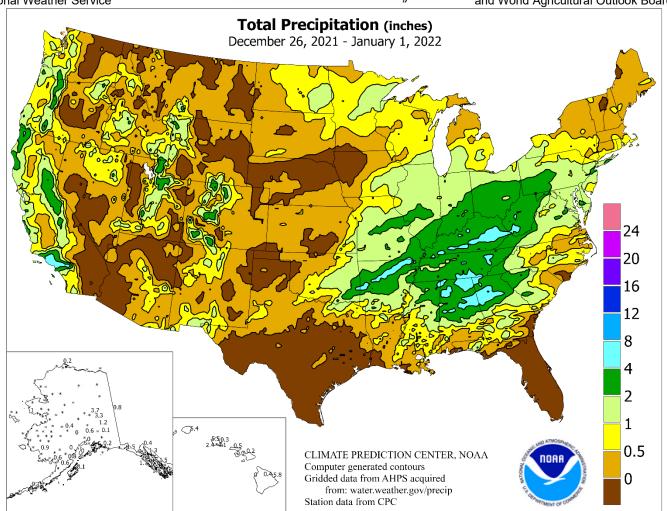
# WEEKEY MATHER AND CROP BULLETIN

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 26, 2021 - January 1, 2022

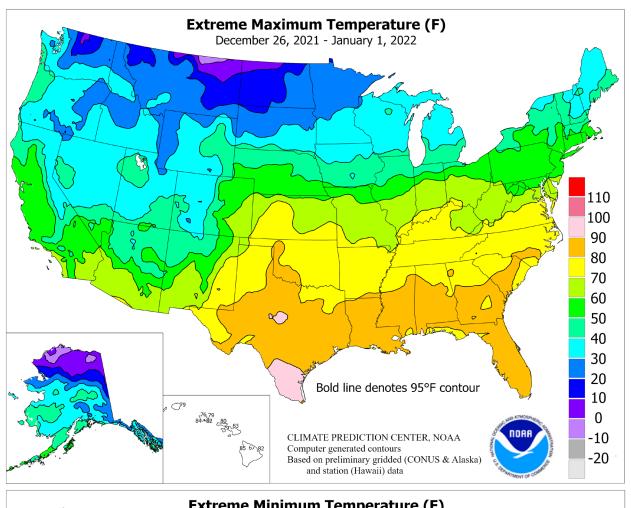
Highlights provided by USDA/WAOB

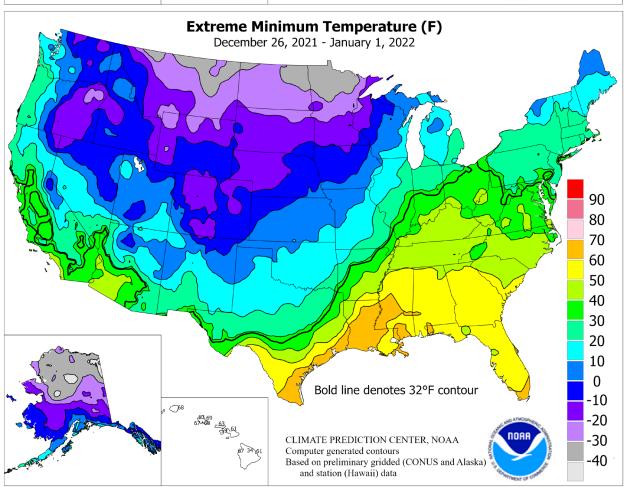
wild week, highlighted by severe weather and flash flooding across the interior Southeast; downpours in southern California; horrific wildfires in Colorado; record-setting warmth in the South; and bitterly cold conditions across the northern Plains and Northwest, capped an active year of U.S. weather. Although the Southeast escaped another major severe-weather outbreak, there were numerous reports of wind damage and isolated tornadoes spread across multiple days. In contrast, dry weather dominated the southern Atlantic region, as well

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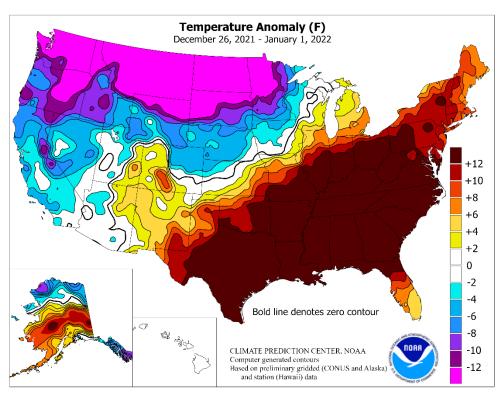
(Continued from front cover)

as large sections of the Plains. In the latter region, late-week rain and snow provided limited and localized relief for droughtstressed rangeland, pastures, and winter wheat. Elsewhere, colder, drier air settled across the western U.S., starting in the Northwest. Prior to the arrival of drier weather, the average water content of the high-elevation Sierra Nevada snowpack climbed to 15 inches, more than 160 percent of the early-January normal and about 55 percent of the typical accumulation for an entire season, according to the California Department of Water Resources. With historic, late-December warmth prevailing across the South, East, and lower Midwest, several monthly record highs were established. In those regions, weekly temperatures broadly averaged at least 10 to 25°F above normal, capping the warmest December on record in numerous locations. In stark contrast, frigid conditions gripped the North, extending as far east as the upper Midwest. Weekly readings averaged 10 to 25°F or more below normal in many

locations from Washington and Oregon eastward to Minnesota. Cold weather also dominated the remainder of the West. Scattered readings below -30°F were noted along and near the Canadian border from Montana to Minnesota. As 2021 ended and the New Year began, temperatures plunged to 0°F as far south as northern New Mexico, southeastern Colorado, and northwestern Kansas.

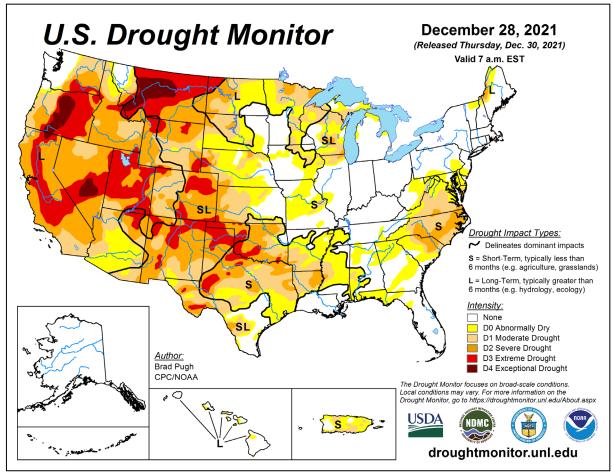
A stunning array of daily- and monthly record highs spanned the South. In the latter category, Abilene, TX, notched a December record high on the 26th with a high of 90°F (previously, 89°F on December 4, 1954, and December 24, 1955). Two days later, on the 28th, a high of 82°F edged the monthly record of 81°F, set on December 13, 2016, and December 6, 2021. Galveston had experienced just 4 days of 80-degree warmth in December prior to this year. On December 30 in Alabama, highs of 85°F in Montgomery and 82°F in Mobile tied or broke monthly records. The record-smashing Southern warmth continued into the New Year. In fact, the warmest New Year's Day and January day on record occurred in Texas locations such as Houston (85°F) and Galveston (81°F). Galveston's former monthly record had been 79°F on January 3, 2017. Elsewhere in Texas, daily-record highs for January 1 included 94°F in Laredo and 92°F in McAllen, Corpus Christi, and Harlingen. In contrast, frigid weather gripped the northern Plains and Northwest, accompanied by some snow. In Washington, consecutive daily-record lows were set on December 26-27 in Seattle (20 and 17°F) and Bellingham (9 and 7°). In Montana, recordsetting lows for the 27th dipped to -28°F in Choteau and -26°F in Cut Bank. Later, Grand Forks, ND, closed the week on December 31 and January 1 with consecutive daily-record lows (-33 and -37°F, respectively).

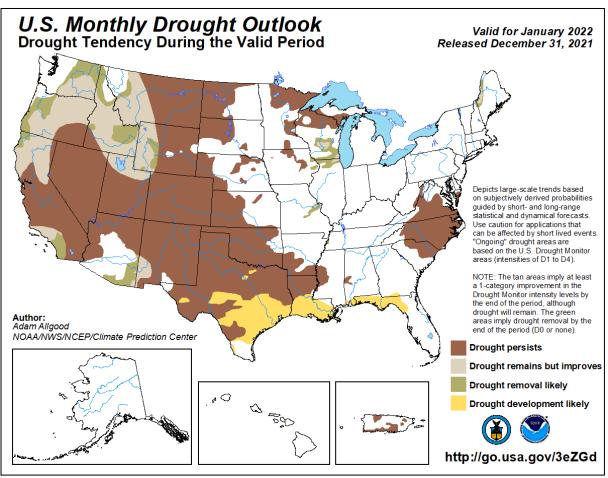
Early in the week, significant precipitation continued in the **West**. **Elko, NV**, netted a daily-record snowfall (4.5 inches) for December 26, while **Utah's Bryce Canyon** Airport received 5.2 inches in a 24-hour period on December 26-27. By the 27th, heavy snow overspread the north-central U.S., where **Grand Forks, ND**, received a daily-record sum of 5.9 inches. Rare snow also lingered in the **Pacific Northwest**,



where **Portland**, **OR**, measured consecutive daily-record totals (0.7 and 1.0 inch, respectively) on Dec. 26-27. By the 28th, a few heavy showers erupted across the **nation's mid-section**; totals of 1.53 inches in Columbia, MO, and 1.34 inches in Chanute, KS, were records for the date. Tupelo, MS (2.08 inches), reported a daily-record amount for Dec. 29. Meanwhile, wildfires broke out near Boulder, CO, while heavy rain soaked southern California. The Marshall Fire, sparked on December 30 in Louisville, CO, and driven by high winds, torched more than 6,000 acres and destroyed hundreds of homes. Sharply colder weather and snow complicated wildfire recovery efforts. Farther west, Oxnard, CA, measured daily-record amounts (2.72 and 2.10 inches, respectively) on December 29 and 30. Other daily-record totals on the 30th included 3.12 inches in Los Angeles (LAX Airport) and 2.03 inches in Sandberg. Woodland Hills reported 4.19 inches in 24 hours on December 29-30. Farther inland, heavy snow again fell across the Intermountain West. Lewiston, ID, measured a dailyrecord snowfall (7.2 inches) for December 30, while Manti, UT, tallied 6.0 inches in 24 hours on December 30-31. Elsewhere, a new thunderstorm outbreak delivered the wettest New Year's Day on record in dozens of locations, including Jackson, KY (3.38 inches); Russellville, AR (2.77 inches); Poplar Bluff, MO (2.49 inches); Evansville, IN (2.22 inches): and Charleston, WV (2.09 inches).

In Alaska, the week began amid a record-smashing spell of warm, stormy weather. In Fairbanks, a 1.93-inch total on the 26th represented the wettest December and winter day on record, with significant precipitation falling as freezing rain. Elsewhere on the 26th, monthly record highs included 65°F in Kodiak (previously, 56°F on December 22, 1984) and 62°F in Cold Bay (previously, 54°F on December 24, 1973, and December 11, 1990). Subsequently, both locations noted two more daily-record highs—60 and 56°F, respectively, in Kodiak, and 49 and 47°F in Cold Bay. Meanwhile, frigid weather persisted early in the week in southeastern Alaska, where Ketchikan noted a daily-record low of 0°F on December 26. Farther south, locally heavy showers capped Hawaii's wet December. The rain carried into the New Year, when Honolulu, Oahu, observed its wettest January 1 on record, with 3.33 inches (previously 1.61 inches in 2005).





#### National Weather Data for Selected Cities

Weather Data for the Week Ending January 1, 2022

Data Provided by Climate Prediction Center

|     |                             |                    |                    |                 |                | Jala      | 1100                     | աես ոչ               | Cililla                  | ile Fiel                    | diction                  | Centel                     |                          |                            | RFI A              | ATIVE              | NUN        | /BER         | OF D                | AYS                 |
|-----|-----------------------------|--------------------|--------------------|-----------------|----------------|-----------|--------------------------|----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------|--------------------|------------|--------------|---------------------|---------------------|
|     |                             | 1                  | ГЕМБ               | PERA            | TUR            | E °       | F                        | PRECIPITATION        |                          |                             |                          |                            |                          |                            |                    | IDITY              | TEMP. °F   |              |                     | CIP                 |
|     | STATES                      |                    |                    |                 |                |           |                          |                      |                          |                             |                          |                            |                          |                            |                    | CENT               | I EIVIP. F |              |                     | -0"                 |
|     | AND                         | ÄΈ                 | M iii              | ΙE              | Æ              | j.        | IRE<br>IMAL              | <b>≻</b> ≥ .         | IRE<br>WAL               | 7 IN                        | Ö                        | MAL<br>C 1                 | , × ×                    | MAL<br>N 1                 | Ä M                | M M                | OVE        | LOW          | H<br>KE             | ıΉ                  |
| 5   | STATIONS                    | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | EXTREME<br>HIGH | EXTREME<br>LOW | AVERAGE   | ARTL<br>1 NOF            | WEEKLY<br>TOTAL, IN. | ARTL<br>1 NOF            | GREATEST IN<br>24-HOUR, IN. | TOTAL, IN.,<br>SINCE DEC | PCT. NORMAL<br>SINCE DEC 1 | TOTAL, IN.,<br>SINCE JAN | PCT. NORMAL<br>SINCE JAN 1 | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | AND ABOVE  | 32 AND BELOW | .01 INCH<br>OR MORE | .50 INCH<br>OR MORE |
|     |                             | AW                 | A M                | EX              | EX             | ΑV        | DEPARTURE<br>FROM NORMAL | ¥ 5                  | DEPARTURE<br>FROM NORMAL | GRE<br>24-h                 | SING                     | PCT.<br>SINC               | SING                     | PCT.<br>SINC               | A A                | A M                | 90 AN      | 32 AN        | 0.                  | .5.<br>O.F.         |
| AK  | ANCHORAGE                   | 30                 | 19                 | 39              | 9              | 24        | 6                        | 0.16                 | -0.07                    | 0.08                        | 0.93                     | 81                         | 0.00                     | 0                          | 84                 | 68                 | 0          | 7            | 3                   | 0                   |
|     | BARROW<br>FAIRBANKS         | -11<br>22          | -19<br>2           | -1<br>41        | -26<br>-16     | -15<br>12 | 0                        | 0.16<br>3.73         | 0.13<br>3.58             | 0.16<br>2.26                | 1.10<br>6.52             | 666<br>900                 | 0.00<br>0.08             | 0<br>400                   | 77<br>84           | 69<br>64           | 0          | 7<br>7       | 1<br>7              | 0 2                 |
|     | JUNEAU                      | 26                 | 12                 | 35              | 1              | 19        | -10                      | 1.28                 | 0.09                     | 0.58                        | 3.32                     | 55                         | 0.58                     | 341                        | 89                 | 74                 | 0          | 7            | 5                   | 1                   |
|     | KODIAK<br>NOME              | 40<br>16           | 35<br>-1           | 54<br>34        | 12<br>-13      | 37<br>7   | 6<br>0                   | 0.10<br>1.02         | -1.84<br>0.77            | 0.10<br>0.61                | 1.27<br>3.91             | 14<br>346                  | 0.00                     | 0                          | 77<br>83           | 60<br>59           | 0          | 1<br>7       | 1<br>3              | 0                   |
| AL  | BIRMINGHAM                  | 76                 | 63                 | 80              | -13<br>56      | 70        | 26                       | 0.00                 | -0.92                    | 0.00                        | 0.00                     | 0                          | 0.00                     | 0                          | 98                 | 73                 | 0          | 0            | 0                   | 0                   |
|     | HUNTSVILLE                  | 72                 | 57                 | 79              | 52             | 64        | 23                       | 3.19                 | 2.03                     | 1.48                        | 6.15                     | 103                        | 1.48                     | 900                        | 99                 | 72                 | 0          | 0            | 4                   | 2                   |
|     | MOBILE                      | 80                 | 66                 | 82              | 58             | 73        | 22                       | 0.04                 | -1.13                    | 0.04                        | 4.68                     | 89                         | 0.00                     | 0                          | 99                 | 69                 | 0          | 0            | 1                   | 0                   |
| AR  | MONTGOMERY<br>FORT SMITH    | 81<br>68           | 64<br>45           | 85<br>77        | 59<br>22       | 72<br>56  | 26<br>17                 | 0.90<br>2.22         | -0.11<br>1.59            | 0.58<br>1.47                | 4.46<br>5.90             | 89<br>175                  | 0.00<br>1.47             | 0<br>900                   | 93<br>95           | 59<br>58           | 0          | 0            | 2                   | 1 2                 |
| 7   | LITTLE ROCK                 | 69                 | 51                 | 75              | 40             | 60        | 19                       | 2.19                 | 1.23                     | 1.19                        | 5.26                     | 102                        | 1.19                     | 900                        | 97                 | 74                 | 0          | 0            | 3                   | 2                   |
| AZ  | FLAGSTAFF                   | 31                 | 22                 | 35              | -2             | 26        | -3                       | 1.34                 | 0.87                     | 0.40                        | 4.63                     | 239                        | 0.20                     | 277                        | 98                 | 79                 | 0          | 7            | 7                   | 0                   |
|     | PHOENIX<br>PRESCOTT         | 60<br>40           | 47<br>29           | 66<br>46        | 42<br>17       | 54<br>35  | -1<br>-3                 | 0.21<br>0.48         | 0.00<br>0.24             | 0.10<br>0.31                | 1.59<br>2.13             | 167<br>205                 | 0.08<br>0.31             | 250<br>790                 | 91<br>95           | 47<br>61           | 0          | 0<br>5       | 3                   | 0                   |
| 1   | TUCSON                      | 59                 | 42                 | 67              | 34             | 50        | -3<br>-1                 | 0.43                 | 0.61                     | 0.49                        | 1.52                     | 152                        | 0.23                     | 725                        | 89                 | 41                 | 0          | 0            | 4                   | 0                   |
| CA  | BAKERSFIELD                 | 52                 | 42                 | 57              | 38             | 47        | 0                        | 0.22                 | -0.04                    | 0.14                        | 2.56                     | 237                        | 0.00                     | 0                          | 95                 | 62                 | 0          | 0            | 4                   | 0                   |
| 1   | EUREKA<br>FRESNO            | 46<br>51           | 34<br>39           | 48<br>54        | 29<br>34       | 40<br>45  | -8<br>-1                 | 1.05<br>0.49         | -0.67<br>0.00            | 0.43<br>0.28                | 5.09<br>3.58             | 60<br>192                  | 0.00                     | 0                          | 92<br>97           | 82<br>65           | 0          | 1            | 6<br>3              | 0                   |
| 1   | LOS ANGELES                 | 56                 | 48                 | 60              | 34<br>44       | 52        | -1<br>-4                 | 4.94                 | 4.35                     | 3.31                        | 8.22                     | 384                        | 0.00                     | 0                          | 88                 | 59                 | 0          | 0            | 4                   | 2                   |
| 1   | REDDING                     | 48                 | 33                 | 55              | 29             | 40        | -4                       | 0.29                 | -1.20                    | 0.15                        | 5.34                     | 82                         | 0.00                     | 0                          | 89                 | 51                 | 0          | 3            | 3                   | 0                   |
| 1   | SACRAMENTO<br>SAN DIEGO     | 49<br>60           | 38<br>50           | 52<br>64        | 35<br>45       | 43<br>55  | -2<br>-1                 | 1.10<br>0.47         | 0.31<br>0.04             | 0.59<br>0.29                | 7.00<br>2.56             | 208<br>159                 | 0.00                     | 0                          | 98<br>88           | 63<br>58           | 0          | 0            | 3                   | 1 0                 |
|     | SAN FRANCISCO               | 51                 | 43                 | 53              | 39             | 47        | -1<br>-2                 | 1.23                 | 0.04                     | 0.29                        | 9.73                     | 233                        | 0.00                     | 0                          | 87                 | 63                 | 0          | 0            | 3                   | 1                   |
|     | STOCKTON                    | 51                 | 37                 | 54              | 31             | 44        | 0                        | 0.50                 | -0.04                    | 0.33                        | 3.82                     | 167                        | 0.00                     | 0                          | 91                 | 60                 | 0          | 1            | 3                   | 0                   |
| CO  | ALAMOSA                     | 37                 | 12                 | 41              | -17            | 24        | 9                        | 0.17                 | 0.09                     | 0.16                        | 0.19                     | 47                         | 0.16                     | 900                        | 89                 | 40                 | 0          | 7            | 2                   | 0                   |
|     | CO SPRINGS<br>DENVER INTL   | 46<br>38           | 19<br>10           | 55<br>53        | 1<br>-9        | 32<br>24  | 3<br>-6                  | 0.14<br>0.24         | 0.07<br>0.16             | 0.13<br>0.13                | 0.20<br>0.28             | 49<br>69                   | 0.13<br>0.13             | 900<br>900                 | 56<br>74           | 22<br>30           | 0          | 6<br>7       | 2 2                 | 0                   |
|     | GRAND JUNCTION              | 35                 | 21                 | 43              | 1              | 28        | 1                        | 0.24                 | 0.10                     | 0.13                        | 2.05                     | 338                        | 0.13                     | 0                          | 93                 | 65                 | 0          | 7            | 4                   | 0                   |
|     | PUEBLO                      | 47                 | 13                 | 61              | -10            | 30        | 0                        | 0.18                 | 0.10                     | 0.18                        | 0.30                     | 71                         | 0.18                     | 900                        | 64                 | 27                 | 0          | 7            | 1                   | 0                   |
| CT  | BRIDGEPORT                  | 46                 | 38<br>36           | 52              | 30             | 42        | 10                       | 0.65                 | -0.03                    | 0.43                        | 2.13                     | 62<br>89                   | 0.43                     | 440                        | 99<br>96           | 74                 | 0          | 1            | 5<br>7              | 0                   |
| DC  | HARTFORD<br>WASHINGTON      | 45<br>57           | 46                 | 52<br>66        | 27<br>39       | 41<br>51  | 13<br>14                 | 0.58<br>0.72         | -0.11<br>0.11            | 0.21<br>0.43                | 3.14<br>1.06             | 33                         | 0.21<br>0.43             | 216<br>473                 | 89                 | 71<br>62           | 0          | 2            | 4                   | 0                   |
| DE  | WILMINGTON                  | 51                 | 41                 | 57              | 33             | 46        | 12                       | 0.96                 | 0.30                     | 0.42                        | 2.72                     | 76                         | 0.42                     | 460                        | 96                 | 71                 | 0          | 0            | 6                   | 0                   |
| FL  | DAYTONA BEACH               | 80                 | 60                 | 83              | 56             | 70        | 12                       | 0.00                 | -0.61                    | 0.00                        | 3.65                     | 134                        | 0.00                     | 0                          | 97                 | 57                 | 0          | 0            | 0                   | 0                   |
|     | JACKSONVILLE<br>KEY WEST    | 81<br>80           | 58<br>73           | 83<br>82        | 53<br>70       | 69<br>77  | 16<br>7                  | 0.00                 | -0.62<br>-0.41           | 0.00                        | 1.59<br>0.93             | 55<br>40                   | 0.00                     | 0                          | 100<br>92          | 58<br>71           | 0          | 0            | 0                   | 0                   |
|     | MIAMI                       | 82                 | 67                 | 83              | 64             | 75        | 6                        | 0.00                 | -0.40                    | 0.00                        | 1.15                     | 54                         | 0.00                     | 0                          | 96                 | 61                 | 0          | 0            | 0                   | 0                   |
|     | ORLANDO                     | 82                 | 60                 | 84              | 54             | 71        | 10                       | 0.00                 | -0.54                    | 0.00                        | 2.07                     | 78                         | 0.00                     | 0                          | 97                 | 53                 | 0          | 0            | 0                   | 0                   |
|     | PENSACOLA<br>TALLAHASSEE    | 79<br>79           | 70<br>62           | 81<br>82        | 62<br>47       | 74<br>70  | 23<br>19                 | 0.02<br>0.02         | -0.94<br>-0.82           | 0.01<br>0.02                | 1.64<br>0.77             | 34<br>19                   | 0.00                     | 0                          | 99<br>99           | 75<br>68           | 0          | 0            | 2                   | 0                   |
|     | TAMPA                       | 81                 | 64                 | 83              | 58             | 73        | 12                       | 0.02                 | -0.62                    | 0.02                        | 0.77                     | 19                         | 0.00                     | 0                          | 92                 | 60                 | 0          | 0            | 0                   | 0                   |
|     | WEST PALM BEACH             | 82                 | 63                 | 84              | 60             | 72        | 6                        | 0.00                 | -0.76                    | 0.00                        | 2.11                     | 61                         | 0.00                     | 0                          | 98                 | 58                 | 0          | 0            | 0                   | 0                   |
| GA  | ATHENS                      | 72<br>73           | 59                 | 77<br>78        | 51             | 65        | 22<br>24                 | 1.94                 | 1.12                     | 1.61                        | 3.69                     | 96                         | 0.01                     | 10                         | 98                 | 74<br>70           | 0          | 0            | 3                   | 1                   |
|     | ATLANTA<br>AUGUSTA          | 78                 | 61<br>59           | 82              | 57<br>50       | 67<br>69  | 24                       | 3.20<br>1.06         | 2.39<br>0.27             | 2.74<br>1.05                | 6.13<br>5.53             | 153<br>158                 | 0.06<br>0.00             | 53<br>0                    | 94<br>94           | 59                 | 0          | 0            | 4<br>2              | 1                   |
| 1   | COLUMBUS                    | 77                 | 62                 | 82              | 55             | 70        | 23                       | 1.80                 | 0.95                     | 1.51                        | 4.81                     | 109                        | 0.00                     | 0                          | 95                 | 63                 | 0          | 0            | 2                   | 1                   |
| 1   | MACON                       | 79                 | 61                 | 83              | 51             | 70        | 24                       | 0.69                 | -0.21                    | 0.54                        | 5.00                     | 119                        | 0.00                     | 0                          | 96                 | 59<br>50           | 0          | 0            | 3                   | 1                   |
| н   | SAVANNAH<br>HILO            | 80<br>79           | 62<br>66           | 82<br>82        | 56<br>61       | 71<br>73  | 21<br>1                  | 0.01<br>5.83         | -0.69<br>3.62            | 0.01<br>3.59                | 1.14<br>24.55            | 37<br>206                  | 0.00<br>0.01             | 0<br>4                     | 99<br>91           | 58<br>66           | 0          | 0            | 1<br>7              | 0 2                 |
| l   | HONOLULU                    | 79                 | 70                 | 82              | 68             | 75        | 1                        | 4.13                 | 3.38                     | 3.26                        | 13.90                    | 418                        | 3.26                     | 900                        | 81                 | 61                 | 0          | 0            | 3                   | 2                   |
|     | KAHULUI                     | 82                 | 67                 | 83              | 61             | 74        | 1                        | 0.16                 | -0.54                    | 0.15                        | 7.41                     | 217                        | 0.01                     | 12                         | 84                 | 57                 | 0          | 0            | 2                   | 0                   |
| IA  | LIHUE<br>BURLINGTON         | 77<br>40           | 71<br>24           | 79<br>52        | 68<br>11       | 74<br>32  | 2<br>6                   | 5.43<br>0.37         | 4.36<br>-0.01            | 4.06<br>0.30                | 10.63<br>0.69            | 198<br>32                  | 4.06<br>0.03             | 900<br>61                  | 90<br>97           | 74<br>73           | 0          | 0<br>7       | 4<br>3              | 2                   |
| "   | CEDAR RAPIDS                | 30                 | 15                 | 42              | 2              | 23        | 3                        | 0.73                 | 0.48                     | 0.45                        | 1.16                     | 79                         | 0.00                     | 0                          | 99                 | 77                 | 0          | 7            | 4                   | 0                   |
|     | DES MOINES                  | 30                 | 14                 | 44              | -2             | 22        | -1                       | 0.66                 | 0.39                     | 0.25                        | 0.93                     | 63                         | 0.16                     | 410                        | 93                 | 64                 | 0          | 7            | 4                   | 0                   |
|     | DUBUQUE<br>SIOUX CITY       | 33<br>30           | 18<br>8            | 41<br>42        | 4<br>-3        | 25<br>19  | 6<br>-1                  | 0.91<br>0.00         | 0.60<br>-0.15            | 0.40<br>0.00                | 1.58<br>0.66             | 83<br>78                   | 0.07<br>0.00             | 180<br>0                   | 96<br>80           | 72<br>43           | 0          | 7<br>7       | 5<br>0              | 0                   |
|     | WATERLOO                    | 29                 | 11                 | 42              | -3<br>-2       | 20        | -1<br>1                  | 0.61                 | 0.39                     | 0.00                        | 1.28                     | 102                        | 0.00                     | 0                          | 84                 | 63                 | 0          | 7            | 4                   | 0                   |
| ID  | BOISE                       | 29                 | 14                 | 36              | -3             | 21        | -8                       | 0.48                 | 0.12                     | 0.18                        | 1.57                     | 96                         | 0.00                     | 0                          | 88                 | 62                 | 0          | 7            | 4                   | 0                   |
|     | LEWISTON                    | 25                 | 11                 | 37              | 1              | 18        | -15                      | 0.75                 | 0.51                     | 0.50                        | 1.78                     | 170                        | 0.00                     | 0                          | 88                 | 65                 | 0          | 7            | 6                   | 1                   |
| IL  | POCATELLO<br>CHICAGO/O HARE | 26<br>40           | 14<br>28           | 38<br>46        | -5<br>22       | 20<br>34  | -3<br>10                 | 0.46<br>1.26         | 0.19<br>0.85             | 0.16<br>0.43                | 1.30<br>2.46             | 102<br>107                 | 0.01<br>0.18             | 30<br>300                  | 88<br>91           | 60<br>67           | 0          | 7<br>6       | 6<br>5              | 0                   |
| I - | MOLINE                      | 37                 | 24                 | 43              | 15             | 30        | 7                        | 0.81                 | 0.42                     | 0.43                        | 1.50                     | 67                         | 0.26                     | 507                        | 92                 | 68                 | 0          | 7            | 4                   | 0                   |
|     | PEORIA                      | 44                 | 30                 | 55              | 19             | 37        | 12                       | 0.99                 | 0.52                     | 0.50                        | 1.95                     | 78                         | 0.42                     | 594                        | 93                 | 67                 | 0          | 4            | 4                   | 1                   |
|     | ROCKFORD<br>SPRINGFIELD     | 37<br>49           | 24<br>33           | 45<br>59        | 16<br>21       | 30<br>41  | 8<br>14                  | 1.08<br>1.15         | 0.72<br>0.66             | 0.35<br>0.65                | 2.46<br>2.40             | 121<br>92                  | 0.08<br>0.45             | 161<br>633                 | 90<br>94           | 66<br>72           | 0          | 7            | 6<br>5              | 0                   |
| IN  | EVANSVILLE                  | 61                 | 43                 | 72              | 39             | 52        | 19                       | 2.94                 | 2.20                     | 2.19                        | 6.23                     | 162                        | 2.19                     | 900                        | 98                 | 76                 | 0          | 0            | 4                   | 1                   |
|     | FORT WAYNE                  | 44                 | 33                 | 50              | 27             | 38        | 12                       | 1.39                 | 0.81                     | 0.56                        | 4.52                     | 158                        | 0.29                     | 365                        | 99                 | 79                 | 0          | 3            | 4                   | 2                   |
|     | INDIANAPOLIS                | 53                 | 37                 | 64              | 32             | 45        | 16                       | 1.71                 | 1.01                     | 0.87                        | 4.56                     | 140                        | 0.42                     | 424                        | 99                 | 70<br>70           | 0          | 1            | 7                   | 1                   |
| KS  | SOUTH BEND<br>CONCORDIA     | 42<br>40           | 29<br>19           | 49<br>61        | 23<br>3        | 36<br>29  | 10<br>1                  | 1.03<br>0.18         | 0.46<br>0.04             | 0.36<br>0.18                | 4.12<br>0.35             | 153<br>39                  | 0.27<br>0.18             | 300<br>900                 | 94<br>76           | 70<br>43           | 0          | 5<br>7       | 5<br>1              | 0                   |
| I   | DODGE CITY                  | 50                 | 17                 | 75              | 5              | 33        | 2                        | 0.12                 | -0.06                    | 0.12                        | 0.12                     | 13                         | 0.12                     | 600                        | 76                 | 27                 | 0          | 6            | 1                   | 0                   |
|     | GOODLAND                    | 40                 | 9                  | 65              | -3             | 25        | -5                       | 0.12                 | 0.02                     | 0.12                        | 0.17                     | 34                         | 0.12                     | 900                        | 76                 | 28                 | 0          | 7            | 1                   | 0                   |
|     | TOPEKA                      | 51                 | 24                 | 66              | 8              | 38        | 8                        | 0.30                 | 0.07                     | 0.25                        | 0.36                     | 26                         | 0.25                     | 800                        | 86                 | 44                 | 0          | 6            | 2                   | 0                   |

Based on 1981-2010 normals

\*\*\* Not Available

Weekly Weather and Crop Bulletin
Weather Data for the Week Ending January 1, 2022

|          |                          |                    |                    | ****            | atiloi         |           | ita 10                   |                      | TOOK                     | Endir                       | ig our                   | uui y                      | 1, 202                     |                            | RELA               | ATIVE              | NUN          | /IBER        | OF D                | AYS                 |
|----------|--------------------------|--------------------|--------------------|-----------------|----------------|-----------|--------------------------|----------------------|--------------------------|-----------------------------|--------------------------|----------------------------|----------------------------|----------------------------|--------------------|--------------------|--------------|--------------|---------------------|---------------------|
|          | STATES                   | ٦                  | ГЕМР               | PERA            | TUR            | E °       | F                        |                      |                          | PREC                        | CIPITA                   | TION                       |                            |                            |                    | IDITY<br>CENT      | TEMP. °F     |              | PRE                 | ECIP                |
|          | AND                      |                    |                    |                 |                |           | 7,7                      |                      | 7,                       | >                           | _                        | 7                          |                            | 7                          | Î                  |                    | Ę            | >            |                     |                     |
| 8        | STATIONS                 | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | EXTREME<br>HIGH | EXTREME<br>LOW | AVERAGE   | DEPARTURE<br>FROM NORMAL | WEEKLY<br>TOTAL, IN. | DEPARTURE<br>FROM NORMAL | GREATEST IN<br>24-HOUR, IN. | TOTAL, IN.,<br>SINCE DEC | PCT. NORMAL<br>SINCE DEC 1 | TOTAL, IN.,<br>SINCE JAN 1 | PCT. NORMAL<br>SINCE JAN 1 | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH<br>OR MORE | .50 INCH<br>OR MORE |
| KY       | WICHITA<br>LEXINGTON     | 53<br>62           | 26<br>46           | 69<br>68        | 8<br>40        | 39<br>54  | 7<br>21                  | 0.03<br>2.79         | -0.17<br>1.98            | 0.03<br>2.22                | 0.04<br>6.86             | 3<br>170                   | 0.03<br>2.22               | 160<br>900                 | 78<br>96           | 39<br>74           | 0            | 5<br>0       | 1<br>5              | 0                   |
| IXI      | LOUISVILLE               | 64                 | 49                 | 74              | 43             | 56        | 21                       | 2.70                 | 1.88                     | 2.04                        | 5.60                     | 143                        | 2.04                       | 900                        | 94                 | 69                 | 0            | 0            | 5                   | 1                   |
|          | PADUCAH<br>BATON ROUGE   | 65<br>82           | 47<br>69           | 71<br>84        | 41<br>63       | 56<br>75  | 21<br>20                 | 3.29<br>0.21         | 2.36<br>-0.63            | 2.46<br>0.17                | 6.42<br>3.51             | 136<br>77                  | 2.46<br>0.02               | 900<br>15                  | 91<br>95           | 71<br>63           | 0            | 0            | 5<br>3              | 1<br>0              |
| LA       | LAKE CHARLES             | 80                 | 67                 | 81              | 61             | 73        | 21                       | 0.21                 | -1.13                    | 0.17                        | 2.21                     | 45                         | 0.02                       | 0                          | 97                 | 70                 | 0            | 0            | 1                   | 0                   |
|          | NEW ORLEANS              | 81                 | 69                 | 84              | 61             | 75        | 21                       | 0.16                 | -1.05                    | 0.08                        | 3.06                     | 56                         | 0.01                       | 7                          | 97                 | 67                 | 0            | 0            | 3                   | 0                   |
|          | SHREVEPORT<br>BOSTON     | 80<br>43           | 60<br>36           | 83<br>52        | 47<br>30       | 70<br>40  | 24<br>9                  | 0.05<br>0.46         | -0.88<br>-0.30           | 0.05<br>0.23                | 2.34<br>2.44             | 47<br>63                   | 0.05<br>0.13               | 43<br>117                  | 86<br>94           | 55<br>69           | 0            | 0 2          | 1<br>4              | 0                   |
| MA       | WORCESTER                | 43                 | 33                 | 50              | 26             | 37        | 12                       | 0.40                 | -0.37                    | 0.23                        | 3.77                     | 96                         | -4.29                      | -3861                      | 98                 | 80                 | 0            | 4            | 6                   | 0                   |
| MD       | BALTIMORE                | 54                 | 44                 | 60              | 36             | 49        | 15                       | 1.09                 | 0.42                     | 0.72                        | 1.52                     | 44                         | 0.72                       | 795                        | 94                 | 64                 | 0            | 0            | 5                   | 1                   |
| ME       | CARIBOU<br>PORTLAND      | 28<br>37           | 17<br>28           | 36<br>39        | 4<br>22        | 22<br>32  | 9<br>8                   | 0.19<br>0.37         | -0.46<br>-0.43           | 0.13<br>0.14                | 3.37<br>3.76             | 101<br>91                  | 0.04<br>0.06               | 47<br>53                   | 89<br>98           | 75<br>77           | 0            | 7<br>6       | 3<br>6              | 0                   |
| MI       | ALPENA                   | 34                 | 22                 | 39              | 16             | 28        | 6                        | 0.30                 | -0.43                    | 0.14                        | 2.49                     | 137                        | 0.00                       | 20                         | 92                 | 64                 | 0            | 7            | 3                   | 0                   |
|          | GRAND RAPIDS             | 36                 | 26                 | 38              | 18             | 31        | 5                        | 1.01                 | 0.48                     | 0.31                        | 2.54                     | 98                         | 0.30                       | 385                        | 99                 | 76                 | 0            | 7            | 6                   | 0                   |
| 1        | HOUGHTON LAKE<br>LANSING | 32<br>38           | 19<br>28           | 35<br>42        | 4<br>19        | 25<br>33  | 5<br>8                   | 0.29<br>0.70         | -0.05<br>0.30            | 0.15<br>0.31                | 2.54<br>2.29             | 148<br>118                 | 0.01<br>0.20               | 23<br>340                  | 93<br>93           | 65<br>69           | 0            | 7<br>6       | 5<br>4              | 0                   |
| 1        | MUSKEGON                 | 38                 | 28                 | 42              | 20             | 33        | 6                        | 0.70                 | 0.30                     | 0.31                        | 2.29                     | 89                         | 0.20                       | 155                        | 93<br>88           | 60                 | 0            | 6            | 6                   | 0                   |
| 1        | TRAVERSE CITY            | 33                 | 23                 | 37              | 16             | 28        | 5                        | 0.13                 | -0.46                    | 0.07                        | 1.56                     | 61                         | 0.00                       | 0                          | 85                 | 62                 | 0            | 7            | 2                   | 0                   |
| MN       | DULUTH<br>INT L FALLS    | 16<br>7            | -6<br>-13          | 28<br>25        | -23<br>-34     | 5<br>-3   | -6<br>-9                 | 1.02<br>0.78         | 0.76<br>0.61             | 0.64<br>0.52                | 2.70<br>1.80             | 216<br>211                 | 0.00                       | 0                          | 85<br>84           | 69<br>67           | 0            | 7<br>7       | 4<br>3              | 1                   |
|          | MINNEAPOLIS              | 20                 | 1                  | 34              | -11            | 11        | - <del>6</del>           | 0.78                 | 0.01                     | 0.32                        | 1.92                     | 160                        | 0.00                       | 0                          | 87                 | 62                 | 0            | 7            | 4                   | 0                   |
|          | ROCHESTER                | 22                 | 1                  | 33              | -12            | 12        | 0                        | 0.26                 | 0.04                     | 0.21                        | 1.39                     | 108                        | 0.00                       | 0                          | 90                 | 66                 | 0            | 7            | 3                   | 0                   |
| МО       | ST. CLOUD<br>COLUMBIA    | 15<br>51           | -7<br>33           | 32<br>63        | -19<br>16      | 4<br>42   | -9<br>12                 | 0.70<br>1.96         | 0.53<br>1.48             | 0.42<br>1.52                | 2.02<br>2.46             | 233<br>97                  | 0.00<br>0.43               | 0<br>605                   | 84<br>95           | 63<br>63           | 0            | 7            | 3                   | 0                   |
| MO       | KANSAS CITY              | 49                 | 26                 | 65              | 8              | 38        | 9                        | 0.60                 | 0.35                     | 0.31                        | 0.80                     | 50                         | 0.43                       | 900                        | 86                 | 54                 | 0            | 5            | 2                   | 0                   |
|          | SAINT LOUIS              | 55                 | 38                 | 68              | 26             | 46        | 14                       | 1.79                 | 1.18                     | 1.08                        | 3.37                     | 115                        | 0.63                       | 700                        | 87                 | 63                 | 0            | 1            | 5                   | 2                   |
|          | SPRINGFIELD<br>JACKSON   | 61<br>81           | 38<br>65           | 67<br>85        | 14<br>63       | 50<br>73  | 17<br>27                 | 1.12<br>0.30         | 0.52<br>-0.74            | 0.52<br>0.26                | 1.81<br>3.02             | 58<br>56                   | 0.52<br>0.02               | 578                        | 97<br>92           | 58<br>56           | 0            | 1            | 4<br>3              | 1<br>0              |
| MS       | MERIDIAN                 | 81                 | 63                 | 84              | 59             | 72        | 27                       | 1.95                 | 0.96                     | 1.34                        | 3.84                     | 73                         | 0.60                       | 13<br>463                  | 90                 | 58                 | 0            | 0            | 3                   | 2                   |
|          | TUPELO                   | 75                 | 60                 | 81              | 55             | 67        | 26                       | 3.15                 | 1.97                     | 2.08                        | 5.70                     | 88                         | 1.05                       | 702                        | 92                 | 65                 | 0            | 0            | 4                   | 2                   |
| MT       | BILLINGS<br>BUTTE        | 11<br>18           | -8<br>-7           | 20<br>29        | -16<br>-23     | 1<br>5    | -24<br>-12               | 0.14<br>0.08         | 0.02<br>-0.04            | 0.10<br>0.04                | 0.95<br>0.36             | 177<br>65                  | 0.00                       | 0                          | 81<br>80           | 63<br>46           | 0            | 7            | 4                   | 0                   |
|          | CUT BANK                 | 4                  | -1<br>-22          | 29              | -23<br>-27     | -9        | -12                      | 0.08                 | -0.04                    | 0.04                        | 0.36                     | 75                         | 0.00                       | 0                          | 85                 | 65                 | 0            | 7            | 0                   | 0                   |
|          | GLASGOW                  | -8                 | -21                | 5               | -27            | -14       | -28                      | 0.09                 | -0.01                    | 0.07                        | 0.93                     | 207                        | 0.00                       | 0                          | 76                 | 62                 | 0            | 7            | 3                   | 0                   |
|          | GREAT FALLS<br>HAVRE     | 11<br>0            | -17<br>-26         | 24<br>23        | -24<br>-33     | -3<br>-13 | -27<br>-30               | 0.32<br>0.19         | 0.19<br>0.09             | 0.13<br>0.15                | 0.91<br>0.76             | 157<br>168                 | 0.00                       | 0<br>0                     | 86<br>79           | 59<br>63           | 0            | 7<br>7       | 6<br>2              | 0                   |
|          | MISSOULA                 | 20                 | 8                  | 28              | -33<br>-1      | 14        | -9                       | 0.19                 | -0.07                    | 0.15                        | 1.11                     | 101                        | 0.00                       | 0                          | 88                 | 65                 | 0            | 7            | 5                   | 0                   |
| NC       | ASHEVILLE                | 68                 | 46                 | 73              | 36             | 57        | 20                       | 0.47                 | -0.26                    | 0.23                        | 1.15                     | 31                         | 0.23                       | 207                        | 98                 | 58                 | 0            | 0            | 3                   | 0                   |
|          | CHARLOTTE<br>GREENSBORO  | 73<br>69           | 58<br>54           | 78<br>77        | 50<br>45       | 65<br>61  | 25<br>22                 | 0.37<br>0.06         | -0.35<br>-0.57           | 0.13<br>0.06                | 2.23<br>1.46             | 66<br>47                   | 0.13<br>0.00               | 117<br>0                   | 96<br>97           | 63<br>63           | 0            | 0            | 3<br>1              | 0                   |
|          | HATTERAS                 | 70                 | 40                 | 73              | -80            | 55        | 8                        | 0.55                 | -0.44                    | 0.36                        | 3.54                     | 79                         | 0.36                       | 239                        | 90                 | 72                 | 0            | 1            | 3                   | 0                   |
|          | RALEIGH                  | 73                 | 56                 | 79              | 45             | 64        | 23                       | 0.54                 | -0.14                    | 0.43                        | 2.01                     | 64                         | 0.43                       | 436                        | 99                 | 63                 | 0            | 0            | 3                   | 0                   |
| ND       | WILMINGTON<br>BISMARCK   | 79<br>5            | 60<br>-16          | 80<br>19        | 50<br>-27      | 69<br>-6  | 23<br>-19                | 0.03<br>0.47         | -0.76<br>0.35            | 0.03<br>0.29                | 2.41<br>1.03             | 65<br>194                  | 0.00                       | 0                          | 92<br>79           | 57<br>61           | 0            | 0<br>7       | 1<br>4              | 0                   |
| ND       | DICKINSON                | 4                  | -14                | 19              | -21            | -5        | -21                      | 0.05                 | -0.02                    | 0.04                        | 0.24                     | 80                         | 0.00                       | 0                          | 80                 | 62                 | 0            | 7            | 2                   | 0                   |
|          | FARGO                    | 5                  | -19                | 26              | -28            | -7        | -17                      | 0.64                 | 0.43                     | 0.32                        | 1.60                     | 180                        | 0.00                       | 0                          | 82                 | 64                 | 0            | 7            | 4                   | 0                   |
|          | GRAND FORKS<br>JAMESTOWN | 2 2                | -23<br>-18         | 25<br>22        | -37<br>-25     | -10<br>-8 | -18<br>-19               | 0.66<br>0.27         | 0.52<br>0.16             | 0.30<br>0.18                | 1.36<br>0.56             | 219<br>121                 | 0.00                       | 0<br>0                     | 85<br>81           | 65<br>65           | 0            | 7<br>7       | 4<br>3              | 0                   |
| NE       | GRAND ISLAND             | 32                 | 11                 | 54              | -4             | 22        | -3                       | 0.06                 | -0.06                    | 0.06                        | 0.28                     | 42                         | 0.06                       | 300                        | 82                 | 47                 | 0            | 7            | 1                   | 0                   |
|          | LINCOLN                  | 35                 | 12                 | 51              | -1             | 24        | -1                       | 0.08                 | -0.09                    | 0.08                        | 0.32                     | 32                         | 0.08                       | 400                        | 78                 | 49                 | 0            | 7            | 1                   | 0                   |
|          | NORFOLK<br>NORTH PLATTE  | 29<br>36           | 9<br>7             | 44<br>54        | -5<br>-17      | 19<br>21  | -3<br>-3                 | 0.02<br>0.12         | -0.12<br>0.02            | 0.02<br>0.08                | 0.52<br>0.48             | 66<br>105                  | 0.02<br>0.08               | 100<br>666                 | 72<br>77           | 44<br>34           | 0            | 7<br>7       | 1 2                 | 0                   |
| 1        | OMAHA                    | 34                 | 13                 | 50              | 0              | 24        | 0                        | 0.05                 | -0.13                    | 0.05                        | 0.43                     | 39                         | 0.05                       | 260                        | 87                 | 52                 | 0            | 7            | 1                   | 0                   |
|          | SCOTTSBLUFF              | 38                 | 10                 | 51<br>47        | -8             | 24        | -2<br>1                  | 0.04                 | -0.07                    | 0.03                        | 0.26                     | 49<br>173                  | 0.01                       | 100                        | 68                 | 32                 | 0            | 7            | 2                   | 0                   |
| NH       | VALENTINE<br>CONCORD     | 38<br>37           | 6<br>28            | 47<br>39        | -2<br>21       | 22<br>32  | -1<br>10                 | 0.07<br>0.35         | -0.02<br>-0.31           | 0.04<br>0.12                | 0.74<br>3.94             | 173<br>120                 | 0.03<br>0.12               | 266<br>130                 | 80<br>99           | 35<br>81           | 0            | 6<br>5       | 2<br>6              | 0                   |
| NJ       | ATLANTIC_CITY            | 52                 | 40                 | 61              | 24             | 46        | 12                       | 0.37                 | -0.37                    | 0.12                        | 0.80                     | 21                         | 0.12                       | 152                        | 99                 | 75                 | 0            | 2            | 4                   | 0                   |
|          | NEWARK                   | 50                 | 42                 | 55              | 35             | 46        | 13                       | 1.24                 | 0.44                     | 0.83                        | 2.20                     | 56                         | 0.83                       | 700                        | 90                 | 68                 | 0            | 0            | 5                   | 1                   |
| NM<br>NV | ALBUQUERQUE<br>ELY       | 49<br>28           | 30<br>8            | 61<br>34        | 21<br>-5       | 40<br>18  | -6                       | 0.19<br>0.17         | 0.08                     | 0.10<br>0.07                | 0.22<br>2.00             | 41<br>319                  | 0.10<br>0.00               | 833<br>0                   | 75<br>90           | 35<br>54           | 0            | 5<br>7       | 3<br>5              | 0                   |
| 1        | LAS VEGAS                | 52                 | 41                 | 57              | 34             | 47        | 0                        | 0.00                 | -0.14                    | 0.00                        | 0.27                     | 50                         | 0.00                       | 0                          | 61                 | 34                 | 0            | 0            | 0                   | 0                   |
| 1        | RENO                     | 37                 | 25<br>16           | 45<br>35        | 16             | 31        | -3<br>5                  | 0.15                 | -0.11<br>0.52            | 0.08                        | 2.90                     | 266                        | 0.00                       | 0                          | 85<br>89           | 51<br>61           | 0            | 7            | 4                   | 0                   |
| NY       | WINNEMUCCA<br>ALBANY     | 31<br>43           | 16<br>34           | 35<br>51        | -3<br>26       | 24<br>38  | -5<br>14                 | 0.75<br>0.29         | 0.52<br>-0.30            | 0.43<br>0.11                | 2.33<br>2.72             | 233<br>90                  | 0.00<br>0.11               | 0<br>140                   | 95                 | 61<br>75           | 0            | 7            | 4<br>6              | 0                   |
| l        | BINGHAMTON               | 41                 | 32                 | 51              | 24             | 37        | 13                       | 0.46                 | -0.09                    | 0.17                        | 2.94                     | 101                        | 0.13                       | 165                        | 98                 | 82                 | 0            | 4            | 6                   | 0                   |
|          | BUFFALO                  | 44                 | 33                 | 51<br>50        | 28             | 38        | 11                       | 0.50                 | -0.36                    | 0.32                        | 2.63                     | 66                         | 0.32                       | 270                        | 91                 | 72<br>75           | 0            | 3            | 5                   | 0                   |
|          | ROCHESTER<br>SYRACUSE    | 42<br>44           | 32<br>33           | 50<br>52        | 27<br>26       | 37<br>38  | 10<br>13                 | 0.43<br>0.85         | -0.12<br>0.20            | 0.26<br>0.52                | 2.20<br>2.40             | 81<br>73                   | 0.26<br>0.28               | 325<br>308                 | 97<br>99           | 75<br>76           | 0            | 5<br>2       | 4                   | 0                   |
| ОН       | AKRON-CANTON             | 50                 | 37                 | 56              | 34             | 44        | 17                       | 1.20                 | 0.59                     | 0.46                        | 4.06                     | 139                        | 0.46                       | 504                        | 90                 | 76                 | 0            | 0            | 4                   | 0                   |
| 1        | CINCINNATI<br>CLEVELAND  | 58<br>47           | 44<br>36           | 69<br>54        | 41<br>33       | 51<br>42  | 20<br>13                 | 1.62<br>0.96         | 0.86<br>0.28             | 1.02<br>0.44                | 4.44<br>3.22             | 128<br>101                 | 1.02<br>0.44               | 900<br>444                 | 91<br>89           | 65<br>73           | 0            | 0            | 3                   | 2 0                 |
|          | COLUMBUS                 | 54                 | 40                 | 65              | 39             | 47        | 17                       | 2.15                 | 1.48                     | 1.31                        | 5.79                     | 189                        | 1.31                       | 900                        | 97                 | 72                 | 0            | 0            | 4                   | 2                   |
|          | DAYTON                   | 54                 | 40                 | 66              | 37             | 47        | 19                       | 2.15                 | 1.45                     | 1.11                        | 5.56                     | 174                        | 1.11                       | 900                        | 88                 | 67                 | 0            | 0            | 7                   | 2                   |
|          | MANSFIELD                | 50                 | 35                 | 59              | 33             | 43        | 16                       | 1.96                 | 1.24                     | 0.75                        | 7.00                     | 207                        | 0.57                       | 517                        | 99                 | 81                 | 0            | 0            | 4                   | 3                   |

Based on 1981-2010 normals

\*\*\* Not Available

Weekly Weather and Crop Bulletin
Weather Data for the Week Ending January 1, 2022

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|------|------------------------------|--------------------|--------------------|-----------------|----------------|----------|--------------------------|----------------------|--------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------|--------------------|--------------|--------------|---------------------|---------------------|
|      |                              | 1                  | ГЕМЕ               | PERA            | TUR            | E °      | F                        |                      | PRECIPITATION            |                             |                            |                            |                            |                            |                    |                    |              |              |                     | ECIP                |
|      | STATES                       | <del></del>        |                    |                 |                |          |                          |                      |                          | PER                         | CENT                       | TEMP. °F                   |                            | TILLOII                    |                    |                    |              |              |                     |                     |
| 5    | AND<br>STATIONS              | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | EXTREME<br>HIGH | EXTREME<br>LOW | AVERAGE  | DEPARTURE<br>FROM NORMAL | WEEKLY<br>TOTAL, IN. | DEPARTURE<br>FROM NORMAL | GREATEST IN<br>24-HOUR, IN. | TOTAL, IN.,<br>SINCE DEC 1 | PCT. NORMAL<br>SINCE DEC 1 | TOTAL, IN.,<br>SINCE JAN 1 | PCT. NORMAL<br>SINCE JAN 1 | AVERAGE<br>MAXIMUM | AVERAGE<br>MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH<br>OR MORE | .50 INCH<br>OR MORE |
| _    | TOLEDO                       | 40                 | 22                 | 40              | 20             | 20       |                          | 0.07                 |                          |                             |                            |                            |                            |                            | 01                 | 70                 |              |              | 4                   | 0                   |
|      | TOLEDO<br>YOUNGSTOWN         | 43<br>47           | 33<br>35           | 49<br>55        | 28<br>31       | 38<br>41 | 12<br>14                 | 0.87<br>0.96         | 0.31<br>0.32             | 0.35<br>0.45                | 3.63<br>3.48               | 131<br>113                 | 0.19<br>0.45               | 240<br>495                 | 91<br>96           | 72<br>76           | 0            | 2            | 4                   | 0                   |
| OK   | OKLAHOMA CITY                | 65                 | 34                 | 75              | 11             | 49       | 11                       | 0.53                 | 0.17                     | 0.35                        | 0.53                       | 27                         | 0.35                       | 684                        | 82                 | 34                 | 0            | 2            | 2                   | 0                   |
| OR   | TULSA<br>ASTORIA             | 65<br>37           | 38<br>29           | 73<br>45        | 14<br>26       | 51<br>33 | 14<br>-10                | 0.71<br>0.89         | 0.25<br>-1.32            | 0.47<br>0.40                | 2.13<br>12.48              | 83<br>122                  | 0.47<br>0.00               | 800<br>0                   | 94<br>94           | 46<br>69           | 0            | 1<br>7       | 4<br>5              | 0                   |
| 0.1  | BURNS                        | 25                 | -1                 | 30              | -16            | 12       | -12                      | 0.28                 | -0.06                    | 0.10                        | 1.60                       | 98                         | 0.00                       | 0                          | 89                 | 58                 | 0            | 7            | 5                   | 0                   |
|      | EUGENE                       | 38                 | 30                 | 43              | 23             | 34       | -5                       | 1.08                 | -0.50                    | 0.63                        | 10.98                      | 136                        | 0.00                       | 0                          | 97                 | 80                 | 0            | 7            | 6                   | 1                   |
|      | MEDFORD<br>PENDLETON         | 39<br>24           | 31<br>7            | 42<br>36        | 29<br>-7       | 35<br>15 | -4<br>-18                | 0.45<br>0.47         | -0.24<br>0.15            | 0.11<br>0.21                | 3.95<br>1.97               | 111<br>128                 | 0.00                       | 0                          | 100<br>90          | 73<br>66           | 0            | 6<br>7       | 6<br>5              | 0                   |
|      | PORTLAND                     | 37                 | 28                 | 44              | 25             | 32       | -7                       | 0.41                 | -0.74                    | 0.25                        | 6.94                       | 122                        | 0.00                       | 0                          | 83                 | 65                 | 0            | 7            | 4                   | 0                   |
|      | SALEM                        | 38                 | 30                 | 43              | 24             | 34       | -6                       | 0.34                 | -1.09                    | 0.16                        | 9.81                       | 138                        | 0.00                       | 0                          | 92                 | 73                 | 0            | 5            | 5                   | 0                   |
| PA   | ALLENTOWN<br>ERIE            | 47<br>46           | 38<br>35           | 53<br>55        | 27<br>32       | 42<br>41 | 14<br>12                 | 1.09<br>0.89         | 0.42<br>0.10             | 0.59<br>0.44                | 1.85<br>4.08               | 50<br>106                  | 0.59<br>0.44               | 647<br>396                 | 92<br>87           | 72<br>72           | 0            | 2            | 5<br>6              | 1<br>0              |
|      | MIDDLETOWN                   | 49                 | 38                 | 54              | 29             | 44       | 13                       | 1.07                 | 0.10                     | 0.44                        | 1.60                       | 48                         | 0.44                       | 817                        | 88                 | 68                 | 0            | 2            | 4                   | 1                   |
|      | PHILADELPHIA                 | 52                 | 44                 | 58              | 37             | 48       | 14                       | 1.04                 | 0.36                     | 0.58                        | 2.22                       | 61                         | 0.58                       | 639                        | 90                 | 65                 | 0            | 0            | 5                   | 1                   |
|      | PITTSBURGH                   | 52                 | 39                 | 58              | 32             | 45       | 16                       | 1.35                 | 0.73                     | 0.87                        | 3.84                       | 131                        | 0.87                       | 900                        | 95                 | 71                 | 0            | 2            | 6                   | 1                   |
|      | WILKES-BARRE<br>WILLIAMSPORT | 47<br>46           | 39<br>38           | 55<br>53        | 30<br>29       | 43<br>42 | 16<br>14                 | 0.62<br>0.74         | 0.11<br>0.21             | 0.31<br>0.27                | 1.65<br>1.62               | 60<br>54                   | 0.31<br>0.27               | 444<br>340                 | 90<br>91           | 70<br>75           | 0            | 1 2          | 4                   | 0                   |
| RI   | PROVIDENCE                   | 46                 | 37                 | 54              | 30             | 41       | 11                       | 0.74                 | -0.28                    | 0.27                        | 1.89                       | 43                         | 0.27                       | 150                        | 96                 | 72                 | 0            | 1            | 7                   | 0                   |
| sc   | CHARLESTON                   | 78                 | 60                 | 80              | 54             | 69       | 21                       | 0.41                 | -0.35                    | 0.41                        | 2.96                       | 92                         | 0.00                       | 0                          | 97                 | 59                 | 0            | 0            | 1                   | 0                   |
|      | COLUMBIA                     | 76                 | 58                 | 80              | 48             | 67       | 22                       | 0.74                 | 0.00                     | 0.73                        | 3.91                       | 118                        | 0.00                       | 0                          | 95                 | 59                 | 0            | 0            | 2                   | 1                   |
| 1    | FLORENCE<br>GREENVILLE       | 76<br>71           | 58<br>55           | 82<br>76        | 47<br>46       | 67<br>63 | 22<br>21                 | 0.18<br>1.05         | -0.52<br>0.21            | 0.18<br>0.40                | 1.97<br>2.91               | 63<br>68                   | 0.00<br>0.06               | 0<br>50                    | 92<br>92           | 55<br>62           | 0            | 0            | 1<br>5              | 0                   |
| SD   | ABERDEEN                     | 10                 | -11                | 27              | -21            | -1       | -13                      | 0.29                 | 0.16                     | 0.10                        | 0.79                       | 142                        | 0.00                       | 0                          | 82                 | 63                 | 0            | 7            | 5                   | 0                   |
|      | HURON                        | 19                 | -4                 | 33              | -14            | 7        | -9                       | 0.06                 | -0.06                    | 0.04                        | 0.22                       | 39                         | 0.00                       | 0                          | 80                 | 59                 | 0            | 7            | 2                   | 0                   |
|      | RAPID CITY<br>SIOUX FALLS    | 18<br>25           | -2<br>4            | 30<br>36        | -9<br>-7       | 8<br>15  | -16<br>-2                | 0.04<br>0.02         | -0.06<br>-0.11           | 0.02<br>0.02                | 0.60<br>1.31               | 128<br>182                 | 0.00                       | 0                          | 89<br>77           | 68<br>52           | 0            | 7            | 3                   | 0                   |
| TN   | BRISTOL                      | 68                 | 48                 | 78              | 38             | 58       | 22                       | 1.53                 | 0.81                     | 0.02                        | 2.64                       | 76                         | 0.81                       | 824                        | 97                 | 62                 | 0            | 0            | 5                   | 2                   |
|      | CHATTANOOGA                  | 72                 | 55                 | 78              | 48             | 63       | 23                       | 3.26                 | 2.23                     | 1.73                        | 5.59                       | 110                        | 0.94                       | 631                        | 98                 | 68                 | 0            | 0            | 5                   | 2                   |
|      | KNOXVILLE                    | 69                 | 54                 | 77              | 50             | 62       | 23                       | 2.98                 | 2.05                     | 1.69                        | 5.20                       | 111                        | 1.69                       | 900                        | 98                 | 70                 | 0            | 0            | 4                   | 2                   |
|      | MEMPHIS<br>NASHVILLE         | 73<br>70           | 58<br>54           | 79<br>78        | 49<br>49       | 65<br>62 | 24<br>24                 | 2.19<br>2.25         | 1.07<br>1.46             | 1.24<br>1.78                | 5.75<br>5.06               | 97<br>116                  | 1.24<br>1.78               | 875<br>900                 | 92<br>88           | 69<br>63           | 0            | 0            | 3<br>4              | 2                   |
| TX   | ABILENE                      | 77                 | 47                 | 90              | 19             | 62       | 18                       | 0.06                 | -0.20                    | 0.06                        | 0.10                       | 7                          | 0.06                       | 187                        | 76                 | 23                 | 1            | 1            | 1                   | 0                   |
|      | AMARILLO                     | 60                 | 32                 | 75              | 9              | 46       | 10                       | 0.04                 | -0.11                    | 0.04                        | 0.04                       | 5                          | 0.04                       | 200                        | 62                 | 28                 | 0            | 3            | 1                   | 0                   |
|      | AUSTIN                       | 79                 | 58                 | 83              | 36             | 69       | 17                       | 0.00                 | -0.54                    | 0.00                        | 1.69                       | 68                         | 0.00                       | 0                          | 89<br>97           | 54                 | 0            | 0            | 0                   | 0                   |
|      | BEAUMONT<br>BROWNSVILLE      | 81<br>86           | 69<br>70           | 83<br>89        | 65<br>66       | 75<br>78 | 22<br>17                 | 0.00                 | -1.25<br>-0.24           | 0.00                        | 1.41<br>1.30               | 25<br>109                  | 0.00                       | 0                          | 95                 | 68<br>57           | 0            | 0            | 0                   | 0                   |
|      | CORPUS CHRISTI               | 84                 | 66                 | 92              | 60             | 75       | 18                       | 0.00                 | -0.44                    | 0.00                        | 0.65                       | 34                         | 0.00                       | 0                          | 99                 | 60                 | 1            | 0            | 0                   | 0                   |
|      | DEL RIO                      | 81                 | 56                 | 89              | 51             | 68       | 17                       | 0.01                 | -0.15                    | 0.01                        | 0.25                       | 36                         | 0.00                       | 0                          | 86                 | 42                 | 0            | 0            | 1                   | 0                   |
|      | EL PASO<br>FORT WORTH        | 61<br>76           | 41<br>50           | 73<br>81        | 32<br>22       | 51<br>63 | 7<br>18                  | 0.58<br>0.20         | 0.44<br>-0.32            | 0.56<br>0.16                | 0.59<br>0.49               | 72<br>18                   | 0.02<br>0.04               | 166<br>55                  | 61<br>92           | 31<br>38           | 0            | 1            | 2 2                 | 1<br>0              |
|      | GALVESTON                    | 80                 | 71                 | 81              | 68             | 75       | 20                       | 0.20                 | 0.00                     | 0.10                        | 1.20                       | 0                          | 0.00                       | 0                          | 91                 | 72                 | 0            | 0            | 1                   | 0                   |
|      | HOUSTON                      | 83                 | 66                 | 85              | 56             | 74       | 21                       | 0.00                 | -0.72                    | 0.00                        | 2.08                       | 54                         | 0.00                       | 0                          | 89                 | 56                 | 0            | 0            | 0                   | 0                   |
|      | LUBBOCK                      | 63                 | 38                 | 80              | 13             | 51       | 12                       | 0.40                 | 0.25                     | 0.23                        | 0.40                       | 50                         | 0.17                       | 860                        | 61                 | 30                 | 0            | 1            | 2 2                 | 0                   |
|      | MIDLAND<br>SAN ANGELO        | 72<br>78           | 42<br>45           | 84<br>89        | 19<br>27       | 57<br>61 | 14<br>15                 | 0.07<br>0.01         | -0.06<br>-0.22           | 0.04<br>0.01                | 0.07<br>0.04               | 11<br>4                    | 0.04<br>0.01               | 200<br>37                  | 66<br>85           | 23<br>26           | 0            | 1            | 1                   | 0                   |
|      | SAN ANTONIO                  | 79                 | 57                 | 85              | 43             | 68       | 17                       | 0.00                 | -0.45                    | 0.00                        | 0.89                       | 45                         | 0.00                       | 0                          | 97                 | 60                 | 0            | 0            | 0                   | 0                   |
|      | VICTORIA                     | 83                 | 63                 | 86              | 51             | 73       | 19                       | 0.00                 | -0.54                    | 0.00                        | 0.56                       | 23                         | 0.00                       | 0                          | 96                 | 59                 | 0            | 0            | 0                   | 0                   |
|      | WACO<br>WICHITA FALLS        | 80<br>72           | 50<br>40           | 85<br>88        | 30<br>15       | 65<br>56 | 19<br>15                 | 0.01<br>0.49         | -0.56<br>0.18            | 0.01<br>0.33                | 0.06<br>0.62               | 2<br>37                    | 0.01<br>0.33               | 16<br>850                  | 92<br>80           | 46<br>27           | 0            | 1            | 1 2                 | 0                   |
| UT   | SALT LAKE CITY               | 35                 | 20                 | 44              | 9              | 27       | -2                       | 0.49                 | 0.18                     | 0.33                        | 1.60                       | 109                        | 0.00                       | 0                          | 91                 | 55                 | 0            | 7            | 5                   | 0                   |
| VA   | LYNCHBURG                    | 64                 | 47                 | 74              | 40             | 56       | 21                       | 0.41                 | -0.23                    | 0.23                        | 0.98                       | 29                         | 0.10                       | 108                        | 89                 | 61                 | 0            | 0            | 4                   | 0                   |
|      | NORFOLK<br>RICHMOND          | 62<br>63           | 49<br>49           | 76<br>73        | 42<br>39       | 55<br>56 | 14<br>18                 | 0.07<br>0.50         | -0.61<br>-0.16           | 0.04<br>0.34                | 1.77<br>1.19               | 52<br>35                   | 0.00<br>0.12               | 0<br>134                   | 99<br>96           | 73<br>62           | 0            | 0            | 3<br>4              | 0                   |
|      | ROANOKE                      | 64                 | 49                 | 75<br>75        | 44             | 56       | 19                       | 0.50                 | -0.16                    | 0.34                        | 0.95                       | 31                         | 0.12                       | 295                        | 88                 | 59                 | 0            | 0            | 3                   | 0                   |
|      | WASH/DULLES                  | 57                 | 44                 | 62              | 33             | 50       | 16                       | 0.91                 | 0.35                     | 0.65                        | 1.09                       | 35                         | 0.65                       | 830                        | 91                 | 62                 | 0            | 0            | 5                   | 1                   |
| VT   | BURLINGTON                   | 36                 | 27                 | 45              | 22             | 32       | 11                       | 0.55                 | 0.07                     | 0.46                        | 2.59                       | 105                        | 0.01                       | 16                         | 94                 | 77                 | 0            | 7            | 4                   | 0                   |
| WA   | OLYMPIA<br>QUILLAYUTE        | 33<br>33           | 20<br>23           | 37<br>39        | 7<br>18        | 27<br>28 | -12<br>-13               | 0.68<br>0.62         | -0.94<br>-2.26           | 0.32<br>0.41                | 8.90<br>13.30              | 115<br>98                  | 0.00                       | 0                          | 88<br>96           | 66<br>66           | 0            | 7<br>7       | 5<br>5              | 0                   |
|      | SEATTLE-TACOMA               | 30                 | 22                 | 34              | 17             | 26       | -14                      | 0.54                 | -0.63                    | 0.41                        | 4.26                       | 77                         | 0.00                       | 0                          | 89                 | 65                 | 0            | 7            | 5                   | 0                   |
|      | SPOKANE                      | 17                 | . 7                | 28              | 1              | 12       | -15                      | 0.23                 | -0.23                    | 0.19                        | 1.33                       | 56                         | 0.00                       | 0                          | 86                 | 68                 | 0            | 7            | 3                   | 0                   |
| WI   | YAKIMA<br>EAU CLAIRE         | 25<br>24           | 17<br>4            | 35<br>35        | 13<br>-11      | 21<br>14 | -7<br>-2                 | 0.06<br>0.00         | -0.27<br>-0.20           | 0.03                        | 0.34<br>0.32               | 21<br>30                   | 0.00                       | 0<br>0                     | 83<br>86           | 54<br>64           | 0            | 7<br>7       | 3                   | 0                   |
| VV1  | GREEN BAY                    | 32                 | 16                 | 35              | -11<br>11      | 24       | -2<br>6                  | 0.00                 | 0.13                     | 0.00                        | 1.66                       | 107                        | 0.00                       | 0                          | 88                 | 62                 | 0            | 7            | 3                   | 0                   |
|      | LA CROSSE                    | 28                 | 8                  | 37              | -5             | 18       | 0                        | 0.76                 | 0.52                     | 0.44                        | 1.71                       | 122                        | 0.00                       | 0                          | 87                 | 62                 | 0            | 7            | 4                   | 0                   |
|      | MADISON                      | 33                 | 17                 | 39              | 10             | 25       | 5                        | 0.67                 | 0.37                     | 0.29                        | 1.72                       | 96                         | 0.04                       | 100                        | 92                 | 64                 | 0            | 7            | 6                   | 0                   |
| wv   | MILWAUKEE<br>BECKLEY         | 38<br>61           | 26<br>46           | 42<br>68        | 19<br>40       | 32<br>53 | 9<br>22                  | 0.86<br>2.99         | 0.46<br>2.34             | 0.39<br>2.27                | 2.48<br>4.70               | 119<br>153                 | 0.15<br>2.27               | 253<br>900                 | 88<br>96           | 58<br>66           | 0            | 7            | 5<br>5              | 0 2                 |
| VVV  | CHARLESTON                   | 63                 | 46<br>45           | 67              | 38             | 53<br>54 | 19                       | 2.99                 | 2.34                     | 2.27                        | 4.70<br>5.19               | 153                        | 2.27                       | 900                        | 99                 | 65                 | 0            | 0            | 5                   | 1                   |
|      | ELKINS                       | 61                 | 39                 | 64              | 32             | 50       | 20                       | 3.07                 | 2.39                     | 2.22                        | 4.55                       | 136                        | 2.22                       | 900                        | 92                 | 56                 | 0            | 1            | 6                   | 1                   |
| 1404 | HUNTINGTON                   | 62                 | 46                 | 69              | 39             | 55       | 20                       | 2.19                 | 1.49                     | 1.83                        | 5.24                       | 154                        | 1.83                       | 900                        | 95                 | 66                 | 0            | 0            | 5                   | 1                   |
| WY   | CASPER<br>CHEYENNE           | 28<br>31           | 5<br>9             | 43<br>43        | -9<br>-3       | 16<br>20 | -8<br>-8                 | 0.09<br>0.15         | -0.02<br>0.06            | 0.04<br>0.07                | 0.62<br>0.46               | 117<br>89                  | 0.00<br>0.06               | 0<br>500                   | 76<br>80           | 46<br>42           | 0            | 7<br>7       | 3<br>4              | 0                   |
|      | LANDER                       | 30                 | 9                  | 37              | -1             | 19       | -1                       | 0.08                 | -0.03                    | 0.06                        | 0.38                       | 62                         | 0.00                       | 0                          | 81                 | 32                 | 0            | 7            | 2                   | 0                   |
|      | SHERIDAN                     | 15                 | -6                 | 24              | -19            | 5        | -18                      | 0.15                 | 0.03                     | 0.10                        | 1.01                       | 173                        | 0.00                       | 0                          | 82                 | 60                 | 0            | 7            | 3                   | 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 8 to 11 degrees warmer than historical values. Total rainfall for the month ranged from 0.9 inches in Baldwin County to 8.3 inches in Saint Clair County. According to the U.S. Drought Monitor, 45 percent of the State had abnormally dry conditions by month's end, compared to 53 percent at the month's beginning. Most producers finished harvesting row crops in a timely manner. Winter wheat planting is 2-3 weeks behind schedule in some areas due to wet conditions. Cattle have remained in good condition as producers supplemented winter grazing with hay and feed when needed. Unseasonably warm weather conditions allowed for good winter grazing growth. December began dry but most areas have experienced significant rainfall during the latter half of the month to make up for drier conditions.

#### ALASKA: DATA NOT AVAILABLE

ARIZONA: This report for Arizona is for the entire month of December 2021. By the end of the month, cotton harvest was 97 percent complete compared to 78 percent on the last report and 97 percent for the previous year, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Forty-six percent of barley has been planted and 41 percent has emerged. Forty-three percent of Durum wheat has been planted and 18 percent has emerged. Ninety-four percent of the alfalfa crop was rated excellent to good depending on location last week, with harvesting taking place on three-quarters of the alfalfa acreage across the State. For the entire State, 88 percent of the pasture and range was rated fair to good as soil moisture conditions remained mostly adequate. According to the United States Drought Monitor, no exceptional drought was documented in the December 29, 2021 report. In the western part of the State, freezing temperatures have affected pasture and range conditions. In the south-central part of the State, forage growth has continued. Significant precipitation was received in the southeastern and south-central part of the State.

ARKANSAS: For the week ending January 2, 2022, topsoil moisture 2% short, 64% adequate, 29% surplus. Subsoil moisture 2% very short, 11% short, 69% adequate, 18% surplus. Days suitable for fieldwork during the month of December were 19.0 days. December brought more rain than normal with temperatures well above average. The weather was warm for December, but some areas reported flooding. Despite the rains, row crop producers were able to do some field preparation during the month to get ready for planting in the spring. Spring calving season should start within the next couple of weeks. The State average rainfall was 4.81 inches for the month of December with an average temperature of about 63 degrees. Overall, rainfall has been plentiful for this time of year in the State and temperatures were well above normal.

CALIFORNIA: For the week ending January 2, 2022 - Days suitable for fieldwork 3.6. Topsoil moisture 90% adequate, 10% surplus. Subsoil moisture 15% short, 80% adequate, 5% surplus. Pasture and range condition 10% poor, 20% fair, 60% good, 10% excellent. Winter wheat condition 5% fair, 80% good, 15% excellent. Field work was limited due to abundant precipitation and muddy fields. Winter wheat was growing well due to moderate temperatures and rainfall. Cotton ginning continued. In North Mountains, most cropland and pasture were under snow cover. In the Central Valley, pastures and range were green and forage was growing well. In the Imperial Valley, some producers were drying their final cutting of alfalfa for hay. In the Central Valley, walnuts, almonds, olives, and grape vines were pruned. Mummy nuts were shaken from trees. Various kinds of citrus were picked. Some orange harvest was delayed due to rain.

**COLORADO:** This report for Colorado is for the entire month of December 2021. Topsoil moisture 48% very short, 36% short, 11% adequate, 5% surplus. Subsoil moisture 34% very short, 31% short, 30% adequate, 5% surplus. Winter wheat condition 11% very poor, 22% poor, 42% fair, 25% good. Livestock condition 6% poor, 15% fair, 71% good, 8% excellent. Pasture and range condition 14% very poor, 21% poor, 32% fair, 25% good, 8% excellent. Exceptionally dry and warm weather persisted across several counties during the month of December. Productive snowstorms during the latter half of December brought moisture to western counties and the high country, greatly boosting snowpack. Eastern counties remained very dry but received beneficial moisture at the end of December. Low temperatures below zero were noted. Overall, the entire State remained in moderate to severe drought, according to the latest U.S. Drought Monitor report. Drought conditions worsened in eastern counties and livestock producers continued to utilize winter grazing arrangements where available. Concerns remained for fall-seeded crops and pasture conditions due to severe lack of precipitation. In southwestern counties, reporters noted snow and rain caused muddy conditions. The San Luis Valley remained very dry and warm during December. According to county reports, mild weather and lack of snow allowed livestock to remain pastured longer than normal. Producers continued to provide feed supplements due to poor range conditions. Statewide, winter wheat condition declined with 25 percent of the crop rated good to excellent, compared to 38 percent good to excellent from the previous report and 19 percent good to excellent last year. As of January 1, 2022, snowpack was 123 percent measured as percent of median snowfall.

**DELAWARE:** The State experienced mild temperatures and low rainfall in the month of December. Generally, the State witnessed mild weather in December with swings between warm and cold weather. According to a Delaware Crop Weather reporter, lime was applied to a large number of fields with the low soil moisture permitting applications. Cover crop

and agronomic winter crops look good. Precipitation was lower than normal and it was getting dry towards the end of the month, but some rain finally came at the end of the year. No major complaints from farmers.

FLORIDA: December temperatures were on average 1.7 degrees cooler to 14.3 degrees warmer than historical values depending on location. Total rainfall for the month ranged from 0.1 inch in multiple locations to 7.5 inches in Palm Beach County. According to the U.S. Drought Monitor, 22 percent of the State was moderately dry in December and no areas experienced drought conditions. Pasture conditions remained mostly fair to good. Seasonal decline of pasture was slowed due to unseasonably warm weather. Cattle conditions remained mostly good throughout the State. The remaining harvest of the cotton and soybean crop was reported to have been wrapping up. Sugarcane planting and harvest progressed well with few complications. Fungal problems were reported to be under control in the State, but disease in the southern region of the State continued because of heavy fog late in December. Vegetable growers began terminating fall crops and started planting spring crops. Crops marketed included tomatoes, peppers, eggplant, sweet corn, green beans, yellow squash, zucchini, bitter melons, herbs, and avocados. Grove activities included mowing, fertilizing, maintenance hedging, spraying and general grove maintenance. Citrus fruit harvested included white and red grapefruit, early and midseason oranges, tangerines, and tangelos.

GEORGIA: December temperatures were 7 to 10 degrees warmer than historical values. Total rainfall for the month ranged from 1.1 inches in Chatham County to 8.3 inches in Coweta County. According to the U.S. Drought Monitor, 49 percent of the State had abnormally dry conditions by month's end, compared to 39 percent at the month's beginning. Cool season forages and winter grazing were growing very well due to the mild weather conditions. Livestock conditions were fair to good; however, hay supplies were running low. Armyworm issues have caused hay quality issues which has affected the supply. Some producers are supplementing the hay with protein due to low quality. With the daily warmth and cool nights there were more respiratory problems in livestock. Onions planted in November and December are doing well as fields were bedded with plastic for the upcoming spring season. Late planted cotton continued to be harvested and is nearing completion. Fungal pathogens and weed control problems were noted as a concern due to the historically warm December.

#### HAWAII: DATA NOT AVAILABLE

**IDAHO:** The average temperatures in Idaho for the month of December varied from below normal in the northern panhandle portion of the State to above normal in most other regions of the State. Accumulated precipitation remained above average for the water year. In northern Idaho, cooler than average temperatures and heavy snows occurred in late December. Several counties in northern Idaho received over a foot of snow during the last week of December. Winter wheat acres looked pretty good before going under snow cover in December. The snow cover was timely as temperatures were reported below

zero during the latter part of December. More snow and early spring rains were needed to fill the soil profile with moisture for the coming growing season. Recent storms also provided much needed snow and precipitation to southwest Idaho. Hay supplies were very tight. In south central Idaho, the entire region received up to a foot of snow during late December. The major concern was tending livestock in the cold wind and wet conditions. Temperatures in the latter part of December dipped to zero or a little below. Hay and straw supplies also started to become very tight. Aftermath grazing was difficult due to snow and extreme cold temperatures. In eastern Idaho, significant snowfall over the holidays helped to ease concerns over irrigation water supply. There was still a long path forward to make up for the 2021 drought. Post-Christmas storms returned the Upper Snake River Basin snowpack in eastern Idaho to its seasonal norms. Very cold temperatures at the end of December and the first of January placed more stress on hay supplies for livestock in Bonneville and Madison Counties. In Teton County, the snowfall in the last half of December helped make up the deficit from a very dry November. Livestock was being fed hay. Bannock and Bingham Counties also received good snowfall. Calving and lambing progressed normally.

**ILLINOIS:** For the week ending on January 2, 2022. Topsoil moisture 2% very short, 15% short, 53% adequate, 30% surplus. Subsoil moisture 5% very short, 11% short, 63% adequate, 21% surplus. Statewide, the average temperature was 39.6 degrees, 9.8 degrees above normal. Precipitation averaged 2.69 inches, 0.01 inch above normal.

INDIANA: Topsoil moisture for the month of December was 1% very short, 3% short, 54% adequate, and 42% surplus. Subsoil moisture for the month was 1% very short, 4% short, 61% adequate, and 34% surplus. Winter wheat condition was rated 3% very poor, 7% poor, 26% fair, 52% good, and 12% excellent. Statewide temperatures averaged 40.7 degrees, 9.5 degrees above normal for the month of December. Statewide average precipitation was 4.01 inches, 0.95 inch above normal. Temperatures throughout the month remained much higher than normal, and unusually wet conditions limited fieldwork for much of the State. Winter wheat conditions declined slightly from the previous month due in part to the excessive moisture. Livestock were reported in good condition thanks to the mild temperatures, though muddy conditions were a concern in some areas. Other activities for the week included hauling grain, equipment maintenance, and attending Extension events.

IOWA: High winds and tornadoes in mid-December resulted in heavy localized damage to buildings, animal facilities, and machinery. There was no damage to crops as harvest was complete. Some livestock deaths were reported. The remainder of the month was unusually warm and dry for much of lowa, allowing field work to continue. Farmers were completing tillage, hauling and spreading manure, and applying fertilizer and anhydrous. A fair amount of grain movement occurred with open weather conditions. A great deal of work was done compared to past Decembers, including bulldozing, tiling, and fencing. With lack of snow cover, livestock continued to graze on corn stalks and the need for supplemental hay was minimal. Much of the State is still short on soil moisture.

**KANSAS:** For the week ending January 2, 2022, topsoil moisture supplies rated 34% very short, 38% short, 26% adequate, 2% surplus. Subsoil moisture supplies rated 28% very short, 37% short, 34% adequate, 1% surplus. Winter wheat condition rated 8% very poor, 17% poor, 42% fair, 30% good, 3% excellent.

KENTUCKY: For the month of December, Kentucky saw well above normal temperatures and above normal precipitation. The State experienced one of the top five warmest Decembers dating back to 1895. Christmas Day brought record breaking warmth through much of Kentucky. The unseasonably warm weather laid the groundwork for instability as mid-December saw one of the worst tornadic outbreaks in the State's history. Temperatures for the period averaged 49 degrees across the State, 12 degrees above normal. Precipitation (liq. equ.) for the period totaled 6.54 inches Statewide, which was 2.31 inches above normal and 155% of normal. The warm, wet weather has allowed some regrowth in pastures and eased the need to feed hay thus far. For the month, hay supplies 1% very short, 4% short, 80% adequate, 15% surplus. Livestock conditions 1% very poor, 2% poor, 14% fair, 73% good, 10% excellent. Condition of winter wheat 1% very poor, 1% poor, 7% fair, 85% good, 6% excellent. Tobacco stripping 83% complete.

**LOUISIANA:** For the month of December, conditions for the State were dry and warm. Sugarcane harvest continued through the month, with many producers nearly finished. Ryegrass progress was slow in many areas. Average rainfall for the State was about 2.5 inches with an average temperature of about 71 degrees. Overall, rainfall was below average but temperatures for the State have been higher than normal for this time of year.

**MARYLAND:** For the month of December, temperatures in general have been above average across the State. Soil conditions have remained very dry during much of December. Cover crops that were planted have germinated despite the lower moisture conditions, but optimum growth has not been achieved. Pastures, where managed well, have been able to supply needed forage, but have not rebounded with the soil moisture currently noted. Wheat and cover crops look good.

MICHIGAN: Topsoil moisture 4% short, 56% adequate and 40% surplus. Subsoil moisture 5% short, 68% adequate, and 27% surplus. Winter wheat condition rated 3% very poor, 19% poor, 35% fair, 36% good, and 7% excellent. Precipitation for the month of December averaged 2.63 inches throughout the State, 0.38 inch below normal. Temperature for the month of December averaged 30.5 degrees, 5.7 degrees above normal. Approximately 30 percent of the State is experiencing abnormally dry conditions or worse, with 9 percent experiencing moderate drought conditions, according to the US Drought Monitor. The driest areas include the southwestern counties of the Upper Peninsula. Soil moisture in southern counties in the Lower Peninsula remained high, limiting opportunities to complete harvest activities, wheat plantings, fall tillage, or fertilizer and manure applications. Persistent warm temperatures throughout December meant the wheat did not need the

snow cover to remain in good to fair condition where planting was successful. Late December snow events followed by cooler temperatures have allowed the ground to finally begin to freeze. Other activities for the month included tiling work, purchasing seed, getting equipment ready for spring, and cutting firewood for next winter.

MINNESOTA: Most of December saw above normal temperatures, especially in the southern half of the State. Precipitation was above normal Statewide. On December 15, a strong storm hit the southern half of the State and tornados touched down in the southeast. As December came to a close, there was little to no snow cover in the southern third of the State, while the rest of the State had adequate snow cover. Activities during the month included some tilling and grain hauling. A cold snap late in the month created some challenges for livestock.

MISSISSIPPI: For the week ending January 2, 2022, topsoil moisture supplies were 1% very short, 4% short, 72% adequate, and 23% surplus. Subsoil moisture supplies were 1% very short, 4% short, 76% adequate, and 19% surplus. Days suitable for fieldwork during the month of December were 18.0 days. Conditions for December were very warm and fairly dry. Most crops made it out of fields by early December. The second half of the month did see an increase in precipitation accompanied by cooler temperatures brought on by thunderstorms. Rain helped to replenish soil moisture throughout the State. The State average rainfall was 2.81 inches for the month of December with an average temperature of 69.75 degrees. Overall, average rainfall has been normal, and temperatures have been above average for this time of year in the State.

MISSOURI: For the week ending January 2, 2022. Topsoil moisture 3% very short, 31% short, 58% adequate, and 8% surplus. Subsoil moisture 6% very short, 24% short, 66% adequate, and 4% surplus. Winter wheat condition 6% poor, 50% fair, 38% good, and 6% excellent. Statewide, precipitation averaged 2.30 inches for the month of December, 0.46 inch below average. Temperatures averaged 44.3 degrees, 11.3 degrees above normal.

MONTANA: Topsoil moisture 44% very short, 33% short, 23% adequate. Subsoil moisture 47% very short, 36% short, 17% adequate. Winter Wheat condition 16% very poor, 55% poor, 17% fair, and 12% good. Pasture and range condition 56% very poor, 38% poor, 5% fair, 1% good. Most of Montana received above average precipitation in December. Drought conditions improved slightly from the previous report. According to the U.S. Drought Monitor report for December 30, 2021, the amount of land rated drought free, abnormally dry, moderately dry, severely dry, extremely dry and exceptionally dry were 7.4%, 3.3%, 3.0%, 26.6%, 39.6% and 20.1%, respectively. Snow cover was rated 52% good to excellent. Livestock producers provided supplemental feed at high rates with 95% of cattle and calves and 99% of sheep and lambs being fed. Northern areas of the State experienced below average temperatures while in many southern areas temperatures ran above normal. Snow cover was sparse in Teton County. In Phillips County, hay supplies were short and more snow was needed to fill depleted

reservoirs. The snow that was received benefited damaged wheat fields. In Roosevelt County, conditions were too cold for livestock. Good amounts of snow were received in Valley County.

**NEBRASKA:** For the week ending January 2, 2022, topsoil moisture supplies rated 21% very short, 47% short, 31% adequate, and 1% surplus. Subsoil moisture supplies rated 19% very short, 49% short, 32% adequate, and 0% surplus. Winter wheat condition rated 8% very poor, 11% poor, 42% fair, 37% good, and 2% excellent.

**NEVADA:** For the week ending January 2, 2022 - Days suitable for fieldwork 0.5. Topsoil moisture 5% very short, 30% short, 60% adequate, 5% surplus. Subsoil moisture 40% very short, 10% short, 50% adequate. Pasture and range condition 40% very poor, 15% poor, 40% fair, 5% good. Some fields are wet, although winds continue to dry out the soil. In northern parts of the State, the ground is frozen and covered in snow. Field work has been paused until warmer weather arrives. Cattle are receiving supplemental feed.

**NEW ENGLAND:** New England States experienced variable weather in December - cold days, snow, rain, and periods of warmth. Most counties in New Hampshire had 3 or more inches of snow on the ground. Vermont has seen a good transition to winter in December. Some freezing and thawing, however, not a lot of ice which will not have much impact on winter kill to date. Looking forward to 2022 and how to deal with high input costs in crop production and changing weather patterns. Most producers spent time doing general farm maintenance as well as administrative activities such as income tax planning. Orchardists prepared for pruning apple trees and Christmas tree growers finished up their season. Fresh greens were sold at winter farmers markets. Farm activities varied in December and included combining corn and spreading manure (CT), shipping potato crops (ME), planning for the 2022 season (NH) harvesting some cold crops and seeding winter rye (RI), and some maple syrup production (VT).

**NEW JERSEY:** December was a milder and dryer month than normal throughout the State. Preliminary numbers suggest that it was the 3rd or 4th mildest December since records began in 1895, and the 7th driest. The cumulative precipitation in November and December is the lowest on record. As a result, southern counties are currently classified as D0 (abnormally dry) in the National Drought Monitor map for the past several weeks. No major weather events in New Jersey in the month of December 2021. According to one extension agent, leek harvest continued in December, but the volume will depend on market price.

**NEW MEXICO:** This report for New Mexico is for the month of December 2021. Topsoil moisture 32% very short, 48% short, 20% adequate. Subsoil moisture 31% very short, 49% short, 20% adequate. Red chile harvested 98%, 97% last year. Corn harvested for grain 99%, 99% last year. Cotton harvested 99%, 99% last year. Pecans harvested 70%, 87% last year. Pecan condition 10% very poor, 15% poor, 15% fair, 45% good, 15% excellent. Winter wheat condition 5% very poor, 24% poor, 30% fair, 25% good, 16% excellent.

Cattle receiving supplemental feed 69%, 87% last year. Cattle condition 2% very poor, 17% poor, 33% fair, 38% good, 10% excellent. Sheep receiving supplemental feed 61%, 85% last year. Sheep and lambs condition 5% very poor, 16% poor, 30% fair, 45% good, 4% excellent. Hay and roughage supplies 9% very short, 25% short, 64% adequate, 2% surplus. Stock water supplies 24% very short, 30% short, 45% adequate, 1% surplus. Dry, windy December weather led to worsening conditions during the month. Row crop growers used the dry weather to wrap up the chile, corn, and cotton harvests during the month. The pecan harvest ended the month behind last year's pace. Pastures in Colfax and Union Counties were bleak, with the grass eaten down to the dirt. In Union County, the first measurable moisture in four months was received on New Year's Day, with snow accumulations of 1-3 inches reported. Along with the moisture, high winds led to blizzard-like conditions. Across the State, livestock were grazing corn and sorghum stalks, recently sown winter wheat fields, and whatever pasture grass was available. The winter wheat crop showed signs of drought and grazing stress. During the past month, converted moisture totals – accounting for any precipitation received as snow - ranged from approximately 8 inches to merely a trace, with some locations remaining dry. Although some precipitation data was missing, the heavier accumulations were noted in the mountainous areas of northern New Mexico. While monthly moisture totals in portions of several northwestern counties were above average, the vast majority of the State saw rain and snow totals well below normal. Average temperatures during December were warmer than normal across the State. According to the United States Drought Monitor for December 28, drought was once again present across the entire State, with extreme drought (D3) noted on 20.9 percent. Severe drought (D2) was categorized across 54.8 percent of New Mexico's land, while moderate drought (D1) was present on 22.1 percent. Another 2.2 percent of the State was abnormally dry (D0). At this point, the State remained free of exceptional drought (D4).

**NEW YORK:** The month of December was reported as having variable temperatures with only a few days below freezing with very little snowfall. The majority of December weather was wet and unseasonably mild. Some field crops remain standing in wet or flooded fields. Mud and generally wet conditions prevented some from completing harvests this past season. Winter wheat can be seen emerging in drier fields. For those unhindered by mud or standing water, field activity appears to be limited to manure spreading.

NORTH CAROLINA: For the week ending January 2, 2022, Subsoil moisture 6% very short, 27% short, 64% adequate and 3% surplus. Topsoil moisture 7% very short, 22% short, 66% adequate and 5% surplus. Barley condition 20% fair and 80% good. Hay and roughage supplies 24% short, 75% adequate and 1% surplus. Oats condition 3% very poor, 28% poor, 40% fair, 25% good and 4% excellent. Pasture and range condition 1% very poor, 19% poor, 49% fair, 29% good and 2% excellent. Winter wheat condition 1% very poor, 3% poor, 34% fair, 57% good and 5% excellent. Throughout December, it has been very mild with slightly below normal rainfall. Pastures look good and water levels are good. Field

work currently being conducted includes mowing of ditches and hedgerows, cleaning of ditches, and applications of fertilizer and lime for the 2022 crop.

NORTH DAKOTA: For the week ending January 2, 2022, topsoil moisture supplies rated 18% very short, 32% short, 48% adequate, 2% surplus. Subsoil moisture supplies rated 23% very short, 36% short, 39% adequate, 2% surplus. Winter wheat condition rated 1% very poor, 11% poor, 49% fair, 37% good, 2% excellent. Cattle and calf conditions, 3% very poor, 7% poor, 33% fair, 52% good, 5% excellent. Sheep and lamb conditions, 2% very poor, 6% poor, 35% fair, 51% good, 6% excellent. Hay and roughage supplies, 17% very short, 33% short, 49% adequate, 1% surplus. Stock water supplies, 16% very short, 32% short, 52% adequate, 0% surplus.

OHIO: Topsoil moisture for the month was 35% adequate and 65% surplus. Subsoil moisture for the month was 1% short, 45% adequate, and 54% surplus. Winter wheat condition was rated 6% very poor, 9% poor, 36% fair, 40% good, and 9% excellent. The Statewide average temperature was 40.0 degrees, 8.3 degrees above normal. Precipitation averaged 3.79 inches Statewide, 0.87 inch above normal for December. Heavy rainfall occurred throughout December along with slightly warmer than normal weather. Towards the end of December, soaking rains saturated fields. However, winter wheat condition remains good to fair in spite of above freezing temperatures and ponding occurring in some areas. Limited fall tillage and fertilizer applications occurred throughout the State, due to both wet field conditions and high fertilizer prices. Small amounts of corn remain in fields and has been difficult to harvest due to mud from wet and warm conditions.

**OKLAHOMA:** For the month of December, rainfall totals averaged 1.00 inch throughout the State, with the East Central district recording the highest precipitation at 2.99 inches and the Panhandle district recording the lowest with trace amounts. According to the December 28th, US Drought Monitor Report, 95 percent of the State was in the abnormally dry to exceptional drought category, up 52 points from the previous year. Additionally, 90 percent of the State was in the moderate drought to exceptional drought category, up 65 percent from the previous year. Statewide temperatures averaged in the mid to high 40's, with the lowest recording of 3 degrees at Camargo on Sunday, December 19th and the highest recording of 89 degrees at Grandfield on Friday, December 24th. Topsoil and subsoil moisture conditions were rated mostly short to adequate.

**OREGON:** Statewide temperatures in Oregon for the month of December varied from above normal in southern parts of the southeast region to normal to below normal in other regions. In northwest Oregon, significant snowfall hit the area in late December. In Clackamas County, areas of compacted soil and low-lying areas were flooded along with localized floods in a few area rivers. Harvest of late season vegetables was hindered by wet field conditions. In Columbia County, snow cover protected winter grains from cold injury. In north central Oregon, several inches of snow were received throughout the region. Some producers had cattle calving in

the winter weather. Snow cover helped crops and pastures that had previously suffered from drought. In northeast Oregon, livestock were trying to stay warm with the below zero temperatures throughout the area. In Umatilla County, winter wheat was planted late and emerged very late in most fields. Some fields had good stands, but most were average to poor. Downy brome, rye, and goat grass was emerging in fields where these species had been a consistent menace. Hay and feed for cattle were in limited supply. Winter canola was doing well. In southeast Oregon, recent storms in late December brought the snowpack up to normal. In Lake County, colder morning and daytime temperatures helped keep the snowpack in place. Snowstorms throughout the month improved pastures.

**PENNSYLVANIA:** For the month of December, the State experienced fluctuating warm temperatures and little snowfall. The warmer than normal temperatures allowed some farmers to finish up harvesting. Warm weather during the past week encouraged cover crop germination and some growth. In some areas, there was limited manure hauling due to wet field conditions. Farmers have begun to prepare their farms for the winter.

**SOUTH CAROLINA:** December temperatures were 2.9 to 9.2 degrees warmer than historic averages depending on location. Total rainfall during the month ranged from 1.1 inches to 6.1 inches. According to the U.S. Drought Monitor, 81 percent of the State was experiencing abnormally dry conditions by month's end, compared to 73 percent at the beginning of the month. Warm and abnormally dry conditions persisted through most of December allowing most harvest activities to be completed. Winter grain was irrigated, and warm weather benefitted crop germination and emergence. Overall, winter wheat condition was fair to good. Strawberries were in mostly good condition, but behind in development. Producers were beginning to prepare land for spring and summer crops. Cattle and pasture conditions remained mostly good with the continued warm weather.

**SOUTH DAKOTA:** For the week ending January 2, 2022, topsoil moisture supplies rated 5% very short, 35% short, 58% adequate, 2% surplus. Subsoil moisture supplies rated 6% very short, 42% short, 52% adequate, 0% surplus. Winter wheat condition rated 2% very poor, 11% poor, 49% fair, 37% good, and 1% excellent.

**TENNESSEE:** For the week ending January 2, Days suitable 2.4. Topsoil moisture 2% short, 56% adequate, 42% surplus. Subsoil moisture 1% very short, 4% short, 60% adequate, 35% surplus. Winter wheat condition 3% poor 19% fair, 65% good, 13% excellent. Pasture and Range condition 2% very poor, 15% poor, 40% fair, 39% good, 4% excellent. Cattle condition 2% poor, 27% fair, 59% good, 12% excellent. Hay and roughage supplies 1% very short, 7% short, 78% adequate, 14% Tennessee experienced surplus. unseasonably warm temperatures in December. Pastures and winter wheat appear to be doing well due to the warm weather. Hay and roughage supplies appear adequate for the winter season. Winter wheat condition reported mostly good. Tornado events impacted the area in Mid-December. Homes, sheds, and equipment were damaged or destroyed.

**TEXAS:** During the month of December, precipitation mostly ranged from trace amounts to upwards of 3 inches, with isolated areas of East Texas and the Upper Coast receiving upwards of 6 inches of rain. Cotton harvest and small grain seeding was virtually complete throughout the State. Supplemental feeding continued in most areas of the State. Pasture and range conditions were rated fair to poor.

**UTAH:** This report for Utah is for the entire month of December 2021. Topsoil moisture 11% short, 89% adequate. Subsoil moisture 19% short, 81% adequate. Pasture and range condition 2% very poor, 23% poor, 42% fair, 33% good. Winter wheat condition 9% poor, 64% fair, 27% good. Hay and roughage supplies 55% very short, 32% short, 13% adequate. Stock water supplies 3% very short, 27% short, 70% adequate. Cattle and calves condition 3% poor, 35% fair, 59% good, 3% excellent. Sheep and lambs condition 3% poor, 41% fair, 55% good, 1% excellent. Livestock receiving supplemental feed for cattle 81%. Livestock receiving supplemental feed for sheep 56%. Cows calved 1%. As of January 2, 2022, snowpack in Utah was 128 percent measured as percent of median snowfall.

VIRGINIA: For week ending January 2, 2022, all estimates refer to the last week of the month. Topsoil moisture 3% very short, 31% short, 56% adequate, 10% surplus. Subsoil moisture 5% very short, 27% short, 64% adequate, 4% surplus. Winter wheat condition 2% poor, 26% fair, 71% good, 1% excellent. Barley condition 22% fair, 78% good. Livestock condition 2% poor, 28% fair, 58% good, 12% excellent. Pasture and Range condition 4% very poor, 15% poor, 45% fair, 33% good, 3% excellent. Hay supplies 3% very short, 20% short, 72% adequate, 5% surplus. Percent of feed obtained from pastures 23%. Virginia experienced below average precipitation and unseasonably mild temperatures causing a very dry December. The dry conditions were favorable for feeding livestock but inhibited pasture and small grain growth. Hay and roughage supplies are mostly adequate. Farming activities for the month included finishing grain crop harvest, preparing for winter grazing, equipment maintenance, and preparations for the 2022 season.

**WASHINGTON:** Statewide temperatures in Washington for the month of December were mostly below normal. In western Washington, a bitter cold wave hit the area. Livestock were on stored feed with five to seven inches of snow on the ground. In San Juan County, winds out of Canada from the Frasier River outflow dropped wind chills to single digits. Pruning had begun while temperatures were moderate. In Whatcom County, producers affected by floods were still evaluating damage to grass and berry fields. Hay bales were washed away in the flood waters and feed bunkers were flooded. A heavy winter freeze throughout the month caused more damage to berry crops. In central Washington, the weather was relatively mild during the month of December. In Chelan County, winter wheat was in good shape. Fall rains helped crops grow rapidly. Cattle producers were feeding hay earlier than expected. In Yakima County, some orchard pruning and tree training was completed in early December. In east central Washington, the year ended with below zero temperatures and high winds. In Adams

County, large amounts of snow were good for the water supply for the next growing season. Some fields remained unseeded because of insufficient seed zone moisture. In southeast Washington, several days of rainfall throughout the month of December helped the district come out of drought conditions. In Whitman County, all crops were covered in snow. Damage from cold conditions was limited as most fields had adequate snow cover for protection.

WEST VIRGINIA: For the week ending January 2, Topsoil moisture 23% short, 65% adequate, and 12% surplus. Subsoil moisture 2% very short, 25% short, 67% adequate, and 6% surplus. Hay and roughage supplies 9% short, 68% adequate, and 23% surplus. Feed grain supplies 11% short, 71% adequate, and 18% surplus. Winter wheat condition 28% fair and 72% good. Cattle and calves condition 2% poor, 25% fair, 70% good, and 3% excellent. Sheep and lambs condition 1% poor, 12% fair, 84% good, and 3% excellent. Weather conditions for the month have been mostly warm with periods of rain. Farming activities for the month included planning for the next growing season.

WISCONSIN: Long term drought conditions continued across much of southern Wisconsin. The storm system of 15 and 16 December brought record highs across the State, but without significant precipitation. There were some reports of wind and tornado damage to buildings, fences, and irrigation equipment. December temperatures were mostly above normal. Precipitation was also above normal for most of the State. Unlike last winter, very few fields still have standing crops. Alfalfa and winter wheat fields could use more snow cover, but the relatively mild December weather has likely prevented serious ice damage so far.

WYOMING: This report for Wyoming is for the entire month of December 2021. Topsoil moisture 48% very short, 24% short, 28% adequate. Subsoil moisture 52% very short, 25% short, 23% adequate. Winter wheat condition 9% very poor, 33% poor, 42% fair, 16% good. Hay and roughage supplies 36% very short, 34% short, 30% adequate. Livestock condition 10% fair, 90% good. Stock water supplies 35% very short, 21% short, 44% adequate. Pasture and range condition 38% very poor, 14% poor, 32% fair, 16% good. December brought little change to Wyoming's drought conditions. Precipitation for December was scarce, with monthly precipitation totals less than 3 inches for most of the State. Temperatures for the month of December were 2 to 6 degrees above average. There were reports of persisting drought conditions in Big Horn County. Producers in Lincoln County reported livestock are now being fed only hay every day. Lincoln County also reported significant snowfall in December, with snowpack measuring above average in most areas. According to the United States Drought Monitor for December 30, 2021, the amount of land rated as abnormally dry was 3.3 percent, compared to 7.2 percent on November 25. Moderate drought was present across 35.4 percent of the State, an increase from 28.5 percent on November 25. Severe drought covered 47.1 percent of the State, compared to 53.1 percent on November 25. Extreme drought conditions covered 14.2 percent of the State, an increase of 3 percentage points from 11.2 percent on November 25.

#### **International Weather and Crop Summary**

#### December 26, 2021 - January 1, 2022

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

**EUROPE:** Warm, wet weather melted the region's protective snow cover but maintained good conditions for winter grains in the south.

MIDDLE EAST: Heavy rain in western Turkey and southwestern Iran contrasted with a return of dry weather elsewhere.

**NORTHWESTERN AFRICA**: Very warm, dry weather exacerbated drought in Morocco and central Tunisia but promoted winter grain development elsewhere.

**SOUTHEAST ASIA:** Wet weather in the eastern Philippines hampered continuing recovery efforts following the late-December super typhoon (Rai).

**AUSTRALIA:** Scattered showers persisted in the northeast, while dry weather favored winter crop harvesting in the south and west.

**SOUTH AFRICA**: Mild, showery weather benefited corn and other summer crops.

**ARGENTINA**: Heat and dryness stressed early-planted corn in key farming areas of central Argentina.

**BRAZIL:** Drought maintained stress on soybeans and first-crop corn in much of the south, in contrast to favorable summer crop prospects farther north.

#### December 2021

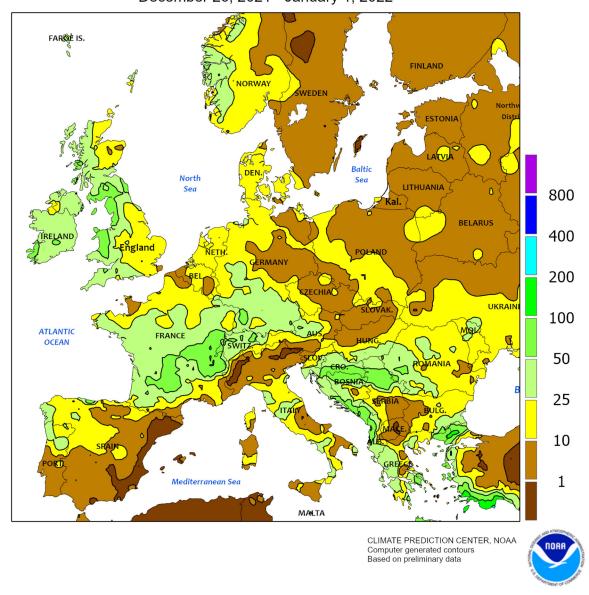
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| ALGERI           | ALGER                  | 18         | 7          | 24        | 2          | 13         | 0.7          | 53         | -44         |
|                  | BATNA                  | 15         | 0          | 21        | -6         | 8          | 0.8          | 10         | -23         |
| ARGENT           | IGUAZU                 | 35         | 21         | 38        | 16         | 28         | 2.4          | 10         | -170        |
|                  | FORMOSA                | 36         | 20         | 42        | 16         | 28         | 1.4          | 34         | -131        |
|                  | CERES                  | 34         | 19         | 40        | 16         | 26         | 1.4          | 4          | -140        |
|                  | CORDOBA                | 31         | 17         | 37        | 14         | 24         | 1.6          | 58         | -89         |
|                  | RIO CUARTO<br>ROSARIO  | 30         | 18         | 36        | 13         | 24         | 1.3          | 97         | -45<br>07   |
|                  | BUENOS AIRES           | 32<br>30   | 18<br>18   | 39<br>40  | 13<br>11   | 25<br>24   | 1.4<br>1.5   | 16<br>11   | -97<br>-82  |
|                  | SANTA ROSA             | 29         | 16         | 37        | 10         | 23         | 0            | 203        | 100         |
|                  | TRES ARROYOS           | 30         | 15         | 37        | 8          | 22         | 1.9          | 39         | -39         |
| AUSTRA           | DARWIN                 | 33         | 26         | 36        | 22         | 29         | 0.1          | 331        | 51          |
|                  | BRISBANE               | 28         | 20         | 30        | 17         | 24         | -0.2         | 138        | 5           |
|                  | PERTH                  | 32         | 18         | 43        | 10         | 25         | 2.5          | 0          | -8          |
|                  | CEDUNA                 | 25         | 14         | 43        | 8          | 19         | -1.7         | ****       | *****       |
|                  | ADELAIDE               | 25         | 15         | 36        | 10         | 20         | -0.4         | ****       | *****       |
|                  | MELBOURNE<br>WAGGA     | 23<br>29   | 13<br>14   | 39<br>37  | 8<br>9     | 18<br>22   | 0.2          | 41<br>11   | -6          |
|                  | CANBERRA               | 29<br>24   | 12         | 30        | 5          | 18         | -0.1<br>-0.6 | 67         | -38<br>11   |
| AUSTRI           | VIENNA                 | 5          | 0          | 17        | -8         | 3          | 1.5          | 55         | 18          |
|                  | INNSBRUCK              | 4          | -2         | 9         | -9         | 1          | 1.5          | 38         | -18         |
| BAHAMA           | NASSAU                 | 28         | 20         | 31        | 13         | 24         | 1.2          | 42         | -9          |
| BARBAD           | BRIDGETOWN             | 30         | 25         | 30        | 22         | 27         | 1.3          | 60         | -46         |
| BELARU           | MINSK                  | -2         | -6         | 6         | -16        | -4         | -0.6         | 51         | 3           |
| BERMUD           | ST GEORGES             | 22         | 18         | 24        | 14         | 20         | 8.0          | 68         | -36         |
| BOLIVI<br>BRAZIL | LA PAZ<br>FORTALEZA    | 14         | 4          | 19        | 0          | 9          | -0.3         | 186        | 104         |
| DRAZIL           | RECIFE                 | 32<br>30   | 27<br>26   | 32<br>31  | 25<br>23   | 29<br>28   | 0.9<br>-0.3  | 13<br>33   | -3          |
|                  | CAMPO GRANDE           | 31         | 22         | 35        | 18         | 27         | 0.4          | 200        | 29          |
|                  | FRANCA                 | ***        | ***        | 30        | 17         | ***        | ****         | 319        | 53          |
|                  | RIO DE JANEI           | 29         | 22         | 35        | 19         | 26         | -1.3         | 182        | 71          |
|                  | LONDRINA               | ***        | ***        | 38        | 15         | ***        | ****         | 144        | -64         |
|                  | SANTA MARIA            | 31         | 18         | 36        | 15         | 24         | 0.1          | 41         | -106        |
| BULGAR           | SOFIA                  | 5          | 0          | 14        | -9         | 2          | 2            | 71         | 25          |
| BURKIN           | OUAGADOUGOU            | 36         | 19         | 38        | 17         | 27         | 1.6          | 0          | 0           |
| CANADA           | LETHBRIDGE<br>REGINA   | -4<br>-10  | -17<br>-21 | 18<br>5   | -35<br>-39 | -11<br>-15 | -3.6<br>-3.4 | 5<br>11    | 2           |
|                  | WINNIPEG               | -8         | -16        | 8         | -30        | -12        | -0.1         | 18         | -5          |
|                  | TORONTO                | 5          | -2         | 18        | -8         | 2          | 3.9          | 68         | 11          |
|                  | MONTREAL               | 1          | -8         | 16        | -16        | -3         | 2            | 82         | 5           |
|                  | PRINCE ALBER           | -14        | -24        | 6         | -40        | -19        | -4           | 24         | 7           |
|                  | CALGARY                | -8         | -18        | 13        | -33        | -13        | -5.8         | 23         | 13          |
| _                | VANCOUVER              | 4          | -2         | 12        | -15        | 1          | -2.7         | 296        | 133         |
| CANARY           | LAS PALMAS<br>SANTIAGO | 22         | 16         | 28        | 13         | 19         | 0.3          | 2          | -40<br>3    |
| CHILE<br>CHINA   | HARBIN                 | 30         | 13         | 35        | 9          | 21         | 1.9          | 0          | -3          |
| OI IIIVA         | HAMI                   | -8<br>-1   | -17<br>-12 | 5<br>3    | -29<br>-17 | -13<br>-7  | 1.6<br>1.4   | 8<br>0     | 1<br>-2     |
|                  | BEIJING                | 7          | -4         | 14        | -12        | 1          | 2.3          | 6          | 3           |
|                  | TIENTSIN               | 7          | -4         | 14        | -11        | 1          | 2            | 0          | -3          |
|                  | LHASA                  | 9          | -5         | 19        | -9         | 2          | 2.5          | 0          | -1          |
|                  | KUNMING                | 16         | 7          | 20        | 4          | 11         | 2.2          | 16         | 2           |
|                  | CHENGCHOW              | 11         | 1          | 19        | -8         | 6          | 3.8          | 15         | 5           |
|                  | YEHCHANG               | 13         | 5          | 21        | -3         | 9          | 2.7          | 6          | -14         |
|                  | HANKOW<br>CHUNGKING    | 13<br>13   | 2<br>9     | 19<br>18  | -4<br>5    | 8<br>11    | 2.1<br>1.3   | 12<br>19   | -16<br>-6   |
|                  | CHIHKIANG              | 13         | 5          | 21        | -2         | 9          | 1.5          | 26         | -6<br>-8    |
|                  | WU HU                  | 12         | 3          | 18        | -3         | 7          | 1.1          | 16         | -0<br>-27   |
|                  | SHANGHAI               | 12         | 3          | 18        | -5         | 8          | 0.8          | 3          | -36         |
|                  | NANCHANG               | 14         | 7          | 20        | -1         | 10         | 2.1          | 15         | -31         |
|                  | TAIPEI                 | 20         | 17         | 27        | 12         | 18         | 0.3          | 47         | -23         |
|                  | CANTON                 | 21         | 11         | 27        | 6          | 16         | 2.1          | 78         | 48          |
|                  | NANNING                | 20         | 12         | 26        | 4          | 16         | 1.7          | 3          | -22         |
| COLOMB           | BOGOTA                 | 21         | 9          | 22        | 4          | 15         | 2            | 29         | -41         |
| COTE D<br>CUBA   | ABIDJAN<br>CAMAGUEY    | 32         | 26         | 34        | 22         | 29         | 0.6          | 96<br>**** | 27<br>***** |
| CYPRUS           | LARNACA                | 29<br>19   | 20<br>11   | 32<br>23  | 14<br>5    | 25<br>15   | 0.8<br>1.4   | 166        | 88          |
| CZECHR           | PRAGUE                 | 3          | -1         | 13        | -12        | 1          | 1.5          | 25         | -3          |
| DENMAR           | COPENHAGEN             | 4          | 1          | 10        | -8         | 2          | 0            | 45         | -1          |
| EGYPT            | CAIRO                  | 20         | 13         | 24        | 8          | 16         | 0.3          | 0          | *****       |
|                  | ASWAN                  | 24         | 12         | 32        | 5          | 18         | 0.4          | 0          | 0           |

Based on Preliminary Reports

#### December 2021

| COUNTRY          | CITY                     |          |          |          | RATURE    |          |             |           | ECIP.             | COUNTRY          | CITY                |           |                  | TEMPER   |                     |           |              |           | RECIP.               |
|------------------|--------------------------|----------|----------|----------|-----------|----------|-------------|-----------|-------------------|------------------|---------------------|-----------|------------------|----------|---------------------|-----------|--------------|-----------|----------------------|
|                  |                          | AVG      | AVG      | HI ( (   | LO        |          | DEP         | (N        | MM)<br>DEP        |                  |                     | AVG       | AVG              | HI ( (   | C)<br>LO            |           | DEP          | (1        | MM)<br>DEP           |
|                  |                          | MAX      | MIN      | MAX      | MIN       | AVG      | NRM         | тот       | NRM               |                  |                     | MAX       | MIN              | MAX      | MIN                 | AVG       | NRM          | тот       | NRM                  |
| ESTONI           | TALLINN                  | -2       | -6       | 5        | -20       | -4       | -2.6        | 25        | -31               | MOROCC           | CASABLANCA          | 20        | 11               | 27       | 7                   | 16        | 1.4          | 26        | -44                  |
| ETHIOP           | ADDIS ABABA              | ***      | ***      | 23       | ***       | ***      | ****        | ****      | *****             |                  | MARRAKECH           | 22        | 8                | 28       | 3                   | 15        | 1.6          | 8         | -15                  |
| F GUIA           | CAYENNE                  | 30       | 24       | 32       | 22        | 27       | 0.5         | 665       | 306               | MOZAMB           | MAPUTO              | 31        | 22               | 39       | 16                  | 27        | 0.5          | 194       | 101                  |
| FIJI             | NAUSORI                  | 31       | 24       | 34       | 22        | 27       | 1.3         | 384       | 115               | N KORE           | PYONGYANG           | 2         | -6               | 8        | -18                 | -2        | 0.5          | 304       | 287                  |
| FINLAN           | HELSINKI                 | -5       | -9       | 5        | -21       | -7       | -3.9        | 25        | -33               | NEW CA           | NOUMEA              | 30        | 24               | 35       | 20                  | 27        | 2            | 55        | -28                  |
| FRANCE           | PARIS/ORLY<br>STRASBOURG | 9<br>7   | 5<br>2   | 15<br>16 | -2<br>-6  | 7<br>5   | 1.8<br>2.0  | 78        | 22<br>-17         | NIGER<br>NORWAY  | NIAMEY<br>OSLO      | 33<br>-3  | 20<br>-7         | 36<br>9  | 16<br>-17           | 26<br>-5  | 1.4<br>-0.4  | 0<br>21   | 0<br>-40             |
|                  | BOURGES                  | 8        | 3        | 15       | -0<br>-3  | 6        | 1.4         | 33<br>62  | -1 <i>7</i><br>-6 | NZEALA           | AUCKLAND            | -3<br>24  | - <i>r</i><br>18 | 28       | 12                  | -5<br>21  | 2.3          | 106       | 26                   |
|                  | BORDEAUX                 | 12       | 5        | 18       | -2        | 9        | 2.0         | 45        | -58               | 112271271        | WELLINGTON          | 21        | 15               | 26       | 10                  | 18        | 1.4          | 207       | 147                  |
|                  | TOULOUSE                 | 12       | 4        | 20       | -2        | 8        | 1.9         | 31        | -20               | P RICO           | SAN JUAN            | 29        | 24               | 32       | 22                  | 26        | 0.6          | 139       | 11                   |
|                  | MARSEILLE                | 13       | 4        | 21       | -3        | 8        | 0.4         | 35        | -11               | PAKIST           | KARACHI             | 27        | 16               | 32       | 12                  | 22        | 1.3          | 17        | 13                   |
| GABON            | LIBREVILLE               | 30       | 24       | 31       | 21        | 27       | 0.2         | 368       | 113               | PERU             | LIMA                | 23        | 18               | 26       | 17                  | 21        | -0.3         | 0         | *****                |
| GERMAN           | HAMBURG                  | 5        | 1        | 14       | -10       | 3        | 0.7         | 57        | -12               | PHILIP           | MANILA              | 31        | 25               | 34       | 22                  | 28        | 0.6          | 25        | -55                  |
|                  | BERLIN                   | 4        | 1        | 14       | -11       | 2        | 0.9         | 44        | -4                | PNEWGU           | PORT MORESBY        | 31        | 25               | 34       | 23                  | 28        | -0.1         | 105       | 6                    |
|                  | DUSSELDORF<br>LEIPZIG    | 7<br>5   | 3<br>0   | 15<br>15 | -6<br>-12 | 5<br>3   | 1.1<br>1.4  | 56<br>35  | -16<br>-3         | POLAND           | WARSAW<br>LODZ      | 1         | -3<br>-3         | 11<br>11 | -14<br>-17          | -1<br>-1  | -0.4<br>-0.9 | 19<br>28  | -15<br>-15           |
|                  | DRESDEN                  | 4        | 1        | 15       | -12       | 2        | 1.4         | 43        | -5<br>-5          |                  | KATOWICE            | 2         | -3<br>-2         | 11       | -17                 | -1        | -0.9         | 30        | -15<br>-16           |
|                  | STUTTGART                | 6        | 1        | 15       | -8        | 4        | 2.5         | 51        | 0                 | PORTUG           | LISBON              | 17        | 11               | 19       | 7                   | 14        | 1.8          | 72        | -33                  |
|                  | NURNBERG                 | 5        | 1        | 14       | -10       | 3        | 2.2         | 72        | 19                | ROMANI           | BUCHAREST           | 5         | 0                | 14       | -11                 | 2         | 2.6          | 52        | 6                    |
|                  | AUGSBURG                 | 4        | 0        | 14       | -9        | 2        | 1.3         | 80        | 30                | RUSSIA           | ST.PETERSBUR        | -6        | -10              | 3        | -23                 | -8        | -4.0         | 46        | -5                   |
| GREECE           | THESSALONIKA             | 11       | 4        | 18       | -5        | 8        | 0.9         | 49        | -8                |                  | KAZAN               | -6        | -10              | 4        | -26                 | -8        | 0.3          | 32        | -8                   |
|                  | LARISSA                  | 12       | 3        | 16       | -5        | 8        | 1.2         | 65        | 11                |                  | MOSCOW              | -5        | -9               | 2        | -22                 | -7        | -1.9         | 51        | 1                    |
|                  | ATHENS                   | 15       | 9        | 20       | 2         | 12       | 0.7         | 50        | -13               |                  | YEKATERINBUR        | -7        | -11              | 4        | -21                 | -9        | 2.5          | 30        | 2                    |
| GUADEL<br>HONGKO | RAIZET<br>HONG KONG IN   | 29<br>22 | 22       | 31       | 20        | 26       | 0.9         | 89        | -1                |                  | OMSK<br>BARNAUL     | -7<br>-6  | -13              | 2<br>4   | -27                 | -10       | 3.8          | 14        | -18<br>-4            |
| HUNGAR           | BUDAPEST                 | 4        | 16<br>0  | 27<br>15 | 9<br>-6   | 19<br>2  | 0.4<br>1.5  | 39<br>42  | 2                 |                  | KHABAROVSK          | -o<br>-16 | -12<br>-23       | 1        | -29<br>-38          | -8<br>-20 | 4.1<br>-2.3  | 25<br>24  | - <del>4</del><br>11 |
| ICELAN           | REYKJAVIK                | 3        | 0        | 9        | -5        | 2        | 1.1         | 111       | 16                |                  | VLADIVOSTOK         | -6        | -12              | 5        | -26                 | -9        | 0.1          | 5         | -14                  |
| INDIA            | AMRITSAR                 | 20       | 6        | 26       | 1         | 13       | 0.4         | 0         | -14               |                  | VOLGOGRAD           | 0         | -4               | 9        | -20                 | -2        | 2.2          | 0         | -36                  |
|                  | NEW DELHI                | 22       | 8        | 27       | 3         | 15       | -0.4        | 10        | -3                |                  | ASTRAKHAN           | 4         | -1               | 12       | -13                 | 2         | 3.4          | 10        | -7                   |
|                  | AHMEDABAD                | 28       | 15       | 31       | 9         | 21       | -0.2        | 4         | 2                 |                  | ORENBURG            | -5        | -10              | 5        | -27                 | -8        | 2.3          | 33        | 0                    |
|                  | INDORE                   | 24       | 13       | 28       | 6         | 19       | -0.5        | 19        | 16                | S AFRI           | JOHANNESBURG        | 24        | 14               | 29       | 10                  | 19        | -0.7         | 95        | -22                  |
|                  | CALCUTTA                 | 25       | 16       | 29       | 11        | 21       | 0.5         | 132       | 122               |                  | DURBAN              | 27        | 21               | 33       | 16                  | 24        | 0.4          | 107       | -10                  |
|                  | VERAVAL<br>BOMBAY        | 29       | 18       | 33       | 14        | 24       | -0.4        | 4         | *****             | S KORE           | CAPE TOWN<br>SEOUL  | 25<br>5   | 15<br>-3         | 33       | 11                  | 20        | 0.2          | 9         | -7                   |
|                  | POONA                    | 31<br>28 | 20<br>14 | 35<br>32 | 17<br>11  | 26<br>21 | 0.2<br>0.7  | 95<br>84  | 76                | SAMOA            | PAGO PAGO           | 31        | -3<br>25         | 13<br>32 | -16<br>24           | 1<br>28   | 0.7<br>0.1   | 8<br>199  | -13<br>-170          |
|                  | BEGAMPET                 | 30       | 17       | 33       | 11        | 23       | 1.3         | 0         | -5                | SENEGA           | DAKAR               | 29        | 22               | 36       | 21                  | 26        | 2.0          | 0         | -170                 |
|                  | VISHAKHAPATN             | 29       | 22       | 31       | 19        | 25       | 0.6         | 4         | -26               | SPAIN            | VALLADOLID          | 11        | 4                | 16       | -1                  | 8         | 2.5          | 32        | -20                  |
|                  | MADRAS                   | 31       | 22       | 33       | 18        | 26       | 1.2         | 210       | 38                |                  | MADRID              | 13        | 3                | 18       | -3                  | 8         | 2.2          | 23        | -13                  |
|                  | MANGALORE                | 32       | 22       | 34       | 20        | 27       | 0.0         | 15        | *****             |                  | SEVILLE             | 18        | 9                | 22       | 2                   | 14        | 1.2          | 140       | *****                |
| INDONE           | SERANG                   | 32       | 24       | 34       | 22        | 28       | 8.0         | 238       | 73                | SWITZE           | ZURICH              | 5         | 1                | 13       | -4                  | 3         | 1.4          | 114       | 30                   |
| IRELAN           | DUBLIN                   | 9        | 4        | 14       | -1<br>-   | 7        | 1.5         | 89        | 18                | 0.4514           | GENEVA              | 6         | 1                | 15       | -5                  | 3         | 0.6          | 158       | 78                   |
| ITALY            | MILAN<br>VERONA          | 6<br>8   | 0        | 11       | -5        | 3<br>4   | -0.6        | 35        | -8                | SYRIA<br>TAHITI  | DAMASCUS<br>PAPEETE | 16        | 4                | 22       | -3                  | 10        | 2.5          | 9         | -34                  |
|                  | VENICE                   | 8        | 2        | 12<br>12 | -4<br>-2  | 5        | -0.1<br>0.1 | 32<br>43  | -21<br>-7         | TANZAN           | DAR ES SALAA        | 31<br>32  | 24<br>24         | 32<br>34 | 22<br>23            | 27<br>28  | 0.2<br>0.7   | 82<br>320 | -239<br>198          |
|                  | GENOA                    | 13       | 7        | 16       | 3         | 10       | 0.1         | 62        | -20               | THAILA           | PHITSANULOK         | 31        | 18               | 33       | 13                  | 24        | 0.1          | 0         | -12                  |
|                  | ROME                     | 14       | 6        | 17       | -1        | 10       | 0.2         | 83        | 1                 |                  | BANGKOK             | 33        | 24               | 36       | 19                  | 28        | 1.8          | 0         | -7                   |
|                  | NAPLES                   | 15       | 6        | 22       | -2        | 10       | -0.1        | 101       | 7                 | TOGO             | TABLIGBO            | ***       | ***              | 37       | 20                  | ***       | ****         | ****      | *****                |
| JAMAIC           | KINGSTON                 | 30       | 25       | 32       | 23        | 28       | 1.0         | ****      | *****             | TRINID           | PORT OF SPAI        | 30        | 23               | 32       | 20                  | 27        | 0.7          | 210       | 58                   |
| JAPAN            | SAPPORO                  | 3        | -3       | 14       | -10       | 0        | 0.7         | 112       | 0                 | TUNISI           | TUNIS               | 17        | 9                | 21       | 6                   | 13        | 0.2          | 56        | -16                  |
|                  | NAGOYA                   | 12       | 4        | 18       | -1        | 8        | 8.0         | 94        | 49                | TURKEY           | ISTANBUL            | 12        | 8                | 19       | -3<br>40            | 10        | 1.5          | 56        | -31                  |
|                  | TOKYO<br>YOKOHAMA        | 12<br>13 | 4        | 20       | -2<br>-1  | 8<br>9   | -0.6        | 123       | 72<br>80          | TURKME           | ANKARA<br>ASHKHABAD | 7<br>12   | -1<br>2          | 16       | -10                 | 3<br>7    | 1.7          | 35<br>6   | -13<br>-16           |
|                  | KYOTO                    | 13       | 6<br>4   | 20<br>16 | -1<br>-1  | 8        | 0.4<br>0.5  | 140<br>94 | 38                | UKINGD           | ASHKHABAD           | 6         | 2                | 28<br>13 | -3<br>-4            | 4         | 3.9<br>0.5   | *****     | -16<br>*****         |
|                  | OSAKA                    | 13       | 6        | 17       | 1         | 9        | 0.8         | 102       | 58                |                  | LONDON              | 10        | 6                | 15       | - <del></del><br>-2 | 8         | 1.8          | 90        | 33                   |
| KAZAKH           | KUSTANAY                 | -7       | -13      | 3        | -29       | -10      | 2.5         | 31        | 7                 | UKRAIN           | KIEV                | 0         | -3               | 7        | -13                 | -1        | 0.8          | 67        | 22                   |
|                  | TSELINOGRAD              | -6       | -11      | 5        | -26       | -9       | 3.1         | 24        | 4                 |                  | LVOV                | 0         | -4               | 8        | -15                 | -2        | 0.0          | 95        | 48                   |
|                  | KARAGANDA                | -5       | -11      | 4        | -25       | -8       | 3.8         | 26        | 0                 |                  | KIROVOGRAD          | 1         | -2               | 11       | -16                 | -1        | 1.3          | 75        | 41                   |
| KENYA            | NAIROBI                  | 24       | 16       | 26       | 15        | 20       | -0.8        | 54        | -42               |                  | ODESSA              | 5         | 1                | 13       | -10                 | 3         | 1.7          | 89        | 48                   |
| LIBYA            | TRIPOLI                  | ***      | ***      | ***      | ***       | ***      | *****       | ****      | *****             | HZDEL"           | KHARKOV             | 0         | -4               | 10       | -19                 | -2        | 1.3          | 45        | 9                    |
| LITHUA           | BENGHAZI<br>KAUNAS       | 19<br>-1 | 11<br>-5 | 36       | 7<br>15   | 15       | 0.7         | 96<br>38  |                   | UZBEKI<br>VENEZU | TASHKENT<br>CARACAS | 12<br>*** | 4                | 23<br>-4 | -6<br>4             | 8         | 4.4          | 42<br>0   | -16                  |
| LUXEMB           | LUXEMBOURG               | -1<br>5  | -5<br>2  | 6<br>12  | -15<br>-6 | -3<br>4  | -1.9<br>1.9 | 38<br>76  | -8<br>-13         | YUGOSL           | BELGRADE            | 6         | 2                | -4<br>16 | -4<br>-3            | 4         | 1.6          | 0<br>158  | -52<br>99            |
| MALAYS           | KUALA LUMPUR             | 32       | 24       | 34       | 23        | 28       | 1.5         | 639       | 384               | ZAMBIA           | LUSAKA              | ***       | ***              | 35       | -s<br>18            | ***       | ****         | *****     | *****                |
| MALI             | BAMAKO                   | 34       | 19       | 37       | 14        | 27       | 1.2         | 0         | 0                 | ZIMBAB           | KADOMA              | ***       | ***              | 33       | ***                 | ***       | ****         | ****      | *****                |
| MARSHA           | MAJURO                   | 30       | 26       | 31       | 24        | 28       | 0.4         | 223       | -70               |                  |                     |           |                  |          |                     |           |              |           |                      |
| MARTIN           | LAMENTIN                 | 30       | 24       | 31       | 20        | 27       | 1.1         | 63        | -83               |                  |                     |           |                  |          |                     |           |              |           |                      |
| MAURIT           | NOUAKCHOTT               | 31       | 18       | 34       | 14        | 24       | 1.5         | ****      | *****             |                  |                     |           |                  |          |                     |           |              |           |                      |
| MEXICO           | GUADALAJARA              | 25       | 10       | 28       | 5         | 17       | 1.5         | 2         | *****             |                  |                     |           |                  |          |                     |           |              |           |                      |
|                  | TLAXCALA                 | 24       | 8        | 28       | 3         | 16       | 2.8         | 0         | -8                |                  |                     |           |                  |          |                     |           |              |           |                      |
|                  | ORIZABA                  | 24       | 14       | 31       | 8         | 19       | 2.5         | 23        | *****             | I                |                     |           |                  |          |                     |           |              |           |                      |

EUROPE
Total Precipitation(mm)
December 26, 2021 - January 1, 2022



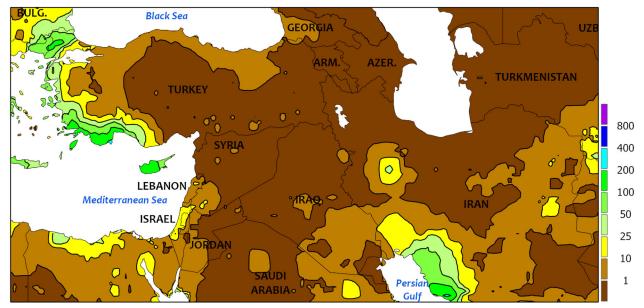
#### **EUROPE**

Warm, wet weather prevailed over much of Europe. From England and France southeastward into the Balkans, widespread rain (10-85 mm) and much-above-normal temperatures (4-8°C above normal) boosted moisture reserves for dormant winter crops but melted the already limited snow cover. Light to moderate showers (2-20 mm)

and near-normal temperatures in Poland and the Baltic States likewise sustained good moisture reserves for spring growth but reduced or eliminated most of the region's protective snowpack. Farther south, highly variable showers (2-45 mm) maintained overall favorable conditions for semi-dormant to vegetative winter grains in Spain, Italy, and Greece.

## MIDDLE EAST Total Precipitation(mm)

December 26, 2021 - January 1, 2022



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



#### **MIDDLE EAST**

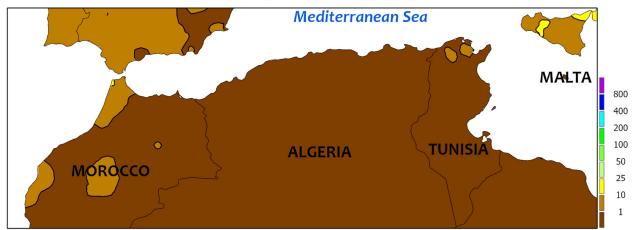
Moderate to heavy rain in western portions of the region contrasted with dry conditions over many central and eastern growing areas. Widespread, locally heavy showers in western Turkey (3-70 mm) maintained favorable to abundant moisture supplies for semi-dormant to vegetative winter wheat, while heavy to excessive downpours in southwestern Turkey (100-225 mm) caused flooding but had little significant impact on regional agriculture. Light showers (2-11 mm) were also reported along the southeastern Mediterranean Coast, improving soil moisture

supplies locally for vegetative winter grains. Conversely, dry weather prevailed from central Turkey into Syria and northern Iran, though many of these crop areas have received much-needed precipitation over the previous weeks save for Khorasan in northeastern Iran. Winter crops were dormant in central Turkey and northern Iran but vegetative in climatologically warmer growing areas of Iraq and Syria. Meanwhile, 10 to 60 mm of rainfall near the Persian Gulf maintained excellent early-season prospects for vegetative winter wheat and barley in southwestern Iran.

#### NORTHWESTERN AFRICA

Total Precipitation(mm)

December 26, 2021 - January 1, 2022



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



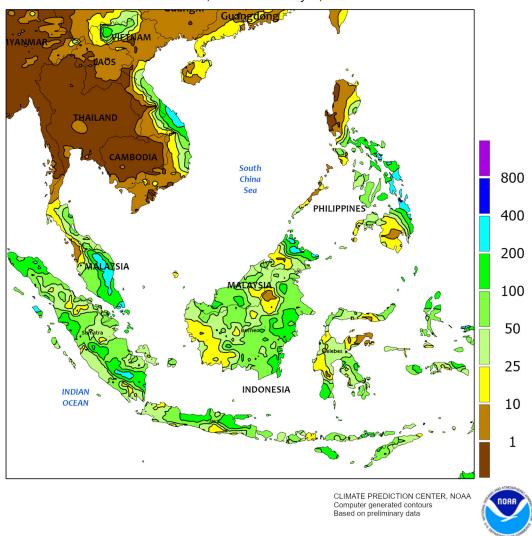
#### **NORTHWESTERN AFRICA**

Warm, dry weather exacerbated drought in Morocco and central Tunisia but favored winter grain development elsewhere. After recent sorely-needed showers in Morocco, the return of dry and very warm weather (2-5°C above normal, highs topping 30°C in the southwest) renewed drought concerns and heightened water demands of emerging to vegetative winter grains. The Moroccan drought's severity increases from north to south, with southwestern growing areas reporting one of the driest starts to the winter crop growing campaigns on record. Similarly, the Steppe Region of central Tunisia plunged further into

extreme drought under sunny skies and above-normal temperatures (up to 5°C above normal); season-to-date rainfall (since September 1) in this barley area remained mired below 25 mm (less than 20 percent of normal), by far the driest of the past 30 years. Sunny skies and above-normal temperatures in Algeria and northern Tunisia (2-4°C above normal near the coast, up to 6°C above normal inland) promoted wheat and barley development on the heels of a pronounced wet spell from mid-November into early December; however, western Algeria largely missed out on the favorable late-autumn rains.

## SOUTHEAST ASIA Total Precipitation(mm)

December 26, 2021 - January 1, 2022



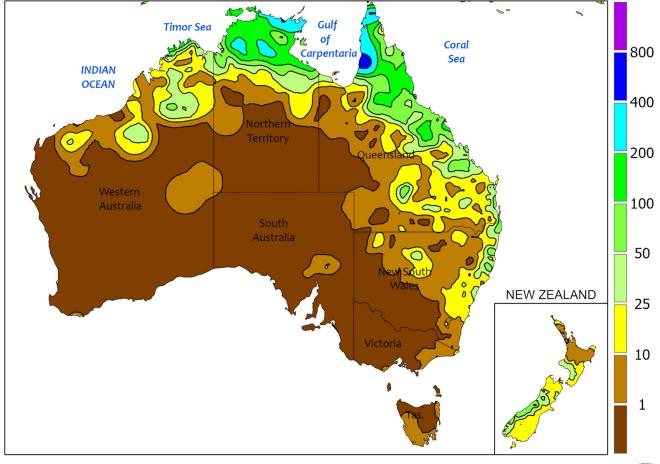
#### **SOUTHEAST ASIA**

Waves of tropical moisture moved through the eastern Philippines and central Vietnam, bringing deluges to areas previously impacted by Super Typhoon Rai and renewing concerns of excessive wetness. In the Philippines, over 150 mm of rain was recorded from southeastern Luzon to northeastern Mindanao, hampering recovery efforts following Super Typhoon Rai. However, outside the areas impacted by Rai, the moisture was

welcome for winter rice and corn. Meanwhile, similarly heavy showers in central Vietnam renewed concerns of excessive wetness in mainly minor agricultural areas. Elsewhere, continued showery weather in Malaysia and Indonesia maintained ample moisture supplies for oil palm and rice, particularly in southern Indonesia (Java) where seasonal (since November 1) rainfall totals are the highest in the last 30 years.

# AUSTRALIA Total Precipitation(mm)

December 26, 2021 - January 1, 2022



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 data



#### **AUSTRALIA**

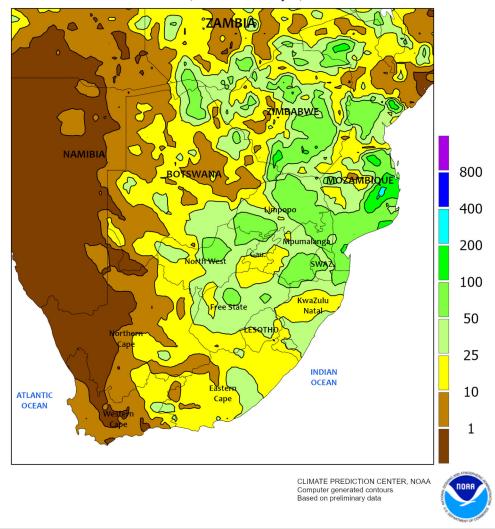
In the wake of last week's widespread rain, scattered showers (5-25 mm, locally more) continued to fall across southern Queensland and New South Wales, maintaining abundant moisture supplies for cotton, sorghum, and other summer crops. The somewhat drier weather aided late-season winter crop harvesting and helped reduce flooding,

although rivers remained swollen in isolated areas. Cooler-than-normal weather (temperatures averaging 1-2°C below normal) slowed the pace of summer crop development in eastern Australia. Elsewhere in the wheat belt, dry weather persisted in southern and western Australia, favoring rapid and uninterrupted winter crop harvesting.

#### **SOUTH AFRICA**

Total Precipitation(mm)

December 26, 2021 - January 1, 2022



#### **SOUTH AFRICA**

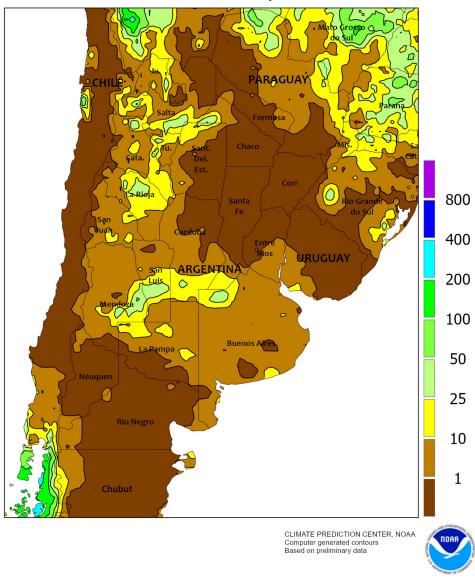
Widespread showers maintained favorable crop prospects across all major commercial farming areas. Most corn belt locations (North West, Free State, and farmlands from Limpopo to northern KwaZulu-Natal) recorded rainfall totaling at least 25 mm, with large sections of the east (Mpumalanga and environs) reporting 50 to locally more than 100 mm. Unseasonably mild weather (weekly temperatures averaging 1-2°C below normal) accompanied the moisture, with daily highs in the upper 20s and lower 30s (degrees C)

advancing growth of the mostly vegetative corn crop. Similar conditions benefited sugarcane in KwaZulu-Natal, while somewhat warmer weather (highs reaching the middle 30s) prevailed in irrigated sugarcane areas of eastern Mpumalanga. Meanwhile, unseasonably heavy rainfall (10-35 mm) provided an additional boost to irrigation supplies in watersheds of the Orange River Valley. Elsewhere, sunny skies promoted tree and vine crop development in Western Cape, with highest daytime temperatures generally capped in the lower 30s.

#### **ARGENTINA**

Total Precipitation(mm)

December 26, 2021 - January 1, 2022



#### **ARGENTINA**

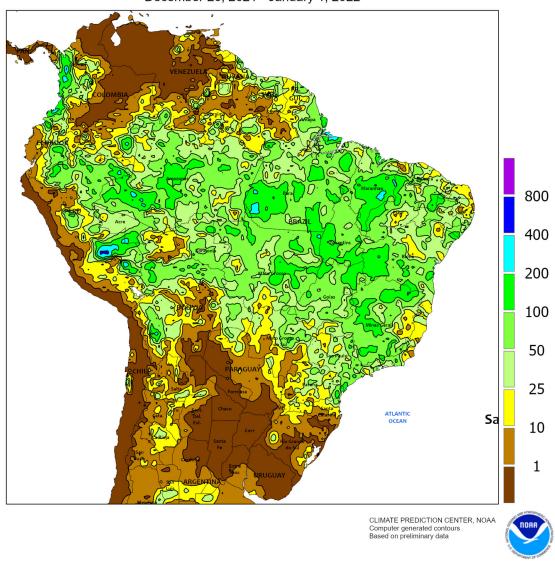
Unseasonable warmth and dryness dominated the region, stressing early-planted crops in or nearing reproduction and reducing moisture available for other summer crops in varying stages of development. Nearly all agricultural delegations recorded rainfall averaging below 5 mm, with complete dryness dominating the north, including the cotton belt (notably Santiago del Estero, Chaco, and Santa Fe). Weekly average temperatures were 2 to 4°C above normal regionwide, with daytime highs reaching 40°C in high-yielding farming areas in northern Buenos Aires on several days.

Crops in the lower Parana River Valley (northern Buenos Aires and neighboring areas in Santa Fe and Entre Rios) have been trending drier than normal for much of the season thus far, and crops were already growing on limited moisture reserves. According to the government of Argentina, cotton was 89 percent planted as of December 30; corn and soybeans were 79 and 86 percent planted, respectively, with early-planted corn advancing through reproduction in many key production areas. Meanwhile, wheat was 90 percent harvested, slightly behind last year (93 percent).

BRAZIL

Total Precipitation(mm)

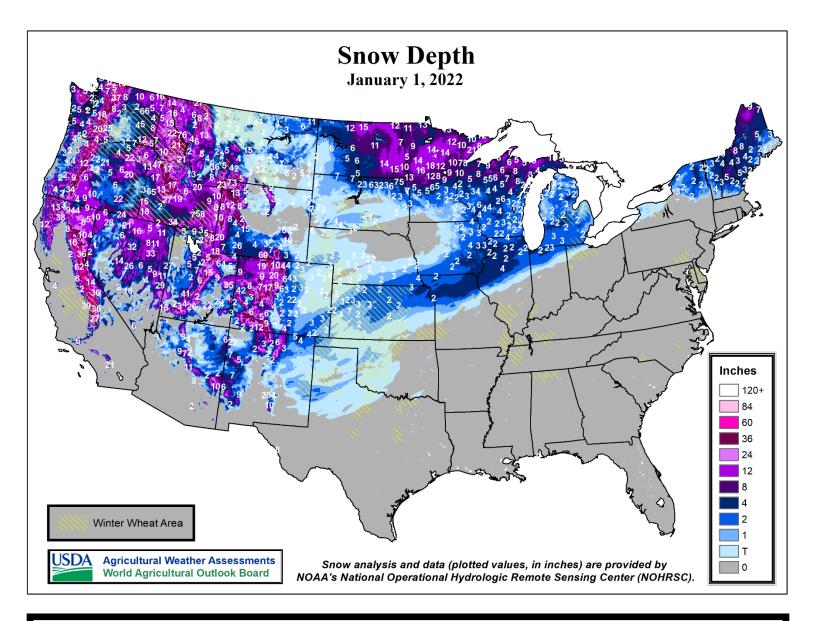
December 26, 2021 - January 1, 2022



#### BRAZIL

Lingering heat and dryness maintained stress on southern crops, although showers during the latter part of the week brought some localized drought relief. From Mato Grosso do Sul and São Paulo southward through Uruguay, rainfall was mostly patchy and light, with few locations recording more than 10 mm. The highest concentration of rainfall (greater than 25 mm) was located from central Paraná northeastward, benefiting immature summer crops (including sugarcane) and helping to mitigate the impacts of early-week heat (daytime highs reaching the middle and upper 30s degrees C). In Rio Grande do Sul, corn was 93 percent planted as of December 30, with 65 percent of the

emerged crop ranging from flowering to mature (7 percent harvested); soybeans were 93 percent planted but only 10 percent of the crop had reached flowering. In contrast to heat and dryness plaguing southern farmlands, conditions remained overall favorable for soybeans farther north. Rainfall totaled more than 50 mm in most major farming areas northward from Minas Gerais, extending westward into Mato Grosso. The wetter conditions also helped prevent the development of stressful heat as highest daytime temperatures were again mostly confined to the lower 30s. Soybean harvesting will be underway soon in Mato Grosso, prompting a favorable start to the corn and cotton crops.



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