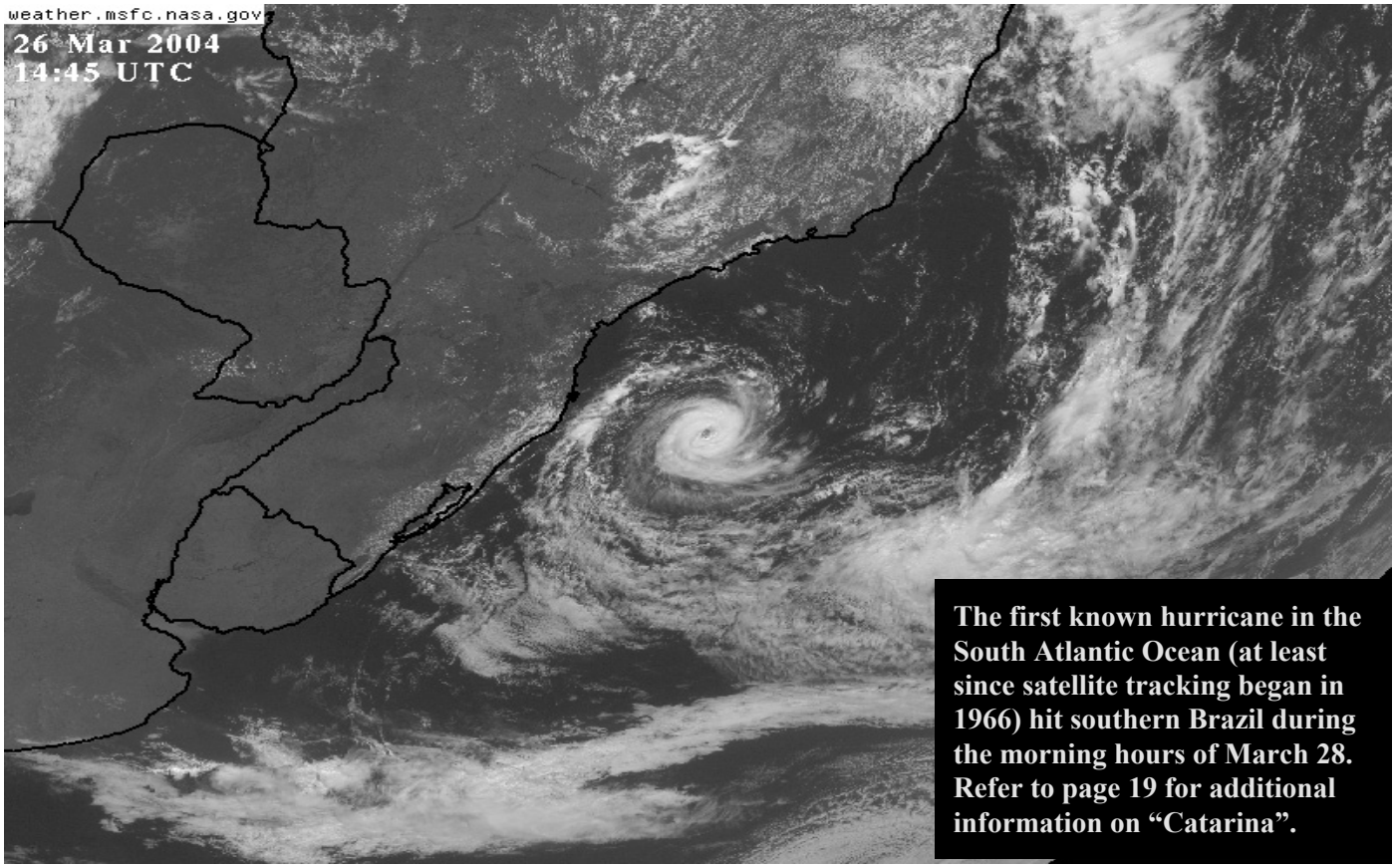
Volume 91, No. 13 http://www.usda.gov/oce/waob/jawf/wwcb.html March 30, 2004

# WEEKLY WEATHER AND CROP BULLETIN

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

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




**The first known hurricane in the South Atlantic Ocean (at least since satellite tracking began in 1966) hit southern Brazil during the morning hours of March 28. Refer to page 19 for additional information on "Catarina".**

## HIGHLIGHTS

### March 21 - 27, 2004

*Highlights provided by USDA/WAOB*

The mid- to late-week period featured heavy rain across the **eastern Plains** and much of the **Midwest**. The rain eased long-term precipitation deficits in the **upper Midwest**, including the **Dakotas** and the **upper Mississippi Valley**, and maintained adequate to locally excessive soil moisture levels in winter wheat areas across the **southern and eastern Corn Belt**. On the **central and northern High Plains**, however, only light showers provided little relief to drought-stressed wheat. Meanwhile in **Oklahoma**, locally heavy rain aided pastures and winter grains but slowed planting preparations. Elsewhere on the **southern Plains**, including much of **Texas**, dry weather

*(Continued on page 5)*

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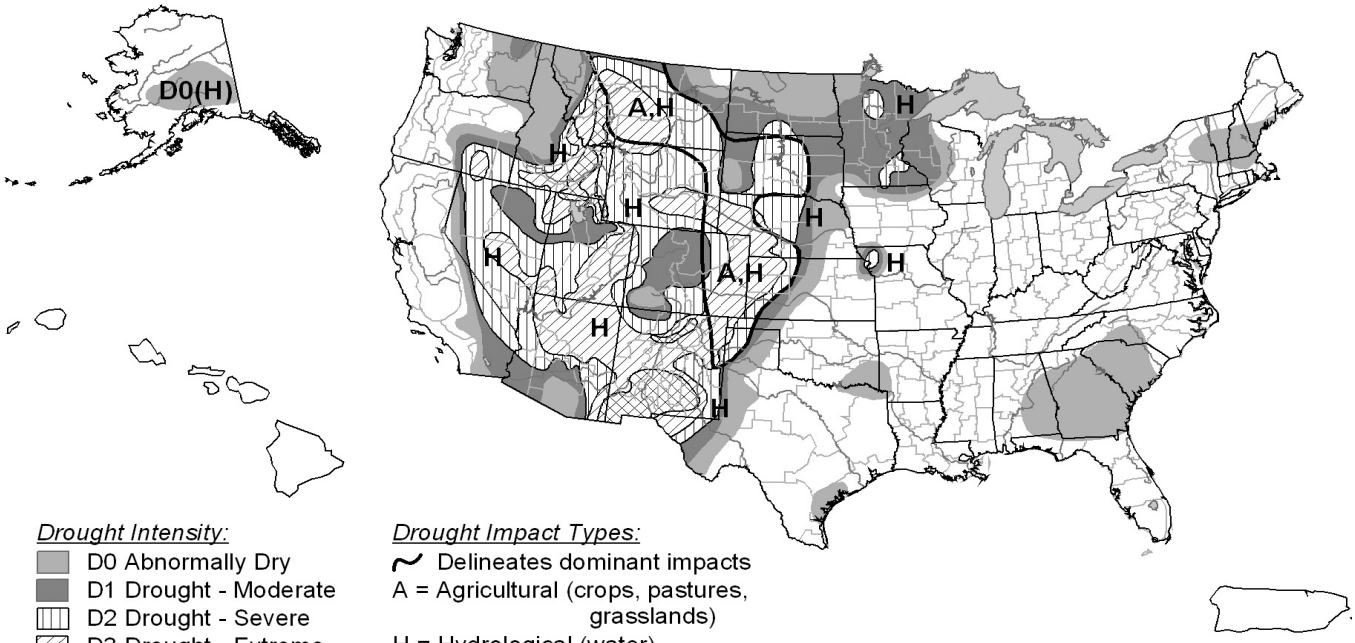
# U.S. Drought Monitor

**March 23, 2004**
Valid 7 a.m. EST




*Drought Intensity:*
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

*Drought Impact Types:*
- Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)
- (No type = Both impacts)

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

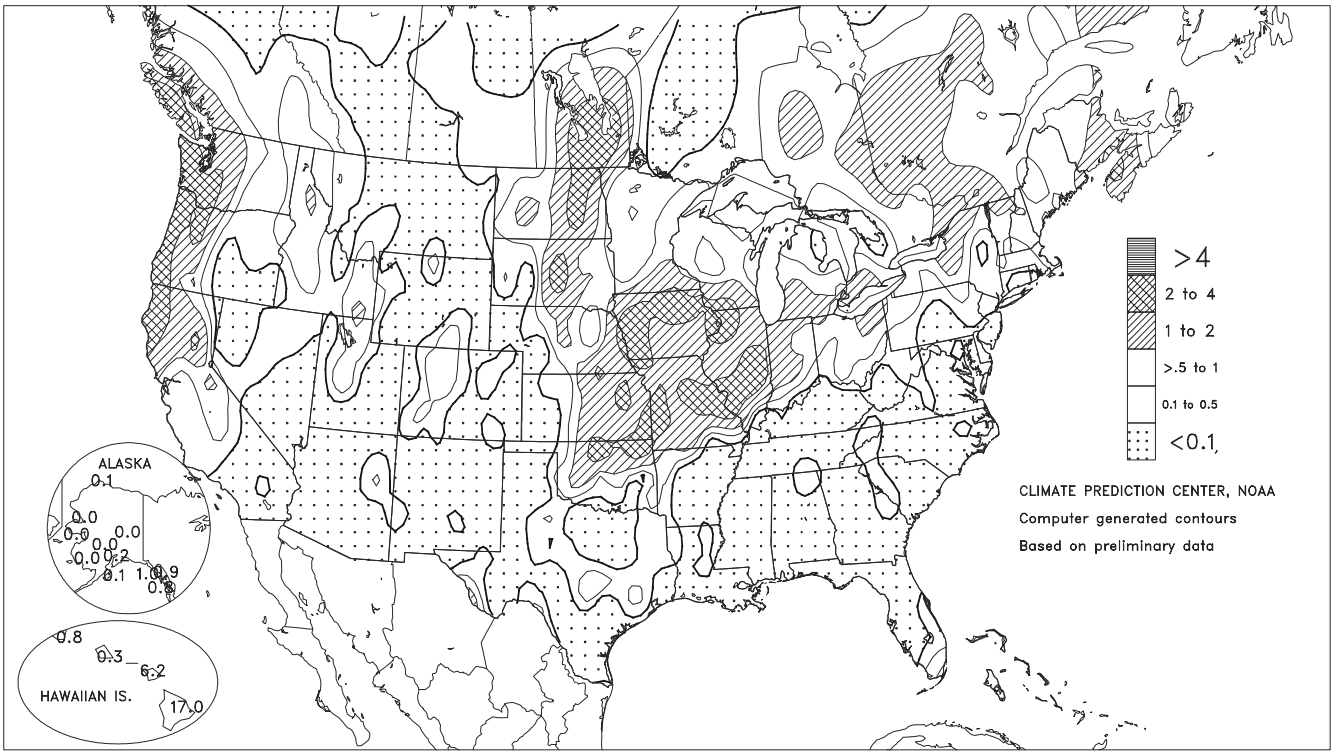
**http://drought.unl.edu/dm**

USDA National Drought Mitigation Center

***Released Thursday, March 25, 2004***
***Author: Brad Rippey, U.S. Department of Agriculture***

Total Precipitation (Inches)

MAR 21 - 27, 2004



# Weather Data for Mississippi and the Missouri Bootheel

## Weather Data for the Week Ending March 27, 2004

**Data provided by the Mississippi State Delta Research and Extension Center (DREC), the Southern Regional Climate Center (SRCC), and the University of Missouri.**

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | 4-INCH SOIL TEMP, °F | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP | |
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Mar 1 | PCT. NORMAL SINCE Mar 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| MS | INDIANOLA 1S | 72 | 48 | 81 | 38 | 60 | - | 0.01 | - | 0.01 | 1.57 | - | 12.36 | - | - | - | 0 | 0 | 1 | 0 |
| | INVERNESS 5E | 72 | 50 | 81 | 38 | 61 | - | 0.01 | - | 0.01 | 3.13 | - | 13.52 | - | 72 | 57 | 0 | 0 | 1 | 0 |
| | LYON | 71 | 48 | 81 | 35 | 60 | - | 0.00 | - | 0.00 | 4.10 | - | 13.98 | - | 63 | 54 | 0 | 0 | 0 | 0 |
| | MACON | 73 | 44 | 81 | 33 | 59 | - | 0.00 | - | 0.00 | 2.57 | - | 14.60 | - | 69 | 58 | 0 | 0 | 0 | 0 |
| | ONWARD | 73 | 48 | 81 | 38 | 61 | - | 0.22 | - | 0.22 | 3.88 | - | 14.12 | - | - | - | 0 | 0 | 1 | 0 |
| | PERTHSHIRE | 70 | 47 | 79 | 36 | 59 | - | 0.01 | - | 0.01 | 5.03 | - | 16.69 | - | - | - | 0 | 0 | 1 | 0 |
| | SCOTT | 71 | 49 | 79 | 38 | 60 | - | 0.01 | - | 0.01 | 3.30 | - | 14.70 | - | - | - | 0 | 0 | 1 | 0 |
| | SIDON | 73 | 49 | 82 | 37 | 61 | - | 0.00 | - | 0.00 | 3.65 | - | 15.55 | - | 72 | 55 | 0 | 0 | 0 | 0 |
| | STARKVILLE | 71 | 43 | 79 | 33 | 57 | 0 | 0.00 | -1.40 | 0.00 | 4.22 | 77 | 13.36 | 83 | - | - | 0 | 0 | 0 | 0 |
| | TUNICA 1W | 70 | 47 | 80 | 34 | 59 | - | 0.00 | - | 0.00 | 3.15 | - | 14.18 | - | - | - | 0 | 0 | 0 | 0 |
| | VANCE | 70 | 46 | 80 | 35 | 58 | - | 0.00 | - | 0.00 | 3.31 | - | 14.69 | - | - | - | 0 | 0 | 0 | 0 |
| | VERONA | 70 | 44 | 80 | 33 | 57 | - | 0.00 | - | 0.00 | 4.59 | - | 13.24 | - | 68 | 51 | 0 | 0 | 0 | 0 |
| | STONEVILLE [x] | 72 | 48 | 85 | 37 | 60 | 3 | 0.42 | -0.91 | 0.42 | 1.52 | 30 | 13.35 | 89 | 70 | 56 | 0 | 0 | 1 | 0 |
| MO | DELTA | 64 | 43 | 78 | 29 | 53 | 4 | 0.11 | -0.84 | 0.06 | 3.27 | 91 | 7.01 | 69 | 58 | 46 | 0 | 2 | 4 | 0 |
| | STEELE | 67 | 46 | 82 | 32 | 56 | 5 | 0.00 | -0.72 | 0.00 | 2.83 | 71 | 8.53 | 75 | 60 | 51 | 0 | 0 | 0 | 0 |
| | GLENNONVILLE | 65 | 46 | 79 | 33 | 55 | 5 | 0.03 | -0.55 | 0.03 | 2.28 | 71 | 5.95 | 64 | 60 | 51 | 0 | 0 | 1 | 0 |
| | PORTAGEVILLE LF | 66 | 48 | 80 | 33 | 57 | 7 | 0.00 | -0.69 | 0.00 | 3.60 | 100 | 8.81 | 84 | 63 | 49 | 0 | 0 | 0 | 0 |
| | CLARKTON | 65 | 45 | 79 | 32 | 55 | 5 | 0.01 | -0.57 | 0.01 | 2.80 | 87 | 6.83 | 73 | 56 | 50 | 0 | 0 | 1 | 0 |
| | CARDWELL | 66 | 46 | 79 | 33 | 56 | 5 | 0.02 | -0.65 | 0.02 | 2.81 | 71 | 8.24 | 73 | 60 | 51 | 0 | 0 | 1 | 0 |
| | CHARLESTON | 64 | 44 | 78 | 30 | 55 | 6 | 0.04 | -0.60 | 0.04 | 2.27 | 67 | 6.69 | 65 | 60 | 49 | 0 | 3 | 1 | 0 |
| | PORTAGEVILLE DC | 66 | 48 | 80 | 33 | 56 | 5 | 0.00 | -0.69 | 0.00 | 3.22 | 90 | 8.94 | 86 | 63 | 49 | 0 | 0 | 0 | 0 |

**Compiled by USDA/OCE/WAOB's Stoneville Field Office. [x] Based on 1971-2000 normals. - Sufficient data not available.**

**Weather and Crop Summary:** Producers took full advantage of the warm, dry weather that followed light, early-week rainfall. Farther north, temperatures briefly fell to near freezing in the Missouri Bootheel. Some reports indicated that more than 500,000 acres of soybeans (approximately 25 to 30 percent of the expected crop) have been planted in the Mississippi Delta, the most ever sown before the end of March. Reports also suggested an increase in soybean acreage in place of other crops, as producers took note of excellent prices. Rice planting was underway and most other fields were ready for planting and awaiting rainfall to replenish topsoil moisture.

# Western Warmth Highlights, March 2004, Updated Through the 29th

*Despite a cool, stormy start to the month across the West, March will be remembered for a lengthy, early-season warm spell. From March 7-26, record highs were a daily occurrence somewhere across the western half of the United States. Following a short break, record warmth returned to the West Coast States on March 28. The spell of most unusual warmth spanned the period from March 18-23, when at least 50 daily-record highs were set or tied each day. Also established during that 6-day period were many March-record highs, some of which are summarized below.*

**Selected Monthly Record Highs (ºF), March 20-23**

| Location | High | Previous Record/Date |
|---|---|---|
| **March 20** | | |
| Sedona, AZ | 88 | 86 on Mar. 10, 1989 |
| St. Johns, AZ | 87 | 85 on Mar. 29, 1943 |
| Show Low, AZ | 81 | 77 on Mar. 10, 1989 |
| Grand Jct., CO | 81 | 81 on Mar. 19, 1907, and Mar. 26, 1971 |
| Ely, NV | 76 | 74 on Mar. 13, 1974 |
| **March 21** | | |
| Death Valley, CA | 102 | 102 on Mar. 29, 1986 |
| Las Vegas, NV | 92 | 91 on Mar. 31, 1966 |
| Zion Nat'l Park, UT | 90 | 86 on Mar. 24, 1956, and Mar. 20, 1997 |
| Bullfrog, UT | 85 | 84 on Mar. 25, 1998 |
| Battle Mtn., NV | 84 | 80 on Mar. 9, 1972, and Mar. 20, 2004 |
| Wells, NV | 83 | 79 on Mar. 20, 1977, and Mar. 20, 2004 |
| Richfield, UT | 81 | 81 on Mar. 19, 1907 |
| Provo, UT | 81 | 80 on Mar. 29, 1943 |
| Nephi, UT | 81 | 80 on Mar. 27, 28, 29, and 30, 1986 |
| Cedar City, UT | 81 | 77 on Mar. 31, 1966 |
| Heber City, UT | 79 | 74 on Mar. 9, 1972 |
| Fillmore, UT | 79 | 78 on Mar. 24, 1956, and Mar. 28, 1986 |
| Elko, NV | 78 | 78 on Mar. 18, 1910 |
| Duchesne, UT | 78 | 76 on Mar. 30, 1966 |
| Ely, NV | 76 | 76 on Mar. 20, 2004 |
| **March 22** | | |
| Sedona, AZ | 89 | 88 on Mar. 20, 2004 |
| Hanksville, UT | 88 | 85 on Mar. 10, 1989, and Mar. 21, 2004 |
| Delta, UT | 86 | 84 on Mar. 20, 1997 |
| Provo, UT | 84 | 81 on Mar. 21, 2004 |
| Kanab, UT | 83 | 83 on Mar. 31, 1966, and Mar. 21, 2004 |
| Pleasant Grove, UT | 81 | 79 on Mar. 27, 1986, and Mar. 21, 2004 |
| Spanish Fork, UT | 81 | 80 on Mar. 20, 1943, and Mar. 20, 1986 |
| Nephi, UT | 81 | 81 on Mar. 21, 2004 |
| Rawlins, WY | 71 | 68 on Mar. 28 and 30, 1986 |
| Laramie, WY | 70 | 68 on Mar. 30, 1978 |
| **March 23** | | |
| Fillmore, UT | 81 | 81 on Mar. 22, 2004 |
| Escalante, UT | 80 | 80 on Mar. 6, 1910, and later dates |
| Tooele, UT | 78 | 76 on Mar. 28 and 30, 1986, and earlier |

**Greatest Number of March Days With Readings of 70ºF or Higher**

| Location | Days | Previous Record/Year |
|---|---|---|
| Salt Lake City, UT | 7 | 5 days in 1972 and 1978 |

**Greatest Number of March Days With Readings of 80ºF or Higher**

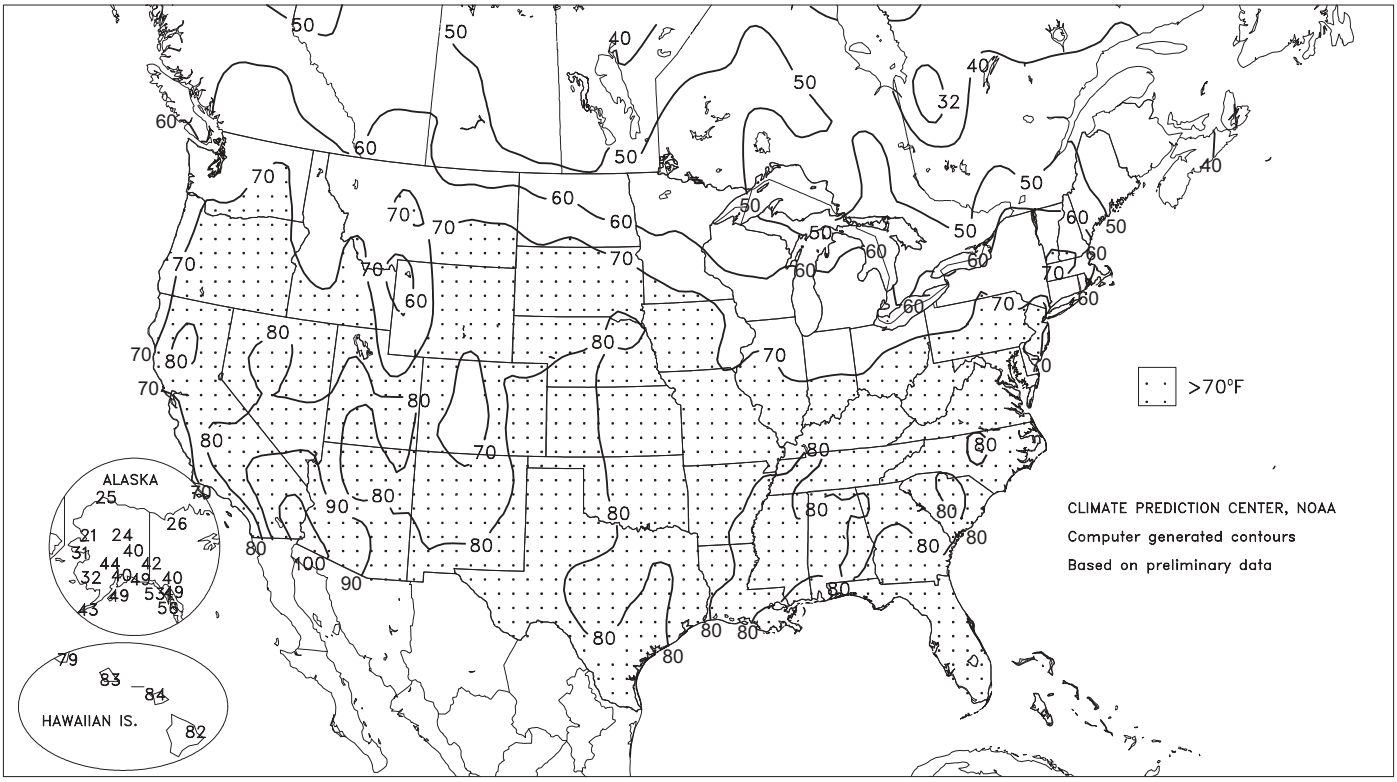
| Location | Days | Previous Record/Year |
|---|---|---|
| Bakersfield, CA | 17 | 16 days in 1934 |
| Fresno, CA | 11 | 10 days in 1972 and earlier |

**Greatest Number of March Days With Readings of 90ºF or Higher**

| Location | Days | Previous Record/Year |
|---|---|---|
| Bakersfield, CA | 3 | 1 day in 2003 and earlier |

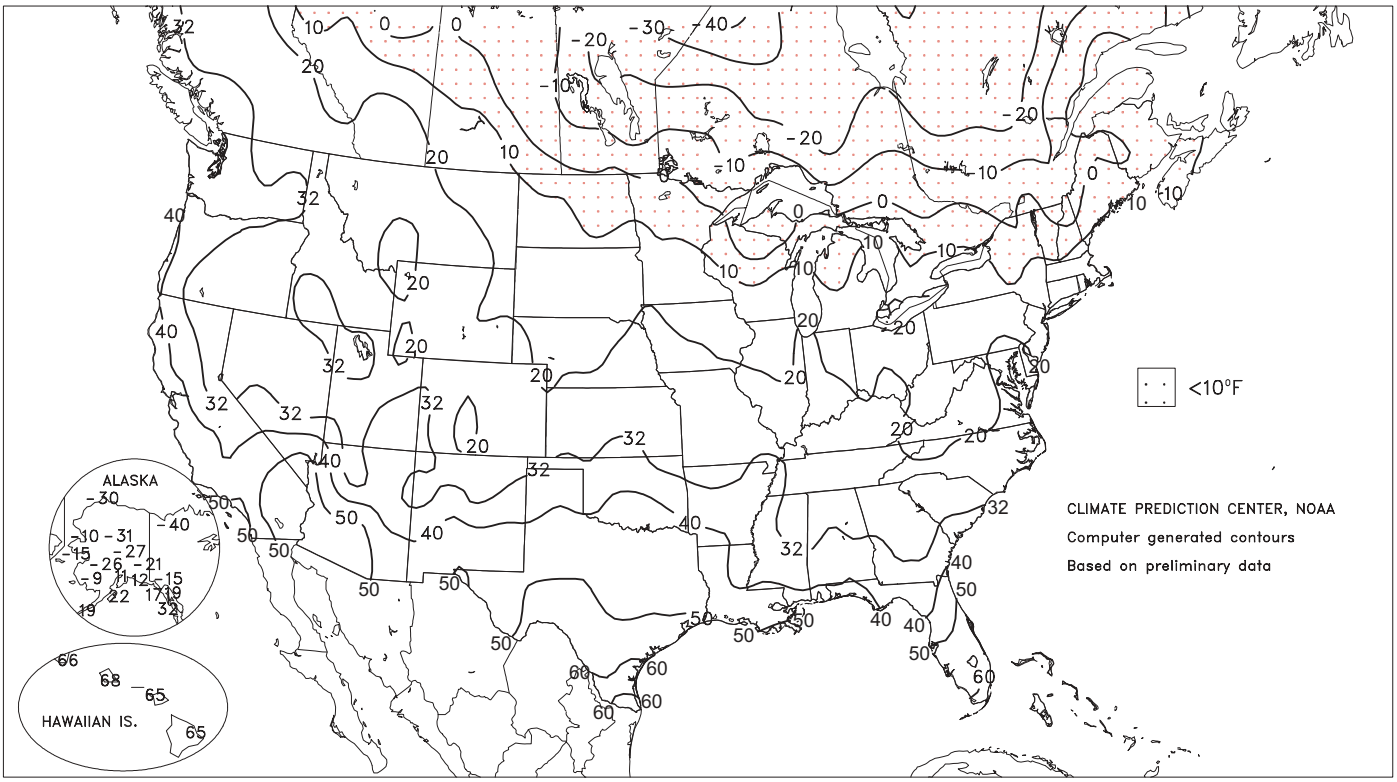
## Extreme Maximum Temperature (°F)

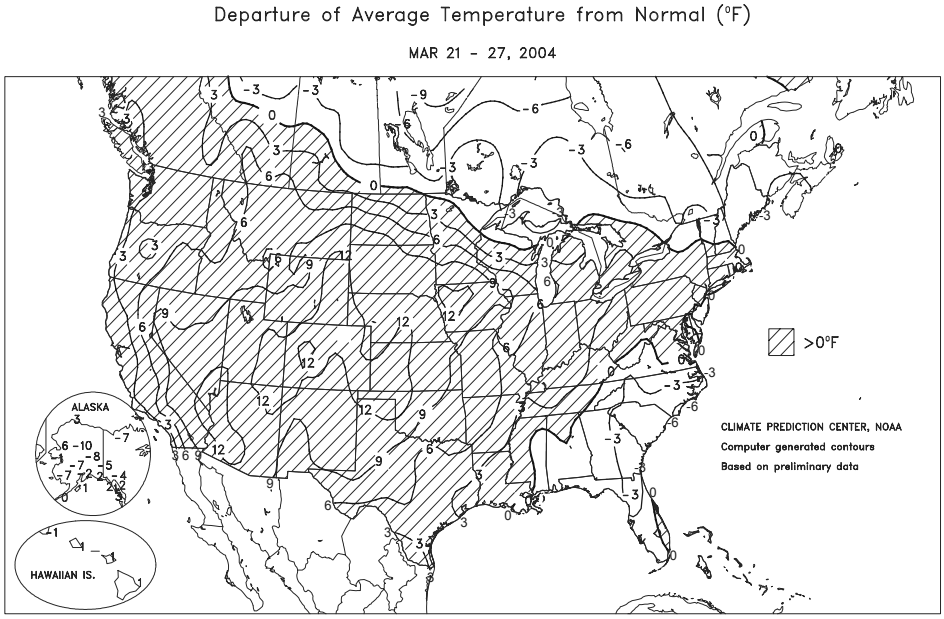
MAR 21 - 27, 2004




## Extreme Minimum Temperature (°F)

MAR 21 - 27, 2004






*(Continued from front cover)*
persisted through a third consecutive week, following highly beneficial rainfall in February and early March. Across the **South**, warm, dry weather promoted rapid fieldwork, including corn, soybean, sorghum, and rice planting. However, increasingly dry conditions in the **Southeast** reduced topsoil moisture for pastures, winter grains, and emerging summer crops and contributed to an increase in wildfire activity. Elsewhere, slightly cooler weather overspread the **West**, accompanied by widespread precipitation in the **Northwest** and scattered rain and snow showers across the **Intermountain region**. The **Northwestern** precipitation slowed fieldwork but benefited winter grains. Across the **Plains** and **Southwest**, temperatures averaged generally 8 to 14°F above normal, despite some late-week cooling in the latter region. In contrast, cool weather returned to the **Southeast**, where scattered frost and temperatures near the freezing mark were reported on March 23 as far south as **northernmost Florida**.

Early in the week, cold air swept into the **Great Lakes and Eastern States**, accompanied by some snow in the **Northeast**. March 21-22 snowfall totaled 15.0 inches on **Vermont's Jay Peak**. On March 22, daily-record lows included -16°F in **Marquette, MI**, and 14°F in **Mansfield, OH.** The following day, lows of 5°F in **Mt. Pocono, PA**, 12°F in **Blacksburg, VA**, and 23°F in **Greensboro, NC**, were among more than a dozen daily records. Farther south, March 23 lows dipped to 28°F in **Macon, GA**, and 30°F in **Tallahassee, FL**, representative of the cold air that locally damaged **Southeastern** fruits and vegetables. By week's end, however, much warmer air replaced the **Eastern** chill, resulting in a few daily-record highs. In **Virginia**, **Roanoke's** daily-record high (78°F on March 26) closely followed a daily-record low (21°F on March 23).

At least 50 daily-record highs were set or tied from the **High Plains westward** on each day from March 18-23, boosting the **Western** total since March 7 to nearly 1,000 records. In addition, monthly record highs were established in several dozen locations, including **Las Vegas, NV** (92°F on March 21), **Cedar City, UT** (81°F on March 21), **Sedona, AZ** (89°F on March 22), and **Laramie, WY** (70°F on March 22). By midweek, very warm weather returned to the **High Plains**, where daily-record highs for March 24 in **Nebraska** included 82°F in **North Platte** and 80°F near **Kimball**. Farther south, **Pueblo, CO**, noted four consecutive record highs (84, 80, 81, and 84°F) from March 23-26. By week's end, however, record warmth was briefly replaced by cooler weather and scattered precipitation across the **western half of the Nation**. On March 25, daily-record totals in **Washington** included 0.24 inch in **Omak** and 0.40 inch in **Wenatchee**. A day later, record totals were reported in locations such as **Pocatello, ID** (0.52 inch), and **Salt Lake City, UT** (0.57 inch). **Alta, UT**, in the **Wasatch Range**, also netted a daily-record total (1.61 inches, including 17.7 inches of snow) for March 26.

Late-week precipitation was heavier and more organized across the **eastern Plains** and much of the **Midwest**. Daily-record rainfall totals were observed on March 26 in locations such as **Columbia, MO** (3.93 inches), and **Champaign, IL** (2.92 inches). A day later, **Huron, SD**, received 1.52 inches, while **Omaha, NE** (2.44 inches), experienced its wettest March day on record (2.44 inches), surpassing the standard established with a 2.04-inch total on March 19, 1982. Meanwhile, a severe weather outbreak on March 27 from **Oklahoma northward into south-central Nebraska** resulted in nearly 100 reports of hail at least three-quarters of an inch in diameter. Farther north, heavy rain and melting snow contributed to widespread lowland flooding in **eastern North Dakota** and **northwestern Minnesota**, where the **Red River at East Grand Forks** climbed 7.8 feet above flood stage on the evening of March 29. In contrast, parts of the **Southeast** neared the end of a rather dry 6-month spell. For the 180-day period from October 1, 2003 - March 28, 2004, precipitation totaled 12.33 inches (48 percent of normal) in **Charlotte, NC**; 16.46 inches (57 percent) in **Greenville-Spartanburg, SC**; and 17.23 inches (61 percent) in **Athens, GA.**

Cold weather overspread most of **Alaska**, holding weekly temperatures as much as 10°F below normal. On March 26, **McGrath** notched a daily-record low of -26°F. Mostly dry weather persisted across the majority of the **Alaskan mainland** and returned to the **southern part of the State**. March 1-28 precipitation totaled 0.85 inch (144 percent of normal) in **Anchorage**, including 20.9 inches of snow, but stood at just 0.37 inch (53 percent) in **King Salmon** and 0.39 inch (52 percent) in **McGrath**. Meanwhile, torrential rainfall gradually subsided in **Hawaii's windward locations**. On the **Big Island**, **Hilo** netted a daily-record total of 8.94 inches on March 22 en route to a March 21-27 sum of 16.98 inches. It was **Hilo's** third-wettest March day on record behind 15.66 inches on March 17, 1980, and 9.20 inches on March 31, 1982. On **Maui**, **Kahului** received 4.62 inches in 24 hours on March 22-23, boosting its month-to-date rainfall to 8.50 inches (397 percent of normal).

# National Weather Data for Selected Cities

## Weather Data for the Week Ending March 27, 2004

**Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)**

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP | |
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Mar 1 | PCT. NORMAL SINCE Mar 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| AL | BIRMINGHAM | 65 | 38 | 71 | 32 | 51 | -2 | 0.02 | -1.37 | 0.02 | 1.91 | 76 | 10.61 | 87 | 82 | 29 | 0 | 1 | 1 | 0 |
| | HUNTSVILLE | 62 | 36 | 67 | 29 | 49 | -2 | 0.00 | -1.57 | 0.00 | 4.00 | 139 | 14.18 | 106 | 79 | 37 | 0 | 2 | 0 | 0 |
| | MOBILE | 73 | 43 | 77 | 36 | 58 | -1 | 0.00 | -1.68 | 0.00 | 0.16 | 5 | 14.44 | 104 | 80 | 27 | 0 | 0 | 0 | 0 |
| | MONTGOMERY | 70 | 40 | 75 | 31 | 55 | -2 | 0.00 | -1.51 | 0.00 | 0.32 | 11 | 10.69 | 80 | 72 | 21 | 0 | 1 | 0 | 0 |
| AK | ANCHORAGE | 33 | 17 | 41 | 4 | 25 | 1 | 0.15 | 0.01 | 0.07 | 0.51 | 182 | 1.73 | 102 | 87 | 73 | 0 | 7 | 5 | 0 |
| | BARROW | -15 | -28 | -12 | -34 | -21 | -6 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.15 | 63 | 79 | 75 | 0 | 7 | 0 | 0 |
| | FAIRBANKS | 23 | -7 | 36 | -25 | 8 | 0 | 0.00 | -0.06 | 0.00 | 0.00 | 0 | 0.66 | 65 | 83 | 72 | 0 | 7 | 0 | 0 |
| | JUNEAU | 41 | 32 | 46 | 27 | 37 | 4 | 2.01 | 1.18 | 0.78 | 2.59 | 163 | 14.14 | 136 | 95 | 86 | 0 | 4 | 6 | 2 |
| | KODIAK | 37 | 22 | 43 | 9 | 30 | -2 | 1.34 | 0.18 | 0.88 | 2.64 | 121 | 19.96 | 124 | 76 | 62 | 0 | 6 | 5 | 1 |
| | NOME | 19 | 4 | 31 | -17 | 12 | 4 | 0.23 | 0.12 | 0.08 | 0.48 | 218 | 1.11 | 59 | 78 | 71 | 0 | 7 | 4 | 0 |
| AZ | FLAGSTAFF | 61 | 29 | 65 | 24 | 45 | 9 | 0.11 | -0.53 | 0.11 | 0.76 | 63 | 2.58 | 43 | 88 | 25 | 0 | 6 | 1 | 0 |
| | PHOENIX | 87 | 60 | 92 | 53 | 73 | 11 | 0.11 | -0.15 | 0.09 | 1.30 | 265 | 3.14 | 150 | 64 | 33 | 3 | 0 | 2 | 0 |
| | TUCSON | 81 | 56 | 88 | 44 | 68 | 10 | 0.17 | -0.03 | 0.17 | 0.68 | 174 | 1.93 | 85 | 65 | 36 | 0 | 0 | 1 | 0 |
| | YUMA | 90 | 61 | 94 | 54 | 76 | 10 | 0.00 | -0.06 | 0.00 | 0.41 | 410 | 1.41 | 186 | 54 | 25 | 4 | 0 | 0 | 0 |
| AR | FORT SMITH | 64 | 38 | 74 | 32 | 51 | 0 | 0.29 | -0.60 | 0.25 | 1.64 | 102 | 6.23 | 95 | 85 | 27 | 0 | 1 | 2 | 0 |
| | LITTLE ROCK | 63 | 39 | 71 | 34 | 51 | -1 | 0.04 | -1.00 | 0.04 | 1.78 | 96 | 9.70 | 110 | 78 | 27 | 0 | 0 | 1 | 0 |
| CA | BAKERSFIELD | 81 | 52 | 84 | 48 | 66 | 9 | 0.00 | -0.33 | 0.00 | 0.08 | 13 | 2.30 | 77 | 75 | 54 | 0 | 0 | 0 | 0 |
| | FRESNO | 78 | 50 | 80 | 46 | 64 | 9 | 0.02 | -0.51 | 0.01 | 1.18 | 118 | 3.74 | 71 | 91 | 69 | 0 | 0 | 2 | 0 |
| | LOS ANGELES | 74 | 55 | 89 | 53 | 65 | 7 | 0.00 | -0.61 | 0.00 | 0.78 | 66 | 5.88 | 81 | 89 | 59 | 0 | 0 | 0 | 0 |
| | REDDING | 83 | 51 | 85 | 44 | 67 | 15 | 0.00 | -1.24 | 0.00 | 0.95 | 41 | 14.05 | 98 | 58 | 29 | 0 | 0 | 0 | 0 |
| | SACRAMENTO | 77 | 48 | 79 | 43 | 62 | 8 | 0.00 | -0.69 | 0.00 | 0.29 | 22 | 7.46 | 86 | 92 | 41 | 0 | 0 | 0 | 0 |
| | SAN DIEGO | 72 | 58 | 84 | 54 | 65 | 5 | 0.00 | -0.54 | 0.00 | 0.21 | 21 | 3.36 | 63 | 87 | 68 | 0 | 0 | 0 | 0 |
| | SAN FRANCISCO | 75 | 51 | 79 | 47 | 63 | 9 | 0.00 | -0.80 | 0.00 | 0.07 | 5 | 7.68 | 77 | 89 | 72 | 0 | 0 | 0 | 0 |
| | STOCKTON | 76 | 45 | 78 | 41 | 61 | 7 | 0.01 | -0.53 | 0.01 | 0.56 | 54 | 6.01 | 97 | 91 | 65 | 0 | 0 | 1 | 0 |
| CO | ALAMOSA | 56 | 22 | 59 | 19 | 39 | 7 | 0.00 | -0.08 | 0.00 | 0.07 | 47 | 1.23 | 202 | 91 | 53 | 0 | 7 | 0 | 0 |
| | CO SPRINGS | 58 | 30 | 64 | 24 | 44 | 7 | 0.04 | -0.16 | 0.04 | 0.34 | 97 | 1.33 | 136 | 86 | 28 | 0 | 5 | 1 | 0 |
| | DENVER INTL | 63 | 30 | 70 | 25 | 47 | 10 | 0.00 | -0.22 | 0.00 | 0.08 | 21 | 0.52 | 62 | 70 | 23 | 0 | 5 | 0 | 0 |
| | GRAND JUNCTION | 65 | 33 | 66 | 28 | 49 | 7 | 0.00 | -0.22 | 0.00 | 0.00 | 0 | 1.48 | 99 | 63 | 32 | 0 | 3 | 0 | 0 |
| | PUEBLO | 66 | 28 | 73 | 22 | 47 | 7 | 0.02 | -0.17 | 0.02 | 0.37 | 119 | 1.53 | 170 | 82 | 44 | 0 | 5 | 1 | 0 |
| CT | BRIDGEPORT | 44 | 32 | 54 | 28 | 38 | 0 | 0.39 | -0.52 | 0.25 | 1.24 | 77 | 5.26 | 64 | 80 | 57 | 0 | 5 | 2 | 0 |
| | HARTFORD | 43 | 29 | 53 | 23 | 36 | 0 | 0.13 | -0.72 | 0.09 | 0.48 | 31 | 3.71 | 45 | 78 | 57 | 0 | 6 | 3 | 0 |
| DC | WASHINGTON | 51 | 34 | 60 | 31 | 43 | -2 | 0.17 | -0.67 | 0.16 | 1.27 | 83 | 4.91 | 67 | 70 | 39 | 0 | 3 | 2 | 0 |
| DE | WILMINGTON | 48 | 33 | 55 | 30 | 41 | 0 | 0.17 | -0.74 | 0.10 | 1.22 | 74 | 5.21 | 66 | 84 | 39 | 0 | 5 | 3 | 0 |
| FL | DAYTONA BEACH | 71 | 48 | 82 | 43 | 60 | -4 | 0.04 | -0.82 | 0.04 | 0.04 | 3 | 5.80 | 78 | 90 | 36 | 0 | 0 | 1 | 0 |
| | JACKSONVILLE | 71 | 42 | 84 | 32 | 56 | -5 | 0.11 | -0.76 | 0.10 | 0.11 | 7 | 6.24 | 74 | 92 | 31 | 0 | 1 | 2 | 0 |
| | KEY WEST | 76 | 65 | 81 | 62 | 70 | -3 | 0.00 | -0.38 | 0.00 | 0.00 | 0 | 5.23 | 118 | 78 | 52 | 0 | 0 | 0 | 0 |
| | MIAMI | 78 | 61 | 85 | 56 | 69 | -3 | 0.00 | -0.50 | 0.00 | 0.00 | 0 | 5.61 | 115 | 85 | 51 | 0 | 0 | 0 | 0 |
| | ORLANDO | 74 | 51 | 83 | 45 | 62 | -5 | 0.00 | -0.80 | 0.00 | 0.00 | 0 | 7.80 | 126 | 88 | 43 | 0 | 0 | 0 | 0 |
| | PENSACOLA | 70 | 46 | 77 | 37 | 58 | -2 | 0.00 | -1.49 | 0.00 | 0.23 | 9 | 11.03 | 87 | 71 | 30 | 0 | 0 | 0 | 0 |
| | TALLAHASSEE | 73 | 38 | 82 | 30 | 55 | -5 | 0.02 | -1.51 | 0.02 | 0.06 | 2 | 10.72 | 84 | 84 | 28 | 0 | 1 | 1 | 0 |
| | TAMPA | 73 | 52 | 80 | 45 | 62 | -5 | 0.00 | -0.67 | 0.00 | 0.00 | 0 | 7.75 | 125 | 86 | 42 | 0 | 0 | 0 | 0 |
| | WEST PALM | 77 | 56 | 87 | 51 | 67 | -3 | 0.00 | -0.77 | 0.00 | 0.03 | 2 | 4.77 | 62 | 86 | 49 | 0 | 0 | 0 | 0 |
| GA | ATHENS | 64 | 37 | 71 | 30 | 51 | -1 | 0.00 | -1.18 | 0.00 | 0.15 | 7 | 6.96 | 62 | 76 | 28 | 0 | 2 | 0 | 0 |
| | ATLANTA | 63 | 40 | 70 | 33 | 51 | -2 | 0.03 | -1.24 | 0.03 | 0.34 | 14 | 7.79 | 65 | 65 | 31 | 0 | 0 | 1 | 0 |
| | AUGUSTA | 66 | 35 | 78 | 27 | 51 | -4 | 0.23 | -0.84 | 0.23 | 0.24 | 12 | 7.77 | 73 | 89 | 34 | 0 | 4 | 1 | 0 |
| | COLUMBUS | 69 | 41 | 75 | 34 | 55 | -1 | 0.00 | -1.35 | 0.00 | 0.07 | 3 | 7.99 | 68 | 69 | 17 | 0 | 0 | 0 | 0 |
| | MACON | 69 | 39 | 79 | 30 | 54 | -1 | 0.00 | -1.15 | 0.00 | 0.04 | 2 | 10.28 | 88 | 76 | 22 | 0 | 1 | 0 | 0 |
| | SAVANNAH | 67 | 39 | 82 | 32 | 53 | -5 | 0.07 | -0.70 | 0.07 | 0.07 | 5 | 4.87 | 59 | 88 | 29 | 0 | 1 | 1 | 0 |
| HI | HILO | 81 | 64 | 83 | 60 | 73 | 1 | 1.29 | -1.83 | 1.16 | 2.98 | 54 | 23.47 | 97 | 80 | 67 | 0 | 0 | 3 | 1 |
| | HONOLULU | 81 | 68 | 84 | 63 | 75 | 1 | 0.11 | -0.34 | 0.05 | 0.53 | 60 | 16.88 | 283 | 78 | 68 | 0 | 0 | 3 | 0 |
| | KAHULUI | 80 | 65 | 84 | 59 | 72 | -1 | 0.32 | -0.19 | 0.16 | 0.82 | 87 | 11.80 | 168 | 89 | 71 | 0 | 0 | 4 | 0 |
| | LIHUE | 77 | 67 | 80 | 63 | 72 | 0 | 1.06 | 0.25 | 0.40 | 1.31 | 87 | 13.40 | 143 | 84 | 71 | 0 | 0 | 5 | 0 |
| ID | BOISE | 60 | 33 | 61 | 28 | 47 | 4 | 0.00 | -0.30 | 0.00 | 0.31 | 55 | 3.62 | 117 | 78 | 54 | 0 | 1 | 0 | 0 |
| | LEWISTON | 61 | 37 | 69 | 32 | 49 | 5 | 0.00 | -0.22 | 0.00 | 0.17 | 41 | 3.21 | 128 | 73 | 56 | 0 | 1 | 0 | 0 |
| | POCATELLO | 49 | 26 | 53 | 20 | 37 | 0 | 0.00 | -0.30 | 0.00 | 0.13 | 23 | 3.50 | 129 | 90 | 71 | 0 | 7 | 0 | 0 |
| IL | CHICAGO/O'HARE | 42 | 24 | 49 | 16 | 33 | -2 | 0.03 | -0.48 | 0.02 | 1.22 | 137 | 3.33 | 78 | 78 | 51 | 0 | 6 | 2 | 0 |
| | MOLINE | 45 | 25 | 54 | 15 | 35 | -2 | 0.15 | -0.44 | 0.13 | 1.51 | 148 | 3.53 | 86 | 74 | 44 | 0 | 6 | 2 | 0 |
| | PEORIA | 46 | 26 | 52 | 17 | 36 | -2 | 0.06 | -0.53 | 0.06 | 1.41 | 132 | 2.68 | 63 | 84 | 39 | 0 | 6 | 1 | 0 |
| | ROCKFORD | 42 | 23 | 50 | 12 | 33 | -1 | 0.14 | -0.31 | 0.11 | 1.37 | 176 | 2.59 | 73 | 80 | 53 | 0 | 6 | 2 | 0 |
| | SPRINGFIELD | 49 | 27 | 52 | 20 | 38 | -2 | 0.10 | -0.59 | 0.10 | 1.45 | 119 | 3.31 | 71 | 77 | 47 | 0 | 6 | 1 | 0 |
| IN | EVANSVILLE | 52 | 29 | 58 | 23 | 41 | -3 | 0.00 | -0.95 | 0.00 | 1.14 | 66 | 4.68 | 61 | 81 | 41 | 0 | 5 | 0 | 0 |
| | FORT WAYNE | 41 | 23 | 48 | 15 | 32 | -4 | 0.04 | -0.55 | 0.04 | 1.23 | 117 | 4.20 | 83 | 84 | 51 | 0 | 7 | 1 | 0 |
| | INDIANAPOLIS | 46 | 25 | 53 | 19 | 36 | -4 | 0.00 | -0.76 | 0.00 | 1.25 | 91 | 6.67 | 107 | 79 | 38 | 0 | 6 | 0 | 0 |
| | SOUTH BEND | 40 | 23 | 48 | 16 | 32 | -4 | 0.05 | -0.53 | 0.04 | 1.88 | 181 | 4.20 | 79 | 83 | 57 | 0 | 6 | 2 | 0 |
| IA | BURLINGTON | 47 | 26 | 54 | 17 | 36 | -2 | 0.16 | -0.47 | 0.16 | 1.37 | 123 | 3.08 | 78 | 85 | 37 | 0 | 7 | 1 | 0 |
| | CEDAR RAPIDS | 44 | 22 | 53 | 12 | 33 | -1 | 0.20 | -0.23 | 0.17 | 2.02 | 273 | 3.90 | 135 | 93 | 43 | 0 | 7 | 3 | 0 |
| | DES MOINES | 50 | 27 | 60 | 17 | 39 | 3 | 0.22 | -0.19 | 0.20 | 1.39 | 193 | 4.36 | 148 | 76 | 52 | 0 | 5 | 2 | 0 |
| | DUBUQUE | 40 | 23 | 49 | 11 | 31 | -2 | 0.39 | -0.13 | 0.30 | 2.06 | 226 | 3.74 | 104 | 78 | 57 | 0 | 7 | 4 | 0 |
| | SIOUX CITY | 53 | 27 | 64 | 14 | 40 | 6 | 0.02 | -0.38 | 0.02 | 1.29 | 193 | 3.21 | 171 | 78 | 49 | 0 | 5 | 1 | 0 |
| | WATERLOO | 44 | 23 | 54 | 10 | 34 | 1 | 0.17 | -0.24 | 0.11 | 1.55 | 221 | 3.25 | 125 | 76 | 51 | 0 | 7 | 2 | 0 |
| KS | CONCORDIA | 59 | 33 | 70 | 22 | 46 | 5 | 0.00 | -0.52 | 0.00 | 1.57 | 174 | 4.74 | 207 | 71 | 41 | 0 | 3 | 0 | 0 |
| | DODGE CITY | 62 | 34 | 73 | 28 | 48 | 5 | 0.00 | -0.38 | 0.00 | 1.93 | 297 | 3.01 | 156 | 76 | 34 | 0 | 2 | 0 | 0 |
| | GOODLAND | 62 | 28 | 69 | 23 | 45 | 7 | 0.00 | -0.27 | 0.00 | 0.23 | 49 | 1.31 | 98 | 78 | 39 | 0 | 6 | 0 | 0 |
| | TOPEKA | 59 | 33 | 72 | 24 | 46 | 4 | 0.12 | -0.42 | 0.11 | 2.54 | 267 | 5.08 | 165 | 76 | 35 | 0 | 3 | 2 | 0 |

**Based on 1971-2000 normals**

***** Not Available**

## Weather Data for the Week Ending March 27, 2004

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP | |
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Mar 1 | PCT. NORMAL SINCE Mar 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| | WICHITA | 61 | 36 | 74 | 30 | 48 | 4 | 0.05 | -0.55 | 0.05 | 2.66 | 253 | 5.29 | 182 | 78 | 39 | 0 | 3 | 1 | 0 |
| KY | JACKSON | 48 | 30 | 57 | 26 | 39 | -6 | 0.02 | -1.00 | 0.02 | 1.60 | 85 | 9.60 | 105 | 75 | 37 | 0 | 5 | 1 | 0 |
| | LEXINGTON | 48 | 29 | 54 | 22 | 38 | -6 | 0.00 | -1.02 | 0.00 | 2.89 | 154 | 7.70 | 91 | 76 | 46 | 0 | 5 | 0 | 0 |
| | LOUISVILLE | 52 | 32 | 58 | 25 | 42 | -3 | 0.00 | -1.02 | 0.00 | 2.38 | 128 | 8.81 | 105 | 73 | 31 | 0 | 3 | 0 | 0 |
| | PADUCAH | 55 | 32 | 60 | 23 | 44 | -2 | 0.00 | -0.94 | 0.00 | 2.02 | 115 | 6.71 | 73 | 82 | 29 | 0 | 4 | 0 | 0 |
| LA | BATON ROUGE | 73 | 45 | 80 | 38 | 59 | 0 | 0.00 | -1.10 | 0.00 | 0.43 | 21 | 15.71 | 118 | 91 | 31 | 0 | 0 | 0 | 0 |
| | LAKE CHARLES | 73 | 48 | 84 | 41 | 60 | 0 | 0.01 | -0.77 | 0.01 | 0.13 | 9 | 17.03 | 167 | 86 | 37 | 0 | 0 | 1 | 0 |
| | NEW ORLEANS | 70 | 49 | 77 | 42 | 60 | -1 | 0.00 | -1.13 | 0.00 | 0.18 | 9 | 11.61 | 86 | 79 | 43 | 0 | 0 | 0 | 0 |
| | SHREVEPORT | 69 | 46 | 75 | 40 | 58 | 1 | 0.00 | -0.93 | 0.00 | 2.97 | 170 | 15.27 | 145 | 72 | 29 | 0 | 0 | 0 | 0 |
| ME | CARIBOU | 32 | 13 | 44 | 2 | 22 | -1 | 0.05 | -0.51 | 0.04 | 0.68 | 67 | 2.78 | 46 | 88 | 52 | 0 | 7 | 2 | 0 |
| | PORTLAND | 41 | 27 | 51 | 22 | 34 | 2 | 0.02 | -0.87 | 0.02 | 0.22 | 14 | 2.24 | 25 | 76 | 44 | 0 | 7 | 1 | 0 |
| MD | BALTIMORE | 49 | 31 | 59 | 27 | 40 | -2 | 0.14 | -0.77 | 0.10 | 1.68 | 101 | 5.50 | 67 | 86 | 49 | 0 | 4 | 3 | 0 |
| MA | BOSTON | 43 | 31 | 51 | 29 | 37 | 0 | 0.13 | -0.71 | 0.06 | 0.41 | 27 | 2.88 | 33 | 78 | 48 | 0 | 6 | 3 | 0 |
| | WORCESTER | 39 | 26 | 46 | 22 | 32 | -1 | 0.25 | -0.68 | 0.19 | 0.61 | 36 | 3.50 | 40 | 90 | 53 | 0 | 7 | 3 | 0 |
| MI | ALPENA | 35 | 17 | 43 | 6 | 26 | 0 | 0.10 | -0.35 | 0.06 | 1.11 | 139 | 2.34 | 60 | 88 | 54 | 0 | 7 | 2 | 0 |
| | GRAND RAPIDS | 38 | 22 | 45 | 12 | 30 | -3 | 0.32 | -0.18 | 0.24 | 2.53 | 291 | 5.57 | 126 | 87 | 60 | 0 | 7 | 2 | 0 |
| | HOUGHTON LAKE | 34 | 15 | 40 | -3 | 25 | -3 | 0.21 | -0.21 | 0.17 | 1.72 | 236 | 3.61 | 101 | 90 | 63 | 0 | 7 | 3 | 0 |
| | LANSING | 40 | 20 | 47 | 9 | 30 | -2 | 0.19 | -0.25 | 0.16 | 1.88 | 247 | 3.34 | 87 | 89 | 60 | 0 | 7 | 2 | 0 |
| | MUSKEGON | 37 | 21 | 43 | 12 | 29 | -3 | 0.35 | -0.12 | 0.21 | 3.03 | 365 | 4.97 | 107 | 90 | 67 | 0 | 7 | 4 | 0 |
| | TRAVERSE CITY | 36 | 17 | 44 | 2 | 26 | -3 | 0.34 | -0.03 | 0.24 | 1.60 | 246 | 4.21 | 78 | 92 | 58 | 0 | 7 | 2 | 0 |
| MN | DULUTH | 33 | 16 | 42 | 1 | 24 | 1 | 0.12 | -0.21 | 0.07 | 0.40 | 71 | 3.77 | 150 | 87 | 59 | 0 | 7 | 4 | 0 |
| | INT'L FALLS | 31 | 6 | 45 | -7 | 19 | -2 | 0.25 | 0.07 | 0.13 | 0.37 | 123 | 1.16 | 65 | 91 | 51 | 0 | 7 | 3 | 0 |
| | MINNEAPOLIS | 38 | 19 | 46 | 5 | 29 | -1 | 0.31 | -0.05 | 0.15 | 1.02 | 167 | 2.34 | 96 | 76 | 63 | 0 | 7 | 3 | 0 |
| | ROCHESTER | 37 | 21 | 45 | 7 | 29 | 1 | 0.23 | -0.12 | 0.10 | 1.17 | 205 | 3.21 | 142 | 81 | 71 | 0 | 7 | 4 | 0 |
| | ST. CLOUD | 36 | 16 | 44 | 3 | 26 | 0 | 0.11 | -0.15 | 0.06 | 0.39 | 91 | 1.59 | 89 | 84 | 64 | 0 | 7 | 2 | 0 |
| MS | JACKSON | 68 | 40 | 74 | 33 | 54 | -2 | 0.00 | -1.24 | 0.00 | 1.06 | 48 | 11.79 | 95 | 79 | 26 | 0 | 0 | 0 | 0 |
| | MERIDIAN | 69 | 38 | 76 | 31 | 54 | -2 | 0.00 | -1.58 | 0.00 | 1.75 | 61 | 12.82 | 91 | 89 | 28 | 0 | 1 | 0 | 0 |
| | TUPELO | 63 | 36 | 71 | 29 | 50 | -2 | 0.01 | -1.45 | 0.01 | 3.85 | 144 | 13.39 | 107 | 77 | 41 | 0 | 2 | 1 | 0 |
| MO | COLUMBIA | 53 | 29 | 63 | 22 | 41 | -1 | 0.17 | -0.51 | 0.17 | 2.00 | 163 | 5.07 | 98 | 79 | 34 | 0 | 6 | 1 | 0 |
| | KANSAS CITY | 56 | 33 | 70 | 22 | 45 | 3 | 0.13 | -0.40 | 0.13 | 1.33 | 140 | 3.23 | 95 | 78 | 36 | 0 | 3 | 1 | 0 |
| | SAINT LOUIS | 54 | 33 | 59 | 27 | 43 | -1 | 0.06 | -0.73 | 0.05 | 1.66 | 118 | 6.48 | 111 | 73 | 50 | 0 | 3 | 2 | 0 |
| | SPRINGFIELD | 56 | 32 | 68 | 24 | 44 | -1 | 0.14 | -0.65 | 0.14 | 3.91 | 277 | 8.35 | 144 | 71 | 35 | 0 | 4 | 1 | 0 |
| MT | BILLINGS | 60 | 31 | 70 | 23 | 46 | 10 | 0.02 | -0.20 | 0.01 | 0.09 | 24 | 0.93 | 53 | 67 | 28 | 0 | 4 | 2 | 0 |
| | BUTTE | 51 | 24 | 56 | 17 | 37 | 8 | 0.00 | -0.17 | 0.00 | 0.09 | 30 | 0.61 | 47 | 82 | 35 | 0 | 7 | 0 | 0 |
| | GLASGOW | 40 | 19 | 50 | 9 | 30 | 1 | 0.00 | -0.08 | 0.00 | 0.01 | 7 | 1.40 | 184 | 86 | 77 | 0 | 7 | 0 | 0 |
| | GREAT FALLS | 55 | 29 | 67 | 22 | 42 | 10 | 0.15 | -0.05 | 0.12 | 0.19 | 53 | 0.49 | 32 | 79 | 29 | 0 | 5 | 3 | 0 |
| | HAVRE | 52 | 27 | 63 | 21 | 39 | 8 | 0.00 | -0.14 | 0.00 | 0.01 | 4 | 0.26 | 24 | 85 | 56 | 0 | 7 | 0 | 0 |
| | KALISPELL | 49 | 25 | 56 | 20 | 37 | 3 | 0.02 | -0.23 | 0.02 | 0.45 | 98 | 2.88 | 94 | 89 | 58 | 0 | 7 | 1 | 0 |
| | MISSOULA | 54 | 30 | 63 | 26 | 42 | 6 | 0.03 | -0.17 | 0.01 | 0.27 | 75 | 1.76 | 80 | 80 | 57 | 0 | 5 | 3 | 0 |
| NE | GRAND ISLAND | 57 | 29 | 67 | 20 | 43 | 7 | 0.01 | -0.41 | 0.01 | 0.29 | 40 | 2.61 | 135 | 72 | 41 | 0 | 6 | 1 | 0 |
| | LINCOLN | 57 | 29 | 68 | 15 | 43 | 6 | 0.01 | -0.45 | 0.01 | 1.14 | 146 | 3.12 | 148 | 66 | 35 | 0 | 4 | 1 | 0 |
| | NORFOLK | 55 | 28 | 67 | 15 | 42 | 7 | 0.02 | -0.39 | 0.02 | 1.14 | 165 | 3.23 | 160 | 72 | 46 | 0 | 5 | 1 | 0 |
| | NORTH PLATTE | 59 | 23 | 64 | 15 | 41 | 5 | 0.00 | -0.25 | 0.00 | 0.04 | 9 | 0.90 | 67 | 87 | 28 | 0 | 6 | 0 | 0 |
| | OMAHA | 55 | 28 | 66 | 18 | 42 | 5 | 0.00 | -0.44 | 0.00 | 1.32 | 174 | 3.88 | 167 | 71 | 41 | 0 | 6 | 0 | 0 |
| | SCOTTSBLUFF | 59 | 24 | 69 | 18 | 42 | 6 | 0.00 | -0.23 | 0.00 | 0.09 | 23 | 0.81 | 53 | 84 | 57 | 0 | 7 | 0 | 0 |
| | VALENTINE | 56 | 25 | 66 | 17 | 40 | 6 | 0.00 | -0.22 | 0.00 | 0.01 | 3 | 1.00 | 85 | 77 | 44 | 0 | 7 | 0 | 0 |
| NV | ELY | 59 | 24 | 63 | 21 | 41 | 6 | 0.00 | -0.24 | 0.00 | 0.03 | 7 | 0.87 | 45 | 85 | 46 | 0 | 7 | 0 | 0 |
| | LAS VEGAS | 79 | 54 | 81 | 49 | 66 | 9 | 0.00 | -0.15 | 0.00 | 0.23 | 79 | 1.70 | 108 | 48 | 26 | 0 | 0 | 0 | 0 |
| | RENO | 68 | 34 | 74 | 32 | 51 | 8 | 0.00 | -0.21 | 0.00 | 1.25 | 305 | 3.77 | 149 | 72 | 45 | 0 | 1 | 0 | 0 |
| | WINNEMUCCA | 64 | 28 | 68 | 24 | 46 | 6 | 0.00 | -0.18 | 0.00 | 0.03 | 9 | 1.60 | 90 | 84 | 45 | 0 | 7 | 0 | 0 |
| NH | CONCORD | 41 | 27 | 50 | 24 | 34 | 3 | 0.10 | -0.56 | 0.09 | 0.26 | 22 | 2.03 | 31 | 80 | 49 | 0 | 7 | 2 | 0 |
| NJ | NEWARK | 48 | 34 | 58 | 30 | 41 | 0 | 0.97 | 0.03 | 0.91 | 1.55 | 92 | 5.82 | 67 | 73 | 48 | 0 | 2 | 2 | 1 |
| NM | ALBUQUERQUE | 63 | 42 | 70 | 35 | 52 | 5 | 0.00 | -0.14 | 0.00 | 0.63 | 263 | 1.90 | 162 | 63 | 34 | 0 | 0 | 0 | 0 |
| NY | ALBANY | 42 | 29 | 51 | 21 | 35 | 2 | 0.25 | -0.41 | 0.17 | 0.56 | 47 | 3.05 | 52 | 90 | 52 | 0 | 6 | 3 | 0 |
| | BINGHAMTON | 38 | 24 | 46 | 17 | 31 | 0 | 0.09 | -0.53 | 0.04 | 0.60 | 53 | 3.57 | 58 | 88 | 64 | 0 | 7 | 4 | 0 |
| | BUFFALO | 38 | 24 | 48 | 21 | 31 | -2 | 0.48 | -0.16 | 0.23 | 1.01 | 87 | 5.11 | 76 | 91 | 64 | 0 | 7 | 5 | 0 |
| | ROCHESTER | 39 | 25 | 49 | 21 | 32 | 0 | 0.24 | -0.30 | 0.10 | 0.34 | 35 | 3.87 | 72 | 90 | 65 | 0 | 7 | 5 | 0 |
| | SYRACUSE | 39 | 25 | 49 | 17 | 32 | 0 | 0.15 | -0.48 | 0.08 | 0.34 | 30 | 3.32 | 57 | 90 | 61 | 0 | 7 | 4 | 0 |
| NC | ASHEVILLE | 55 | 31 | 64 | 21 | 43 | -2 | 0.10 | -0.95 | 0.09 | 0.42 | 22 | 5.48 | 56 | 83 | 41 | 0 | 5 | 2 | 0 |
| | CHARLOTTE | 60 | 35 | 73 | 24 | 47 | -4 | 0.05 | -0.97 | 0.05 | 0.06 | 3 | 4.53 | 48 | 71 | 26 | 0 | 3 | 1 | 0 |
| | GREENSBORO | 56 | 34 | 69 | 26 | 45 | -3 | 0.07 | -0.81 | 0.06 | 0.50 | 31 | 3.80 | 46 | 70 | 28 | 0 | 3 | 2 | 0 |
| | HATTERAS | 53 | 42 | 60 | 38 | 47 | -4 | 0.53 | -0.61 | 0.28 | 0.56 | 27 | 5.93 | 50 | 86 | 49 | 0 | 0 | 3 | 0 |
| | RALEIGH | 59 | 34 | 70 | 27 | 47 | -2 | 0.07 | -0.89 | 0.07 | 0.34 | 19 | 4.89 | 53 | 85 | 36 | 0 | 3 | 1 | 0 |
| | WILMINGTON | 62 | 38 | 70 | 32 | 50 | -4 | 0.25 | -0.74 | 0.25 | 0.25 | 14 | 7.72 | 77 | 91 | 32 | 0 | 1 | 1 | 0 |
| ND | BISMARCK | 44 | 20 | 57 | 5 | 32 | 4 | 0.16 | 0.00 | 0.16 | 0.23 | 82 | 1.13 | 91 | 78 | 58 | 0 | 6 | 1 | 0 |
| | DICKINSON | 45 | 21 | 56 | 9 | 33 | 4 | 0.01 | -0.08 | 0.01 | 0.05 | 36 | 0.61 | 65 | 88 | 53 | 0 | 7 | 1 | 0 |
| | FARGO | 35 | 14 | 46 | 0 | 25 | 0 | 0.06 | -0.18 | 0.06 | 0.49 | 120 | 1.89 | 107 | 87 | 67 | 0 | 7 | 1 | 0 |
| | GRAND FORKS | 31 | 9 | 38 | -5 | 20 | -3 | 0.11 | -0.06 | 0.11 | 0.30 | 97 | 1.30 | 83 | 91 | 74 | 0 | 7 | 1 | 0 |
| | JAMESTOWN | 36 | 14 | 45 | 2 | 25 | -1 | 0.03 | -0.14 | 0.03 | 0.11 | 38 | 0.44 | 31 | 93 | 64 | 0 | 7 | 1 | 0 |
| | WILLISTON | 39 | 16 | 47 | 1 | 27 | 0 | 0.02 | -0.12 | 0.02 | 0.17 | 68 | 1.66 | 141 | 86 | 71 | 0 | 7 | 1 | 0 |
| OH | AKRON-CANTON | 38 | 23 | 49 | 15 | 30 | -6 | 0.50 | -0.19 | 0.15 | 0.95 | 76 | 5.52 | 92 | 93 | 71 | 0 | 7 | 6 | 0 |
| | CINCINNATI | 46 | 26 | 53 | 19 | 36 | -6 | 0.05 | -0.80 | 0.05 | 1.30 | 84 | 7.10 | 98 | 81 | 46 | 0 | 6 | 1 | 0 |
| | CLEVELAND | 39 | 25 | 51 | 20 | 32 | -4 | 0.63 | 0.01 | 0.21 | 1.19 | 106 | 4.64 | 79 | 88 | 55 | 0 | 7 | 5 | 0 |
| | COLUMBUS | 42 | 25 | 53 | 16 | 34 | -6 | 0.06 | -0.56 | 0.06 | 0.53 | 47 | 7.64 | 130 | 75 | 49 | 0 | 7 | 1 | 0 |
| | DAYTON | 43 | 23 | 52 | 16 | 33 | -6 | 0.02 | -0.66 | 0.02 | 0.60 | 49 | 6.53 | 107 | 80 | 42 | 0 | 6 | 1 | 0 |
| | MANSFIELD | 38 | 22 | 49 | 14 | 30 | -5 | 0.16 | -0.53 | 0.09 | 0.73 | 60 | 5.34 | 89 | 94 | 53 | 0 | 7 | 3 | 0 |

**Based on 1971-2000 normals**

***** Not Available**

## Weather Data for the Week Ending March 27, 2004

| STATES AND STATIONS | | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP | |
| | | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Mar 1 | PCT. NORMAL SINCE Mar 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| | TOLEDO | 42 | 23 | 51 | 13 | 32 | -3 | 0.10 | -0.43 | 0.08 | 1.04 | 111 | 2.83 | 60 | 85 | 49 | 0 | 7 | 2 | 0 |
| | YOUNGSTOWN | 38 | 23 | 47 | 17 | 31 | -4 | 0.46 | -0.19 | 0.12 | 0.90 | 78 | 5.51 | 100 | 91 | 64 | 0 | 7 | 6 | 0 |
| OK | OKLAHOMA CITY | 63 | 39 | 73 | 33 | 51 | 1 | 0.18 | -0.48 | 0.16 | 2.81 | 234 | 5.72 | 142 | 76 | 29 | 0 | 0 | 2 | 0 |
| | TULSA | 64 | 39 | 77 | 31 | 51 | 1 | 0.11 | -0.69 | 0.11 | 2.96 | 207 | 6.52 | 131 | 73 | 33 | 0 | 1 | 1 | 0 |
| OR | ASTORIA | 58 | 42 | 64 | 36 | 50 | 4 | 0.09 | -1.62 | 0.04 | 1.51 | 47 | 21.38 | 103 | 99 | 85 | 0 | 0 | 3 | 0 |
| | BURNS | 51 | 23 | 57 | 20 | 37 | 1 | 0.00 | -0.28 | 0.00 | 0.18 | 33 | 2.90 | 102 | 85 | 65 | 0 | 7 | 0 | 0 |
| | EUGENE | 63 | 40 | 70 | 34 | 52 | 6 | 0.03 | -1.33 | 0.01 | 0.57 | 22 | 11.75 | 71 | 95 | 82 | 0 | 0 | 3 | 0 |
| | MEDFORD | 73 | 39 | 78 | 36 | 56 | 9 | 0.00 | -0.43 | 0.00 | 0.60 | 73 | 6.94 | 129 | 94 | 45 | 0 | 0 | 0 | 0 |
| | PENDLETON | 63 | 36 | 73 | 31 | 49 | 5 | 0.00 | -0.28 | 0.00 | 0.47 | 92 | 4.55 | 143 | 80 | 50 | 0 | 2 | 0 | 0 |
| | PORTLAND | 64 | 41 | 71 | 36 | 52 | 5 | 0.03 | -0.84 | 0.02 | 0.54 | 33 | 9.35 | 86 | 93 | 77 | 0 | 0 | 2 | 0 |
| | SALEM | 63 | 39 | 69 | 33 | 51 | 5 | 0.00 | -0.98 | 0.00 | 0.40 | 21 | 12.20 | 95 | 95 | 72 | 0 | 0 | 0 | 0 |
| PA | ALLENTOWN | 46 | 30 | 54 | 23 | 38 | 1 | 0.20 | -0.59 | 0.10 | 0.66 | 46 | 5.44 | 71 | 77 | 52 | 0 | 5 | 4 | 0 |
| | ERIE | 37 | 24 | 48 | 18 | 30 | -5 | 0.28 | -0.37 | 0.11 | 0.63 | 53 | 5.45 | 91 | 83 | 68 | 0 | 6 | 3 | 0 |
| | MIDDLETOWN | 48 | 31 | 55 | 28 | 40 | 1 | 0.26 | -0.48 | 0.24 | 0.91 | 66 | 4.79 | 67 | 84 | 38 | 0 | 6 | 2 | 0 |
| | PHILADELPHIA | 48 | 35 | 55 | 31 | 41 | -1 | 0.43 | -0.42 | 0.29 | 1.69 | 110 | 5.89 | 76 | 74 | 45 | 0 | 1 | 4 | 0 |
| | PITTSBURGH | 42 | 26 | 51 | 22 | 34 | -4 | 0.18 | -0.52 | 0.08 | 0.80 | 63 | 8.02 | 126 | 85 | 54 | 0 | 6 | 4 | 0 |
| | WILKES-BARRE | 42 | 27 | 50 | 21 | 35 | -1 | 0.30 | -0.26 | 0.13 | 0.63 | 62 | 4.63 | 83 | 88 | 47 | 0 | 6 | 4 | 0 |
| | WILLIAMSPORT | 45 | 28 | 53 | 23 | 37 | 1 | 0.11 | -0.57 | 0.06 | 0.58 | 47 | 4.88 | 73 | 89 | 52 | 0 | 6 | 3 | 0 |
| RI | PROVIDENCE | 44 | 29 | 50 | 25 | 37 | 0 | 0.07 | -0.89 | 0.07 | 0.67 | 39 | 4.29 | 45 | 80 | 47 | 0 | 6 | 1 | 0 |
| SC | BEAUFORT | 65 | 43 | 81 | 31 | 54 | -2 | 0.11 | -0.68 | 0.11 | 0.11 | 8 | 5.61 | 65 | 80 | 28 | 0 | 1 | 1 | 0 |
| | CHARLESTON | 66 | 40 | 81 | 30 | 53 | -4 | 0.16 | -0.74 | 0.16 | 0.16 | 10 | 6.13 | 70 | 82 | 30 | 0 | 1 | 1 | 0 |
| | COLUMBIA | 64 | 37 | 76 | 28 | 51 | -3 | 0.00 | -1.04 | 0.00 | 0.04 | 2 | 5.89 | 57 | 75 | 30 | 0 | 3 | 0 | 0 |
| | GREENVILLE | 61 | 36 | 72 | 31 | 49 | -1 | 0.04 | -1.23 | 0.04 | 0.14 | 6 | 5.20 | 47 | 73 | 23 | 0 | 2 | 1 | 0 |
| SD | ABERDEEN | 45 | 20 | 53 | 6 | 32 | 3 | 0.03 | -0.23 | 0.02 | 0.45 | 105 | 2.18 | 157 | 83 | 66 | 0 | 7 | 2 | 0 |
| | HURON | 50 | 21 | 59 | 8 | 36 | 5 | 0.03 | -0.30 | 0.03 | 0.09 | 16 | 1.65 | 102 | 81 | 35 | 0 | 6 | 1 | 0 |
| | RAPID CITY | 55 | 27 | 67 | 20 | 41 | 8 | 0.00 | -0.19 | 0.00 | 0.65 | 197 | 1.81 | 156 | 77 | 35 | 0 | 6 | 0 | 0 |
| | SIOUX FALLS | 49 | 23 | 61 | 8 | 36 | 5 | 0.04 | -0.30 | 0.04 | 0.44 | 77 | 2.07 | 130 | 83 | 56 | 0 | 6 | 1 | 0 |
| TN | BRISTOL | 52 | 30 | 62 | 24 | 41 | -4 | 0.31 | -0.60 | 0.23 | 2.36 | 140 | 8.67 | 101 | 82 | 36 | 0 | 5 | 2 | 0 |
| | CHATTANOOGA | 62 | 35 | 69 | 29 | 48 | -2 | 0.00 | -1.44 | 0.00 | 2.48 | 94 | 10.96 | 85 | 76 | 33 | 0 | 2 | 0 | 0 |
| | KNOXVILLE | 56 | 34 | 64 | 27 | 45 | -3 | 0.14 | -1.07 | 0.10 | 2.56 | 116 | 8.94 | 83 | 73 | 31 | 0 | 1 | 2 | 0 |
| | MEMPHIS | 59 | 38 | 64 | 32 | 49 | -3 | 0.00 | -1.22 | 0.00 | 1.45 | 65 | 9.10 | 84 | 64 | 29 | 0 | 1 | 0 | 0 |
| | NASHVILLE | 56 | 34 | 65 | 28 | 45 | -4 | 0.00 | -1.13 | 0.00 | 2.55 | 123 | 11.92 | 123 | 69 | 29 | 0 | 2 | 0 | 0 |
| TX | ABILENE | 65 | 42 | 75 | 34 | 53 | -2 | 0.37 | 0.07 | 0.37 | 1.10 | 196 | 5.65 | 212 | 81 | 46 | 0 | 0 | 1 | 0 |
| | AMARILLO | 60 | 37 | 73 | 32 | 49 | 2 | 0.08 | -0.15 | 0.06 | 1.49 | 373 | 3.61 | 228 | 78 | 44 | 0 | 1 | 2 | 0 |
| | AUSTIN | 72 | 46 | 81 | 34 | 59 | -2 | 0.51 | 0.01 | 0.39 | 1.06 | 110 | 8.94 | 185 | 69 | 44 | 0 | 0 | 2 | 0 |
| | BEAUMONT | 73 | 48 | 84 | 44 | 61 | 0 | 0.00 | -0.81 | 0.00 | 0.15 | 10 | 13.12 | 125 | 96 | 40 | 0 | 0 | 0 | 0 |
| | BROWNSVILLE | 77 | 59 | 79 | 49 | 68 | 0 | 0.02 | -0.13 | 0.01 | 0.03 | 11 | 2.73 | 97 | 93 | 59 | 0 | 0 | 2 | 0 |
| | CORPUS CHRISTI | 76 | 56 | 83 | 50 | 66 | 1 | 0.00 | -0.38 | 0.00 | 0.03 | 4 | 4.17 | 99 | 88 | 54 | 0 | 0 | 0 | 0 |
| | DEL RIO | 74 | 53 | 84 | 46 | 63 | 0 | 2.15 | 1.96 | 1.31 | 2.52 | 681 | 4.10 | 216 | 78 | 54 | 0 | 0 | 3 | 2 |
| | EL PASO | 68 | 41 | 79 | 38 | 55 | -1 | 0.76 | 0.70 | 0.62 | 0.80 | 727 | 1.22 | 128 | 69 | 36 | 0 | 0 | 2 | 1 |
| | FORT WORTH | 66 | 46 | 72 | 41 | 56 | 0 | 0.33 | -0.39 | 0.33 | 1.37 | 101 | 8.26 | 147 | 73 | 30 | 0 | 0 | 1 | 0 |
| | GALVESTON | 70 | 56 | 80 | 54 | 63 | 0 | 0.03 | -0.58 | 0.03 | 0.15 | 14 | 9.11 | 117 | 87 | 51 | 0 | 0 | 1 | 0 |
| | HOUSTON | 74 | 50 | 85 | 47 | 62 | 1 | 0.03 | -0.70 | 0.03 | 0.35 | 26 | 11.89 | 149 | 79 | 43 | 0 | 0 | 1 | 0 |
| | LUBBOCK | 61 | 40 | 74 | 35 | 50 | 0 | 0.82 | 0.68 | 0.76 | 1.86 | 689 | 5.64 | 381 | 77 | 50 | 0 | 0 | 2 | 1 |
| | MIDLAND | 63 | 43 | 73 | 36 | 53 | -2 | 0.73 | 0.64 | 0.71 | 1.28 | 640 | 2.75 | 210 | 80 | 50 | 0 | 0 | 2 | 1 |
| | SAN ANGELO | 67 | 44 | 75 | 37 | 55 | -1 | 1.08 | 0.87 | 0.84 | 1.67 | 388 | 4.76 | 197 | 85 | 56 | 0 | 0 | 3 | 1 |
| | SAN ANTONIO | 74 | 52 | 87 | 47 | 63 | 2 | 0.91 | 0.50 | 0.46 | 1.55 | 199 | 5.60 | 134 | 83 | 44 | 0 | 0 | 2 | 0 |
| | VICTORIA | 75 | 50 | 84 | 43 | 63 | 0 | 0.50 | 0.00 | 0.50 | 0.79 | 86 | 7.03 | 130 | 94 | 53 | 0 | 0 | 1 | 1 |
| | WACO | 69 | 45 | 73 | 37 | 57 | 0 | 0.24 | -0.34 | 0.14 | 1.51 | 136 | 10.78 | 198 | 89 | 51 | 0 | 0 | 2 | 0 |
| | WICHITA FALLS | 65 | 43 | 75 | 36 | 54 | 1 | 0.20 | -0.30 | 0.20 | 1.97 | 214 | 6.46 | 179 | 76 | 38 | 0 | 0 | 1 | 0 |
| UT | SALT LAKE CITY | 54 | 33 | 58 | 30 | 43 | 1 | 0.00 | -0.41 | 0.00 | 0.29 | 39 | 2.92 | 85 | 86 | 49 | 0 | 4 | 0 | 0 |
| VT | BURLINGTON | 39 | 25 | 45 | 16 | 32 | 3 | 0.04 | -0.44 | 0.03 | 0.29 | 35 | 1.61 | 34 | 84 | 50 | 0 | 7 | 2 | 0 |
| VA | LYNCHBURG | 54 | 30 | 65 | 21 | 42 | -2 | 0.00 | -0.87 | 0.00 | 0.53 | 33 | 4.31 | 52 | 62 | 29 | 0 | 4 | 0 | 0 |
| | NORFOLK | 55 | 40 | 63 | 33 | 47 | -1 | 0.83 | -0.10 | 0.49 | 1.03 | 61 | 4.44 | 49 | 80 | 42 | 0 | 0 | 3 | 0 |
| | RICHMOND | 55 | 31 | 65 | 27 | 43 | -3 | 0.46 | -0.49 | 0.42 | 0.54 | 31 | 3.96 | 48 | 88 | 50 | 0 | 4 | 2 | 0 |
| | ROANOKE | 54 | 33 | 65 | 25 | 43 | -2 | 0.13 | -0.73 | 0.13 | 0.46 | 29 | 5.12 | 65 | 66 | 33 | 0 | 4 | 1 | 0 |
| | WASH/DULLES | 49 | 29 | 60 | 24 | 39 | -3 | 0.13 | -0.67 | 0.13 | 1.37 | 94 | 4.71 | 65 | 76 | 44 | 0 | 5 | 1 | 0 |
| WA | OLYMPIA | 59 | 37 | 70 | 30 | 48 | 5 | 0.15 | -1.07 | 0.14 | 0.92 | 39 | 13.00 | 81 | 97 | 79 | 0 | 3 | 2 | 0 |
| | QUILLAYUTE | 55 | 38 | 64 | 31 | 47 | 3 | 2.53 | -0.07 | 2.20 | 4.86 | 98 | 24.06 | 78 | 99 | 87 | 0 | 1 | 5 | 1 |
| | SEATTLE-TACOMA | 56 | 41 | 65 | 37 | 48 | 2 | 0.35 | -0.51 | 0.25 | 0.75 | 46 | 9.55 | 87 | 93 | 78 | 0 | 0 | 2 | 0 |
| | SPOKANE | 56 | 33 | 63 | 29 | 45 | 7 | 0.00 | -0.35 | 0.00 | 0.16 | 24 | 3.04 | 76 | 80 | 44 | 0 | 3 | 0 | 0 |
| | YAKIMA | 63 | 31 | 70 | 28 | 47 | 6 | 0.00 | -0.14 | 0.00 | 0.08 | 30 | 3.05 | 136 | 90 | 59 | 0 | 5 | 0 | 0 |
| WV | BECKLEY | 44 | 25 | 55 | 20 | 35 | -6 | 0.22 | -0.61 | 0.19 | 1.50 | 98 | 6.40 | 83 | 81 | 48 | 0 | 7 | 3 | 0 |
| | CHARLESTON | 49 | 29 | 58 | 23 | 39 | -5 | 0.10 | -0.81 | 0.09 | 2.06 | 123 | 8.18 | 101 | 90 | 41 | 0 | 5 | 2 | 0 |
| | ELKINS | 45 | 24 | 56 | 18 | 34 | -4 | 0.54 | -0.37 | 0.35 | 2.44 | 147 | 7.99 | 96 | 97 | 51 | 0 | 7 | 3 | 0 |
| | HUNTINGTON | 48 | 28 | 57 | 24 | 38 | -6 | 0.01 | -0.87 | 0.01 | 2.13 | 130 | 8.16 | 103 | 78 | 40 | 0 | 5 | 1 | 0 |
| WI | EAU CLAIRE | 35 | 17 | 45 | 5 | 26 | -3 | 0.50 | 0.16 | 0.23 | 1.18 | 211 | 4.12 | 172 | 92 | 56 | 0 | 7 | 4 | 0 |
| | GREEN BAY | 36 | 22 | 46 | 12 | 29 | 0 | 0.40 | 0.00 | 0.14 | 2.11 | 306 | 4.97 | 171 | 87 | 59 | 0 | 7 | 4 | 0 |
| | LA CROSSE | 40 | 22 | 51 | 10 | 31 | -1 | 0.38 | 0.03 | 0.20 | 2.41 | 416 | 4.66 | 169 | 85 | 46 | 0 | 7 | 4 | 0 |
| | MADISON | 41 | 22 | 52 | 10 | 31 | -1 | 0.11 | -0.32 | 0.05 | 1.59 | 218 | 3.65 | 112 | 76 | 50 | 0 | 7 | 3 | 0 |
| | MILWAUKEE | 40 | 23 | 49 | 12 | 31 | -2 | 0.07 | -0.41 | 0.03 | 1.75 | 208 | 4.28 | 99 | 79 | 57 | 0 | 6 | 3 | 0 |
| WY | CASPER | 48 | 25 | 56 | 11 | 36 | 2 | 0.02 | -0.17 | 0.02 | 0.10 | 28 | 0.77 | 49 | 82 | 58 | 0 | 6 | 1 | 0 |
| | CHEYENNE | 55 | 25 | 63 | 19 | 40 | 7 | 0.00 | -0.21 | 0.00 | 0.08 | 22 | 0.60 | 48 | 72 | 31 | 0 | 6 | 0 | 0 |
| | LANDER | 43 | 23 | 51 | 13 | 33 | -1 | 0.00 | -0.24 | 0.00 | 0.00 | 0 | 1.64 | 112 | 81 | 61 | 0 | 7 | 0 | 0 |
| | SHERIDAN | 55 | 24 | 65 | 15 | 40 | 6 | 0.11 | -0.07 | 0.08 | 0.26 | 84 | 1.30 | 79 | 80 | 47 | 0 | 7 | 2 | 0 |

**Based on 1971-2000 normals** ***** Not Available**

**NOTE:** These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

# National Agricultural Summary

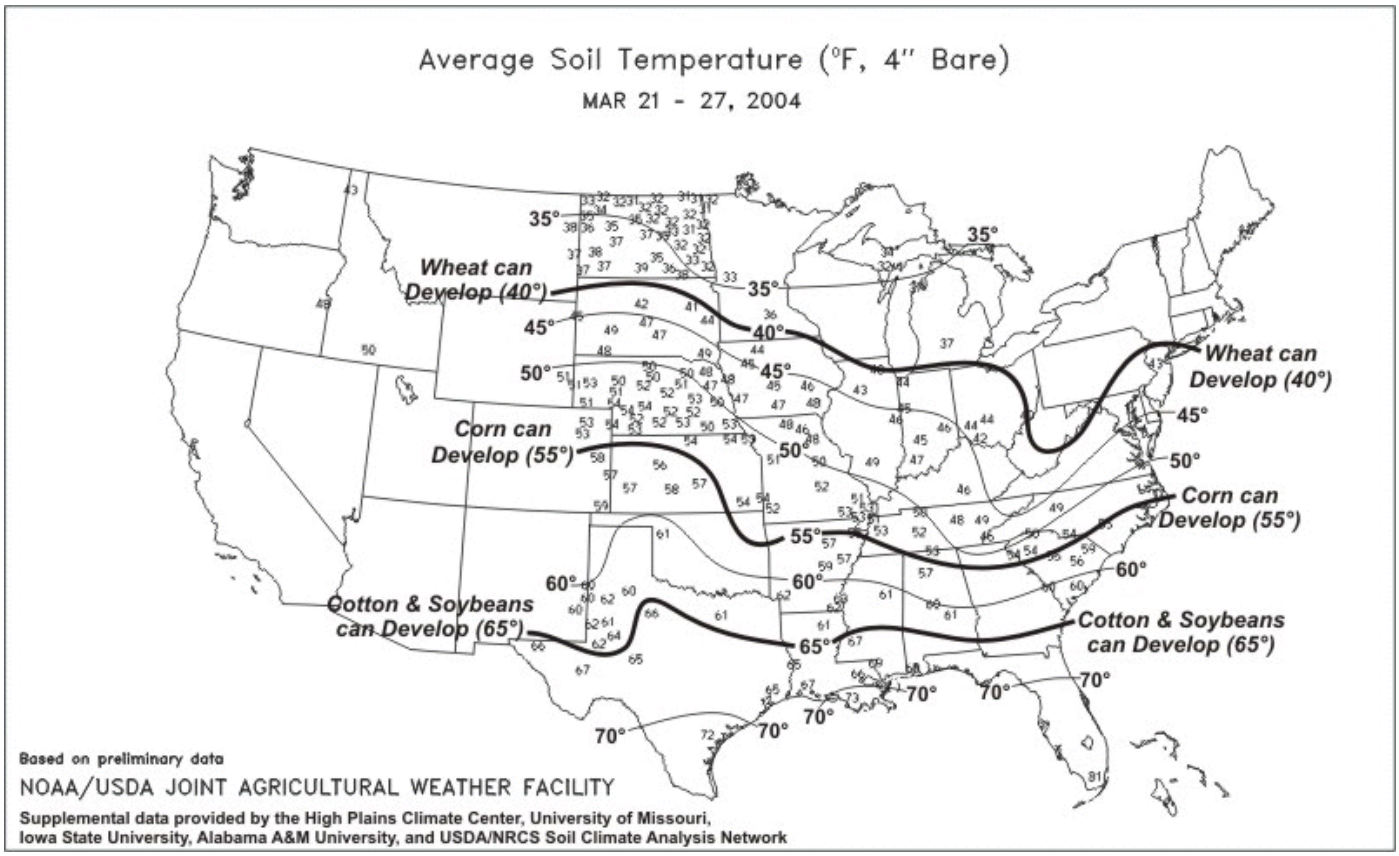
**March 22 - 28, 2004**

*Weekly National Agricultural Summary provided by USDA/NASS*

## *HIGHLIGHTS*

**Above-normal temperatures prevailed across most of the Nation. Average temperatures for the week were 6 degrees F or more above normal across the Great Plains, Rocky Mountains, and Southwest, with some areas exceeding normal temperatures by 12 degrees F. Only in parts of the Southeast and New England were temperatures below normal. Precipitation was moderate to heavy across the western and central Corn Belt, benefiting development and condition of small grains. The eastern and northern parts of the Corn Belt had light but widespread rainfall, though not enough to hamper fieldwork. Light to moderate precipitation in the eastern Great Plains provided some needed moisture for winter wheat, but the High Plains remained mostly dry. In the Mississippi Delta and Southeast, the lack of rainfall provided good fieldwork conditions but caused moisture stress for crops and pastures. Light precipitation fell across most of the northern and central Rocky Mountains, while dry conditions prevailed across the Southwest. Moderate precipitation in coastal areas of the Pacific Northwest and lighter rainfall further inland ended a 2-week period of unusually dry weather for the region.**

**In Georgia, where muddy fields were a problem just 3 weeks ago, producers are now worried about the lack of rainfall. Many growers are waiting for rain before planting summer crops. Frost early in the week damaged some vegetable crops and fruit orchards. Florida row crop producers were irrigating dry soils to facilitate land preparation. Citrus growers were reporting abundant new growth, and vegetable planting and harvesting continued at a normal pace. Small grain conditions improved in Texas from the previous week's rainfall. Seedings of corn, cotton, sorghum, and soybeans advanced ahead of normal, while rice planting and winter wheat heading were behind the normal pace. Cotton was 40 percent planted in Arizona, and vegetable and citrus growers harvested a variety of crops. California sugar beets showed rapid growth, while planting of corn and cotton continued. Soil moisture was well below normal in Colorado, and winter wheat was in poor condition. Sugar beet planting was ahead of normal, while small grain seedings were near the normal pace. Planting of small grains was ahead of the normal pace in Wyoming. In South Dakota, planting of spring wheat, barley, and oats was underway, while 74 percent of the winter wheat crop had broken dormancy. Louisiana corn growers took advantage of the dry weather by planting 45 percent of their crop during the week, to bring the total progress to 80 percent complete.**



# 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 Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at http://www.usda.gov/nass/ or from JAWF at http://www.usda.gov/oce/waob/jawf.*

**ALABAMA:** Dry weather patterns persisted over the state allowing spring plowing, planting to make good progress. Rain is needed to germinate early planted crops. Activities: Corn planting, applying nitrogen to wheat fields, general care of livestock, poultry, catfish.

**ALASKA: DATA NOT AVAILABLE**

**ARIZONA: DATA NOT AVAILABLE**

**ARKANSAS:** Producers have begun planting corn and are making field preparations for other row crops. The winter wheat crop is growing well. Warmer than usual March temperatures allowed growers to complete fertilizer application. Pasture supply is more than adequate, hay is in good condition. Temperatures for the month have been slightly higher than the March average of 53.4$^{0}$. The average high temperature for the month is 64.2$^{0}$. On March 21st the high temperature in parts of the state reached 85$^{0}$. Thus far, this has been the warmest day of the month. After a wet February, the month of March has been dryer than normal. As of March 26th, month-to-date rainfall totaled just over 4 inches.

**CALIFORNIA:** Many small grain plantings showed strong growth through most of March, due to abundant soil moisture, generally warm weather conditions. Dryland wheat was thriving thanks to rainfall the previous month. Wheat fields were reported to be in good condition overall. Fungicide treatments were applied in wheat fields where the soil was saturated by rain. Irrigation and fertilization of wheat fields took place in the San Joaquin Valley late in the month. Some early plantings of oats were cut for greenchop in late March. Grain fields were treated to control broadleaf weeds. Preparations for the planting of corn, cotton, other crops were initially slowed by the wet soil conditions, but resumed a more normal pace by mid-month. Activities: Seed bed preparation, pre-irrigation, pre-emergent herbicide treatments. Cotton planting was underway by late March. Corn was planted for seed, feed in some locations. Fields of alfalfa, winter forage thrived in the warm weather. Cutting of alfalfa for hay began in a few locations during the first week of the month. Fields were treated to protect against weevils, other pests. Spring planting of alfalfa began in some locations by late March. Sugar beet plantings showed vigorous growth. Some hazing activities took place to protect plantings from birds. Many sugar beet fields were irrigated to optimize growing conditions. Planting of sweet potato hotbeds was finished after mid-March, fumigation of fields began. Potato harvesting continued in the San Joaquin Valley. Most nectarine orchards were in full bloom by early March. Many early varieties were treated to prevent thrip damage. Other stone fruit orchards were in varying stages of bloom, depending on variety and location. Orchards received insecticide treatments, as well as treatments to prevent blossom rot, other diseases. The bloom period in most stone fruit orchards was over by the last week of the month. Apple trees began to bloom. Planting of new tree fruit varieties was underway in some locations, along with grafting of new varieties onto existing rootstock. Bud break was underway in raisin, wine, table grape vineyards by mid-March. Cover crops were mowed, disced under. Some vineyards were treated with herbicides to control weeds, with fungicides to prevent mildew. Some grape growers cultivated their ground to provide protection from the possibility of frost damage, despite the recent warm weather. Navel orange harvesting gained momentum around mid-month. Overall quality deteriorated due to the high temperatures. Puff, rind breakdown were among the problems affecting packouts. Harvesting of Valencia oranges began in the Central Valley. Grapefruit, tangerine, lemon harvesting continued. Some olive orchards were removed. Almond trees were in full bloom by the first week of the month. Some early varieties had reached the petal fall stage. Petal drop neared completion late in the month, some nuts became visible. Walnut, pistachio orchards broke dormancy in late March. Buds began to appear in pistachio trees. Blight, scale treatments continued in walnut orchards. Wet soil conditions hindered work in some vegetable fields early in March, but as warmer weather set, firmer soil allowed work to resume. Cucumbers, squash, eggplant were planted under hot-caps. Planting of sweet corn, fresh, processing tomatoes continued. Lettuce fields were weeded and thinned. Warm conditions accelerated the development of lettuce in the Central Coast region. Onions, garlic for both processing, fresh market use matured well during March. Asparagus harvesting continued. Broccoli, cabbage harvesting neared completion in the Central Valley. The following crops were also harvested: amaranth, bok choy, you choy, daikon, radishes, sugar cane, Chinese mustard, spinach, tong ho, carrots, cauliflower, cilantro, green onions, lemon grass, lambsquarter, gailon, sugar pea leaf, leaf lettuce, beets, tatsoi. Range, pasture feeds were generally good in March, due to adequate rainfall, soil moisture. Grass growth was stimulated by the rainfall, subsequent sunny weather. Livestock were in good condition. Spring calving, lambing continued. Sheep grazed in a few alfalfa fields. Many sheep were moved to other pastures as the alfalfa season drew closer. Lambs in the southern desert were shipped to market or to other areas for further feeding. Bees were active in blooming almond, stone fruit orchards.

**COLORADO:** Temperatures for March started the month slightly below average, then finished out the month well above average, nearing record levels. This March has been one of the driest on record. Farmers south of the I-70 corridor are facing extreme drought conditions. Winter wheat emergence is either spotty or did not emerge last fall. Farmers are looking into spraying abandoned fields as opposed to plowing due to the risk of topsoil loss. Mountain snowpack is currently 72% of normal statewide. Winter wheat condition ranges from poor to fair in the southeastern areas of the state to good in the northern growing regions. Lambing, calving progressed under mostly good conditions. Activities: Center around care, feeding of livestock, planting spring crops.

**DELAWARE:** Warm weather has seeped back into the area with air temperatures in the 50's, many areas receiving close to two inches of precipitation during the month of March. The warmer weather is allowing farmers to top-dress small grains. Small grains are starting to green up, are in fair to good condition. Some late planted small grains are behind normal in growth. Good quality hay is in short supply. Field work for the new crop season is beginning. Activities: Preparing equipment for spring planting, feeding livestock, poultry, top-dressing small grains, record keeping.

**FLORIDA:** Dry conditions during the first half of March gave way to spotty showers during the last two weeks. Most temperatures for the month averaged above normal with northern areas recording some temperatures near freezing during the first part, again at the end of the month. The warmer temperatures brought out the blooms on northern ornamental, non-citrus fruit trees. Most potato planting was finished around Hastings by early March. Cabbage cutting around Hastings, in other areas, and potato digging in southern areas increased as growers met the mid-March holiday demand. Northern Peninsula, Panhandle producers resumed field preparations, planting of peanuts, corn at the beginning of the month as soils dried from the late February downpour. Flooding in low spots of the Panhandle, cold temperatures held back pasture, small grain forage growth in early March. Vegetable growers also got planting, harvesting back on schedule with snap beans, celery, sweet corn, eggplant, escarole, endive, lettuce, peppers, squash, strawberries, tomatoes available throughout the month. Tobacco transplanting was in full swing during the first half of the month with Union County growers finishing by mid-month. By mid-month, citrus trees in lower interior, coastal areas reached full bloom, followed later in the month by trees in upper interior areas. Tomato planting was active around Quincy, blueberries reached full bloom in Jackson County by mid-month. Dry soils prevented some planting in the Panhandle, northern Peninsula in mid-March. Santa Rosa County producers prepared land for peanuts, cotton during the last two weeks. By month's end, pasture feed was poor to good with drought, cold temperatures hindering some development. Livestock producers fed hay, other supplemental feeds as needed during the month. Harvesting of Temples, early, mid-season oranges was nearly done by the end of the month as producers started picking Valencia oranges. Other citrus available during the month included Honey tangerines, grapefruit.

**GEORGIA:** Dry conditions prevailed in State where soil moisture continued to decline because of high winds, little rain. Preparations for spring planting continued. Producers, in south State, began planting field corn, vegetables. Frost, late in the month, hurt orchards, vegetables, fruit. Planting slowed towards the end of the month as producers waited for rain.

**HAWAII:** Moderate to brisk trade winds combined with abundant moisture generated more windward showers throughout the State early in the week. Flooding remained a threat in some windward areas, especially on the Big Island. Winds, showers decreased by the week's end. Bananas, papayas were in fair condition due to excess moisture, increasing disease infection. Vegetable crops were in mostly fair condition.

**IDAHO:** Topsoil 4% short, 91% adequate, 5% surplus. Winter Wheat 1% poor, 28% fair, 68% good, 3% excellent. Hay, Roughage supply 2% very short, 13% short, 72% adequate, 13% surplus. Lambing complete 80%. Calving complete 80%. Spring field work is under way. Topsoil moisture is oddly dry despite a wet winter. There has been some major concern over the availability of irrigation water for summer season. There has been significant damage to Alfalfa fields due to voles.

**ILLINOIS:** Topsoil 9% short, 83% adequate, 8% surplus. The recent warm weather, rainfall has been timely for wheat growth with most of the crop greening well. Condition of the winter wheat crop as of March 28 was 2% fair, 58% good, 23% excellent. Topsoil moisture levels increased slightly during the month with the driest areas still being reported across northern state. Farmers are anxiously awaiting planting season, have been busy hauling seed, applying chemicals.

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**INDIANA:** Wintery weather conditions with snow covering most of state limited field activities during the first half of the month. Spring was in the air with warmer than normal temperatures arriving during late March. Temperatures averaged 2.9° above normal during March. Coldest weather, snow prevailed early in the month with warmer temperatures arriving later in the month. Precipitation averaged 2.96 inches for normal. With recent rains, precipitation is now at the normal range. Some fertilizer, lime were spread when soils were frozen or dry enough to support heavy equipment. Some tillage was underway in the southwestern region of the state. Farmers were busy during March hauling grain to market, preparing taxes, attending workshops, repairing equipment. Winter wheat appears to be in mostly good condition Wheat starting to green up in most areas. Mint roots, oat seeding underway. Producers are beginning to plow their tobacco ground. Mild winter weather conditions have been favorable to hay stocks, pasture growth. Hay supplies are mostly adequate. Farmers with grain on hand are happy with the higher prices. Livestock are in fair to mostly good condition. Feedlots, pastures are muddy. Calving season is underway. Lambing is mostly complete. Activities: Cleaning out fence rows, signing up for 2004 DCP at FSA offices, record keeping, cleaning ditches, installing drainage systems, top dressing winter wheat, purchasing supplies, cleaning up, preparing equipment for spring fieldwork, taking care of livestock.

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**IOWA:** Agricultural Summary: Soil 3% very short, 19% short, 67% adequate, 11% surplus. March started very windy, followed by rainy days, even a snow storm by mid-March. Warming temperatures contributed to the greening of grass, hay fields as the snow melted. At the end of March, the average depth of snow cover was 0 inches across state, compared to 3 inches last month, 0 inches at the same time last year. The average depth of frost penetration was 1 inch, compared to 12 inches last month, 4 inches a year ago. Muddy areas remain a concern for livestock. Field Crops Report: Grain movement from farm to elevator 13% none, 29% light, 44% moderate, 14% heavy. Hay, roughage availability 16% short, 78% adequate, 6% surplus. Quality of hay, roughage supplies 13% poor, 43% fair, 44% good. Utilization of stubble fields for grazing 50% none, 27% light, 15% moderate, 8% heavy. Livestock, Pasture, Range Report: Hog, pig losses in March were less than last year at 16% below avg.; 79% avg.; 5% above average. Cattle, calf losses were lower than last year at 27% below avg.; 69% avg.; 4% above average.

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**KANSAS:** Days suitable for fieldwork 5.6. Subsoil in northwest, west central state remains quite low. Topsoil 8% very short, 23% short, 60% adequate, 9% surplus. Subsoil 23% very short, 28% short, 44% adequate, 5% surplus. Wheat 20% jointed, 11% very poor, 17% poor, 35% fair, 33% good, 4% excellent. Non-emergence, winterkill of wheat is 7%. Army cutworm presence has been reported throughout the State. Treatment has started in some areas. Range, pasture feeds 16% very poor, 25% poor, 36% fair, 21% good, 2% excellent. Feed grain supplies 2% very short, 11% short, 84% adequate, 3% surplus. Hay, forage supplies are 2% very short, 18% short, 73% adequate, 7% surplus. Stock water supplies are 11% very short, 17% short, 68% adequate, 4% surplus. Calving continues, some corn planting is underway

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**KENTUCKY:** The first week of March can be characterized by unseasonably warm temperatures, rain. The rain started with the passage of a front early in the week. Sunny skies, highs in the middle 60's made a brief appearance but gave way to clouds, rain, temperatures in the 70's for the remainder of the workweek. Ahead of a late workweek cold front strong southerly winds caused problems as gusts were in the 40 miles per hour range. Heavy rain, thunderstorms moved through before the weekend causing flooding across the State. The weather was dry for most of the weekend, but temperatures were cooler as lows dropped back into the 30's, highs were in the 50's. Temperatures for the period averaged 55°, 14° above normal. High temperatures averaged from 63 in the West to 65 in the East. Low temperatures averaged from 47 in the West, East. Extreme highs were in the upper 70's. Extreme lows were in the middle 30's. Precipitation (liq. equ.) totaled 2.06 in. statewide which was 1.02 in. above normal. Precipitation totals ranged from a low of 1.25 in. at Covington to a high of 3.02 in. at Louisville. The second week began with a front that caused a snow advisory to be issued for northern state. Winds from the north kept highs in the lower to mid 40's. High pressure was in control through the week. Some light rain showers, gusty winds moved across the State before the end of the workweek, temperatures were well below average as lows dropped into the upper teens in some areas. Temperatures warmed into the 50's for the weekend, but the warmer weather was dampened by light rain. Temperatures for the period averaged 41°, 2° below normal. High temperatures averaged from 55 in the West to 49 in the East. Low temperatures averaged from 33 in the West to 30 in the East. Extreme highs were in the lower 60's. Extreme lows were in the upper teens. Precipitation (liq. equ.) totaled 0.06 in. statewide which was 0.97 in. below normal. Precipitation totals ranged from a low of 0.02 in. at London to a high of 0.12 in. at Berea. Several quick moving systems crossed state the third week bringing clouds, rain showers. A cold front passage at midweek brought cold temperatures as morning lows dropped below the freezing mark. On the 18th, more rain affected the state while temperatures had rebounded into the 60's and 70's during the day. The final cold front moved through early on the weekend bringing rain and thunderstorms. Temperatures cooled off dramatically allowing for scattered snow flurries to fall as high temperatures hovered in the 30's and 40's to end the week. Temperatures for the period averaged 47°, 1° above normal. High temperatures averaged from 60 in the West to 55 in the East. Low temperatures averaged from 39 in the West to 36 in the East. Extreme highs were in the middle 70's. Extreme lows were in the middle 20's. Precipitation (liq. equ.) totaled 0.81 in. statewide which was 0.22 in. below normal. Precipitation totals ranged from a low of 0.28 in. at Spindletop to a high of 1.63 in. at Henderson. Clear skies, cold temperatures began the fourth week. Light showers accompanied the warmer temperatures at the end of the workweek. The weeks temperatures continued to rise slowly from daytime highs in the 40's to low 70's as the month ended. The rain and warmer temperatures caused pastures, fall seeded small grains to begin to green up. However, the frequent return to cold temperatures during the month limited growth. Fruit trees began to bud out as the month ended. Livestock remained in mostly good condition as farmers continued to feed cattle hay to supplement the limited feed from greening pastures.

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**LOUISIANA:** State has received 1.69 inches of rain over the last 4 weeks. Planting of corn, rice got off to a slow start but should begin to increase as weather conditions began improving at the end of the month. Sugarcane farmers were applying herbicides, destroying old stubble, draining fields. Wheat had begun to reach the headed stage in a few areas of the state. Crawfish harvest continued doing well. Harvesting of strawberries, greenhouse tomatoes also continued. Cattle producers were culling cows, testing bulls, preparing for spring breeding. Pasture feeds were beginning to show improvements from the favorable weather received in the later part of the month.

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**MARYLAND:** Air temperatures in State were in the 50's, many areas received close to two inches of precipitation during the month of March. Farmers are beginning their spring planting activities. Small grain crops are starting to green up, stands are generally good. Late planted small grains are behind normal in growth. Good quality hay for horses is in short supply while hay for cows is adequate. Fruit trees are in fair to good condition with some beginning to bud in warmer areas. Activities: Top-dressing small grains, preparing equipment for spring tillage, record keeping.

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**MICHIGAN:** March brought much moisture to most of the State. In the Upper Peninsula, northern portions of the Lower Peninsula, farmers reported additional snowfall, substantial amounts of snow cover. The southern Lower Peninsula received intermittent rain, snow showers. A grower in the southwest reported 21 days in March with measurable precipitation. The frost was out in most of the southern growing areas, allowing fields to drain adequately; however, the top soil remained saturated in most areas. Between bouts of precipitation, many operators in the southern half of the State were undertaking the first of spring activities. Some producers were able to get into the field to top dress wheat, do some spring tillage. Calving, lambing picked up. With climbing cash grain prices across the State, producers continued to market the remainder of last year's crop. Activities: Final planning for the approaching growing season, hauling manure, repairing machinery, pruning fruit trees, generally getting ready for the big spring push. Hay was in short supply, prices continued to rise. Pastures, winter wheat began to emerge from winter dormancy. Most wheat appeared to have wintered well.

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**MINNESOTA:** Soil moisture is adequate across the state. Conditions were normal throughout the state this past month. Snow cover has diminished due to the warmer temperatures received. Feed supplies, livestock are in good condition. Farmers are anxiously looking forward to the upcoming growing season.

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**MISSISSIPPI:** Days suitable for fieldwork 6.6. Soil 7% very short, 30% short, 59% adequate, 4% surplus. Corn 49% planted, 22% 2003, 31% avg.; 16% emerged, 1% 2003, 11% avg.; 1% very poor, 2% poor, 28% fair, 67% good, 2% excellent. Soybeans 10% planted, 1% avg. Wheat 70% jointing, 53% 2003, 54% avg.; 2% heading, 3% avg.; 3% poor, 49% fair, 40% good, 8% excellent. Watermelons 20% planted, 18% 2003, 13% avg. Cattle 1% very poor, 6% poor, 33% fair, 51% good, 9% excellent. Pasture 2% very poor, 5% poor, 33% fair, 49% good, 11% excellent. Hay supply 3% short, 88% adequate, 9% surplus. Feed Grain 19% short, 81% adequate. This was a good week for fieldwork, with producers getting a start on corn, early soybeans. This was a good week for fieldwork, with producers making good progress on planting corn, early soybeans; however, rainfall is needed to encourage optimal growth. Cattle farmers are applying herbicide, fertilizer treatments to their pastures in preparation for spring grazing.

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**MISSOURI:** Farmers in several areas of the State had begun some early fieldwork during March before substantial widespread rainfall late in the month interrupted activities. Most counties in the southeast district received only light rainfall, which resulted in good soil conditions for fieldwork in that area, with significant progress in corn planting. The recent rain across the State has sped the growth of winter wheat, pastures. Water levels in stock ponds were also helped by the heavy rain run-off in many areas. The wheat crop is mostly in fair to good condition. Farmers are still feeding hay in most areas although pastures are beginning to provide some limited feed, mostly in the southern areas.

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**MONTANA:** Soil 22% very short, 28% short, 48% adequate, 2% surplus, 2003 5% very short, 21% short, 68% adequate, 6% surplus. Subsoil 31% very short, 38% short, 30% adequate, 1% surplus,2003 26% very short, 37% short, 36% adequate, 1% surplus. During the month of March, weather conditions in state have been warmer than normal with below normal snow fall. Winter wheat 8% very poor, 12% poor, 33% fair, 40% good, 7% excellent. This year's winter wheat crop conditions are above last year's crop because of limited freeze, drought, wind damage. Wind damage to the winter 48% none, 29% light, 18% moderate, 5% heavy. Freeze, drought damage is rated 53% none, 24% light, 19% moderate, and 4% heavy. Spring stages for winter wheat 23% still dormant, 64% greening, 13% green, growing. Fieldwork has started with oats, barley, spring wheat seedings underway in some areas of the state. Livestock grazing 60% open, 9% difficult, 31% closed, compared to 2003 when 72% open, 10% difficult, 18% closed. Currently, all the cattle, sheep are receiving supplemental feed. Calving, lambing 52% and 39% completed, respectively.

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**NEBRASKA:** During March average weekly temperatures increased all month, ranged from a high of 5$^0$ above normals the first week to a high of 15$^0$ above normals the last week. Precipitation for the month came in the form of snow, rain with largest amounts received in the southeast. Wheat 10% very poor, 18% poor, 37% fair, 34% good, 1% excellent. Hay, forage supplies were mostly adequate. Cattle were in mostly good condition. Calving was 66% complete with losses rated mostly average. Stalk fields continued to provide grazing potential, with some supplemental feeding. Activities: Caring for livestock, marketing grain, preparing for spring planting.

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**NEVADA:** A winter storm passed through the State at the beginning of the month dropping more than an inch of precipitation in Reno, but much lesser amounts over the rest of the State. Following the storm, a strong high pressure system established itself, kept storms at bay. Record, near record high temperatures were common during the middle of the month. Snows receded, stream flows increased. It wasn't until the end of the month that temperatures fell back near normal, additional precipitation was received. The water content of snow packs over the primary river basins ranged from 70 to 96% of normal at the end of the month, with most in the 80's. The mild weather was good for calving, lambing which picked up during the month. Calving was in full swing during March. Some sheep flocks were shorn, lambing began. Bull sales were being held in preparation for the breeding season. Supplemental feed demands lessened due to the open weather. Hay shipping continued. Potato processing was ongoing. Fall seeded grains, garlic were in good condition. Onions were planted, sprinkler irrigation was underway. Field preparations, spring grain planting got underway. Activities: Calving, lambing, field preparation, spring grain seeding, onion planting, equipment maintenance, fence repairs, crop marketing, ditch burning, irrigation.

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**NEW ENGLAND: DATA NOT AVAILABLE**

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**NEW JERSEY:** Temperatures were up to 18$^0$ above normal for the first week of March across most of the state. Temperatures fell to below normal by the second week of March, remained below normal for most of the month, across most of the state. Towards the end of the month, temperatures again rose to above normal for most of the state. There were measurable amounts of rainfall across most of the state for the month of March; however, rainfall totals were below normal across most of the state for the month. There were measurable amounts of snow in some parts of the state on March 19, 2004. Activities: Maintaining farm structures, caring for livestock.

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**NEW MEXICO:** State farmers have completed lettuce, onion planting, continue to plant chile. Ranchers continue to supplement feed while overall range, pasture feeds have improved from spring showers. With temperatures warming up, insect activity increased the latter part of March, dryland wheat is beginning to wilt.

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**NEW YORK:** Winter weather continued into March with snow from several storms falling at mid-month, making travel difficult. As temperatures warmed, snow melted, saturated fields, pastures. Very little fieldwork has been possible. Warm days, cold nights provided ideal conditions for sap flows in maple sugar bushels. Syrup making was at peak during the last half of the month. Apples, onions, potatoes were moving from storage to market.

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**NORTH CAROLINA:** Days suitable for field work 6.1. Soil 2% very short, 18% short, 75% adequate, 5% surplus. Much of state experienced a hard freeze at the beginning of the week which may have damaged emerging crops. However, temperatures rebounded nicely by the end of the week with highs reaching into the low 80s. Little to no precipitation this week continues to reduce soil moisture levels. Overall crop conditions are rated good. Activities: Planting cabbage, Irish potatoes, tobacco land preparation, applying herbicides to cover crops, weed control applications, fertilizing pastures, and general farm maintenance.

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**NORTH DAKOTA:** March began with wet conditions, cold temperatures, ended with above normal temperatures. The average snow cover for the state was 0.8 inches. Starting date for fieldwork is expected to be April 16. Hay, forage supplies 2% very short, 15% short, 79% adequate, 4% surplus. Grain, concentrate supplies 0% very short, 3% short, 92% adequate, 5% surplus. Cattle conditions 0% very poor, 2% poor, 24% fair, 66% good, 8% excellent. Calf conditions 0% very poor, 2% poor, 18% fair, 71% good, 9% excellent. Sheep conditions 1% very poor, 3% poor, 21 % fair, 65% good, 10% excellent. Lamb conditions 1% very poor, 2% poor, 20% fair, 67% good, 10% excellent. Calving was 41% complete, lambing 61% complete, shearing 76% complete. Pastures, ranges 95% still dormant, 5% growing. Road conditions 88% open, 9% difficult, 3% closed with 0% drifted, 1% icy, 31% muddy, 68% dry.

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**OHIO:** March's average temperature across the state was 41.0$^0$, 1.8$^0$ above normal. Precipitation averaged 2.45 inches, 0.21 inches below normal for the month of March. Livestock are reported to be in good condition with spring calving proceeding as normal. Winter wheat was rated at good to excellent condition.

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**OKLAHOMA:** Days suitable for fieldwork 6.0. Topsoil 2% very short, 21% short, 75% adequate, 2% surplus. Subsoil 4% very short, 31% short, 63% adequate, 2% surplus. Winter Wheat 4% very poor, 10% poor, 28% fair, 49% good, 9% excellent; 62% jointing, 44% last week, 67% 2003, 54% avg. Rye 2% very poor, 4% poor, 15% fair, 71% good, 8% excellent; 80% jointing, 56% last week, n/a 2003, n/a avg. Oats 2% very poor, 11% poor, 43% fair, 41% good, 3% excellent; 95% planted, 88% last week, 91% 2003, 91% avg.; 18% jointing, 8% last week, 12% 2003, 19% avg. Corn 50% seedbed prepared, 30% last week, 52% 2003, 44% avg.; 14% planted, 5% last week, 13% 2003, 8% avg. Sorghum 15% seedbed prepared, 12% last week, 21% 2003, 19% avg. Soybeans 32% seedbed prepared, 20% last week, 27% 2003, 28% avg. Peanuts 23% seedbed prepared, 20% last week, 20% 2003, 25% avg. Cotton 45% seedbed prepared, 39% last week, 46% 2003, 46% avg. Livestock 1% very poor, 6% poor, 30% fair, 51% good, 12% excellent. Pasture, Range 5% very poor, 19% poor, 45% fair, 27% good, 4% excellent. Livestock: Livestock conditions were very similar to last week with most livestock reported in fair to excellent condition. Livestock condition 12% excellent, 51% good, 30% fair, 6% poor, 1% very poor. Milder weather continues to help livestock conditions. The price for feeder steers less than 800 pounds averaged $97.72 per cwt., up $1.86 from last week. The price for feeder heifers less than 800 pounds decreased slightly, averaging $90.22 per cwt.

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**OREGON:** Topsoil moisture in Umatilla, Wallowa counties not in best shape, despite good snowpack over winter months, recent weeks have been dry. Activities: Beginning of week mainly dry, but wet conditions experienced by week's end in Willamette Valley. Some unseasonably warm weather in Malheur County melted mountain snow, but soil moisture still adequate there. Nighttime frost in Harney County experienced. Spring fieldwork activities include plowing, stubble spraying, seedbed preparation for spring seeding. Some spring seeding already underway, both conventional, direct seed. Weed control applications in grain applied. Winter wheat greening up well in Washington County. Grass, alfalfa off to good start in southwestern state. Ground for vegetable gardens being prepared. Early onions, sugar beets planted. Nursery crops being dug, balled, shipped at this time. Good supply of early flower starts at sales outlets. The State Department of Agriculture (ODA), State Association of Nurseries (OAN) announced an action plan for protection against Sudden Oak Death. Spring spraying for Eastern Filbert Blight underway in Willamette Valley areas. Blossoms started to open on cherries. Apple blossoms will break soon in Josephine County. First bees going into orchards. Berry crops showing good growth. Lots of pears now in full bloom in Jackson County. Pink sprays applied to pear orchards in lower Hood River Valley. Livestock out on pastures as feeds permit. Some pastures in northeastern counties still too soggy for grazing. Despite good moisture over winter months, effects of recent years of drought still visible. Branding started in preparation for early turnout. According to ODA, this year's Dungeness crab harvest set record harvest, after just two months, breaking 14 year old record.

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**PENNSYLVANIA:** Much of the Commonwealth received precipitation throughout March, with a mixture of rain, snowfall. The temperatures were cooler in the beginning of the month, with lows in the 20's and 30's, and highs in the 50's. Toward the end of March, temperatures were becoming warmer with lows in the 30's to 40's and highs reaching to the mid 70's. With some sunny days we are expecting a good emergence of the fall, winter planted crops. Activities: Caring for livestock, calving, getting equipment ready for spring plowing, seeding, tapping maple trees, boiling sap

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**SOUTH CAROLINA:** The precipitation for the month consisted of several light, scattered showers, but rainfall amounts were not enough to decrease the deficits throughout the state. The statewide average rainfall for the month was 0.3 inches. There were several cold fronts throughout the month that pushed some morning temperatures at or below the freezing level. These cold fronts also provided windy conditions, some gusty winds that reached 40-60 mph. The statewide average temperature for the month was above normal. Winter ended with warm, mild conditions while Spring began in the same fashion. The warm conditions have sparked the growth in budding trees, flowers. The wind, the dry conditions allowed the pollen from these trees, flowering plants to travel before settling. The dry conditions may have delayed land preparations in some counties. The small grains throughout the state are in need of a good rain. The moisture is needed during this critical period for the plants as they are about to enter the heading stage.

**SOUTH DAKOTA:** Topsoil 13% very short, 26% short, 60% adequate, 1% surplus. Subsoil 32% very short, 29% short, 38% adequate, 1% surplus. Experienced fairly mild weather for the month of March. Several areas of the state received precipitation, but many producers feel that more rain is needed to improve soil moisture levels. Temperatures averaged in the 30's and lower 40's. Statewide, soil temperatures averaged 9.3° warmer than normal. Winter wheat 7% very poor, 16% poor, 46% fair, 29% good, 2% excellent. Calving, lambing season is in full swing, with calving 37% complete, lambing 47% complete. Calf, sheep, lamb deaths have been rated at mostly average levels for the month of March. Cattle deaths 28% below normal, 71% normal, 1% above normal for the month of March. Cattle, sheep remain in mostly fair to excellent condition. Range, pasture 14% very poor, 27% poor, 39% fair, 19% good, 1% excellent. Feed supplies 6% very short, 22% short, 66% adequate, 6% surplus. Stock water supplies 34% very short, 23% short, 42% adequate, 1% surplus. Activities: Hauling grain, calving, lambing, feeding livestock, preparing for small grain seeding.

**TENNESSEE:** Temperatures averaged above normal across state for most of March, with the exception of the second week when temperatures averaged below normal. Precipitation averaged above normal across the state during the first week of the month, the third week in the Plateau, West, but was below normal the rest of the month. By month's end, a high pressure area brought dry weather to much of the state as well as cloudiness, some isolated areas experienced light rainfall. Winter wheat was rated in mostly good condition with producers continuing to spray for weeds, top-dressing. Livestock were reported in mostly good condition, hay stocks were reported in adequate-to-surplus supply.

**TEXAS:** March was a month of above average rainfall for the western half of the State. Areas of the Northern High Plains, Southern Low Plains saw 2-4 inches of rain accumulate. The Southern Low Plains also received high winds along with the rain, damaging several structures. Pea-sized hail was also reported. The Cross Timbers reported tornado like activity, although no tornadoes were confirmed. The Blacklands, East State, Cross Timbers were frequented by rain several times that was less needed than in western regions. The Trans Pecos region received scattered rain throughout the month ranging from a trace to up to 4 inches in isolated locations with 2 inches being the most typical in eastern portions. The eastern half of the state experienced some drier days after a very wet February. Winter seemed to come to an end by early March as only the northern Panhandle recorded freezing temperatures. Temperatures got as high as the mid 80's in most areas. Soil temperatures were above normal for this time of year, causing some producers to consider early planting. By month's end, wheat conditions had improved dramatically. Fields that had been given up for loss at the end of February were in good enough shape to restock cattle for grazing. Optimism was increasing for the possibility of making a decent grain crop. By mid month, Central State, the Upper Coast had dried up enough to get most of the corn crop in. Earlier planted fields had emerged up to 6 inches. Planting had begun in the Blacklands, was continuing north as April approached. Planting of other row crops such as grain sorghum, cotton soybeans, rice had also made good progress by month's end. Livestock across the state were mostly in good condition through out the month. Supplemental feeding continued across the state, though was decreasing due to pasture improvement. In some areas, the improvement of pastures couldn't have come at a better time as hay supplies were running low Stock ponds, lakes were again able to catch needed water as rains were heavy enough to produce run off in most regions. Prescribed burning was underway on the Edwards Plateau. By month's end, fruit, nut trees were budding, blooming under very suitable conditions.

**UTAH:** Spring thaws in state are continuing, some producers have started spring ground work. Warm weather the last two weeks has moved farming practices up 2-3 weeks. Early winter snows have eased some drought worries but as spring temperatures rise into the high 70's and low 80's concerns about another drought year rise. Bear River canal company is reporting irrigation water is at it lowest point since the early 1900's. This water basin is reporting that irrigation levels will be cut 40 to 60% of normal. Melting snow has revealed small amounts of snow mold, winter freeze but the damage seems limited at this point. Livestock are doing well, calving, lambing have begun. Warmer weather has helped lower the stress for new born animals.

**VIRGINIA:** Days suitable for fieldwork 5.7. Topsoil moisture 1% very short, 16% short, 76% adequate, 7% surplus. Subsoil moisture 7% short, 87% adequate, 6% surplus. Pasture 2% very poor, 18% poor, 42% fair, 33% good, 5% excellent. Livestock 1% very poor, 7% poor, 37% fair, 48% good, 7% excellent. Other Hay 1% very poor, 5% poor, 49% fair, 39% good, 6% excellent. Alfalfa Hay 6% poor, 49% fair, 41% good, 4% excellent. Winter Wheat 2% very poor, 6% poor, 39% fair, 43% good, 10% excellent. Barley 1% very poor, 6% poor, 36% fair, 45% good, 12% excellent. Tobacco Greenhouse 1% fair, 68% good, 31% excellent. Tobacco Greenhouse 72% seeded, NA 2003, NA 5-yr avg. Tobacco Plantbeds 46% good, 54% excellent. Tobacco Plantbeds 64% seeded, NA 2002, NA 5-yr avg. Summer Potatoes 52% fair, 48% good. All Apples 84% fair, 17% good. Peaches 64% fair, 36% good. Farmers took advantage of decent weather in the Commonwealth this wekk. Days suitable for fieldwork were 5.7. Dry and warm weather created ideal conditions for lime application and fertilization. Almost all of Virginia is behind average in rainfall totals for this time of the year. Most of the Commonwealth's small grains have suffered from late planting. In some areas, the winter wheat has been injured by geese. Very little corn has been planted; several farmers are experimenting with a new seed treatment that germinates when the temperature is correct. It is expected that more cropland will be no-till this year. Virginia peaches have begun to bloom, with some areas report up to 25% in bloom. The State's cattlemen are anxious for pastures to green up. Poor hay quality still hampers Virginia's cattle. Encouraging grain prices have row crop farmers looking optimistically towards this years growing season. Most commercial vegetable producers have transplanted cabbage into the fields. Virginia's cabbage conditions look good. On Tuesday morning, most of Virginia experienced an unusual cold snap. Strawberry producers were busy protecting their early blooms with overhead irrigation. Other activities for the week included orchard and vineyard pruning, pasture over seeded, calving, fencing, tomato plastic being laid, repairing equipment, and weed control.

**WASHINGTON:** Spring arrived with a wide array of weather conditions this past month in Western State. Overall, most fields were still too wet with standing water in the low lying areas. However, Pierce, Southern King counties reported they are two weeks ahead in planting due to the good weather. Maintenance, repairs continued on equipment, fencing, irrigation systems. Dairymen in Grays Harbor, Thurston Counties have been pumping manure lagoons onto surrounding forage fields. Shellfish growers have been busy preparing culch for seed set, transplanting oysters for fattening. In Pacific County, harvest of both oysters, hardshell clams continued at higher than normal levels. Christmas tree growers were finishing up their plantings, were getting ready to apply herbicides, fertilizers. Thurston, Grays Harbor Counties reported some late month freezing, which caused visible damage to early blooming tree fruit blossoms. However, in most counties, tree pruning has been completed, many stone fruits were in bloom. Tulip fields bloomed a few days earlier than normal, some plowing and tillage has begun in preparation for the first seeding for early vegetables. On the eastern side of the state most producers experienced dry, windy weather conditions. April showers are greatly needed to help with spring plantings. However, the drier weather has allowed for fieldwork to begin in most counties. Pruning of fruit trees, grapevines has almost been completed, there was very little frost protection needed this past month. Cattle were moved to spring pastures, calving, lambing was well underway. In Grant County, potato, onion, sweet corn, green pea plantings have begun. Lincoln, Asotin, Adams counties reported winter wheat in fair condition with some acres being reseeded due to a late fall cold snap. However, Whitman County reported winter wheat condition as variable, ranging from some in excellent condition to other recrop fields being uneven, thin.

**WEST VIRGINIA:** Topsoil 91% adequate, 9% surplus. Winter wheat 43% fair, 49% good, 8% excellent. Cattle, calves 2% poor, 25% fair, 69% good, 4% excellent. Calving 69% complete, compared to 72% 2003. Sheep, lambs 2% poor, 37% fair, 58% good, 3% excellent. Lambing 64% complete compared to 71% 2003. Hay, roughage supplies 2% very short, 8% short, 83% adequate, 7% surplus. Feed grain supplies 2% very short, 14% short, 84% adequate. Tobacco beds seeded 25%. Activities: Building, repairing fences, applying fertilizer, repairing equipment. Soil testing is nearing completion, lime applications have begun. Grass tetnay has been a problem in some areas.

**WISCONSIN:** March began with above normal temperatures, rainfall. Precipitation changed from mainly snow in early March to mainly rain, with occasional snow flurries by the end of the month. While southern state field are starting to awaken, northern state is still dealing snow cover.

**WYOMING:** Days suitable for field work 4.8. Topsoil 16% very short, 39% short, 44% adequate, 1% surplus. Barley 44% planted, 14% 2003, 5-yr 27% avg. Oats 8% planted, 1% 2003, 3% 5-yr avg. Spring wheat 8% planted, 1% 2003, 6% 5-yr avg. Winter wheat 18% poor, 62% fair, 20% good, wind damage 39% none, 31% light, 23% moderate, 7% severe, wheat freeze damage 88% none, 11% light, 1% moderate. Spring calves 51% born, 49% 2003, 53% 5-yr avg. Farm flock ewes 55% lambed, 53% 2003, 59% 5-yr avg. Farm flock sheep 61% shorn,60% 2003, 61% 5-yr avg. Range flock ewes 6% lambed, 6% 2003, 8% 5-yr avg. Range flock sheep 22% shorn, 20% 2003, 21% 5-yr avg. Calf, lamb losses remained mostly normal to light. Range, pasture feed supplies 7% very poor, 13% poor, 41% fair, 39% good. Stock water supplies 16% very short, 30% short, 54% adequate. Temperatures were well above normal at all stations. Temperatures ranged from 8.1° above normal in Greybull to 16.1° above normal in Laramie. The highest temperature was 79° in Torrington, Wheatland, the lowest temperature was 15° in Archer. Precipitation was below normal at all stations. Most stations reported less than a tenth of an inch for the week. The most precipitation fell in Saratoga with 0.35 inch, Afton with 0.19 inch, and Evanston, Rawlins with 0.15 inch.

# International Weather and Crop Summary

**March 21 - 27, 2004**

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

## HIGHLIGHTS

**EUROPE:** Widespread rain favored greening winter crops and increased topsoil moisture for spring fieldwork.

**FSU-WESTERN:** Continued unusually mild weather prompted greening of winter grains in Ukraine and the Southern Region in Russia and raised soil temperatures to favorable levels for early spring grain planting.

**MIDDLE EAST:** Mostly dry, warm weather promoted winter and spring crop development but increased water use for winter crops.

**NORTHWESTERN AFRICA:** Widespread timely rain boosted soil moisture for reproductive winter grains, especially in eastern Algeria and Tunisia.

**SOUTH AFRICA:** Scattered showers returned to most major summer crop areas, boosting late-season moisture reserves for immature corn and other crops.

**AUSTRALIA:** Warmth and dryness benefited summer crop drydown and early harvesting.

**EASTERN ASIA:** Warm, dry weather continued along the North China Plain, increasing moisture demands on vegetative wheat.

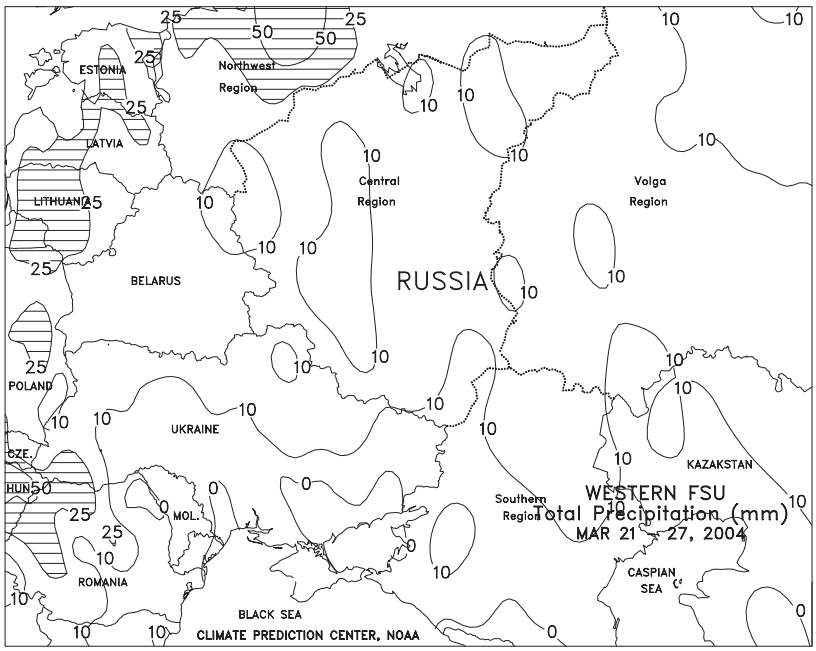
**SOUTHEAST ASIA:** Showers continued in Java, Indonesia, and Sumatra, while warm weather prevailed in Thailand.

**BRAZIL:** Unfavorably dry weather persisted in southern growing areas, while in the north, declining showers enabled soybean harvesting.

**ARGENTINA:** Unseasonable warmth and dryness promoted summer crop maturation and harvesting.

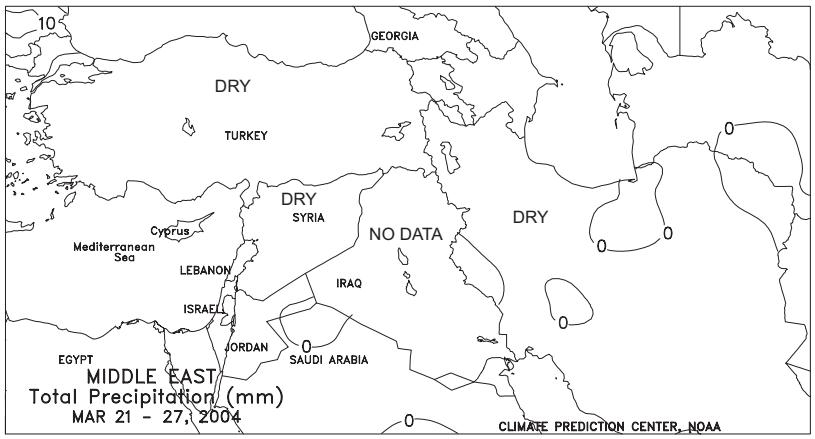
## EUROPE

A series of low-pressure systems brought slightly cooler, wetter weather to Europe. Widespread rain (5-15 mm) covered most of Europe, favoring greening winter grains and increasing topsoil moisture for spring fieldwork. The heaviest rain (20-50 mm) was concentrated from the Alps and central Poland southward into the western Balkans. Across the southern Iberian peninsula, rain (5-20 mm) benefited reproductive winter grains. Across the eastern third of Europe, temperatures averaged near normal to 3 degrees C above normal, prompting winter grains and oilseeds to begin breaking dormancy. In the western two-thirds of Europe, temperatures averaged 1 to 4 degrees C below normal, but winter crops continued to break dormancy.



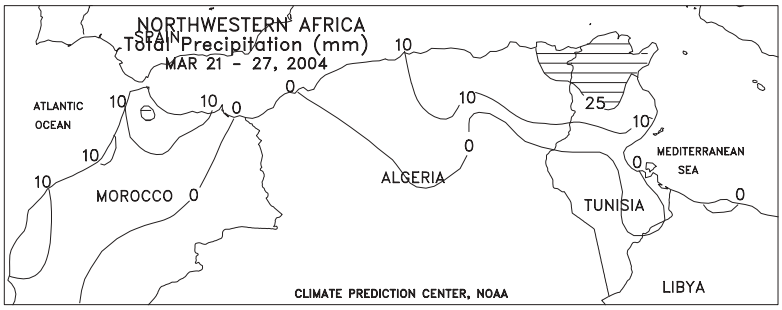

## FSU-WESTERN

Unseasonably warm weather continued to prevail across the region, with weekly temperatures averaging 4 to 9 degrees C above normal in Ukraine, Moldova, most of Russia, and Belarus. The unusually mild weather prompted winter wheat in Ukraine and the Southern Region in Russia to break dormancy about 1 to 2 weeks earlier than usual. Furthermore, extreme maximum temperatures in these areas ranged from 15 to 25 degrees C, warming topsoils to favorable levels for early spring grain planting. Elsewhere, maximum temperatures in northern Belarus and northern Russia (Central and Volga Regions) ranged from 5 to 15 degrees C, causing considerable melting of snow cover. Mostly dry weather prevailed from the southern half of Ukraine eastward through the Southern Region in Russia, helping fieldwork. Light precipitation (10-25 mm) fell in northern Ukraine, Belarus, and the Central and Volga Regions in Russia. The greatest amounts of precipitation (15-40 mm) were confined to the Baltics.



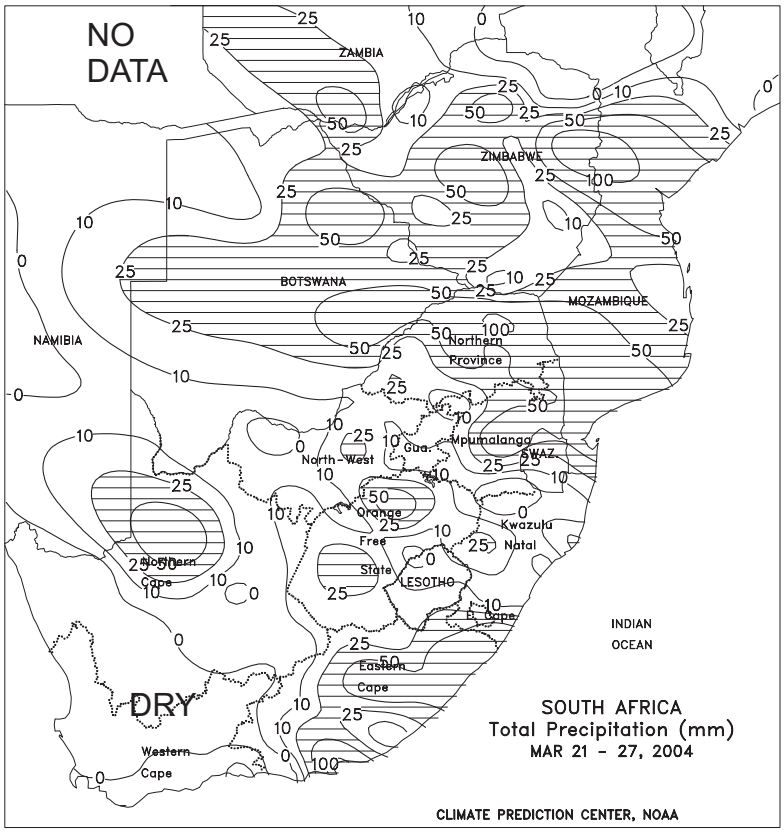

## MIDDLE EAST

Across Turkey, the eastern Mediterranean, and western Iran, mostly dry, warm weather promoted crop development and favored spring crop planting. The warmth, however, increased crop water use for rainfed and irrigated crops. Across the central Turkish Plateau, the warmer weather prompted winter grains to begin breaking dormancy in the central Plateau, and, currently, subsoil moisture is adequate for greening winter wheat. In southeastern Turkey and the eastern Mediterranean, winter grains are vegetative to reproductive. Based on reports from surrounding countries, dry weather covered most of northern Iraq. Temperatures across the region averaged 2 to 6 degrees C above normal, with maximum temperatures reaching 20 to 25 degrees C in the north and 25 to 30 degrees C in the south.



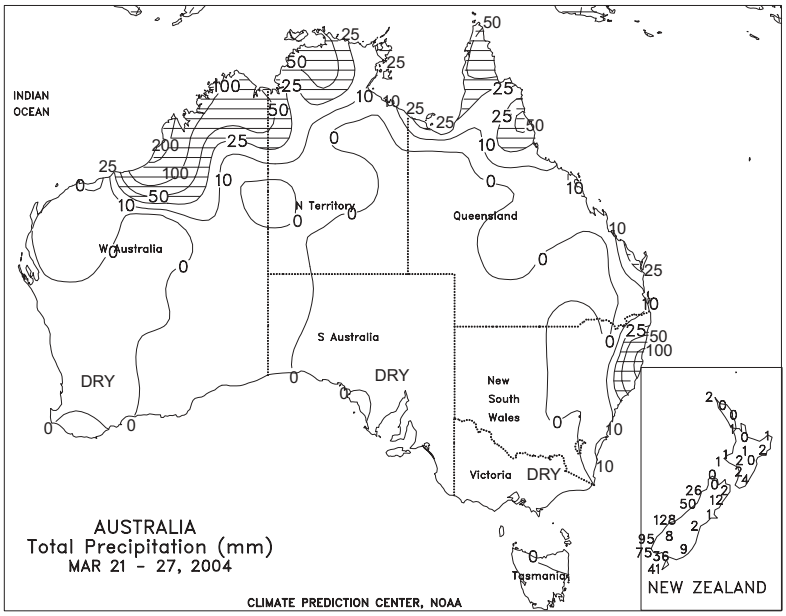

## NORTHWESTERN AFRICA

Widespread timely rain fell across most of the major winter grain areas. The rain (10-40 mm or more) was especially timely after several weeks of dry weather in eastern Algeria and Tunisia, boosting soil moisture for reproductive winter grains. Across eastern Morocco and western Algeria, lighter rain (5-15 mm) maintained adequate soil moisture for reproductive winter grains. Temperatures averaged near normal in the region, keeping crop water use at average levels.



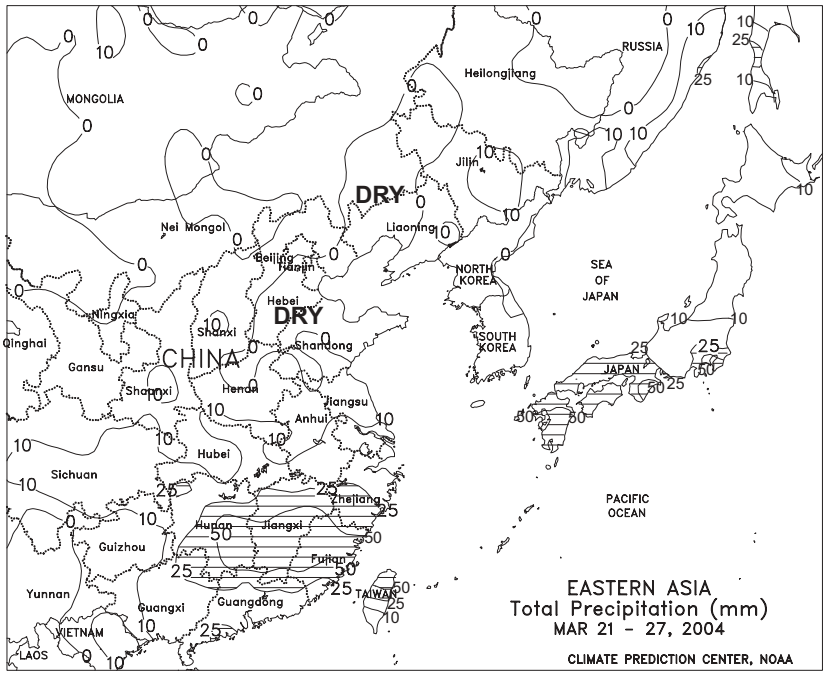

## SOUTH AFRICA

Scattered, light to moderate showers (5-25 mm, locally exceeding 50 mm) returned to the corn belt, boosting late-season moisture reserves for immature summer crops, especially that portion of the crop planted in early-January. The rainfall also increased topsoil moisture for germination of winter wheat, which is usually planted from April to June. Near-normal temperatures (highs in the middle and upper 20s degrees C) helped to advance crops toward maturity. Elsewhere, moderate to heavy showers (10-50 mm or more) covered crop areas of Limpopo (Northern Province) and Eastern Cape, but drier weather prevailed in Western Cape and most sugarcane areas in and around KwaZulu-Natal.



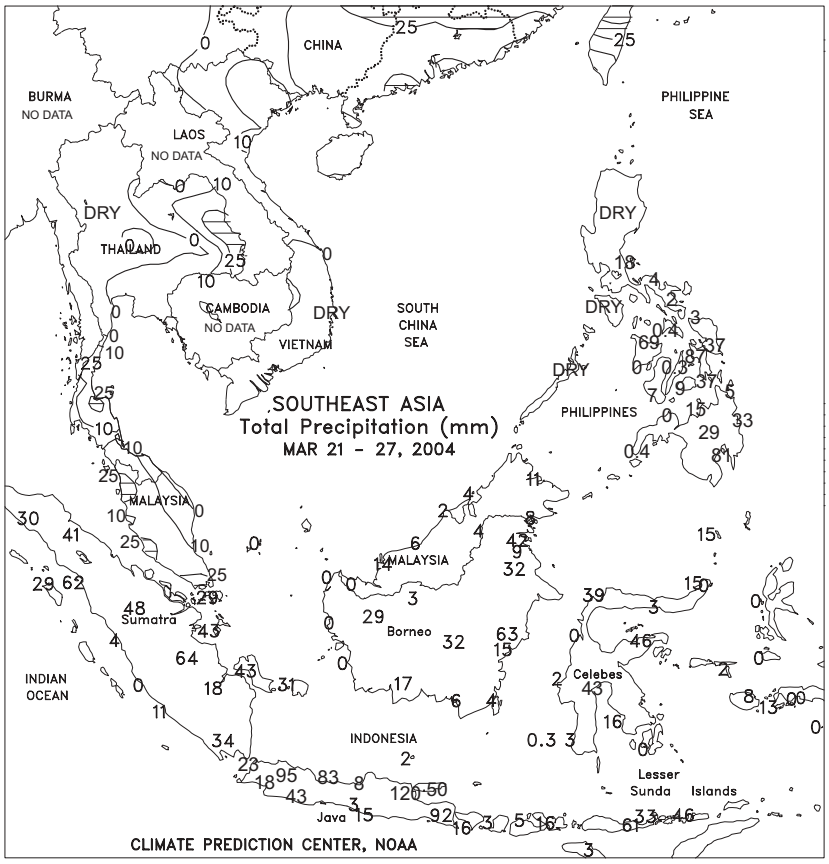

## AUSTRALIA

Mostly dry weather prevailed in primary sorghum and cotton areas of eastern Australia (interior sections of southern Queensland and northern New South Wales), aiding crop maturation and early harvests. The drier weather was accompanied by near-normal temperatures (highs mostly in the lower 30s degrees C), which also favored crops in the late stages of development. Along the coast, mild, showery weather (rainfall locally exceeding 25 mm) boosted moisture reserves in southern sugarcane areas (southern Queensland and northernmost New South Wales), but dry weather continued farther north.



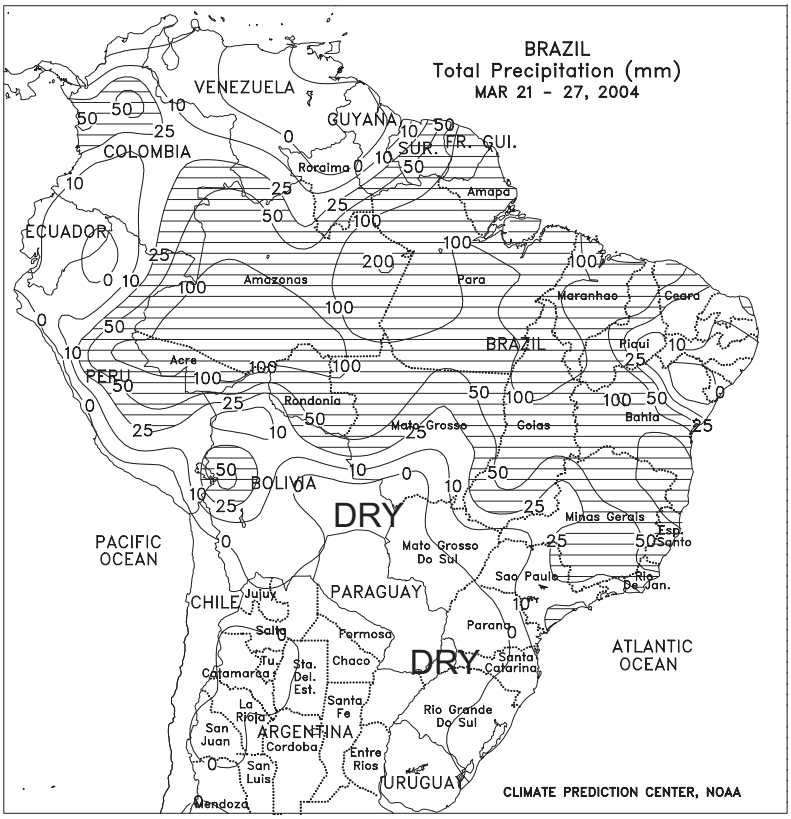

## EASTERN ASIA

Temperatures continued to be 1 to 3 degrees C above normal (highs reaching into the mid 20's degrees C) along the North China Plain, with freezing temperatures confined to Manchuria. The warm temperatures have increased moisture demands on vegetative crops, and rainfall has been limited. Rainfall will be needed in upcoming weeks to support normal development. Light showers (10-25 mm) benefited jointing to heading winter wheat from the Sichuan Basin to Jiangsu. Heavy showers (25-100 mm) fell in southern China, south of the Yangtze Valley, benefiting emerging rice. Showers were also heavy throughout southern Japan, while dry weather prevailed in the Koreas.



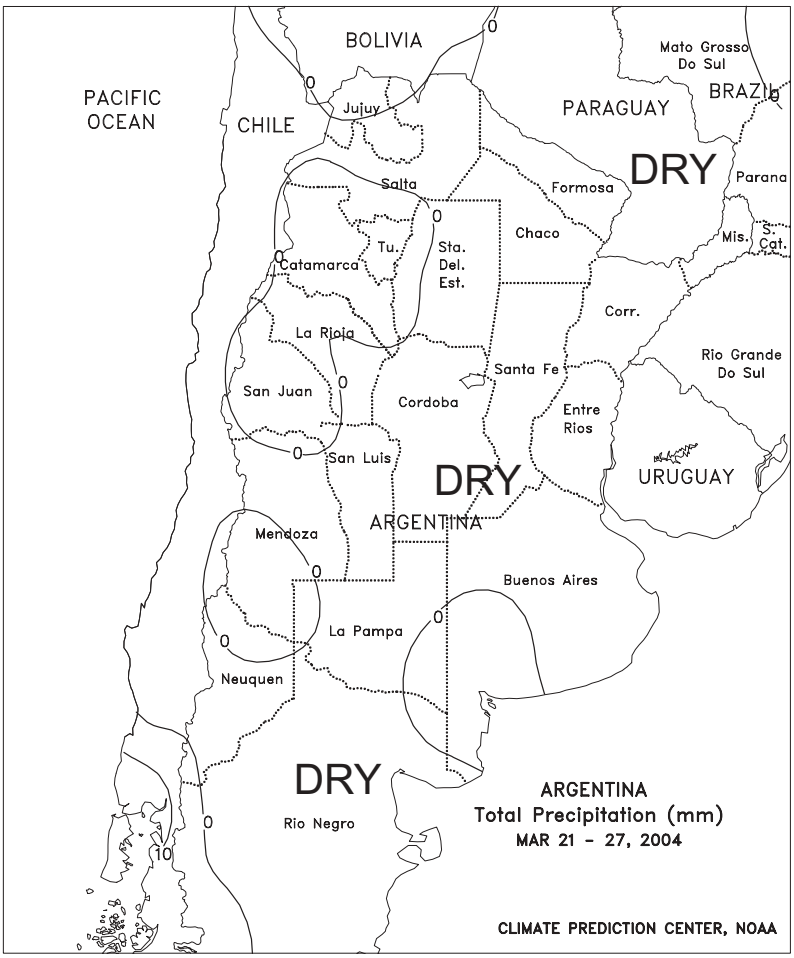

## SOUTHEAST ASIA

Showers (25-100 mm) continued to be heavy throughout Java, Indonesia, especially in the east. Rice continued to range from filling to mature. In Sumatra, showers (25-100 mm) increased moisture supplies for oil palm, while in Malaysia, dry weather kept short-term moisture supplies low. Maximum temperatures in Thailand reached into the upper 30's to over 40 degrees C, increasing moisture demands on reproductive to maturing rice.




## BRAZIL

Mostly dry, warm weather (temperatures averaging near to below normal, but with highs hovering in the lower and middle 30s degrees C) dominated the south from Mato Grosso do Sul and Sao Paulo southward to Rio Grande do Sul. The dry, sunny weather pushed main-season summer crops toward maturity in these areas, with moisture remaining limited for late pod-filling beans and vegetative winter corn in parts of Parana and Rio Grande do Sul. On March 28, an unprecedented southern Atlantic hurricane made landfall near the border of Rio Grande do Sul and Santa Catarina (see page 19). However, moisture from the storm was apparently confined to the immediate coast, with little or no rainfall reaching the main agricultural areas. Farther north, scattered showers (25-50 mm or more) continued across the North and Northeast, although breaks in the rainfall supported soybean harvesting from Mato Grosso to Minas Gerais. According to independent sources from within Brazil, soybeans were 42 percent harvested as of March 26, comparable to last season's pace. In the major producing states of Mato Grosso and Parana, soybeans were 75 and 58 percent harvested, respectively, also similar to last year. Harvesting was just beginning in Rio Graude do Sul.




## ARGENTINA

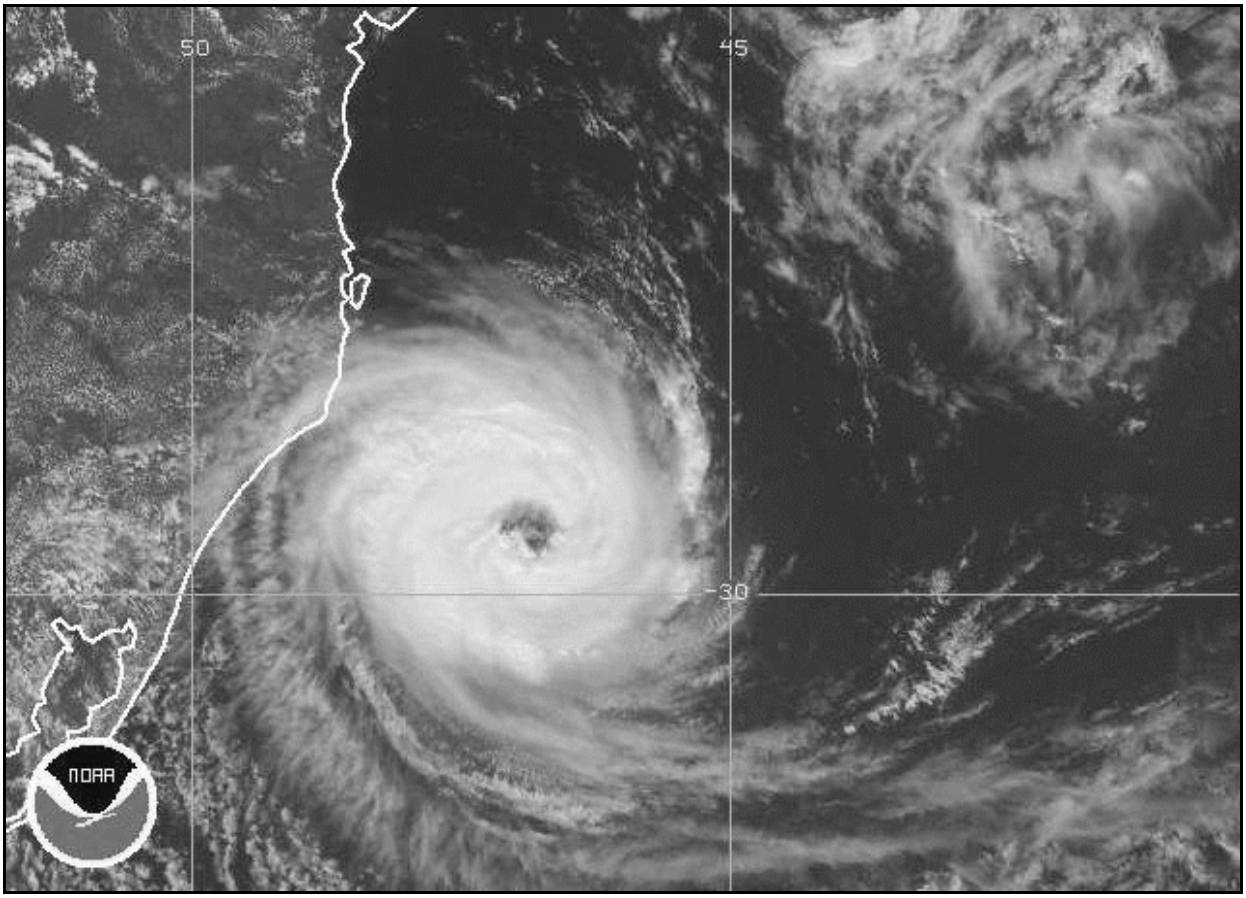
Unseasonably warm (highs in the middle to upper 30s degrees C), dry weather dominated the region. In central and northern summer crop areas (Santa Fe and Entre Rios northward to Formosa), conditions favored maturing grains, oilseeds, and cotton, although moisture was limited for development of immature, double-cropped soybeans. In western and southern growing areas (southern Cordoba, La Pampa, and Buenos Aires), the weather spurred growth of late-planted corn, sunflowers, and soybeans. According to the Argentine Ministry of Agriculture, corn and sunflowers were 27 and 68 percent harvested, respectively, as of March 26. The harvest pace lagged last year's pace, partly due to this season's late planting in western growing areas. In contrast, cotton was 36 percent harvested, compared with 15 percent last season. Independent sources with Argentina place soybeans at over 10 percent harvested. Winter wheat planting is usually underway by May, and a return to normal rainfall is needed to recharge soil moisture reserves.

## Unprecedented South Atlantic Hurricane Strikes Southern Brazil

Early in the week, a compact, upper-air low pressure system migrated southward from southeastern Brazil to over the southern Atlantic Ocean. The system rapidly intensified on March 26 as it moved westward over warm ocean surface waters and developed tropical characteristics, including a well-defined eye that was visible on satellite imagery. According to meteorologists at the National Hurricane Center, the storm was the first hurricane in the South Atlantic Ocean since satellite tracking began in 1966. The intensifying storm continued to track westward, eventually hitting the coast of southern Brazil in the early morning hours of Sunday, March 28. The storm made landfall near the border of Santa Catarina and Rio Grande do Sul with sustained winds estimated at 80 mph, making it a category 1 hurricane.

Heavy rains were localized and confined to a small area near where the storm had made landfall. Satellite-estimated rainfall totals of 100-150 mm were limited to coastal locations, with the highest reported rainfall amount being 83 mm at Florianopolis, Santa Catarina, and 61 mm at Torres on the Rio Grande do Sul coast near the border of Santa Catarina. In Rio Grande do Sul, Vacaria, some 70 miles northwest of Torres, and Erechim, about 100 miles northwest of Vacaria, both received only 25 mm of rain. Fortunately, the hurricane rapidly dissipated as it interacted with the rugged Serra Geral Mountains, and by Sunday evening the storm was only a low cloud swirl over eastern Santa Catarina. Agricultural impacts from the hurricane were likely minimal.

According to press reports, the storm, dubbed "Catarina" by local meteorologists, produced wind gusts as high as 95 mph in southeastern Santa Catarina and waves up to 16 feet along the southern Brazil coast. According to local Civil Defense officials, about 20,000 homes in Santa Catarina were damaged, destroying 500 of them completely. That left about 1,500 people homeless, and up to 15,000 had to flee their homes. In Ararangua and Criciuma, at least 5,500 and 3,200 homes lost their roofs, respectively. In addition, two fishing boats with a total crew of 11 were reportedly missing off the Santa Catarina coast. In Torres, Rio Grande do Sul, over 400 homes lost their roofs, and electricity was cut to approximately 35,000 customers for over 12 hours. Overall, two people were killed, and at least 39 others were injured.




**GOES-East Visible Satellite Image, March 27, 2004 at 1445 UTC (9:45 am EST)**

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