | 35 | 62 | 22 | 45 | 5 | 0.75 | 0.04 | 0.63 | 3.63 | 105 | 0.70 | 335 | 95 | 60 | 0 | 3 | 3 | 1 |
| | GREENSBORO | 50 | 32 | 56 | 22 | 41 | 2 | 0.36 | -0.27 | 0.22 | 4.31 | 137 | 0.35 | 191 | 94 | 62 | 0 | 4 | 3 | 0 |
| | HATTERAS | 62 | 47 | 69 | 34 | 55 | 8 | 0.52 | -0.49 | 0.25 | 7.06 | 153 | 0.38 | 122 | 90 | 66 | 0 | 0 | 3 | 0 |
| | RALEIGH | 53 | 34 | 61 | 24 | 43 | 3 | 1.96 | 1.28 | 0.86 | 7.06 | 218 | 1.49 | 756 | 96 | 61 | 0 | 4 | 4 | 2 |
| | WILMINGTON | 66 | 44 | 74 | 26 | 55 | 9 | 0.70 | -0.09 | 0.55 | 2.90 | 75 | 0.15 | 63 | 91 | 59 | 0 | 1 | 3 | 1 |
| ND | BISMARCK | 31 | 9 | 42 | 0 | 20 | 7 | 0.23 | 0.11 | 0.22 | 0.26 | 48 | 0.00 | 0 | 94 | 63 | 0 | 7 | 2 | 0 |
| | DICKINSON | 37 | 15 | 49 | 7 | 26 | 10 | 0.00 | -0.08 | 0.00 | 0.00 | 0 | 0.00 | 0 | 85 | 50 | 0 | 7 | 0 | 0 |
| | FARGO | 23 | 9 | 28 | 2 | 16 | 6 | 0.37 | 0.17 | 0.26 | 0.58 | 63 | 0.00 | 0 | 91 | 77 | 0 | 7 | 3 | 0 |
| | GRAND FORKS | 22 | 8 | 28 | 1 | 15 | 7 | 0.24 | 0.11 | 0.17 | 0.41 | 63 | 0.00 | 0 | 90 | 74 | 0 | 7 | 4 | 0 |
| | JAMESTOWN | 28 | 10 | 40 | 3 | 19 | 8 | 0.25 | 0.14 | 0.25 | 0.26 | 55 | 0.00 | 0 | 83 | 66 | 0 | 7 | 1 | 0 |
| NE | GRAND ISLAND | 37 | 16 | 43 | 10 | 26 | 1 | 0.38 | 0.26 | 0.35 | 0.84 | 125 | 0.00 | 0 | 88 | 60 | 0 | 7 | 3 | 0 |
| | LINCOLN | 35 | 11 | 41 | -5 | 23 | -2 | 0.69 | 0.52 | 0.69 | 1.09 | 107 | 0.00 | 0 | 87 | 64 | 0 | 7 | 1 | 1 |
| | NORFOLK | 34 | 11 | 39 | 1 | 23 | 0 | 0.42 | 0.28 | 0.42 | 0.49 | 60 | 0.00 | 0 | 86 | 63 | 0 | 7 | 1 | 0 |
| | NORTH PLATTE | 38 | 10 | 45 | -1 | 24 | 0 | 0.36 | 0.26 | 0.22 | 0.72 | 152 | 0.00 | 0 | 90 | 58 | 0 | 7 | 2 | 0 |
| | OMAHA | 30 | 15 | 36 | 6 | 23 | -1 | 0.51 | 0.33 | 0.51 | 1.12 | 101 | 0.00 | 0 | 91 | 69 | 0 | 7 | 1 | 1 |
| | SCOTTSBLUFF | 40 | 13 | 47 | 6 | 26 | 0 | 0.25 | 0.14 | 0.12 | 0.40 | 72 | 0.00 | 0 | 85 | 50 | 0 | 7 | 3 | 0 |
| | VALENTINE | 39 | 14 | 48 | 5 | 27 | 4 | 0.30 | 0.22 | 0.29 | 0.41 | 93 | 0.00 | 0 | 83 | 57 | 0 | 7 | 2 | 0 |
| NH | CONCORD | 38 | 20 | 42 | 13 | 29 | 7 | 0.59 | -0.06 | 0.45 | 4.26 | 126 | 0.57 | 315 | 84 | 46 | 0 | 7 | 3 | 0 |
| NJ | ATLANTIC_CITY | 49 | 26 | 56 | 19 | 37 | 3 | 0.97 | 0.24 | 0.96 | 6.02 | 155 | 0.97 | 466 | 88 | 50 | 0 | 6 | 2 | 1 |
| | NEWARK | 45 | 28 | 53 | 23 | 37 | 4 | 1.30 | 0.52 | 0.70 | 4.39 | 109 | 0.72 | 315 | 82 | 45 | 0 | 6 | 3 | 2 |
| NM | ALBUQUERQUE | 48 | 24 | 56 | 17 | 36 | 1 | 0.00 | -0.10 | 0.00 | 0.21 | 38 | 0.00 | 0 | 63 | 25 | 0 | 6 | 0 | 0 |
| NV | ELY | 36 | 9 | 44 | -4 | 23 | -2 | 0.10 | -0.06 | 0.07 | 0.37 | 57 | 0.00 | 0 | 84 | 43 | 0 | 7 | 3 | 0 |
| | LAS VEGAS | 54 | 39 | 56 | 35 | 46 | -1 | 0.00 | -0.14 | 0.00 | 0.04 | 7 | 0.00 | 0 | 56 | 25 | 0 | 0 | 0 | 0 |
| | RENO | 44 | 24 | 50 | 20 | 34 | -1 | 0.07 | -0.19 | 0.06 | 0.27 | 24 | 0.00 | 0 | 88 | 41 | 0 | 7 | 2 | 0 |
| | WINNEMUCCA | 42 | 19 | 46 | 7 | 30 | 2 | 0.01 | -0.22 | 0.01 | 0.39 | 38 | 0.00 | 0 | 79 | 40 | 0 | 7 | 1 | 0 |
| NY | ALBANY | 37 | 22 | 41 | 15 | 29 | 5 | 0.64 | 0.06 | 0.31 | 4.28 | 139 | 0.59 | 372 | 87 | 56 | 0 | 7 | 4 | 0 |
| | BINGHAMTON | 34 | 23 | 39 | 17 | 28 | 5 | 0.62 | 0.08 | 0.44 | 6.32 | 213 | 0.53 | 337 | 90 | 62 | 0 | 7 | 4 | 0 |
| | BUFFALO | 38 | 27 | 43 | 23 | 33 | 6 | 1.54 | 0.70 | 0.71 | 4.49 | 109 | 0.74 | 324 | 83 | 57 | 0 | 7 | 4 | 1 |
| | ROCHESTER | 38 | 26 | 45 | 19 | 32 | 6 | 0.83 | 0.28 | 0.47 | 2.59 | 93 | 0.71 | 452 | 91 | 58 | 0 | 7 | 6 | 0 |
| | SYRACUSE | 39 | 28 | 45 | 22 | 34 | 8 | 1.03 | 0.38 | 0.41 | 3.41 | 100 | 0.80 | 441 | 82 | 55 | 0 | 6 | 6 | 0 |
| OH | AKRON-CANTON | 43 | 27 | 48 | 14 | 35 | 8 | 1.10 | 0.49 | 0.65 | 3.09 | 102 | 0.66 | 365 | 83 | 63 | 0 | 6 | 3 | 1 |
| | CINCINNATI | 47 | 29 | 57 | 25 | 38 | 7 | 2.25 | 1.50 | 1.19 | 2.93 | 82 | 1.19 | 567 | 86 | 59 | 0 | 5 | 3 | 2 |
| | CLEVELAND | 42 | 26 | 47 | 17 | 34 | 5 | 1.33 | 0.65 | 0.85 | 3.43 | 104 | 0.85 | 434 | 90 | 64 | 0 | 6 | 5 | 1 |
| | COLUMBUS | 45 | 27 | 51 | 13 | 36 | 5 | 1.89 | 1.23 | 1.04 | 3.24 | 103 | 1.04 | 550 | 94 | 61 | 0 | 6 | 3 | 2 |
| | DAYTON | 45 | 26 | 52 | 20 | 35 | 7 | 1.62 | 0.93 | 1.14 | 2.05 | 62 | 1.15 | 586 | 94 | 66 | 0 | 6 | 3 | 1 |
| | MANSFIELD | 43 | 26 | 50 | 12 | 34 | 8 | 1.09 | 0.38 | 0.53 | 2.44 | 70 | 0.55 | 262 | 92 | 66 | 0 | 6 | 4 | 2 |

**Based on 1981-2010 normals** ***** Not Available**

## Weather Data for the Week Ending January 2, 2021

| 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 | 40 | 25 | 49 | 15 | 33 | 6 | 1.10 | 0.54 | 0.62 | 1.89 | 67 | 0.63 | 421 | 84 | 60 | 0 | 7 | 5 | 1 |
| | YOUNGSTOWN | 50 | 27 | 99 | 18 | 38 | 12 | 1.32 | 0.68 | 0.82 | 4.46 | 141 | 0.84 | 463 | 88 | 51 | 1 | 6 | 6 | 1 |
| OK | OKLAHOMA CITY | 46 | 34 | 63 | 27 | 40 | 1 | 2.38 | 2.04 | 0.75 | 3.31 | 168 | 0.60 | 665 | 88 | 57 | 0 | 4 | 5 | 3 |
| | TULSA | 47 | 31 | 62 | 23 | 39 | 2 | 2.47 | 2.02 | 0.92 | 3.99 | 153 | 0.67 | 566 | 93 | 62 | 0 | 4 | 4 | 3 |
| OR | ASTORIA | 49 | 40 | 55 | 32 | 45 | 2 | 4.42 | 2.18 | 2.87 | 11.35 | 107 | 3.31 | 481 | 96 | 78 | 0 | 2 | 6 | 1 |
| | BURNS | 36 | 12 | 39 | -2 | 24 | 0 | 0.15 | -0.18 | 0.13 | 0.73 | 43 | 0.02 | 26 | 91 | 67 | 0 | 7 | 2 | 0 |
| | EUGENE | 49 | 38 | 55 | 25 | 44 | 4 | 1.13 | -0.48 | 0.50 | 6.87 | 82 | 0.52 | 109 | 91 | 70 | 0 | 2 | 4 | 1 |
| | MEDFORD | 47 | 33 | 53 | 24 | 40 | 1 | 0.52 | -0.16 | 0.42 | 3.00 | 82 | 0.08 | 41 | 91 | 64 | 0 | 3 | 3 | 0 |
| | PENDLETON | 44 | 34 | 53 | 28 | 39 | 6 | 0.25 | -0.09 | 0.20 | 1.02 | 63 | 0.05 | 50 | 90 | 66 | 0 | 4 | 3 | 0 |
| | PORTLAND | 49 | 40 | 54 | 27 | 44 | 5 | 1.21 | 0.07 | 0.55 | 5.76 | 98 | 0.77 | 227 | 90 | 69 | 0 | 2 | 4 | 1 |
| | SALEM | 48 | 37 | 53 | 24 | 43 | 3 | 2.28 | 0.85 | 1.05 | 7.84 | 107 | 1.48 | 362 | 90 | 68 | 0 | 2 | 6 | 2 |
| PA | ALLENTOWN | 41 | 23 | 50 | 17 | 32 | 3 | 0.89 | 0.23 | 0.69 | 4.82 | 128 | 0.71 | 391 | 86 | 51 | 0 | 7 | 3 | 1 |
| | ERIE | 42 | 28 | 48 | 22 | 35 | 6 | 1.39 | 0.60 | 0.66 | 4.19 | 106 | 0.76 | 342 | 78 | 55 | 0 | 6 | 4 | 2 |
| | MIDDLETOWN | 46 | 27 | 52 | 23 | 36 | 5 | 0.76 | 0.14 | 0.70 | 4.87 | 143 | 0.72 | 395 | 79 | 49 | 0 | 6 | 3 | 1 |
| | PHILADELPHIA | 46 | 29 | 53 | 23 | 38 | 4 | 0.87 | 0.20 | 0.81 | 5.15 | 138 | 0.83 | 439 | 82 | 49 | 0 | 6 | 3 | 1 |
| | PITTSBURGH | 45 | 27 | 53 | 15 | 36 | 7 | 1.02 | 0.40 | 0.70 | 4.52 | 150 | 0.71 | 391 | 89 | 58 | 0 | 6 | 4 | 1 |
| | WILKES-BARRE | 40 | 24 | 48 | 20 | 32 | 5 | 0.40 | -0.11 | 0.32 | 3.83 | 136 | 0.33 | 233 | 83 | 53 | 0 | 7 | 5 | 0 |
| | WILLIAMSPORT | 39 | 23 | 46 | 19 | 31 | 3 | 0.60 | 0.07 | 0.53 | 5.15 | 167 | 0.53 | 337 | 83 | 57 | 0 | 7 | 4 | 1 |
| RI | PROVIDENCE | 45 | 25 | 52 | 21 | 35 | 5 | 0.45 | -0.35 | 0.22 | 7.64 | 171 | 0.23 | 98 | 90 | 47 | 0 | 7 | 3 | 0 |
| SC | CHARLESTON | 69 | 47 | 80 | 28 | 58 | 9 | 0.14 | -0.61 | 0.12 | 1.72 | 51 | 0.02 | 10 | 95 | 58 | 0 | 1 | 3 | 0 |
| | COLUMBIA | 58 | 39 | 64 | 22 | 48 | 4 | 3.79 | 3.06 | 1.69 | 5.78 | 169 | 2.92 | 900 | 95 | 62 | 0 | 2 | 4 | 3 |
| | FLORENCE | 59 | 38 | 65 | 23 | 49 | 4 | 2.10 | 1.40 | 1.11 | 4.75 | 148 | 1.78 | 852 | 95 | 58 | 0 | 2 | 3 | 2 |
| | GREENVILLE | 54 | 35 | 60 | 22 | 45 | 3 | 1.29 | 0.46 | 1.27 | 4.00 | 92 | 1.27 | 538 | 88 | 57 | 0 | 2 | 2 | 1 |
| SD | ABERDEEN | 27 | 7 | 30 | 3 | 17 | 5 | 0.28 | 0.15 | 0.28 | 0.31 | 55 | 0.00 | 0 | 86 | 70 | 0 | 7 | 1 | 0 |
| | HURON | 27 | 8 | 31 | 3 | 17 | 1 | 0.25 | 0.13 | 0.17 | 0.31 | 55 | 0.00 | 0 | 94 | 75 | 0 | 7 | 2 | 0 |
| | RAPID CITY | 39 | 16 | 50 | 6 | 28 | 3 | 0.15 | 0.05 | 0.15 | 0.28 | 59 | 0.00 | 0 | 87 | 53 | 0 | 7 | 1 | 0 |
| | SIOUX FALLS | 30 | 10 | 35 | 4 | 20 | 3 | 0.32 | 0.19 | 0.21 | 0.42 | 57 | 0.00 | 0 | 92 | 71 | 0 | 7 | 2 | 0 |
| TN | BRISTOL | 56 | 30 | 73 | 12 | 43 | 8 | 0.46 | -0.25 | 0.40 | 3.92 | 110 | 0.40 | 204 | 99 | 58 | 0 | 4 | 2 | 0 |
| | CHATTANOOGA | 60 | 39 | 69 | 25 | 50 | 9 | 0.71 | -0.31 | 0.64 | 5.09 | 97 | 0.64 | 220 | 94 | 57 | 0 | 2 | 2 | 1 |
| | KNOXVILLE | 56 | 36 | 64 | 19 | 46 | 8 | 0.53 | -0.41 | 0.47 | 4.10 | 85 | 0.50 | 193 | 99 | 69 | 0 | 4 | 4 | 0 |
| | MEMPHIS | 59 | 38 | 72 | 33 | 48 | 7 | 3.70 | 2.59 | 1.80 | 6.91 | 114 | 0.83 | 285 | 90 | 59 | 0 | 0 | 4 | 3 |
| | NASHVILLE | 59 | 37 | 75 | 28 | 48 | 10 | 0.56 | -0.24 | 0.54 | 3.91 | 87 | 0.56 | 244 | 85 | 48 | 0 | 3 | 2 | 1 |
| TX | ABILENE | 58 | 39 | 73 | 31 | 48 | 4 | 1.70 | 1.45 | 0.98 | 1.82 | 141 | 0.02 | 31 | 86 | 46 | 0 | 2 | 3 | 2 |
| | AMARILLO | 50 | 26 | 58 | 13 | 38 | 2 | 0.00 | -0.15 | 0.00 | 0.23 | 30 | 0.00 | 0 | 77 | 32 | 0 | 6 | 0 | 0 |
| | AUSTIN | 67 | 46 | 77 | 37 | 56 | 5 | 1.81 | 1.27 | 1.78 | 2.66 | 104 | 0.00 | 0 | 87 | 50 | 0 | 0 | 2 | 1 |
| | BEAUMONT | 67 | 49 | 76 | 37 | 58 | 6 | 0.23 | -1.00 | 0.23 | 5.71 | 101 | 0.00 | 0 | 98 | 64 | 0 | 0 | 1 | 0 |
| | BROWNSVILLE | 75 | 55 | 84 | 40 | 65 | 4 | 0.07 | -0.17 | 0.04 | 1.04 | 84 | 0.00 | 0 | 86 | 49 | 0 | 0 | 2 | 0 |
| | CORPUS CHRISTI | 71 | 49 | 80 | 37 | 60 | 3 | 1.57 | 1.13 | 1.30 | 1.70 | 88 | 0.00 | 0 | 97 | 57 | 0 | 0 | 2 | 1 |
| | DEL RIO | 67 | 41 | 80 | 30 | 54 | 3 | 1.23 | 1.07 | 0.67 | 1.24 | 179 | 0.00 | 0 | 88 | 43 | 0 | 2 | 2 | 2 |
| | EL PASO | 58 | 29 | 73 | 18 | 44 | 0 | 0.00 | -0.13 | 0.00 | 0.02 | 2 | 0.00 | 0 | 50 | 20 | 0 | 4 | 0 | 0 |
| | FORT WORTH | 57 | 42 | 74 | 35 | 49 | 4 | 2.00 | 1.50 | 1.62 | 2.97 | 110 | 0.01 | 9 | 94 | 55 | 0 | 0 | 4 | 1 |
| | GALVESTON | 67 | 54 | 72 | 42 | 60 | 5 | 0.80 | 0.00 | 0.80 | 3.98 | 0 | 0.00 | 0 | 85 | 64 | 0 | 0 | 1 | 1 |
| | HOUSTON | 69 | 48 | 76 | 39 | 58 | 6 | 1.27 | 0.56 | 0.82 | 4.45 | 113 | 0.00 | 0 | 92 | 56 | 0 | 0 | 2 | 1 |
| | LUBBOCK | 54 | 31 | 69 | 23 | 42 | 3 | 0.04 | -0.11 | 0.04 | 0.07 | 9 | 0.00 | 0 | 69 | 28 | 0 | 4 | 1 | 0 |
| | MIDLAND | 56 | 33 | 70 | 22 | 44 | 1 | 0.26 | 0.14 | 0.13 | 0.51 | 81 | 0.00 | 0 | 82 | 39 | 0 | 4 | 2 | 0 |
| | SAN ANGELO | 61 | 38 | 78 | 29 | 50 | 4 | 1.00 | 0.77 | 0.90 | 1.02 | 108 | 0.00 | 0 | 84 | 43 | 0 | 2 | 2 | 1 |
| | SAN ANTONIO | 67 | 44 | 78 | 34 | 56 | 4 | 0.78 | 0.34 | 0.54 | 0.83 | 41 | 0.00 | 0 | 89 | 48 | 0 | 0 | 2 | 1 |
| | VICTORIA | 69 | 45 | 80 | 35 | 57 | 3 | 1.39 | 0.85 | 1.02 | 2.56 | 103 | 0.00 | 0 | 96 | 54 | 0 | 0 | 3 | 1 |
| | WACO | 60 | 41 | 78 | 32 | 50 | 4 | 3.51 | 2.95 | 1.93 | 4.44 | 153 | 0.00 | 0 | 90 | 58 | 0 | 1 | 4 | 2 |
| | WICHITA FALLS | 54 | 38 | 70 | 31 | 46 | 5 | 0.77 | 0.47 | 0.75 | 1.21 | 70 | 0.00 | 0 | 87 | 54 | 0 | 2 | 2 | 1 |
| UT | SALT LAKE CITY | 35 | 21 | 39 | 17 | 28 | -1 | 0.00 | -0.31 | 0.00 | 0.33 | 22 | 0.00 | 0 | 90 | 54 | 0 | 7 | 0 | 0 |
| VA | LYNCHBURG | 52 | 29 | 63 | 19 | 41 | 5 | 0.75 | 0.11 | 0.73 | 5.58 | 163 | 0.75 | 397 | 87 | 46 | 0 | 4 | 2 | 1 |
| | NORFOLK | 55 | 38 | 62 | 27 | 47 | 5 | 0.98 | 0.30 | 0.66 | 4.50 | 130 | 0.31 | 160 | 85 | 55 | 0 | 2 | 3 | 1 |
| | RICHMOND | 53 | 31 | 66 | 22 | 42 | 4 | 0.73 | 0.08 | 0.64 | 7.32 | 213 | 0.65 | 360 | 93 | 49 | 0 | 4 | 4 | 1 |
| | ROANOKE | 53 | 30 | 67 | 22 | 42 | 5 | 0.60 | -0.01 | 0.60 | 4.21 | 135 | 0.60 | 330 | 85 | 52 | 0 | 4 | 1 | 1 |
| | WASH/DULLES | 47 | 30 | 56 | 19 | 38 | 5 | 0.83 | 0.29 | 0.83 | 6.61 | 212 | 0.83 | 527 | 86 | 47 | 0 | 4 | 1 | 1 |
| VT | BURLINGTON | 36 | 23 | 42 | 13 | 29 | 9 | 0.48 | 0.01 | 0.43 | 1.66 | 66 | 0.47 | 363 | 81 | 49 | 0 | 7 | 3 | 0 |
| WA | OLYMPIA | 47 | 38 | 52 | 32 | 43 | 4 | 4.00 | 2.37 | 2.04 | 9.79 | 123 | 2.56 | 507 | 96 | 81 | 0 | 1 | 6 | 3 |
| | QUILLAYUTE | 48 | 41 | 50 | 34 | 44 | 4 | 7.03 | 4.09 | 2.76 | 20.05 | 144 | 4.33 | 469 | 97 | 88 | 0 | 0 | 6 | 5 |
| | SEATTLE-TACOMA | 48 | 40 | 51 | 33 | 44 | 3 | 3.39 | 2.22 | 1.38 | 8.35 | 146 | 1.78 | 492 | 95 | 74 | 0 | 0 | 6 | 2 |
| | SPOKANE | 34 | 28 | 40 | 20 | 31 | 4 | 1.28 | 0.81 | 0.75 | 2.68 | 110 | 0.40 | 306 | 94 | 80 | 0 | 4 | 4 | 1 |
| | YAKIMA | 38 | 28 | 50 | 21 | 33 | 5 | 0.07 | -0.25 | 0.05 | 0.60 | 36 | 0.02 | 21 | 93 | 75 | 0 | 7 | 2 | 0 |
| WI | EAU CLAIRE | 25 | 12 | 32 | -2 | 18 | 3 | 0.06 | -0.13 | 0.06 | 0.19 | 17 | 0.00 | 0 | 89 | 69 | 0 | 7 | 1 | 0 |
| | GREEN BAY | 28 | 11 | 33 | -7 | 20 | 2 | 0.36 | 0.08 | 0.20 | 0.44 | 27 | 0.00 | 0 | 88 | 69 | 0 | 7 | 3 | 0 |
| | LA CROSSE | 27 | 14 | 30 | 7 | 21 | 3 | 0.27 | 0.03 | 0.16 | 0.29 | 20 | 0.00 | 0 | 89 | 69 | 0 | 7 | 3 | 0 |
| | MADISON | 28 | 15 | 35 | 5 | 22 | 2 | 0.59 | 0.30 | 0.39 | 1.15 | 62 | 0.02 | 25 | 97 | 75 | 0 | 7 | 5 | 0 |
| | MILWAUKEE | 33 | 20 | 38 | 15 | 27 | 3 | 0.91 | 0.51 | 0.42 | 2.54 | 118 | 0.42 | 356 | 87 | 64 | 0 | 7 | 4 | 0 |
| WV | BECKLEY | 48 | 31 | 57 | 19 | 40 | 8 | 0.53 | -0.12 | 0.42 | 13.64 | 432 | 0.42 | 230 | 90 | 59 | 0 | 4 | 2 | 0 |
| | CHARLESTON | 53 | 31 | 61 | 16 | 42 | 7 | 0.79 | 0.12 | 0.55 | 3.96 | 115 | 0.24 | 127 | 89 | 61 | 0 | 3 | 3 | 1 |
| | ELKINS | 50 | 26 | 57 | 9 | 38 | 9 | 0.65 | -0.03 | 0.45 | 4.20 | 122 | 0.49 | 248 | 83 | 50 | 0 | 5 | 3 | 0 |
| | HUNTINGTON | 50 | 31 | 61 | 17 | 41 | 6 | 1.17 | 0.49 | 0.85 | 4.20 | 120 | 0.26 | 139 | 88 | 60 | 0 | 4 | 4 | 1 |
| WY | CASPER | 29 | 8 | 36 | -9 | 19 | -5 | 0.16 | 0.05 | 0.15 | 0.69 | 127 | 0.00 | 0 | 84 | 62 | 0 | 7 | 2 | 0 |
| | CHEYENNE | 37 | 13 | 45 | 3 | 25 | -3 | 0.14 | 0.04 | 0.13 | 0.47 | 88 | 0.00 | 0 | 85 | 41 | 0 | 7 | 2 | 0 |
| | LANDER | 33 | 11 | 41 | 5 | 22 | 1 | 0.00 | -0.11 | 0.00 | 0.59 | 96 | 0.00 | 0 | 90 | 51 | 0 | 7 | 0 | 0 |
| | SHERIDAN | 40 | 14 | 48 | 6 | 27 | 5 | 0.01 | -0.10 | 0.01 | 0.28 | 46 | 0.00 | 0 | 83 | 46 | 0 | 7 | 1 | 0 |

**Based on 1981-2010 normals**

***** Not Available**

# December State Agricultural Summaries

*These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Crop Progress and Condition Reports published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop reports are available on the Internet through the NASS Home Page on the World Wide Web at http://www.nass.usda.gov.*

**ALABAMA:** December temperatures were generally on par with historic averages. Total rainfall for the month ranged from 2.0 inches to 8.3 inches. According to the U.S. Drought Monitor, 8 percent of the State was experiencing abnormally dry conditions by month's end, compared to 12 percent at the beginning of the month. As a whole, agricultural activities were normal for the time of year, with no extraordinary events or pest pressure to report. Producers finished harvesting row crops and planting winter wheat in a timely manner. Winter wheat was progressing well, and its condition was fair to excellent, depending on location. Cover crop planting progressed on schedule, and the crop was off to a good start. Cattle remained in mostly good condition. Pasture grasses and winter grazing looked good, albeit progressing slowly. Producers supplemented winter grazing with hay and feed. Hay stocks were adequate. In addition to normal field activities for this time of year, some producers continued to work on repairing or rebuilding structures that were damaged by hurricanes Sally and Zeta.

**ALASKA:** DATA NOT AVAILABLE

**ARIZONA:** This report for Arizona is for the entire month of December 2020. By the end of the month, cotton harvest was 97 percent complete compared to 75 percent on the last report and 95 percent for the previous year, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Thirty-nine percent of barley has been planted and 30 percent has emerged. Twenty-four percent of Durum wheat has been planted and 20 percent has emerged. Alfalfa conditions were rated mostly excellent to good, depending on location last week with harvesting taking place on more than three-quarters of the alfalfa acreage across the State. For the entire State, pasture and range conditions were rated mostly very poor to poor. Severe to exceptional dryness in the entire State continues to affect pasture and range conditions, forage growth, soil moisture, stream water, and stock tanks. Ranchers have continued to reduce their herds or ship livestock out of state.

**ARKANSAS:** For the week ending January 3, 2021, days suitable for fieldwork 2.0 days. Topsoil moisture 2% short, 31% adequate, 67% surplus. Subsoil moisture 2% very short, 3% short, 40% adequate, 55% surplus. The month of December was wetter than normal with temperatures slightly above average. Producers were battling with wet and muddy conditions as hay feeding continued. Winter wheat and cover crops have mostly fared well but some areas were reported flooded. The State average rainfall was 4.73 inches for the month of December with an average temperature of about 43 degrees. Overall, rainfall has been plentiful for this time of year in the State, but average temperatures are slightly above normal.

**CALIFORNIA:** Topsoil moisture 20% very short, 50% short, 30% adequate. Subsoil moisture 60% very short, 20% short, 20% adequate. Temperatures for the month averaged 48.9 degrees, 1.8 degrees above normal. Statewide average precipitation was 1.25 inches. Cropland was being prepared for upcoming plantings. A weather system is expected this week, which will bring much needed rainfall. The winter wheat crop has emerged. Flooded rice fields were observed. Citrus growers irrigated their groves during December using wells due to the lack of rain. Cool temperatures have been good for grape sugar (brix) content with no major freeze events as of yet. Fungicides were applied through sprinklers to winter carrots. The winter shake continued on almonds and pistachios. Growers also applied pre-emergent herbicides to their orchards.

**COLORADO:** This report for Colorado is for the entire month of December 2020. Topsoil moisture 33% very short, 44% short, 23% adequate. Subsoil moisture 35% very short, 48% short, 17% adequate. Winter wheat condition 15% very poor, 19% poor, 47% fair, 18% good, 1% excellent. Livestock condition 1% very poor, 6% poor, 33% fair, 49% good, 11% excellent. Pasture and range condition 29% very poor, 36% poor, 29% fair, 6% good. Moderately dry weather across the State during the month of December was interspersed with a few productive snow storms, according to the Mountain Region Field Office of the National Agricultural Statistics Service, USDA. Overall, the entire State remained in moderate to exceptional drought, according to the latest U.S. Drought Monitor report. In eastern counties, some areas benefitted from good snowfall while others remained mostly dry. Temperatures were generally above normal. Reporters noted winter wheat and pasture conditions remained stressed from continued lack of consistent precipitation, but the snowfall was welcome. More precipitation is needed to improve pasture and crop conditions prior to spring. Feed supplies were short as producers continued feeding livestock. In the San Luis Valley, soil moisture supplies remained short and little precipitation was received. Pasture and rangeland in the area remained very short and livestock producers were actively seeking any alternate winter grazing arrangements. As of January 1, 2021, snowpack was 83 percent measured as percent of median snowfall.

**DELAWARE:** The State experienced excessive precipitation periods averaging from 6-7 inches of rain in most weeks, preventing some farmers from corn and soybean harvesting and cover crop planting. Some low areas were flooded, making the fields untillable in preparation for the upcoming crop-planting year. Overall, December saw poor drying condition days combined with cloudy, freezing, and poor sunshine days.

**FLORIDA:** Total rainfall for the month ranged from no rain in a few locations to 4.8 inches in Escambia County. According to the December 29, 2020 U.S. Drought Monitor, 10.7 percent

of the State was experiencing abnormally dry conditions at month's end, compared with 0.8 percent at the beginning of the month. Average mean temperatures ranged from 48.2°F in Jasper County to 70.5°F in Monroe County. Pasture conditions remained mostly fair to good, throughout the month but experienced seasonal declines. At the beginning of the month, frosts caused damage to several pastures in the Panhandle and parts of the northern peninsula. Cattle conditions remained mostly good to excellent throughout the month. Cotton harvesting finished much later than normal, wrapping up by the final week of December. As cotton harvest finished up, cover crops were planted. Vegetable producers prepared their land for spring planting towards the end of the month. Sugarcane was planted and harvested in the southern part of the peninsula. Citrus activities were normal and included mowing, spraying, fertilizing, and general grove maintenance. Grapefruit, early and midseason oranges, and tangerines were harvested and processed.

**GEORGIA:** Total rainfall for the month ranged from no rain in a few locations to 5.3 inches in White County. According to the U.S. Drought Monitor, December began with 37.5% percent of the State abnormally dry and by the end of the month, 34.2% was abnormally dry. Cold temperatures started early in the month and continued throughout the month. Ample rainfall in the last week of the month significantly affected planting and harvesting activates with some locations receiving 6 inches of rain. Freezing temperatures and heavy rains caused pasture conditions to be less than ideal and sloppy. Winter grazing and small grains were slow to grow due to the cold temperatures but benefitted from the rain. Hay consumptions for the month was mostly normal but availability was somewhat low in parts of north Georgia. Most of the cotton in the middle and southern part of the State was picked at the conclusion of the month. Pecan harvest moved closer to completion.

**HAWAII:** DATA NOT AVAILABLE

**IDAHO:** The Statewide temperatures in Idaho for the month of December were normal to above average throughout the State. Some storm activity picked up in the latter part of December. Some of that moisture fell as rain in northern Idaho, where winter had gotten off to a mild start. Higher elevations in northern Idaho reported good snow cover. Winter wheat was in good shape in Lewis County, although snow cover was needed before freezing temperatures arrived. It was still early for early calving in Idaho County. In the lower elevations of Boundary County, snow melted in portions of the valley, and green grass was visible. In southwest Idaho, early winter weather was seasonably cold with limited precipitation to date. Calving was just getting underway. Hay stocks of all classes were in good supply. Minimal snow and precipitation was reported in Elmore County. South central Idaho was dry and observed above average temperatures. There was not much winter stress on livestock or crops. In Camas County, there was little farming activity. A few feet of snow settled on the valley floor. The county hoped for more snow. Southeastern Idaho reported spotty snow and drier than normal conditions in most places. Cold temperatures were reported in Madison County. Most of the fields were snow covered. In Fremont County, most operations fed livestock and prepared for calving season. In Teton County, dry high-pressure weather patterns dominated the weather early in the month. Some bare pasture was observed. This was followed by snow later in the month. Grass-fed livestock producers were feeding hay for roughly a month.

**ILLINOIS:** For the week ending on January 3, 2021. Topsoil moisture 3% very short, 9% short, 71% adequate, 17% surplus. Subsoil moisture 5% very short, 17% short, 65% adequate, 13% surplus. Statewide, the average temperature in December was 32.6 degrees, 2.8 degrees above normal. Precipitation averaged 1.75 inches, 0.94 inches below normal.

**INDIANA:** Topsoil moisture for the month of December was 2% very short, 12% short, 65% adequate, and 21% surplus. Subsoil moisture for the month was 5% very short, 17% short, 64% adequate, and 14% surplus. Winter wheat condition was rated 1% very poor, 4% poor, 29% fair, 56% good, and 10% excellent. Statewide temperatures averaged 33.4 degrees, 2.3 degrees above normal for the month of December. Statewide average precipitation was 1.87 inches, 1.19 inches below normal. December was off to a cold start, but quickly warmed up with temperatures remaining above normal for much of the month. Precipitation levels were well below normal for the month of December, but some rain and snow events towards the end of the month helped replenish soil moisture. The late-month rainfall caused muddy conditions in some pastures and standing water in some fields, particularly in the southern part of the State. Winter wheat conditions improved slightly from the previous month. Livestock were reported to be doing well. Other activities for the month included equipment maintenance, construction projects, and online education.

**IOWA:** December brought unseasonably warm temperatures across the State for most of the month. Measurable snowfall was recorded the last week of the month which shut down most fieldwork. Fieldwork activities early in the month included finishing fall tillage, applying nitrogen and manure, and cleaning up from the derecho. Unlike the previous year, there were no reports of crops remaining to be harvested. Grain movement was brisk due to strong prices. Livestock continued to graze on corn stalks. The warm temperatures were beneficial for livestock with no major issues reported. Soil moisture levels are a widespread concern as farmers look forward to the 2021 crop year.

**KANSAS:** For the week ending January 3, 2021, topsoil moisture supplies rated 14% very short, 29% short, 49% adequate, 8% surplus. Subsoil moisture supplies rated 11% very short, 34% short, 52% adequate, 3% surplus. Winter wheat condition rated 5% very poor, 12% poor, 37% fair, 40% good, 6% excellent. Cotton harvested 84%.

**KENTUCKY:** For the month of December, Kentucky saw near normal temperatures and below normal precipitation. Throughout the month temperatures fluctuated and continued a below normal precipitation trend that started in November. Temperatures for the period averaged 38 degrees across the State, which was near normal. Precipitation (liq. equ.) for the period totaled 3.13 inches Statewide, which was 1.29 inches below normal and 71% of normal. The second half of the month did see an increase in precipitation, but this increase

was accompanied by cold temperatures stunting pasture growth. For the month of December, hay supplies 1% very short, 7% short, 83% adequate, 9% surplus. Despite some harsh weather, the condition of livestock was mostly good. Livestock conditions 1% very poor, 3% poor, 22% fair, 61% good, 13% excellent. Condition of winter wheat 1% poor, 14% fair, 66% good, 19% excellent. Tobacco stripping 83% complete.

**LOUISIANA:** For the week ending January 3, 2021, days suitable for fieldwork 2.2 days. Topsoil moisture 1% short, 53% adequate, and 46% surplus. Subsoil moisture 1% short, 60% adequate, and 39% surplus. Conditions for the State were wet and cool during December. Sugarcane harvest continued through the month with most producers nearly completed. Ryegrass progress was slow in many areas. Vegetable crops were producing well. Average rainfall for the State was about 1.14 inches with an average temperature of about 50 degrees. Overall, rainfall was average but temperatures for the State have been higher than normal for this time of year.

**MARYLAND:** During the month of December, the State experienced excessive precipitation periods in some areas. This prevented some farmers from harvesting corn and cover crop planting, but helped restore ponds and recharge streams. Overall, temperatures were in the normal range, with the occasional 10 degrees F above a normal high. No real sustained below average temperatures have occurred.

**MICHIGAN:** Topsoil moisture 0% very short, 3% short, 91% adequate and 6% surplus. Subsoil moisture 1% very short, 6% short, 87% adequate, and 6% surplus. Winter wheat condition rated 1% very poor, 5% poor, 21% fair, 60% good, and 13% excellent. Precipitation for the month of December averaged 2.25 inches throughout the State, 0.47 inches below normal. Temperature for the month of December averaged 28.8 degrees, 4.0 degrees above normal. The winter so far has been unusually mild across the State, but there has been sufficient precipitation to improve soil moisture content. Growers have found it fairly easy to take care of livestock, haul manure as needed, move hay and haul grain. Counties along the Lake Michigan shoreline have had adequate snow cover, but the ground has not been frozen, allowing fruit growers to prune older orchards. Weather conditions have been good for winter wheat in central counties and the Thumb region, but in southern counties, snow cover is very light. Other activities for the month included tiling work, purchasing seed, getting equipment ready for spring, and cutting firewood for next winter.

**MINNESOTA:** December began with unseasonably warm weather. Unlike the previous year, there were only scattered reports of small acreages of corn still standing. Field activities included maintenance, tiling, and manure hauling. Pasture conditions were reported mostly favorable until blizzard conditions late in the month blanketed fields with snow. Some cows were reported still on stalk fields. Feed supplies were adequate throughout the State. A winter storm December 23-24 brought widespread snowfall of four to six inches. During this event, temperatures fell between 40 to 50 degrees Fahrenheit and localized snowfall totals were 9.5 inches at Two Harbors and 8.7 inches in the Twin Cities. Most of December's precipitation came from this winter storm. The month ended with reports of colder temperatures and standing snow in the fields and pastures.

**MISSISSIPPI:** For the week ending January 3, 2021, topsoil moisture supplies were 1% short, 60% adequate, and 39% surplus. Subsoil moisture supplies were 1% short, 73% adequate, and 26% surplus. Conditions for the month of December have been cool and wet. Most crops made it out of fields by early December, but current weather conditions have limited growth of winter forages. The State average rainfall was about 3.8 inches for the month of December with an average temperature of about 45 degrees. Overall, rainfall and average temperatures have been typical for this time of year in the State.

**MISSOURI:** For the week ending January 3, 2021. Topsoil moisture 5% short, 85% adequate, 10% surplus. Subsoil moisture 16% short, 82% adequate, 2% surplus. Winter wheat condition 2% poor, 45% fair, 45% good, 8% excellent. Statewide, precipitation averaged 1.50 inches for the month of December, 1.27 inches below average. Temperatures averaged 35.7 degrees, 2.6 degrees above normal.

**MONTANA:** This report for Montana is for the entire month of December 2020. Topsoil moisture 15% very short, 46% short, 39% adequate. Subsoil moisture 13% very short, 42% short, 45% adequate. Winter wheat - condition 1% very poor, 4% poor, 30% fair, 58% good, 7% excellent. Winter wheat – wind damage 72% none, 14% light, 8% moderate, 6% heavy. Winter wheat – freeze and drought damage 83% none, 13% light, 3% moderate, 1% heavy. Winter wheat – protectiveness of snow cover 44% very poor, 56% poor. Pasture and range - condition 14% very poor, 28% poor, 50% fair, 8% good. Livestock grazing accessibility – 94% open, 6% difficult. Livestock receiving supplemental feed – cattle and calves 86% fed. Livestock receiving supplemental feed – sheep and lambs 85% fed. The month of December was exceptionally warm and dry for Montana, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Reporters across the State noted a lack of precipitation and high winds throughout the month of December. Temperatures across the State were higher than the daily historical averages for a majority of the month. High temperatures ranged from the high 20s to the mid-60s. Low temperatures ranged from the mid-40s to the teens. According to the U.S. Drought Monitor, approximately 63 percent of Montana is in a current state of drought, with about 8 percent of the State in severe or extreme drought.

**NEBRASKA:** For the week ending January 3, 2021, topsoil moisture supplies rated 15% very short, 41% short, 41% adequate, and 3% surplus. Subsoil moisture supplies rated 16% very short, 47% short, 36% adequate, and 1% surplus. Winter wheat condition rated 4% very poor, 11% poor, 48% fair, 36% good, and 1% excellent.

**NEVADA:** Topsoil moisture 50% very short, 10% short, 30% adequate, 10% surplus. Subsoil moisture 70% very short, 25% short, 5% adequate. Temperatures for the month

averaged 32.2 degrees, 0.4 degrees above normal. Statewide average precipitation was 0.65 inches.

**NEW ENGLAND:** New England States experienced very variable weather - cold days, snow, rain, and periods of warmth. In Maine, the ground water has been recharged by December rain and snowmelt. Local producers have received payments under emergency programs for pasture loss and for hauling water for livestock. According to a New Hampshire reporter, one storm in December brought anywhere from 3-12 inches of snow. Orchardists delayed the start of pruning until after mid - December. According to a Rhode Island reporter, while weather has been moderate and allows many animals to remain on pasture, the season's drought has left very little pasture remaining. Hay is a valuable commodity as herd owners are short even with NY and Canadian supplies. Vermont experienced great weather for getting fall manure out before the winter spreading ban. Some concern reported with freezing temperatures.

**NEW JERSEY:** The State has experienced a harsh winter so far, with cold temperatures, snow, and rain. Some fields were very wet from a continued cycle of frequent rainfall. According to the December 16, 2020 State Board of Agriculture State Board grower comments, harvest was almost complete in north Jersey by mid-December. There was still some corn left to be harvested at that time. In December, growers finished harvesting soybeans and processing spinach. Vegetable and herb growers started up greenhouses for the spring crops. Deer, bears, and groundhogs have caused considerable damage to some crops and farmland.

**NEW MEXICO:** This report for New Mexico is for the entire month of December 2020. Topsoil moisture 58% very short, 32% short, 6% adequate, 4% surplus. Subsoil moisture 59% very short, 31% short, 6% adequate, 4% surplus. Red chile harvested 97%, 93% last year. Corn harvested for grain 99%, 99% last year. Cotton harvested 99%, 97% last year. Pecans harvested 87%, 49% last year. Pecan condition 3% poor, 7% fair, 90% good. Winter wheat condition 15% very poor, 22% poor, 14% fair, 28% good, 21% excellent. Cattle receiving supplemental feed 87%, 76% last year. Cattle condition 18% very poor, 12% poor, 36% fair, 17% good, 17% excellent. Sheep receiving supplemental feed 85%, 77% last year. Sheep and lambs condition 39% very poor, 11% poor, 18% fair, 29% good, 3% excellent. Hay and roughage supplies 32% very short, 38% short, 30% adequate. Stock water supplies 38% very short, 24% short, 38% adequate. With little to no improvement in precipitation received during December, soil moisture levels continued to drop and supplemental livestock feeding continued to increase. Reports from several counties noted that the wheat crop – both irrigated and non-irrigated – was suffering due to the lack of moisture. In Union County, comments suggested that producers could not keep enough irrigation water on their wheat fields, and some fear the crop will not survive without improved natural moisture. With stock water depleted and hay supplies limited, ranchers across the State were choosing to partially or entirely cull their herds. Where available, cattle were turned onto winter grazing. Converted monthly moisture totals – accounting for any precipitation received as snow – ranged from approximately 3 inches to merely a trace, with widespread dryness across many eastern counties. Areas with above average precipitation were confined to northern, more mountainous counties. According to the United States Drought Monitor for December 29, the entire State was suffering from moderate drought or worse. Moderate drought (D1) was present across less than 1 percent of the State. Severe drought (D2) covered 17.3 percent of the State, compared with 20.4 percent on November 24. Extreme drought (D3) was present across 29.1 percent of New Mexico, compared with 28.3 percent on November 24. Exceptional drought (D4) continued to expand, and now covered 64,680 square miles, or 53.2 percent of the State.

**NEW YORK:** The month of December was reported as being primarily a warmer month throughout the State with only snow cover and ice in some areas. A few areas reported being short on rainfall. Other areas reported heavy snowfall (30 to 40+ inches) and flooding from the snow melt. Field work included manure application where weather was favorable. Fall tillage and late harvest was completed.

**NORTH CAROLINA:** For the week ending January 3, 2021 - Subsoil moisture 21% adequate, 79% surplus. Topsoil moisture 17% adequate and 83% surplus. Barley condition 1% poor, 13% fair, 80% good, 6% excellent. Hay and roughage supplies 2% short, 92% adequate, 6% surplus. Oats condition 37% fair, 63% good. Pasture and range condition 2% poor, 53% fair, 44% good, and 1% excellent. Winter wheat condition 3% poor, 35% fair, 61% good, and 1% excellent. Throughout January, very wet conditions that was too wet for fieldwork. Wheat under stress. Recent rainfall events have saturated soils in the area. Most fields have standing water. Lighter, well-drained soils are in better shape but still wet.

**NORTH DAKOTA:** For the week ending January 3, 2021, topsoil moisture supplies rated 28% very short, 43% short, 27% adequate, 2% surplus. Subsoil moisture supplies rated 24% very short, 42% short, 33% adequate, 1% surplus. Winter wheat condition rated 5% very poor, 17% poor, 52% fair, 25% good, 11% excellent. Cattle and calf conditions, 2% very poor, 5% poor, 19% fair, 59% good, 15% excellent. Sheep and lamb conditions, 0% very poor, 3% poor, 16% fair, 59% good, 22% excellent. Hay and roughage supplies, 5% very short, 16% short, 70% adequate, 9% surplus. Stock water supplies, 16% very short, 34% short, 50% adequate, 0% surplus.

**OHIO:** Topsoil moisture for the month was 2% short, 51% adequate, and 47% surplus. Subsoil moisture for the month was 1% very short, 5% short, 63% adequate, and 31% surplus. Winter wheat condition was rated 1% poor, 26% fair, 57% good, and 15% excellent. The Statewide average temperature was 33.4 degrees, 1.7 degrees above normal. Precipitation averaged 2.26 inches Statewide, 0.66 inches below normal for December. Heavy amounts of lake-effect snow fell during the first week of the month, mostly in the northeastern part of the State. Other parts of the State saw variable conditions. Livestock were reported to be under stress and needed watching due to damp and fluctuating

temperatures. Winter wheat stands remained in good-to-fair condition with no major freeze and thaw events so far this winter. Most unharvested corn was harvested by Christmas Day, but some remains in fields. Other farm activities for the month included draining and tilling fields.

**OKLAHOMA:** For the month of December, rainfall totals averaged 2.84 inches throughout the State, 0.78 of an inch above normal. There was virtually no change in the U.S. Drought Monitor depiction for Oklahoma throughout the month, with a little over 25% of the State categorized in at least moderate drought. Broken Bow's 8.22 inches led the December totals. Boise City had the lowest total at 0.22 inches. Despite the winter weather, the Statewide average temperature was 40.8 degrees, 1.9 degrees above normal. Topsoil and subsoil moisture conditions were rated mostly adequate to short.

**OREGON:** Statewide temperatures in Oregon for the month of December remained near normal to above average with heavy rain activity reported throughout the State. Benton, Lincoln, and Linn Counties reported extreme amounts of rainfall in the Willamette Valley caused creeks to overflow into fields and across backcountry roads. The grass crops looked good and provided grazing for livestock. In Polk County, winter wheat crops looked good. Grass seed crops looked average. Annual ryegrass grew well. Other grass seed crops were dormant due to the high water table or low temperatures. High Vole numbers were a problem; however, the rainy December may affect their numbers. Pasture grasses had no growth so most livestock feeding took place in barns. Goats and sheep were in barns preparing for kidding or lambing. In Columbia, Multnomah, and Washington Counties, fall planted crops were doing well. Some areas reported sporadic geese damage. High water occurred in rivers, which spilled out into fields in Clatsop and Tillamook Counties, leaving standing water in places. Pastures and cover crops looked good. Some geese and elk activity occurred. In Hood River, Sherman, and Wasco Counties, wheat was up and looked good. Livestock were also doing well with calving just around the corner for some producers. Winter wheat crops looked good in Morrow County. Baker, Grant, and Malheur Counties had snow followed by warm temperatures and rain. Winter wheat was in fair to good conditions in Umatilla and Wallowa Counties. Spotty fields filled in with the mild temperatures and rainfall. Douglas, Jackson, and Josephine Counties benefitted from the substantial winter rains recharging soil moisture. In vineyards and orchards, workers were pruning. Central Oregon reported normal rainfall and very little snow needed for the irrigation season. Snow pack was sparse in Klamath County.

**PENNSYLVANIA:** Brief but heavy mid-month snowfall melted quickly as temperatures rose to finish out December, providing a needed recharge for ground water and soil moisture. Wet conditions have deterred fieldwork and, combined with warmer temperatures, have allowed for growth of chickweed, which may prove problematic.

**SOUTH CAROLINA:** December temperatures were generally on par with historic averages. Total rainfall during the month ranged from 0.8 inches to 6.3 inches. According to the U.S. Drought Monitor, 13 percent of the State was experiencing abnormally dry conditions by month's end, compared to 6 percent at the beginning of the month. The abnormally dry conditions remained confined to the southwestern border of the State. In central and eastern counties, occasional heavy rains delayed harvesting of late-season row crops and planting of small grains and cover crops. There were limited reports of abandoned cotton and soybean acres in the Midlands as a result of prolonged saturated soil. Most producers finished planting winter wheat, and the crop was progressing well. Overall, winter wheat condition was fair to good. Late-month freezes widely damaged uncovered or unprotected brassica greens. Strawberries were progressing nicely, and producers continued to treat for spider mites as needed. Vegetable crops in the Lowcountry were harvested under ideal conditions throughout the month. Pastures and cattle were in fair to good condition. Excessive rainfall in the Pee Dee region caused some health concerns in livestock, including coccidia, pneumonia, and salmonella. Winter annuals had slow growth from excessive moisture, but their establishment was generally good.

**SOUTH DAKOTA:** For the week ending January 3, 2021, topsoil moisture supplies rated 21% very short, 38% short, 41% adequate, 0% surplus. Subsoil moisture supplies rated 23% very short, 40% short, 37% adequate, 0% surplus. Winter wheat condition rated 1% very poor, 7% poor, 55% fair, 36% good, and 1% excellent.

**TENNESSEE:** For the week ending January 3, Days suitable 3.0. Topsoil moisture 1% short, 60% adequate, 39% surplus. Subsoil moisture 4% short, 66% adequate, 30% surplus. Winter wheat condition 1% very poor, 2% poor 25% fair, 56% good, 16% excellent. Pasture and Range condition 1% very poor, 14% poor, 38% fair, 41% good, 6% excellent. Cattle condition 4% poor, 21% fair, 64% good, 11% excellent. Hay and roughage supplies 7% short, 78% adequate, 15% surplus. Tennessee experienced increased moisture in December. Some report saturated soils. Pastures have been impacted, leading producers to feed hay to livestock. Hay and roughage supplies appear adequate for the winter season. Winter wheat condition reported mostly good. Cattle condition is currently reported mostly good.

**TEXAS:** During the month of December, precipitation mostly ranged from trace amounts to upwards of 3 inches, with isolated areas in East Texas and the Upper Coast receiving upwards of 8 inches of rain. Very isolated areas of East Texas and the Upper Coast received 10 to 15 inches. Cotton harvest was virtually complete throughout the State. Small grains seeding was nearing completion, however, development was behind normal in some areas. Livestock condition continued fair to good. Supplemental feeding continued Statewide.

**UTAH:** This report for Utah is for the entire month of December, 2020. Topsoil moisture 18% very short, 52% short, 30% adequate. Subsoil moisture 26% very short, 39% short, 35% adequate. Pasture and range condition 24% very poor, 35% poor, 33% fair, 7% good, 1% excellent. Winter wheat condition 5% very poor, 22% poor, 58% fair, 15% good. Hay and roughage supplies 2% very short, 17% short, 69% adequate, 12% surplus. Stock water supplies 21% very short, 34% short, 44% adequate, 1% surplus. Cattle and calves

condition 1% very poor, 4% poor, 31% fair, 61% good, 3% excellent. Sheep and lambs condition 3% poor, 37% fair, 58% good, 2% excellent. Livestock receiving supplemental feed for cattle 78%. Livestock receiving supplemental feed for sheep 56%. Extremely dry conditions have caused water supplies to deteriorate.

**VIRGINIA:** For week ending January 3; 2021, Days suitable 3.4. Topsoil moisture 5% short, 47% adequate and 48% surplus. Subsoil moisture 1% very short, 3% short, 57% adequate and 39% surplus. Winter wheat condition 12% poor, 46% fair, 39% good and 3% excellent. Barley condition 4% poor, 41% fair, 52% good, 3% excellent. Livestock condition 3% poor, 37% fair, 55% good, 5% excellent. Pasture and Range condition 3% very poor, 28% poor, 42% fair, 25% good and 2% excellent. Hay supplies 1% very short, 9% short, 79% adequate and 10% surplus. Percent of feed obtained from pastures 22%. Virginia experienced above average precipitation and normal temperatures in December slowing some grain crop harvesting. Muddy feeding/pasture conditions prevail due to rain and thawing during the day. Hay and roughage supplies are mostly adequate. Farming activities for the end of the month included finishing grain crop harvest in between rain events, preparing for winter grazing, equipment maintenance, and preparations for 2021 season.

**WASHINGTON:** The Statewide temperatures in Washington for the month of December were slightly below normal to above normal throughout the State. In San Juan County, the month of December was extremely wet. Many lowland fields were flooded with storm water. Most ponds had already filled, which was about two months early. Livestock were on stockpiled feed and those farms with adequate heavy-use areas with cover had livestock out of the weather. The pruning of berry crops was completed in some locations with orchard trees and vines to be next. In Skagit County, the fields were very wet. In Snohomish County, it was so wet that nothing was happening outside. Fields were beyond saturated. Water pooled everywhere. Seed orders were commencing. In Yakima County, vegetable fields were mostly tilled and ready to plant. Orchards were in the process of being pruned and trained. There was a significant amount of orchard tear out. In Klickitat County, moisture was received. No cropping happened at this time of the year. Ranchers were busy feeding livestock in ideal conditions, due to the lack of snow. In northeast Washington, the winter had been mild. Snow was received in the northern part of Stevens County on December 30. In east central Washington, snow continued to accumulate, providing insulation to winter wheat and alleviating drought conditions. No fieldwork was occurring. Crop conditions were good. Winter wheat conditions were normal. Cattle were being moved to feeding grounds. In southwest Washington, most winter crops looked good. The soil moisture content was coming back up due to the winter rains.

**WEST VIRGINIA:** For the week ending January 3, Topsoil moisture 11% short, 69% adequate, and 20% surplus. Subsoil moisture 9% short, 77% adequate, and 14% surplus. Hay and roughage supplies 12% short, 80% adequate, and 8% surplus. Feed grain supplies 10% short, 84% adequate, and 6% surplus. Winter wheat condition 47% fair, 52% good, and 1% excellent. Cattle and calves condition 2% poor, 28% fair, 64% good, and 6% excellent. Sheep and lambs condition 3% poor, 23% fair, 69% good, and 5% excellent. Weather conditions for the month have been a mix of warmer and cooler temperatures with periods of rain and some snow. Farming activities for the month included feeding hay and grain to livestock.

**WISCONSIN:** December temperatures at the five major weather stations were all above normal. They ranged from 6.6 degrees above normal in Green Bay to 3.3 degrees above normal in Madison. Average highs ranged from 32.8 degrees in Eau Claire to 37.9 degrees in Milwaukee, while average lows ranged from 15.4 degrees in Eau Claire to 25.5 degrees in Milwaukee. Precipitation ranged from 0.36 inches in La Crosse to 2.15 inches in Milwaukee. Madison received the most snowfall out of the major cities with 13.5 inches. Eau Claire received the least, with 3.7 inches of snow for the month. Much of Wisconsin remains covered in snow following storms received in the last days of December. Despite frozen ground halting tillage for the winter, mild temperatures helped manure hauling and livestock feeding activities.

**WYOMING:** This report for Wyoming is for the entire month of December 2020. Topsoil moisture 35% very short, 44% short, 21% adequate. Subsoil moisture 49% very short, 33% short, 18% adequate. Winter wheat condition 5% very poor, 9% poor, 71% fair, 10% good, 5% excellent. Livestock condition 3% poor, 28% fair, 68% excellent, 1% excellent. Stock water supplies 15% very short, 14% short, 71% adequate. Hay and roughage supplies 18% very short, 21% short, 60% adequate, 1% surplus. Pasture and range condition 23% very poor, 24% poor, 41% fair, 12% good. Wyoming's drought conditions held fast for the month of December. According to the National Integrated Drought Information System's report released December 31, 2020, the amount of land rated abnormally dry, moderately dry, severely dry, and extremely dry were 8.3%, 33.2%, 28.4% and 25.4%, respectively. A small portion of the State was experiencing exceptional drought conditions at 0.4%. Producers are hoping for sufficient spring moisture given the current lack of precipitation. Snow was on the ground in areas of the Southwest, but totals were below normal. Dryness persisted in East-central portions of the State according to one reporter, with below normal snowpack.

## International Weather and Crop Summary

**December 27, 2020 - January 2, 2021**

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

**EUROPE:** Wet weather prevailed across much of the continent, though short-term dryness has returned to some central and northeastern growing areas.

**MIDDLE EAST**: Dry weather maintained drought concerns in Turkey but favored winter crop development in Iran and environs.

**NORTHWEST AFRICA:** Drought lingered in parts of Morocco despite recent rain, while heavy showers elsewhere sustained adequate to abundant moisture supplies for winter grains.

**SOUTHEAST ASIA:** Downpours continued across the Philippines, Malaysia, and Indonesia, benefiting rice and oil palm but causing localized flooding.

**AUSTRALIA:** Warm, showery weather favored summer crop development in the east.

**SOUTH AFRICA:** Conditions favored rain-fed summer crops in most major production areas.

**ARGENTINA**: Showers returned, but moisture remained limited for development of many summer grains and oilseeds

**BRAZIL:** Scattered showers sustained development of soybeans and corn, though pockets of dryness remained a concern in several leading production states.

## December 2020

| COUNTRY | CITY | TEMPERATURE ( C ) | | | | | | PRECIP. (MM) | |
|---|---|---|---|---|---|---|---|---|---|
| | | AVG MAX | AVG MIN | HI MAX | LO MIN | AVG | DEP NRM | TOT | DEP NRM |
| ALGERI | ALGER | 18 | 8 | 26 | 2 | 13 | 1.4 | 102 | 4 |
| | BATNA | 13 | 3 | 17 | -4 | 8 | 1 | 38 | 5 |
| ARGENT | IGUAZU | 32 | 20 | 35 | 16 | 26 | 0.3 | 280 | 99 |
| | FORMOSA | 32 | 20 | 38 | 13 | 26 | -0.2 | 210 | 45 |
| | CERES | 31 | 17 | 37 | 9 | 24 | -0.8 | 69 | -75 |
| | CORDOBA | 31 | 15 | 38 | 8 | 23 | 0.6 | 120 | -27 |
| | RIO CUARTO | 31 | 16 | 38 | 12 | 24 | 1.3 | 62 | -80 |
| | ROSARIO | 30 | 16 | 36 | 9 | 23 | -0.7 | 76 | -38 |
| | BUENOS AIRES | 30 | 15 | 36 | 6 | 22 | -0.2 | 22 | -71 |
| | SANTA ROSA | 32 | 15 | 41 | 8 | 24 | 1.2 | 58 | -45 |
| | TRES ARROYOS | 29 | 14 | 36 | 4 | 21 | 1.1 | 68 | -10 |
| AUSTRA | DARWIN | 32 | 25 | 35 | 23 | 29 | -0.5 | 235 | -45 |
| | BRISBANE | 28 | 22 | 32 | 18 | 25 | 1 | 77 | -56 |
| | PERTH | 32 | 17 | 41 | 6 | 24 | 2.2 | 2 | -6 |
| | CEDUNA | 26 | 14 | 40 | 6 | 20 | -1 | ***** | ****** |
| | ADELAIDE | 25 | 15 | 36 | 10 | 20 | -0.4 | ***** | ****** |
| | MELBOURNE | 22 | 12 | 34 | 8 | 17 | -0.8 | 23 | -24 |
| | WAGGA | 28 | 14 | 36 | 7 | 21 | -0.7 | 62 | 13 |
| | CANBERRA | 24 | 12 | 32 | 5 | 18 | -0.5 | 42 | -14 |
| AUSTRI | VIENNA | 4 | 1 | 10 | -7 | 3 | 1.6 | 47 | 9 |
| | INNSBRUCK | 4 | -2 | 9 | -8 | 1 | 1.9 | 107 | 50 |
| BAHAMA | NASSAU | 26 | 19 | 30 | 14 | 23 | -0.1 | 17 | -34 |
| BARBAD | BRIDGETOWN | 30 | 24 | 31 | 22 | 27 | 1 | 72 | -34 |
| BELARU | MINSK | 0 | -2 | 3 | -10 | -1 | 2.2 | 48 | 0 |
| BERMUD | ST GEORGES | 22 | 18 | 24 | 14 | 20 | 0.3 | 72 | -32 |
| BOLIVI | LA PAZ | 16 | 4 | 20 | 1 | 10 | 0.7 | 120 | 39 |
| BRAZIL | FORTALEZA | 31 | 26 | 32 | 25 | 29 | 0.4 | 10 | ****** |
| | RECIFE | 29 | 25 | 29 | 23 | 27 | -1.8 | 5 | -31 |
| | CAMPO GRANDE | 31 | 21 | 34 | 19 | 26 | -0.4 | 253 | 82 |
| | FRANCA | *** | *** | 31 | 18 | *** | ***** | 285 | 18 |
| | RIO DE JANEI | 30 | 24 | 37 | 21 | 27 | -0.3 | 149 | 38 |
| | LONDRINA | 31 | 20 | 34 | 17 | 26 | 1.3 | 154 | -53 |
| | SANTA MARIA | 30 | 18 | 39 | 12 | 24 | -0.2 | 72 | -76 |
| | TORRES | 27 | 20 | 32 | 15 | 23 | ***** | 148 | 44 |
| BULGAR | SOFIA | 7 | 2 | 17 | -12 | 4 | 4.1 | 56 | 10 |
| BURKIN | OUAGADOUGOU | 36 | 19 | 39 | 14 | 28 | 2.3 | 2 | 2 |
| CANADA | LETHBRIDGE | 5 | -7 | 14 | -19 | -1 | 6 | 5 | ****** |
| | REGINA | -3 | -14 | 3 | -29 | -9 | 3 | 8 | -1 |
| | WINNIPEG | -3 | -11 | 7 | -25 | -7 | 4.7 | 20 | -3 |
| | TORONTO | 3 | -3 | 10 | -10 | 0 | 2.1 | 64 | 7 |
| | MONTREAL | 1 | -6 | 14 | -18 | -2 | 3.2 | 79 | 2 |
| | PRINCE ALBER | -6 | -17 | 6 | -30 | -11 | 3.9 | 5 | -12 |
| | CALGARY | 4 | -8 | 16 | -19 | -2 | 4.5 | 37 | 28 |
| | VANCOUVER | 8 | 3 | 12 | -3 | 5 | 1.8 | 210 | 47 |
| CANARY | LAS PALMAS | 22 | 17 | 24 | 15 | 19 | 0.5 | 10 | -31 |
| CHILE | SANTIAGO | 30 | 12 | 34 | 8 | 21 | 1.8 | 0 | -3 |
| CHINA | HARBIN | -11 | -19 | -5 | -26 | -15 | -0.7 | 0 | -7 |
| | HAMI | -2 | -17 | 2 | -21 | -10 | -1.5 | 0 | -2 |
| | BEIJING | 3 | -7 | 8 | -13 | -2 | -0.7 | 0 | -3 |
| | TIENTSIN | 3 | -6 | 8 | -14 | -2 | -1 | 0 | -3 |
| | LHASA | 12 | -5 | 16 | -8 | 4 | 3.9 | 0 | -1 |
| | KUNMING | 17 | 6 | 22 | 2 | 11 | 2.2 | 16 | 3 |
| | CHENGCHOW | 8 | -1 | 14 | -6 | 3 | 0.9 | 10 | 0 |
| | YEHCHANG | 8 | 3 | 16 | -2 | 6 | -0.2 | 12 | -7 |
| | HANKOW | 10 | 1 | 17 | -8 | 5 | -0.3 | 19 | -9 |
| | CHUNGKING | 10 | 8 | 14 | 3 | 9 | -0.9 | 26 | 2 |
| | CHIHKIANG | 9 | 4 | 16 | -1 | 7 | -0.5 | 19 | -15 |
| | WU HU | 9 | 2 | 16 | -8 | 6 | -0.8 | 67 | 25 |
| | SHANGHAI | 10 | 4 | 16 | -7 | 7 | 0.2 | 17 | -23 |
| | NANCHANG | 11 | 6 | 17 | -3 | 8 | 0 | 23 | -22 |
| | TAIPEI | 20 | 17 | 25 | 8 | 18 | 0.3 | 123 | 53 |
| | CANTON | 20 | 11 | 27 | 2 | 16 | 1.7 | 3 | -28 |
| | NANNING | 17 | 11 | 25 | 5 | 14 | -0.2 | 2 | -22 |
| COTE D | ABIDJAN | 31 | 26 | 33 | 23 | 28 | 0.2 | 58 | -11 |
| CUBA | CAMAGUEY | 28 | 20 | 30 | 15 | 24 | -0.2 | 21 | ****** |
| CYPRUS | LARNACA | 21 | 12 | 24 | 10 | 17 | 3.2 | ***** | ****** |
| CZECHR | PRAGUE | 4 | 0 | 12 | -6 | 2 | 2.5 | 14 | -14 |
| DENMAR | COPENHAGEN | 6 | 4 | 10 | -5 | 5 | 2.4 | 53 | 7 |
| EGYPT | CAIRO | 22 | 13 | 28 | 8 | 18 | 1.8 | 0 | ****** |
| ESTONI | TALLINN | 2 | -1 | 6 | -9 | 0 | 2.1 | 31 | -26 |

**Based on Preliminary Reports**

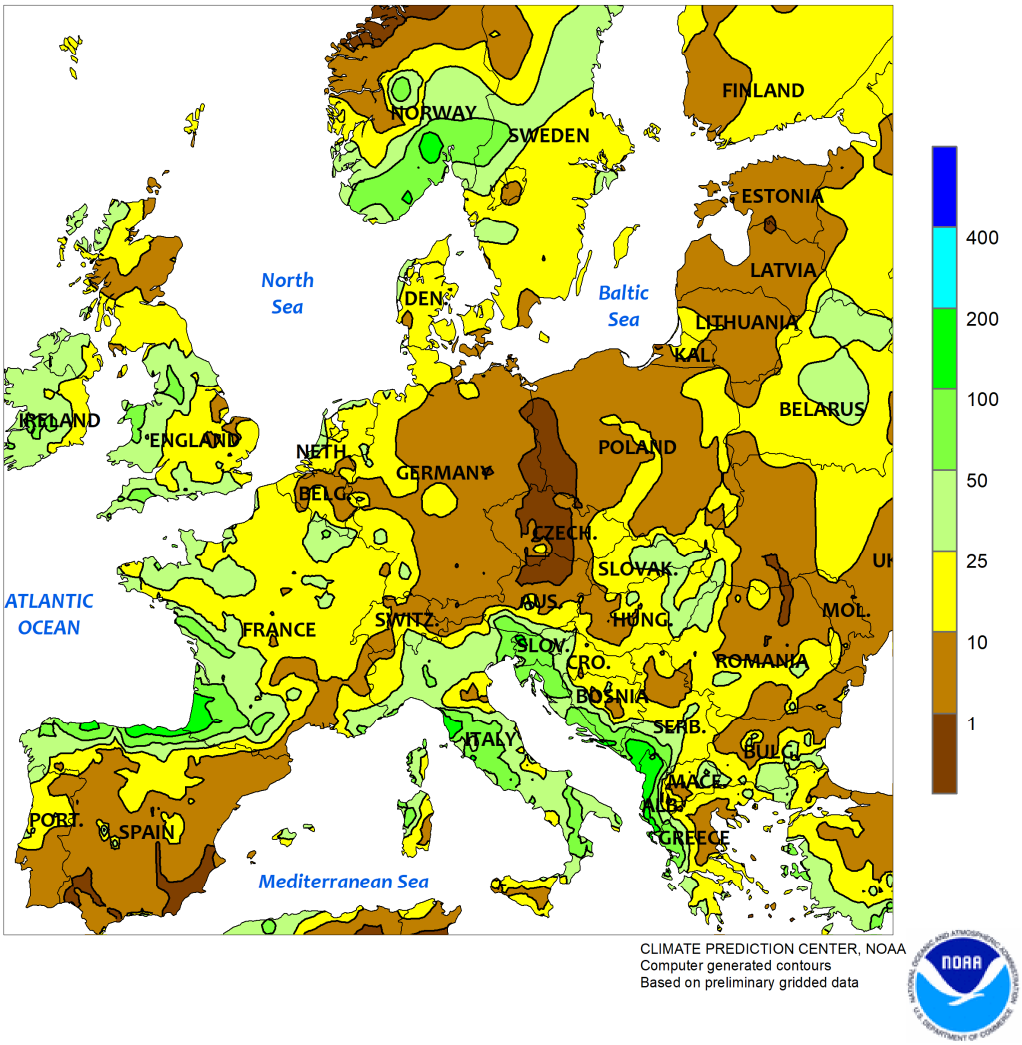
# December 2020

| COUNTRY | CITY | TEMPERATURE (C) AVG MAX | AVG MIN | HI MAX | LO MIN | AVG | DEP NRM | PRECIP. (MM) TOT | DEP NRM |
|---|---|---|---|---|---|---|---|---|---|
| ETHIOP | ADDIS ABABA | 23 | 8 | 25 | 6 | 16 | 0.7 | ***** | ****** |
| F GUIA | CAYENNE | 31 | 23 | 32 | 21 | 27 | 0.8 | 300 | -60 |
| FIJI | NAUSORI | 30 | 23 | 32 | 19 | 27 | 0.6 | 459 | 190 |
| FINLAN | HELSINKI | 2 | 0 | 6 | -8 | 1 | 4.0 | 58 | 0 |
| FRANCE | PARIS/ORLY | 9 | 5 | 15 | -1 | 7 | 1.6 | 56 | 0 |
| | STRASBOURG | 7 | 2 | 15 | -4 | 5 | 2.1 | 38 | -12 |
| | BOURGES | 9 | 4 | 17 | -1 | 6 | 2.0 | 60 | -8 |
| | BORDEAUX | 12 | 6 | 18 | -2 | 9 | 1.9 | 152 | 49 |
| | TOULOUSE | 11 | 5 | 16 | -3 | 8 | 1.4 | 67 | 16 |
| | MARSEILLE | 12 | 5 | 17 | -4 | 9 | 0.8 | 37 | -9 |
| GABON | LIBREVILLE | *** | *** | 31 | *** | *** | ***** | 35 | -220 |
| GERMAN | HAMBURG | 6 | 2 | 12 | -4 | 4 | 1.8 | 61 | -9 |
| | BERLIN | 6 | 2 | 14 | -3 | 4 | 2.7 | ***** | ****** |
| | DUSSELDORF | 8 | 4 | 15 | -2 | 6 | 1.4 | 85 | 12 |
| | LEIPZIG | 6 | 1 | 15 | -5 | 4 | 2.5 | 15 | -24 |
| | DRESDEN | 6 | 2 | 15 | -4 | 4 | 3.0 | 21 | -27 |
| | STUTTGART | 6 | 1 | 15 | -4 | 3 | 2.2 | 47 | -4 |
| | NURNBERG | 4 | 0 | 12 | -4 | 2 | 1.4 | 47 | -6 |
| | AUGSBURG | 4 | -1 | 13 | -6 | 2 | 0.6 | 46 | -4 |
| GREECE | THESSALONIKA | 14 | 8 | 18 | 3 | 11 | 3.7 | 113 | 57 |
| | LARISSA | 14 | 6 | 18 | 2 | 10 | 3.6 | 50 | -3 |
| | ATHENS | 17 | 12 | 20 | 9 | 15 | 2.9 | 963 | 901 |
| GUADEL | RAIZET | 29 | 21 | 31 | 18 | 25 | 0.3 | 74 | -15 |
| HONGKO | HONG KONG IN | 21 | 16 | 26 | 8 | 18 | -0.4 | 0 | ****** |
| HUNGAR | BUDAPEST | 5 | 2 | 12 | -4 | 4 | 3.4 | 34 | -6 |
| ICELAN | REYKJAVIK | 3 | 0 | 9 | -7 | 2 | 1.1 | 101 | 6 |
| INDIA | AMRITSAR | 18 | 6 | 25 | 0 | 12 | -0.7 | 17 | 3 |
| | NEW DELHI | 23 | 7 | 29 | 3 | 15 | -0.6 | 0 | -13 |
| | AHMEDABAD | 29 | 15 | 35 | 8 | 22 | 0.7 | 2 | -1 |
| | INDORE | 26 | 13 | 32 | 8 | 19 | 0.1 | 11 | 8 |
| | CALCUTTA | 26 | 15 | 30 | 11 | 21 | 0.2 | 0 | -10 |
| | VERAVAL | 30 | 17 | 35 | 11 | 24 | -0.4 | 24 | ****** |
| | BOMBAY | 33 | 20 | 36 | 15 | 26 | 0.8 | 7 | ****** |
| | POONA | 30 | 14 | 32 | 8 | 22 | 1.1 | 5 | -2 |
| | BEGAMPET | 30 | 15 | 32 | 10 | 22 | 0.5 | 0 | -5 |
| | VISHAKHAPATN | 29 | 21 | 31 | 16 | 25 | 0.1 | 0 | -30 |
| | MADRAS | 29 | 22 | 31 | 19 | 26 | 0.3 | 226 | 53 |
| | MANGALORE | 34 | 23 | 35 | 20 | 28 | 0.9 | 32 | ****** |
| INDONE | SERANG | 31 | 24 | 34 | 22 | 28 | 0.1 | 254 | 89 |
| IRELAN | DUBLIN | 7 | 3 | 14 | -4 | 5 | -0.2 | 80 | 10 |
| ITALY | MILAN | 7 | 3 | 10 | -6 | 5 | 1.0 | 159 | 115 |
| | VERONA | 7 | 2 | 11 | -4 | 5 | 0.7 | 174 | 120 |
| | VENICE | 9 | 4 | 15 | -1 | 6 | 1.6 | 101 | 51 |
| | GENOA | 11 | 7 | 15 | 2 | 9 | -1.1 | 254 | 172 |
| | ROME | 14 | 6 | 18 | 1 | 10 | 0.4 | 143 | 61 |
| | NAPLES | 15 | 7 | 19 | 2 | 11 | 0.8 | 87 | -8 |
| JAMAIC | KINGSTON | 31 | 22 | 32 | 20 | 27 | 0.1 | 10 | -31 |
| JAPAN | SAPPORO | 1 | -4 | 8 | -13 | -1 | -0.4 | 38 | -74 |
| | NAGOYA | 12 | 4 | 17 | 0 | 8 | 0.9 | 30 | -15 |
| | TOKYO | 12 | 4 | 17 | -1 | 8 | -0.9 | 15 | -36 |
| | YOKOHAMA | *** | *** | 17 | 2 | *** | ***** | ***** | ****** |
| | KYOTO | *** | *** | 16 | 0 | *** | ***** | ***** | ****** |
| | OSAKA | 12 | 6 | 17 | 1 | 9 | 0.5 | 21 | -23 |
| KAZAKH | KUSTANAY | -10 | -17 | -3 | -26 | -13 | -0.9 | 12 | -13 |
| | TSELINOGRAD | -12 | -18 | -5 | -27 | -15 | -3.3 | 13 | -7 |
| | KARAGANDA | -11 | -18 | -6 | -26 | -14 | -2.9 | 12 | -15 |
| KENYA | NAIROBI | 27 | 16 | 28 | 14 | 21 | 0.4 | ***** | ****** |
| LIBYA | BENGHAZI | 20 | 12 | 24 | 6 | 16 | 1.8 | 70 | ****** |
| LITHUA | KAUNAS | 2 | -1 | 6 | -6 | 0 | 1.9 | 16 | -30 |
| LUXEMB | LUXEMBOURG | 5 | 2 | 12 | -2 | 4 | 1.9 | 152 | 64 |
| MALAYS | KUALA LUMPUR | 32 | 24 | 34 | 23 | 28 | 1.4 | 302 | 47 |
| MALI | BAMAKO | 35 | 17 | 38 | 14 | 26 | 0.6 | 0 | 0 |
| MARSHA | MAJURO | 30 | 27 | 31 | 25 | 28 | 0.5 | 421 | 127 |
| MARTIN | LAMENTIN | 30 | 22 | 32 | 19 | 26 | 0.3 | 80 | -66 |
| MAURIT | NOUAKCHOTT | 30 | 15 | 33 | 10 | 23 | -0.3 | ***** | ****** |
| MEXICO | GUADALAJARA | *** | *** | 28 | 5 | *** | ***** | ***** | ****** |
| | TLAXCALA | 22 | 7 | 24 | 1 | 15 | 1.5 | 1 | -7 |
| | ORIZABA | 21 | 12 | 28 | 7 | 16 | -0.3 | 16 | ****** |
| MOROCC | CASABLANCA | 19 | 11 | 26 | 7 | 15 | 0.9 | 66 | -5 |
| | MARRAKECH | 20 | 8 | 26 | 4 | 14 | 0.7 | 21 | -2 |

| COUNTRY | CITY | TEMPERATURE (C) AVG MAX | AVG MIN | HI MAX | LO MIN | AVG | DEP NRM | PRECIP. (MM) TOT | DEP NRM |
|---|---|---|---|---|---|---|---|---|---|
| MOZAMB | MAPUTO | 32 | 23 | 39 | 19 | 27 | 1.1 | 141 | 48 |
| N KORE | PYONGYANG | 1 | -7 | 8 | -16 | -3 | -0.4 | 5 | -12 |
| NEW CA | NOUMEA | 30 | 23 | 33 | 20 | 26 | 1.2 | 44 | -39 |
| NIGER | NIAMEY | 36 | 21 | 38 | 15 | 28 | 3.3 | 0 | 0 |
| NORWAY | OSLO | 2 | 0 | 7 | -6 | 1 | 5 | 176 | 115 |
| NZEALA | AUCKLAND | 22 | 15 | 27 | 9 | 19 | 0.2 | 36 | -44 |
| | WELLINGTON | 19 | 14 | 22 | 7 | 16 | -0.3 | 84 | 24 |
| P RICO | SAN JUAN | 29 | 24 | 31 | 22 | 26 | 0.3 | 118 | -10 |
| PAKIST | KARACHI | 28 | 15 | 33 | 10 | 21 | 0.9 | 0 | -4 |
| PERU | LIMA | 23 | 19 | 26 | 17 | 21 | 0.0 | 0 | ****** |
| PHILIP | MANILA | 31 | 25 | 34 | 23 | 28 | 0.7 | 172 | 92 |
| PNEWGU | PORT MORESBY | 31 | 25 | 33 | 24 | 28 | -0.5 | 150 | 50 |
| POLAND | WARSAW | 3 | 0 | 11 | -5 | 2 | 2.5 | 26 | -8 |
| | LODZ | 4 | 0 | 11 | -6 | 2 | 2.2 | 20 | -22 |
| | KATOWICE | 4 | 0 | 12 | -8 | 2 | 1.9 | 33 | -13 |
| PORTUG | LISBON | 15 | 10 | 18 | 3 | 13 | 0.7 | 57 | -47 |
| ROMANI | BUCHAREST | 6 | 2 | 15 | -2 | 4 | 4.2 | 75 | 30 |
| RUSSIA | ST.PETERSBUR | 0 | -2 | 4 | -7 | -1 | 2.9 | 40 | -11 |
| | KAZAN | -8 | -13 | -1 | -19 | -11 | -2.4 | 25 | -15 |
| | MOSCOW | -3 | -6 | 2 | -13 | -4 | 0.9 | 27 | -23 |
| | YEKATERINBUR | -9 | -13 | -4 | -22 | -11 | 0.5 | 17 | -11 |
| | OMSK | -12 | -17 | -3 | -33 | -15 | -0.8 | 19 | -13 |
| | BARNAUL | -13 | -18 | -3 | -40 | -16 | -2.9 | 39 | 10 |
| | KHABAROVSK | -13 | -19 | -5 | -31 | -16 | 1.5 | 2 | -11 |
| | VLADIVOSTOK | -6 | -11 | 2 | -22 | -9 | 0.5 | 0 | -19 |
| | VOLGOGRAD | -5 | -11 | 2 | -17 | -8 | -3.6 | 0 | -36 |
| | ASTRAKHAN | -1 | -8 | 8 | -18 | -4 | -2.4 | 0 | -17 |
| | ORENBURG | -11 | -18 | -2 | -27 | -14 | -4.4 | 12 | -21 |
| S AFRI | JOHANNESBURG | 25 | 16 | 30 | 12 | 20 | 1.1 | 353 | 235 |
| | DURBAN | 28 | 20 | 33 | 15 | 24 | 0.5 | 110 | -8 |
| | CAPE TOWN | 25 | 16 | 30 | 12 | 20 | 0.4 | 121 | 105 |
| S KORE | SEOUL | 4 | -3 | 11 | -13 | 0 | -0.1 | 4 | -17 |
| SAMOA | PAGO PAGO | 30 | 25 | 32 | 24 | 28 | -0.1 | 365 | -4 |
| SENEGA | DAKAR | 28 | 22 | 30 | 20 | 25 | 1.2 | 0 | -1 |
| SPAIN | VALLADOLID | 9 | 3 | 16 | -3 | 6 | 1.1 | 24 | -28 |
| | MADRID | 11 | 4 | 16 | -4 | 7 | 1.1 | 14 | -22 |
| | SEVILLE | 16 | 8 | 22 | 1 | 12 | 0.0 | 21 | ****** |
| SWITZE | GENEVA | 6 | 1 | 14 | -6 | 4 | 1.4 | 69 | -11 |
| SYRIA | DAMASCUS | 16 | 5 | 20 | -1 | 11 | 3.0 | 2 | -42 |
| TAHITI | PAPEETE | 30 | 24 | 32 | 22 | 27 | -0.1 | 194 | -127 |
| TANZAN | DAR ES SALAA | 33 | 25 | 34 | 22 | 29 | 1.3 | 49 | -74 |
| THAILA | PHITSANULOK | 32 | 19 | 35 | 15 | 26 | 1.2 | 0 | -13 |
| | BANGKOK | 32 | 24 | 36 | 18 | 28 | 1.8 | 0 | -7 |
| TOGO | TABLIGBO | 34 | 24 | 36 | 22 | 29 | 1.2 | 53 | ****** |
| TRINID | PORT OF SPAI | 31 | 23 | 33 | 21 | 27 | 0.9 | 69 | -84 |
| TUNISI | TUNIS | 18 | 10 | 21 | 4 | 14 | 0.6 | 101 | 30 |
| TURKEY | ISTANBUL | 14 | 9 | 18 | 0 | 11 | 2.9 | 26 | -61 |
| | ANKARA | 10 | -1 | 16 | -7 | 4 | 3.0 | 26 | -22 |
| TURKME | ASHKHABAD | 2 | -2 | 11 | -8 | 0 | -3.2 | 20 | -1 |
| UKINGD | ABERDEEN | 6 | 2 | 11 | -3 | 4 | 0.8 | 155 | 80 |
| | LONDON | 8 | 4 | 14 | -3 | 6 | 0.2 | 77 | 20 |
| UKRAIN | KIEV | 1 | -2 | 8 | -10 | 0 | 1.7 | 48 | 2 |
| | LVOV | 3 | -1 | 10 | -8 | 1 | 2.9 | 55 | 8 |
| | KIROVOGRAD | 1 | -2 | 10 | -9 | 0 | 1.6 | 31 | -3 |
| | ODESSA | 5 | 2 | 11 | -4 | 4 | 2.3 | 37 | -4 |
| | KHARKOV | -1 | -5 | 2 | -11 | -3 | 0.4 | 25 | -12 |
| UZBEKI | TASHKENT | 4 | -2 | 13 | -5 | 1 | -2.7 | 20 | -38 |
| VENEZU | CARACAS | *** | *** | *** | *** | *** | ***** | ***** | ****** |
| YUGOSL | BELGRADE | 8 | 4 | 16 | -2 | 6 | 3.3 | 35 | -24 |
| ZAMBIA | LUSAKA | *** | *** | 30 | 18 | *** | ***** | 308 | ****** |

**Based on Preliminary Reports**

EUROPE
Total Precipitation (mm)
December 27, 2020 - January 2, 2021

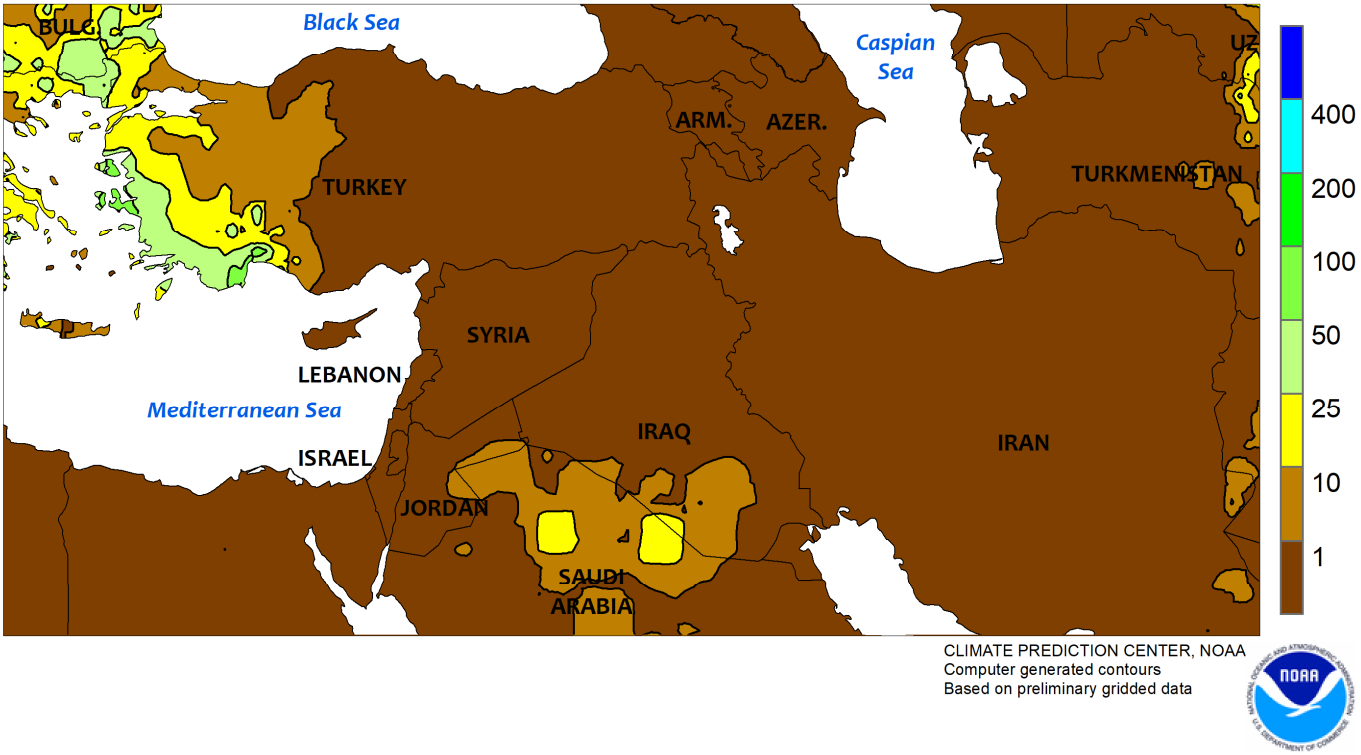



## EUROPE

Widespread showers prevailed, with unseasonable warmth in eastern growing areas contrasting with cold weather over the western half of the continent. A series of storms continued to sweep across the continent, producing 3 to 60 mm of rain (locally more) from France and northern Spain eastward into Poland and the Balkans. Furthermore, heavy rain (more than 100 mm) was reported in Italy and the western Balkans, likely causing localized flooding. Despite the widespread rainfall, dry weather prevailed from northern Austria into western Poland and eastern Germany; short-term dryness has returned to these locales, with 30-day precipitation totaling less than 50 percent of normal. Otherwise, moisture supplies remained favorable for dormant (north) to vegetative (south) winter crops over most of Europe. Unseasonable warmth (2-6°C above normal) across eastern portions of the continent kept crop areas uncharacteristically devoid of snow cover, with temperatures averaging more than 7°C above normal in the Balkans and Scandinavia. Conversely, colder-than-normal conditions (1-5°C below normal) settled over western Europe, though minimum temperatures (as low as -8°C) stayed well above the threshold for potential winterkill.

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

MIDDLE EAST
Total Precipitation (mm)
December 27, 2020 - January 2, 2021



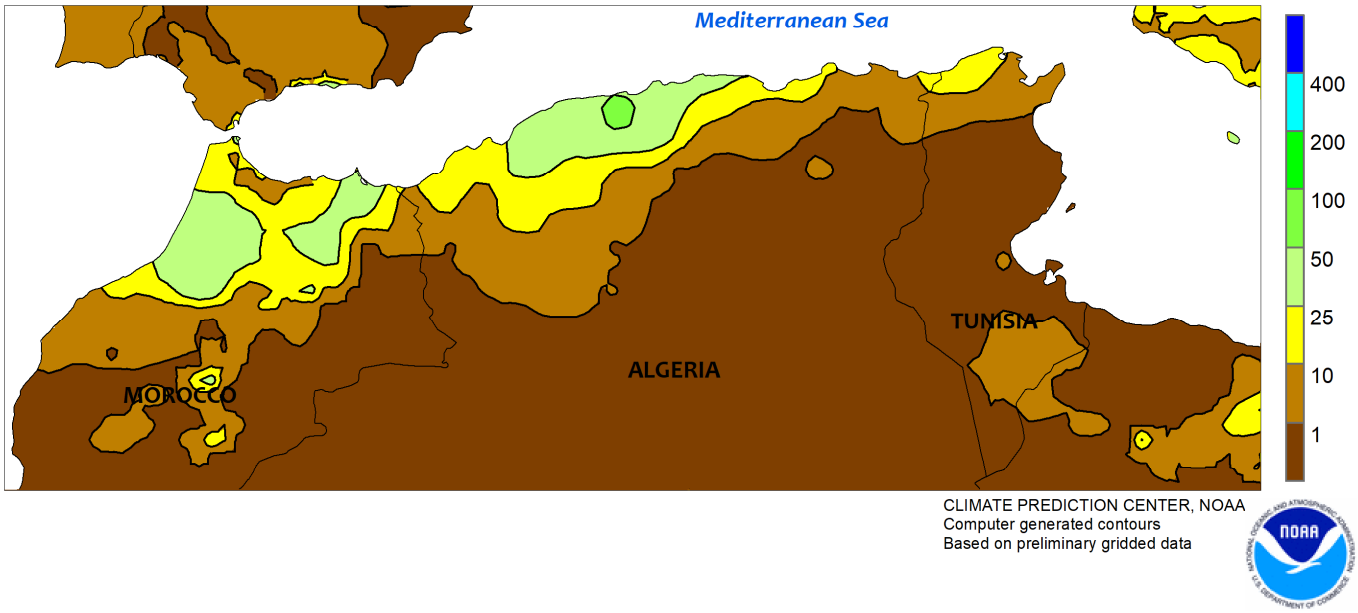

CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

## MIDDLE EAST

Dry weather expanded over much of the region, maintaining drought conditions in Turkey while favoring winter grain development in Iran and environs. Following sorely-needed rain during the first half of December on central Turkey's Anatolian Plateau, the return of dryness over recent weeks has exacerbated drought and left moisture reserves in short supply for spring growth. In particular, this key winter grain area has averaged less than 50 percent of normal precipitation since September 1, ranking as the third driest over the past 30 years. Similar deficits extended eastward into the Armenian Highlands, reducing reservoir levels and mountain snowpacks; these are vital sources for summer crop irrigation, most notably corn and cotton. Turkey's drought has also reduced soil moisture supplies in the GAP Region (65 percent of normal precipitation since September 1) and nearby Adana to the west (less than 40 percent). Conversely, sunny skies favored dormant (north) to vegetative (south) winter wheat and barley from the eastern Mediterranean Coast into Iran, where near- to above-normal autumn precipitation boosted moisture supplies for wheat and barley establishment. The latest satellite-derived Vegetation Health Index (VHI) indicated good to excellent conditions over many of these croplands, with the end-of-December VHI on par with or better than the same time the preceding year. Temperatures during the period averaged up to 7°C above normal in Turkey, while cold conditions (2-8°C below normal) were observed in northern and eastern Iran.

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

NORTHWESTERN AFRICA
Total Precipitation (mm)
December 27, 2020 - January 2, 2021

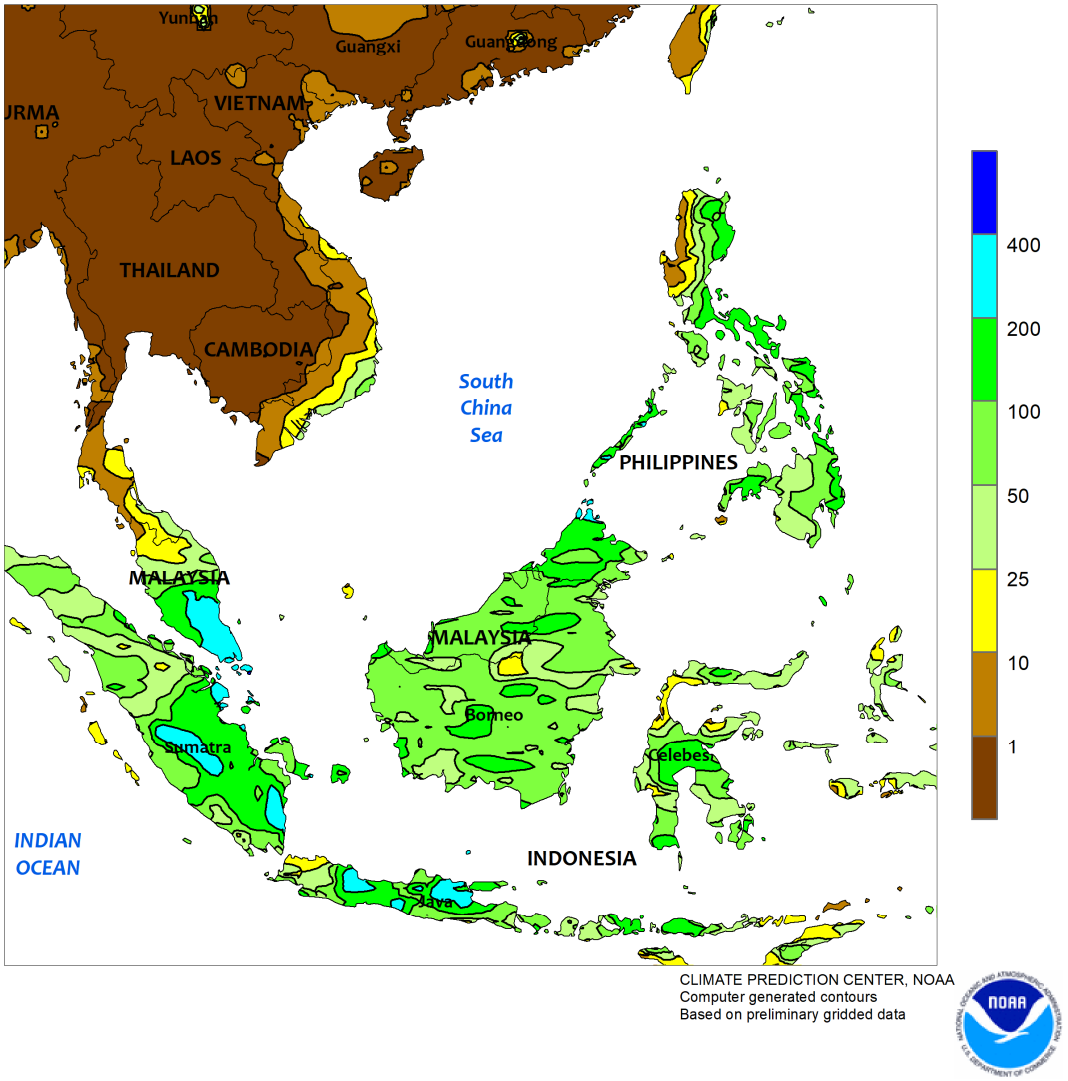



## NORTHWESTERN AFRICA

Additional rainfall in central and eastern portions of the region contrasted with sunny skies and lingering long-term drought in Morocco. Following sorely-needed showers in Morocco during early December, dry weather across central and southwestern portions of the country renewed drought concerns and left some winter wheat and barley poorly established. Precipitation since October 1 in Morocco's primary croplands has averaged half of normal, and more rain will be needed to fully replenish soil moisture and erase the severe long-term drought that has gripped much of Morocco since December 2019. Nevertheless, locally heavy rain (10-40 mm) across northern Morocco was beneficial for winter grains grown in this part of the country. Farther east, moderate to heavy showers (10-85 mm) in Algeria and northern Tunisia maintained adequate to abundant moisture supplies for vegetative winter grains, though drier conditions (less than 5 mm) were noted from Algeria's eastern Hautes Plains into the Steppe Region of northern Tunisia. While western growing areas have wrestled with drought, the eastern half of northern Africa's winter grain belt has received near- to above-normal precipitation since the beginning of October. However, a locally poor signal in the most recent Vegetation Health Index from central Algeria eastward likely indicated winter grain planting and emergence delays brought on by heavy rains from late November into the middle of December.

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

SOUTHEAST ASIA
Total Precipitation (mm)
December 27, 2020 - January 2, 2021



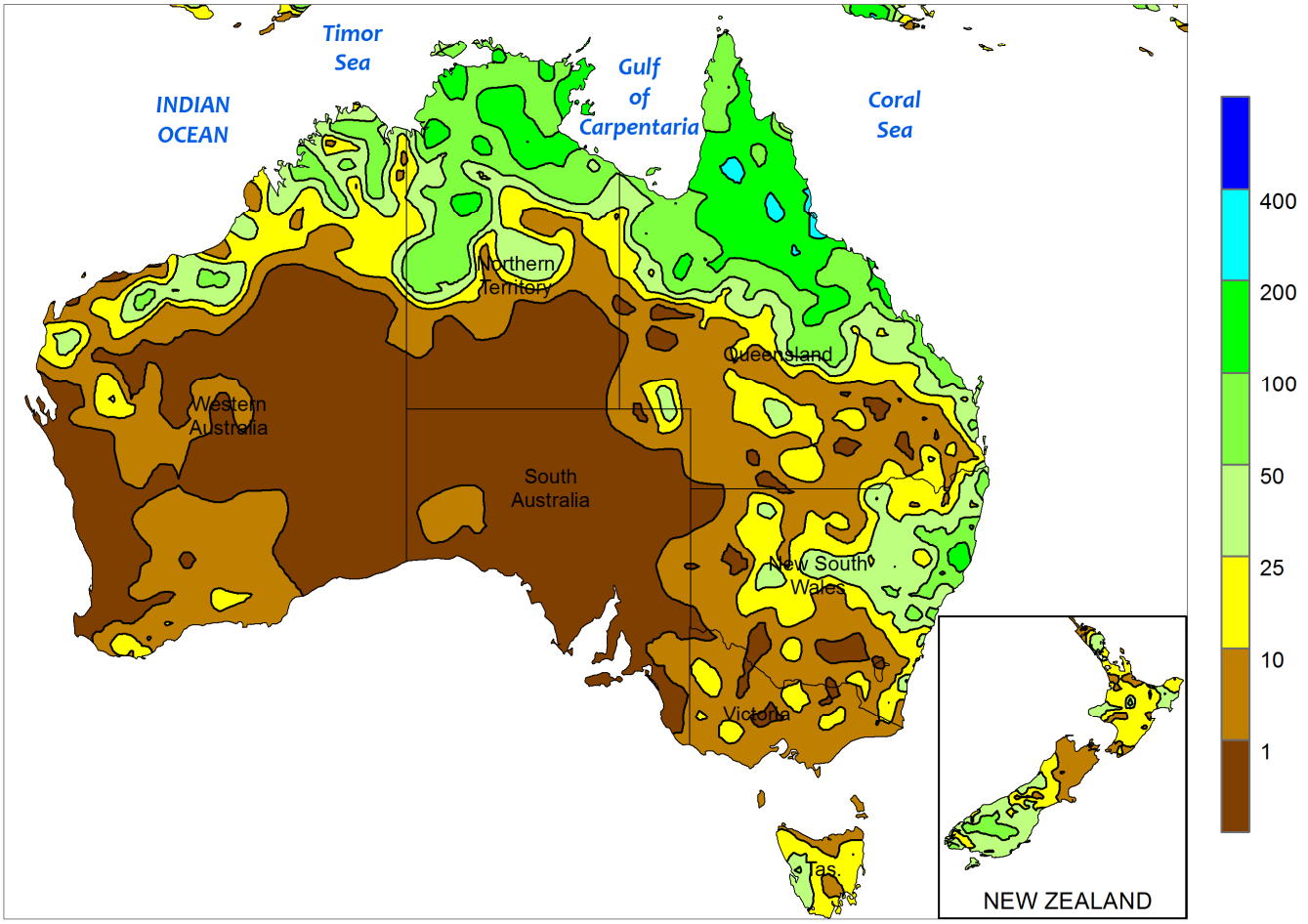

CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

## SOUTHEAST ASIA

Downpours continued across southern and eastern sections of the region. Much of the Philippines recorded rainfall totals between 50 and 200 mm as did Malaysia and Indonesia. The consistently heavy showers ensured ample moisture supplies for rice and oil palm but has caused extreme wetness and localized flooding, particularly in the northern Philippines where rainfall amounts over the last 60 days are approaching 1,200 mm (300 percent of normal). Meanwhile, southern Indonesia (Java) has experienced a complete reversal from last year's drought, with consistently above-average rainfall maintaining good yield prospects for rice.

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

AUSTRALIA
Total Precipitation (mm)
December 27, 2020 - January 2, 2021




Gridded data from the Australian Bureau of Meteorology: www.bom.gov.au/
Creative Commons License found at:
https://creativecommons.org/licenses/by/3.0/au/legalcode

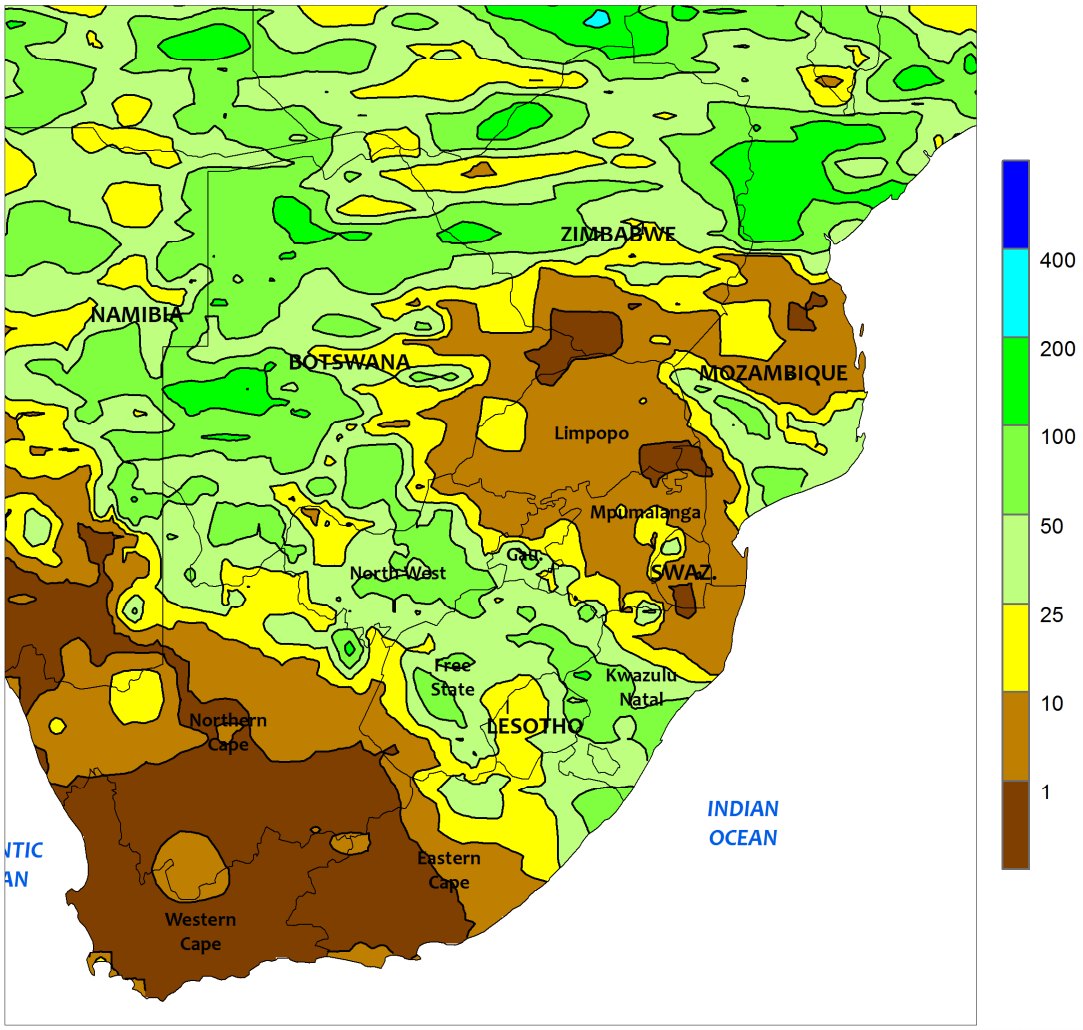
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

## AUSTRALIA

Warm, showery weather (10-50 mm) in northern New South Wales and far southern Queensland further improved the yield prospects of cotton, sorghum, and other summer crops. The rain continued to benefit dryland crops, such as sorghum, while reducing the supplemental water requirements of irrigated crops, such as cotton. Temperatures averaged near to somewhat below normal (up to 2ºC below normal) in eastern Australia, with maximum temperatures generally in the upper 20s to middle 30s degrees C. Elsewhere in the wheat belt, isolated showers likely had little impact on late-season wheat, barley, and canola harvesting in southern and western Australia.

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

SOUTH AFRICA
Total Precipitation (mm)
December 27, 2020 - January 2, 2021

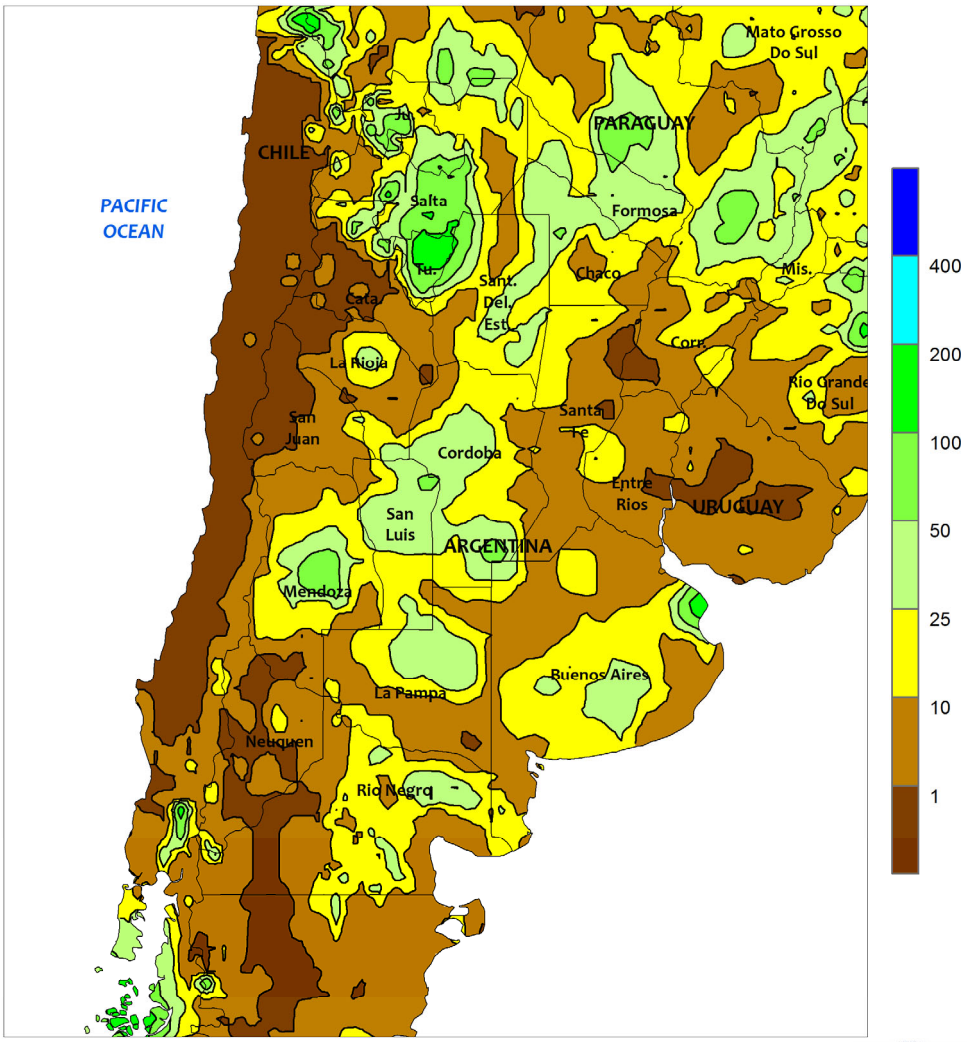



## SOUTH AFRICA

Conditions remained overall favorable for rain-fed summer crops in key eastern production areas. Rainfall totaled 10 to 50 mm – locally exceeding 75 mm – from North West southeastward to KwaZulu-Natal and neighboring locations in Eastern Cape, benefiting summer crops including corn and sugarcane. In contrast, lighter rain (less than 10 mm) fell from Limpopo through Swaziland, an area that included predominantly irrigated sugarcane plantations in eastern Mpumalanga and northern KwaZulu-Natal. Despite the recent dryness, moisture reserves in eastern sections of the corn belt were overall favorable for vegetative corn, following recent weeks of beneficial rain. Weekly temperatures averaged up to 2°C above normal in the aforementioned regions, with daytime highs reaching the middle 30s (degrees C) in traditionally warmer locations in the far west and east. Dry weather dominated the remainder of the Cape Provinces, where summer warmth (highs reaching the middle and upper 30s degrees C) fostered rapid development of irrigated summer crops.

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

ARGENTINA
Total Precipitation (mm)
December 27, 2020 - January 2, 2021

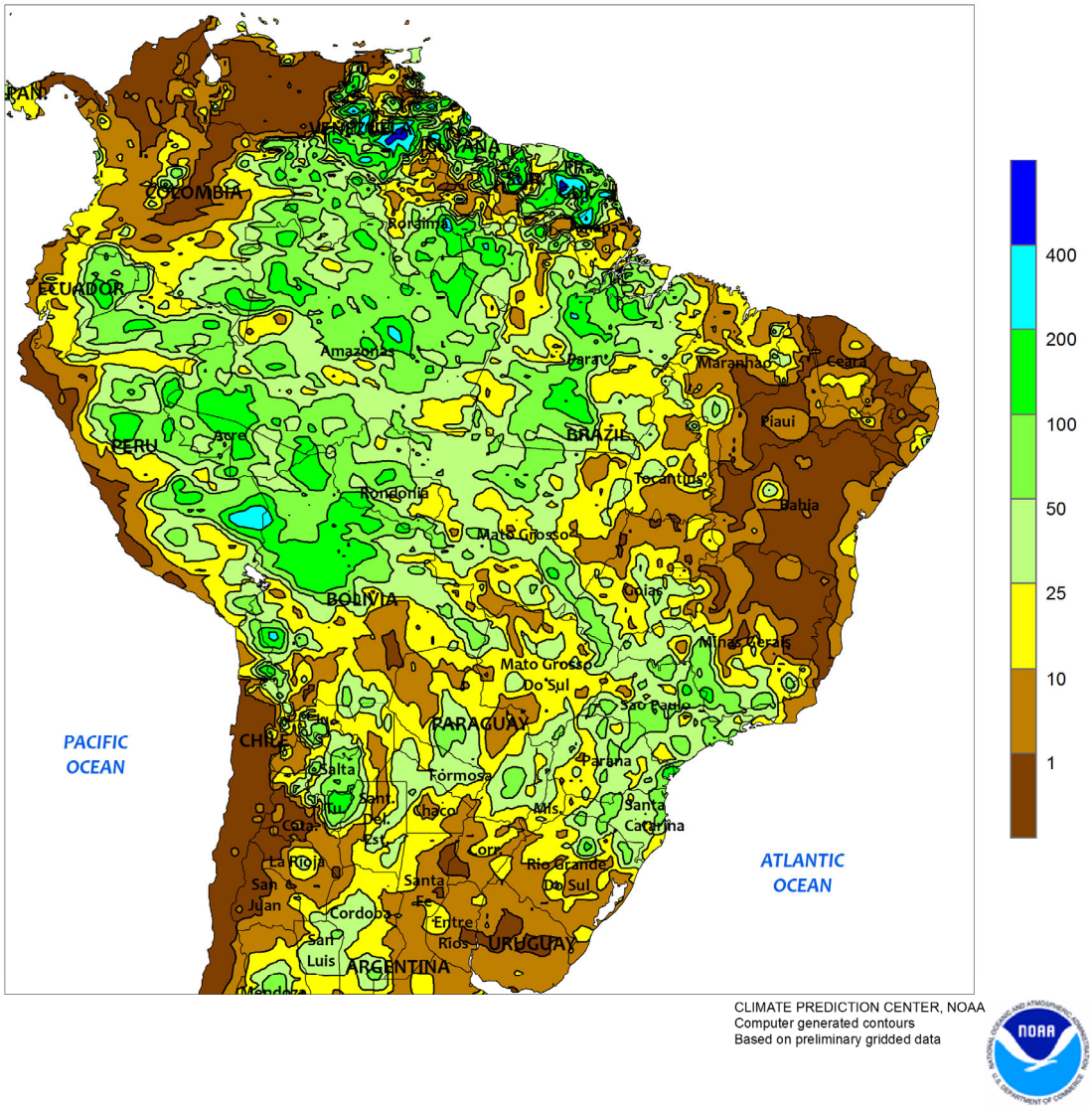



## ARGENTINA

Showers returned to much of the region, bringing some relief from dryness to summer crops ranging in development from germinating to flowering. However, rainfall totaled below 25 mm in most locations, including high yielding farmlands of the lower Parana River Valley (northern Buenos Aires and neighboring locations in Santa Fe and Entre Rios) that have been trending drier than normal for much of the season. Weekly temperatures averaged near to above normal, with daytime highs reaching the upper 30s (degrees C) in nearly all major production areas, including traditionally cooler locations in southern Buenos Aires, exacerbating the impacts of the dryness on early planted corn and soybeans currently advancing through reproduction. According to the government of Argentina, corn and soybeans were 81 and 90 percent planted, respectively, as of December 30, similar to last year's pace for both crops. Cotton planting advanced just 3 points to reach 84 percent complete, with progress still lagging that of last year by 14 points. Meanwhile, wheat was 93 percent harvested, 5 points ahead of last year's pace; in the leading production state of Buenos Aires, harvesting of wheat and barley was 84 and 100 percent harvested, respectively.

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

BRAZIL
Total Precipitation (mm)
December 27, 2020 - January 2, 2021




CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

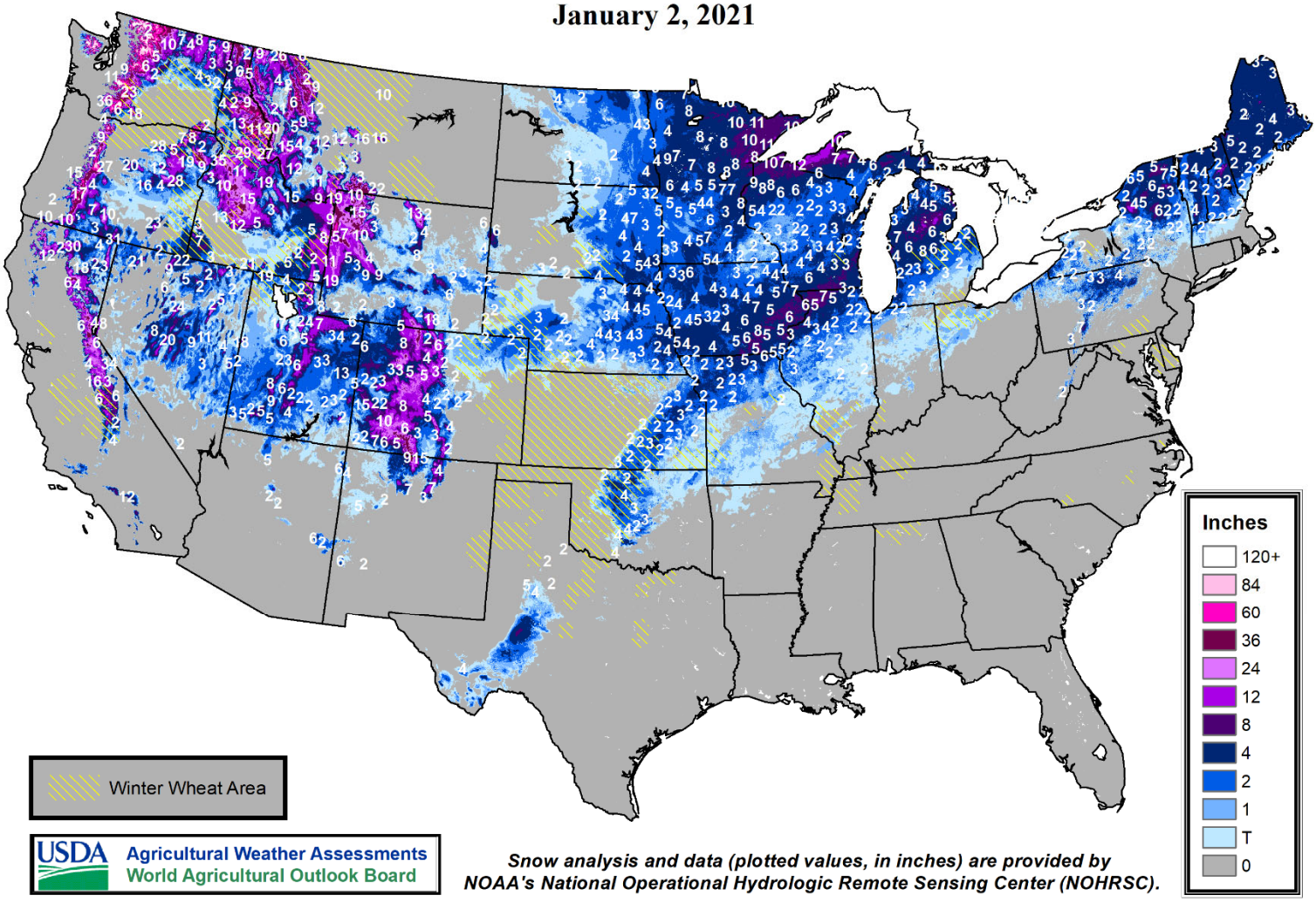
## BRAZIL

Showers were scattered throughout central and southern Brazil, maintaining generally adequate levels of moisture for summer crops, notably soybeans and first-crop corn. However, many locations continued to receive below-normal amounts of rainfall (less than 25 mm) and were in need of rain to prevent losses in yield potential. Of particular concern was Rio Grande do Sul, much of which has been drier than normal since early December. According to the government of Rio Grande do Sul, corn and soybeans were 92 and 98 percent planted, respectively, as of December 31; corn was most advanced, with harvesting already 6 percent complete, while just 13 percent of soybeans had reached flowering. Summer warmth (daytime highs reaching the lower and middle 30s degrees C) exacerbated the impacts of dryness in vulnerable areas and underscored the need for more comprehensive and seasonably abundant rain.

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

# Snow Depth

**January 2, 2021**





The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. The contents may be redistributed freely with proper credit.



Correspondence to the meteorologists should be directed to:
***Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**
Internet URL: **www.usda.gov/oce/weather-drought-monitor**
E-mail address: ***brad.rippey@usda.gov***


An archive of past Weekly Weather and Crop Bulletins can be found at **https://usda.library.cornell.edu/**, keyword search "*Weekly Weather and Crop Bulletin*".