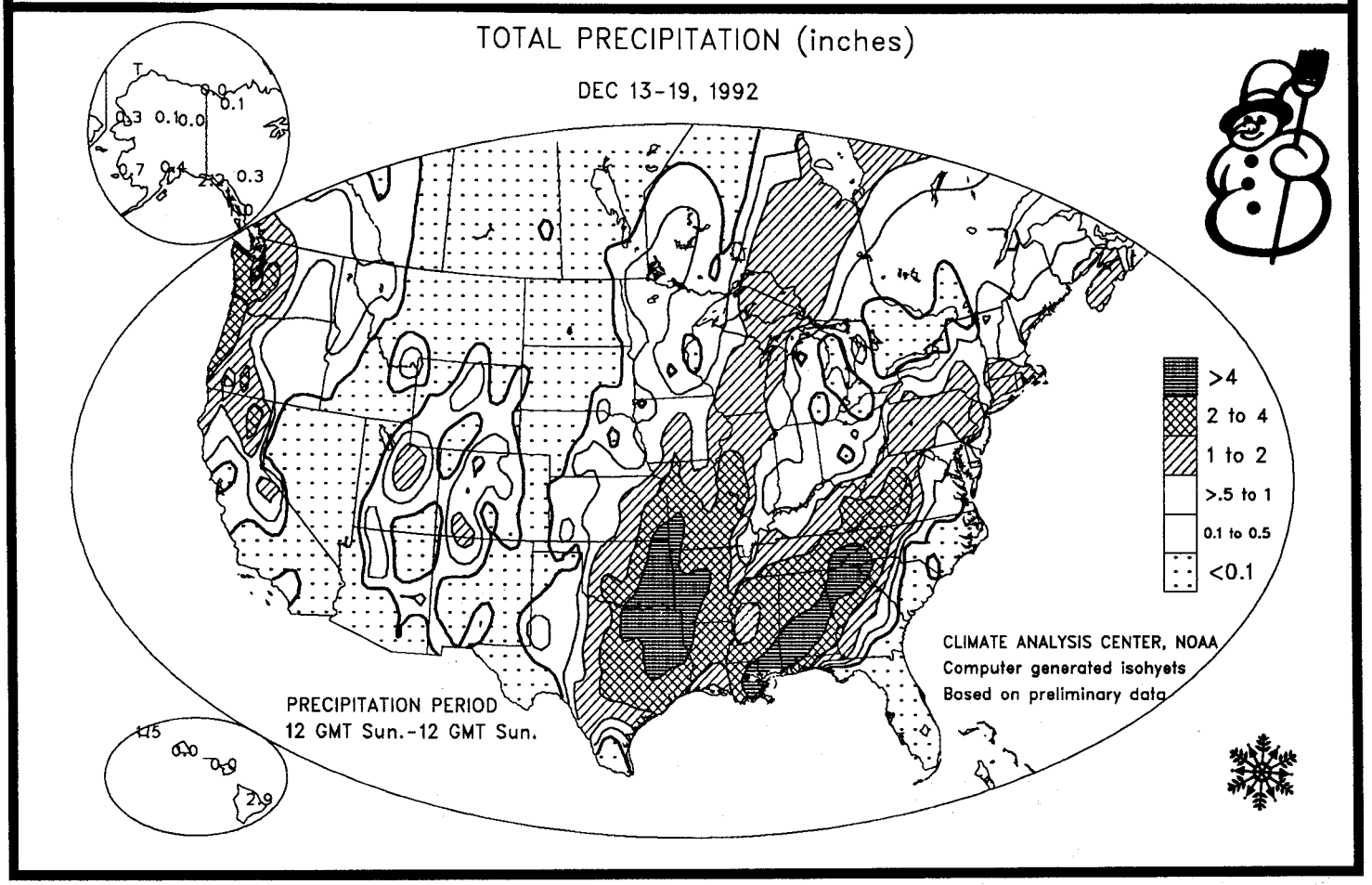
# WEEKLY WEATHER AND CROP BULLETIN

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

Volume 79, No. 51 | Washington, D.C. | December 22, 1992


# HIGHLIGHTS

## December 13 - 19, 1992

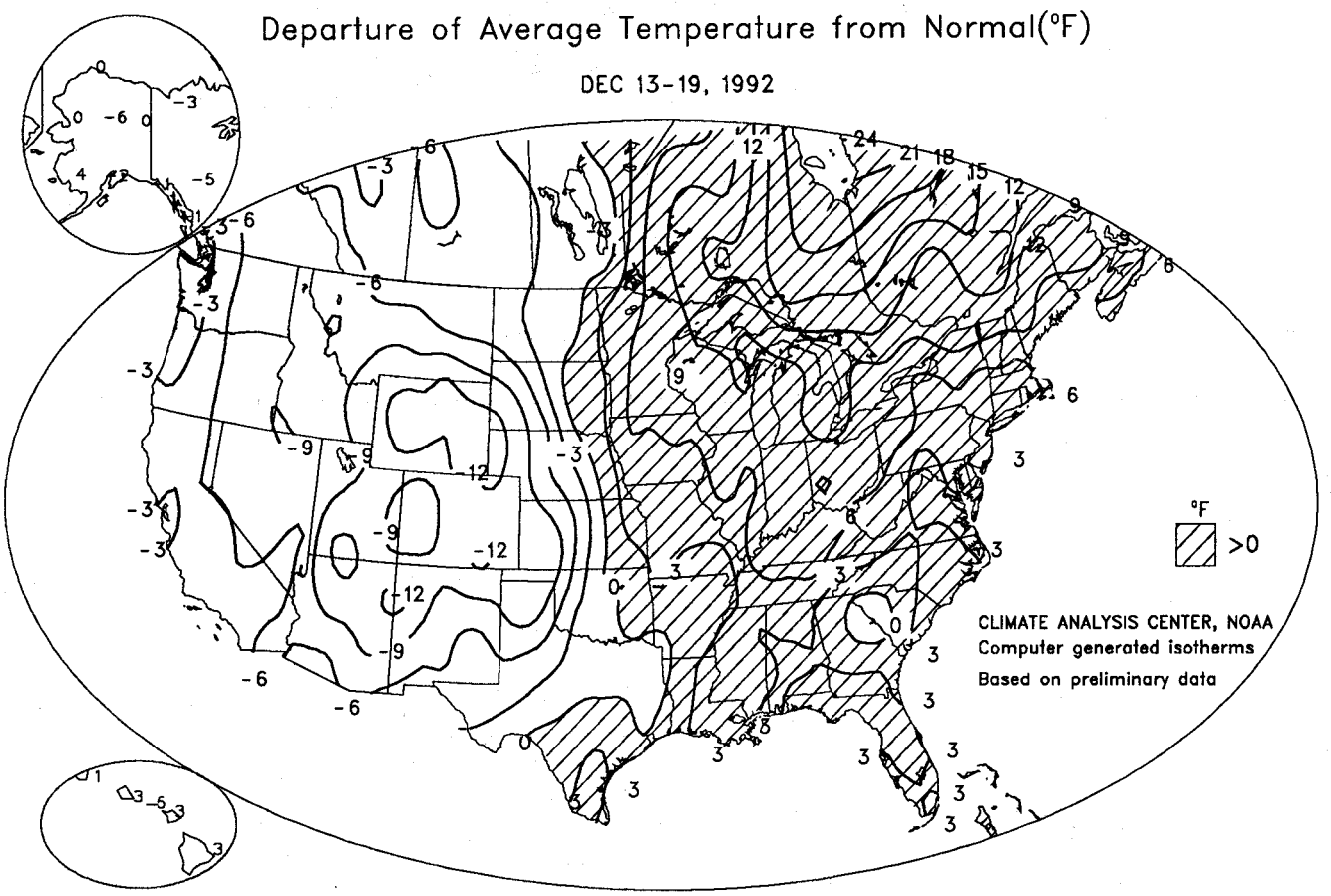
A slow-moving storm dumped heavy precipitation from the **Plains** to the **Appalachians** until midweek. Thereafter, a Pacific storm drove southeastward, reinforcing a cold airmass already in place across the **West**. Last week's fierce east coast storm finally weakened and drifted eastward early in the week, while a new storm took form in the **southern Plains**. Heavy rain developed from **northeastern Texas** to **Missouri**, causing widespread flash flooding. In **northeastern Oklahoma**, where 2 to 6 inches of rain fell, river flooding resulted on the **Neosho River**, **Deep Fork Creek**, **Cache Creek**, and the **Arkansas River**. Along the precipitation shield's western edge, snowfall topped 6 inches from **northern Texas** to **Minnesota**. Meanwhile in **Alaska**, a pool of bitterly cold air formed and began to glide southeastward. By Wednesday morning, temperatures sagged to -50°F in

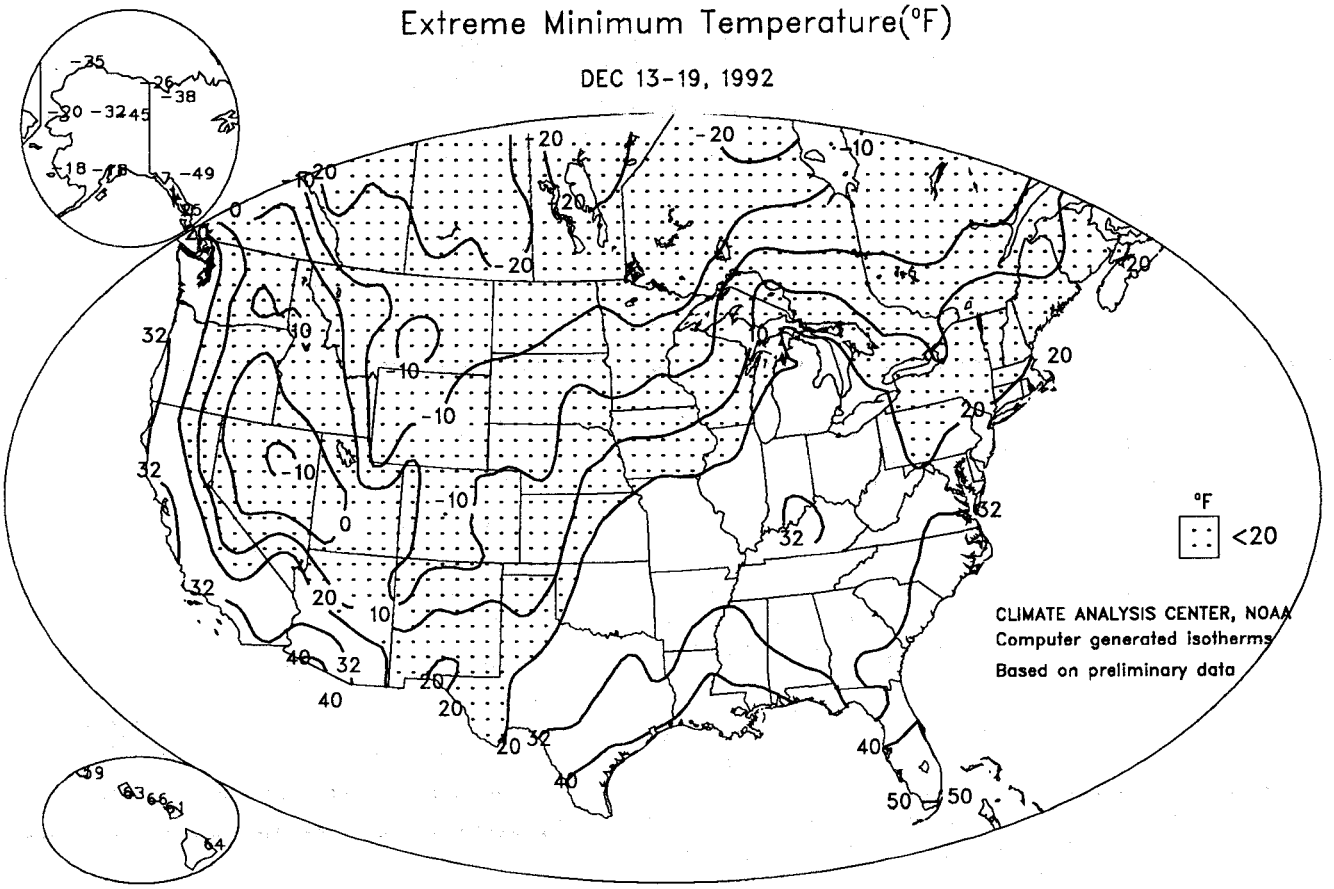
(Continued to p. 12)

## Contents


Page

Highlights & Total Precipitation Map ..... 1
Temperature Departure & Extreme Minimum Temperature Maps ..... 2
**Freezing Temperatures in Southern California** & Snow Cover Map ..... 3
National Weather Data for Selected Cities .... 4
Weekly Heating Degree Table ..... 7
National Agricultural Summary ..... 8
State Summaries of Weather and Agriculture ... 9
International Weather and Crop Summary ..... 13
Subscription and Mailing Permit Information & **The Last of the "Old Breed" Departs** .....16

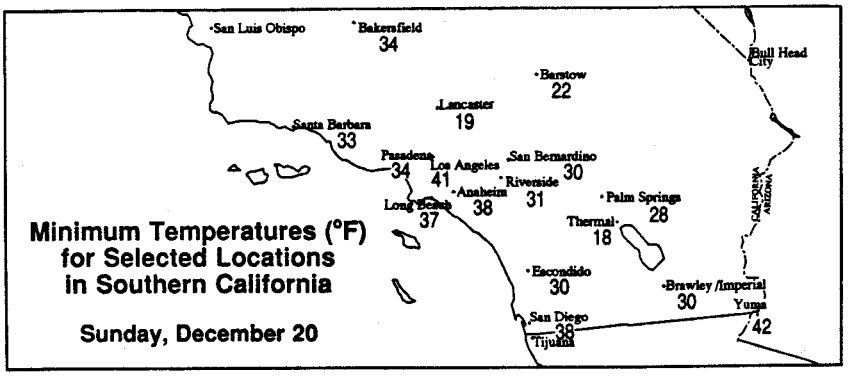

Departure of Average Temperature from Normal(°F)
DEC 13-19, 1992
°F
>0
CLIMATE ANALYSIS CENTER, NOAA
Computer generated isotherms
Based on preliminary data

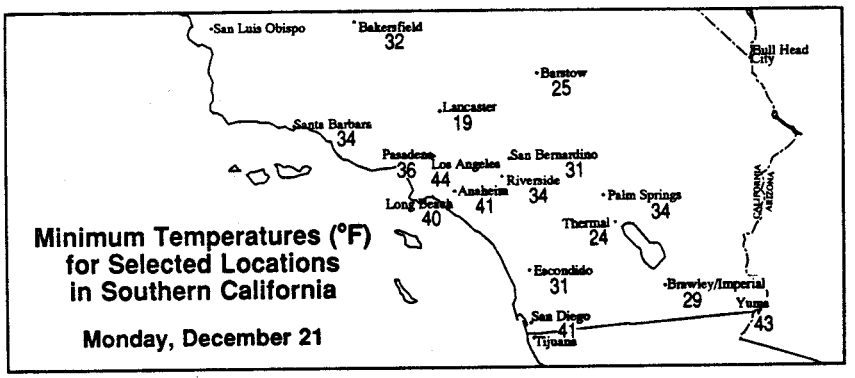

Extreme Minimum Temperature(°F)
DEC 13-19, 1992
°F
<20
CLIMATE ANALYSIS CENTER, NOAA
Computer generated isotherms
Based on preliminary data

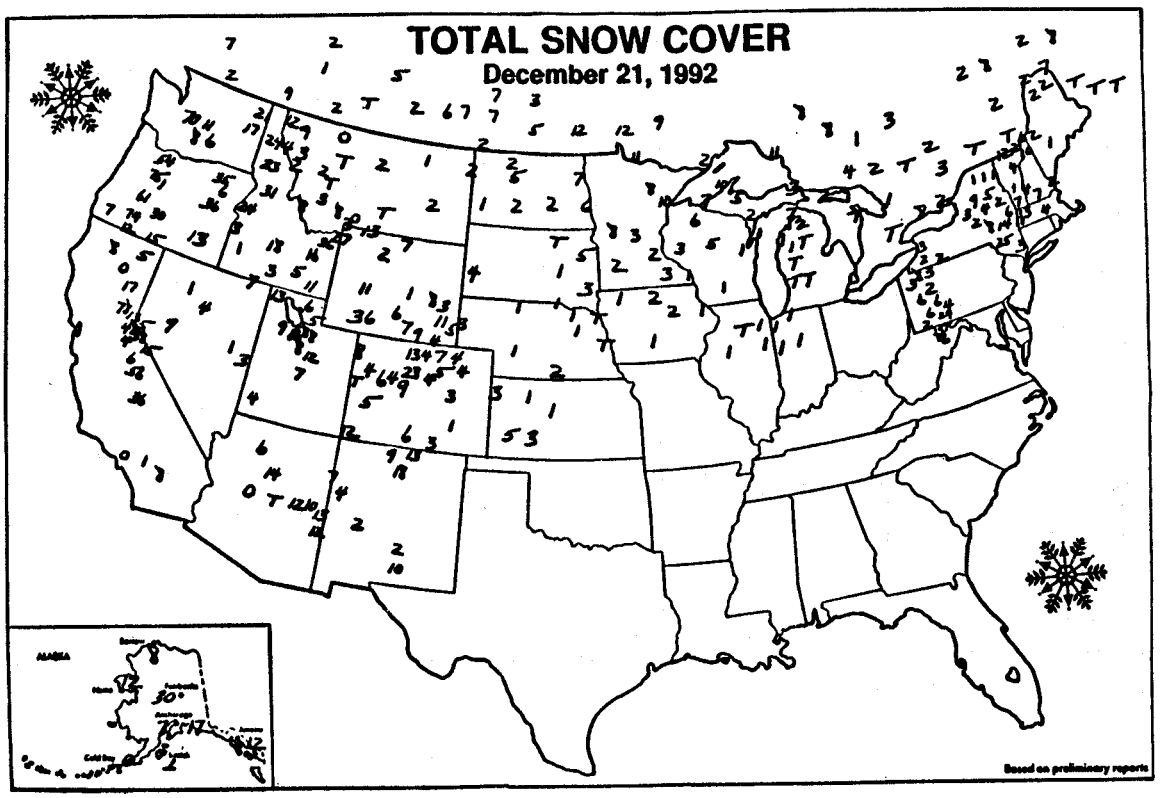
# Freezing Temperatures in Southern California

A strong cold front crossed southern California on Friday, December 18, bringing gusty northerly winds and colder weather. As a high pressure center settled over the Great Basin a day later, winds calmed, allowing for radiational cooling on Saturday night. By Sunday morning, temperatures fell into the upper 10s to around 30°F throughout southern California's desert valleys. Thermal, CA, located northwest of the Salton Sea in the Coachella Valley, dipped to 18°F. Readings were generally a few degrees warmer on Monday morning, but minimum temperatures still reached near- or below-freezing levels. Imperial, CA, south of the Salton Sea, registered 29°F.

Preliminary reports (see page 9) indicate that there were no adverse effects on the Coachella Valley citrus (grapefruit, lemons, oranges), and that growers were well-prepared to use protective measures such as wind machines.



# National Weather Data for Selected Cities

## Weather Data for the Week Ending December 19, 1992

| STATES AND STATIONS | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP. | |
| | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Dec 1 | PCT. NORMAL SINCE Dec 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| AL BIRMINGHAM | 57 | 38 | 63 | 26 | 48 | 3 | 2.2 | 1.1 | 1.6 | 3.9 | 131 | 55.2 | 105 | 93 | 59 | 0 | 2 | 4 | 1 |
| MOBILE | 64 | 47 | 70 | 39 | 56 | 3 | 3.6 | 2.4 | 2.1 | 5.3 | 159 | 70.5 | 113 | 94 | 68 | 0 | 0 | 4 | 2 |
| MONTGOMERY | 61 | 40 | 66 | 27 | 50 | 2 | 5.3 | 4.2 | 3.9 | 6.6 | 228 | 64.4 | 137 | 96 | 60 | 0 | 1 | 3 | 2 |
| AK ANCHORAGE | 17 | 4 | 29 | -9 | 10 | -3 | .5 | .2 | .3 | .5 | 81 | 14.3 | 99 | 91 | 67 | 0 | 7 | 4 | 0 |
| BARROW | -7 | -22 | 12 | -35 | -14 | -1 | T | .0 | T | .1 | 75 | 2.6 | 57 | 80 | 71 | 0 | 7 | 2 | 0 |
| FAIRBANKS | 2 | -16 | 12 | -40 | -7 | 4 | .5 | .3 | .3 | .8 | 178 | 12.4 | 122 | 84 | 74 | 0 | 7 | 6 | 0 |
| JUNEAU | 31 | 22 | 43 | 10 | 26 | -1 | 1.6 | .5 | 1.0 | 3.8 | 130 | 77.2 | 150 | 97 | 67 | 0 | 6 | 4 | 1 |
| KODIAK | 32 | 22 | 36 | 17 | 27 | -3 | .2 | -1.0 | .2 | 3.6 | 106 | 56.0 | 95 | 85 | 50 | 0 | 7 | 1 | 0 |
| NOME | 13 | -6 | 31 | -17 | 3 | 0 | .2 | .1 | .2 | 1.0 | 266 | 12.5 | 87 | 89 | 74 | 0 | 7 | 3 | 0 |
| AZ PHOENIX | 56 | 40 | 58 | 37 | 48 | -5 | T | -.2 | T | 2.2 | 447 | 13.3 | 202 | 78 | 33 | 0 | 0 | 1 | 0 |
| PRESCOTT | 39 | 20 | 40 | 17 | 29 | -10 | T | -.2 | T | 1.2 | 186 | 19.8 | 160 | 87 | 46 | 0 | 7 | 1 | 0 |
| TUCSON | 56 | 33 | 64 | 29 | 44 | -7 | .3 | .0 | .3 | 2.8 | 491 | 15.8 | 147 | 86 | 30 | 0 | 4 | 2 | 0 |
| YUMA | 60 | 43 | 62 | 38 | 51 | -5 | .1 | .0 | .1 | 2.3 | >1000 | 5.7 | 248 | 51 | 20 | 0 | 0 | 1 | 0 |
| AR FORT SMITH | 48 | 36 | 55 | 30 | 42 | 1 | 3.5 | 2.8 | 1.5 | 5.0 | 273 | 48.2 | 124 | 98 | 74 | 0 | 4 | 4 | 2 |
| LITTLE ROCK | 50 | 38 | 56 | 33 | 44 | 1 | 3.0 | 2.0 | 1.5 | 4.1 | 156 | 45.6 | 96 | 90 | 73 | 0 | 0 | 3 | 2 |
| CA BAKERSFIELD | 49 | 34 | 60 | 30 | 42 | -6 | .2 | .0 | .2 | 1.4 | 368 | 8.0 | 150 | 97 | 58 | 0 | 3 | 1 | 0 |
| EUREKA | 51 | 38 | 53 | 34 | 44 | -4 | .4 | -1.0 | .2 | 5.5 | 146 | 25.4 | 70 | 90 | 66 | 0 | 0 | 4 | 0 |
| FRESNO | 49 | 35 | 52 | 29 | 42 | -3 | .2 | -.2 | .2 | 2.0 | 218 | 13.5 | 138 | 98 | 68 | 0 | 3 | 1 | 0 |
| LOS ANGELES | 62 | 45 | 67 | 42 | 54 | -3 | .2 | -.2 | .2 | 2.9 | 325 | 15.3 | 136 | 68 | 30 | 0 | 0 | 1 | 0 |
| REDDING | 52 | 34 | 59 | 25 | 43 | -4 | .1 | -1.5 | .0 | 7.9 | 190 | 35.2 | 92 | 88 | 35 | 0 | 3 | 2 | 0 |
| SACRAMENTO | 52 | 33 | 58 | 28 | 43 | -3 | .1 | -.6 | .1 | 3.5 | 210 | 15.2 | 96 | 96 | 52 | 0 | 2 | 1 | 0 |
| SAN DIEGO | 62 | 44 | 66 | 41 | 53 | -4 | .1 | -.2 | .1 | 1.7 | 231 | 11.9 | 139 | 76 | 36 | 0 | 0 | 1 | 0 |
| SAN FRANCISCO | 55 | 41 | 60 | 35 | 48 | -1 | .3 | -.5 | .3 | 4.0 | 200 | 18.7 | 104 | 84 | 43 | 0 | 0 | 1 | 0 |
| CO DENVER | 31 | 7 | 40 | -4 | 19 | -13 | .3 | .2 | .2 | .7 | 203 | 15.7 | 106 | 94 | 53 | 0 | 7 | 4 | 0 |
| GRAND JUNCTION | 31 | 17 | 34 | 6 | 24 | -4 | .1 | -.1 | .1 | .3 | 88 | 9.1 | 119 | 89 | 54 | 0 | 7 | 2 | 0 |
| PUEBLO | 34 | 8 | 44 | 1 | 21 | -12 | .3 | .2 | .2 | .4 | 232 | 12.3 | 115 | 93 | 57 | 0 | 7 | 2 | 0 |
| CT BRIDGEPORT | 45 | 33 | 54 | 24 | 39 | 5 | .9 | .0 | .9 | 3.2 | 136 | 45.0 | 113 | 88 | 64 | 0 | 4 | 2 | 1 |
| HARTFORD | 40 | 27 | 43 | 20 | 33 | 4 | .7 | -.2 | .7 | 3.5 | 135 | 41.2 | 96 | 93 | 61 | 0 | 5 | 1 | 1 |
| DC WASHINGTON | 47 | 36 | 59 | 34 | 42 | 3 | .3 | -.4 | .3 | 1.9 | 98 | 35.5 | 94 | 87 | 64 | 0 | 0 | 2 | 0 |
| FL APALACHICOLA | 66 | 52 | 73 | 38 | 59 | 4 | .1 | -.7 | .1 | 1.1 | 54 | 55.9 | 104 | -- | -- | 0 | 0 | 1 | 0 |
| DAYTONA BEACH | 73 | 53 | 78 | 37 | 63 | 4 | T | -.5 | T | .2 | 15 | 46.1 | 97 | 98 | 60 | 0 | 0 | 0 | 0 |
| JACKSONVILLE | 69 | 49 | 79 | 32 | 59 | 4 | T | -.6 | T | .5 | 37 | 63.1 | 125 | 98 | 62 | 0 | 1 | 0 | 0 |
| KEY WEST | 78 | 66 | 81 | 55 | 72 | 1 | T | -.4 | T | .1 | 4 | 37.1 | 96 | 84 | 52 | 0 | 0 | 0 | 0 |
| MIAMI | 79 | 62 | 82 | 49 | 71 | 2 | .0 | -.4 | .0 | T | 0 | 55.9 | 98 | 88 | 47 | 0 | 0 | 0 | 0 |
| ORLANDO | 76 | 55 | 80 | 40 | 66 | 4 | T | -.4 | T | .7 | 63 | 52.8 | 109 | 97 | 54 | 0 | 0 | 0 | 0 |
| TALLAHASSEE | 71 | 46 | 76 | 28 | 58 | 6 | .2 | -.9 | .2 | 1.2 | 44 | 62.7 | 100 | 94 | 51 | 0 | 1 | 1 | 0 |
| TAMPA | 76 | 55 | 81 | 37 | 66 | 5 | .0 | -.5 | .0 | 1.9 | 147 | 36.7 | 80 | 96 | 51 | 0 | 0 | 0 | 0 |
| WEST PALM BEACH | 78 | 61 | 81 | 46 | 69 | 2 | T | -.5 | T | .1 | 5 | 59.3 | 101 | 93 | 51 | 0 | 0 | 0 | 0 |
| GA ATLANTA | 54 | 37 | 59 | 31 | 46 | 1 | 3.8 | 2.8 | 3.1 | 5.2 | 209 | 58.9 | 126 | 100 | 67 | 0 | 1 | 3 | 2 |
| AUGUSTA | 58 | 34 | 66 | 28 | 46 | -1 | .5 | -.2 | .5 | 1.3 | 71 | 50.5 | 121 | 98 | 62 | 0 | 2 | 1 | 1 |
| MACON | 60 | 36 | 65 | 28 | 48 | -1 | 1.1 | .2 | 1.1 | 2.6 | 110 | 57.5 | 133 | 97 | 61 | 0 | 2 | 1 | 1 |
| SAVANNAH | 63 | 44 | 74 | 34 | 54 | 3 | .1 | -.5 | .1 | 1.5 | 90 | 58.4 | 120 | 91 | 59 | 0 | 0 | 1 | 0 |
| HI HILO | 84 | 67 | 86 | 65 | 75 | 3 | 2.9 | .0 | 2.5 | 7.0 | 84 | 109.9 | 89 | 93 | 60 | 0 | 0 | 4 | 1 |
| HONOLULU | 85 | 69 | 88 | 63 | 77 | 4 | .0 | -.8 | .0 | .3 | 17 | 12.8 | 58 | 88 | 52 | 0 | 0 | 0 | 0 |
| KAHULUI | 86 | 66 | 87 | 61 | 76 | 3 | T | -.6 | T | .6 | 39 | 14.8 | 87 | 90 | 55 | 0 | 0 | 0 | 0 |
| LIHUE | 80 | 68 | 83 | 59 | 74 | 1 | 1.5 | .3 | 1.4 | 6.9 | 213 | 32.2 | 77 | 90 | 66 | 0 | 0 | 2 | 1 |
| ID BOISE | 31 | 16 | 35 | 5 | 24 | -8 | .1 | -.2 | .1 | .8 | 96 | 7.6 | 69 | 93 | 68 | 0 | 7 | 4 | 0 |
| LEWISTON | 36 | 25 | 44 | 15 | 31 | -5 | T | -.3 | T | .1 | 13 | 10.3 | 84 | 79 | 50 | 0 | 7 | 1 | 0 |
| POCATELLO | 24 | 13 | 27 | 7 | 19 | -8 | .2 | -.1 | .1 | 1.2 | 211 | 8.3 | 81 | 91 | 71 | 0 | 7 | 3 | 0 |
| IL CHICAGO | 39 | 27 | 56 | 23 | 33 | 6 | .7 | .1 | .7 | 1.1 | 74 | 28.8 | 86 | 93 | 78 | 0 | 7 | 1 | 1 |
| MOLINE | 37 | 28 | 43 | 19 | 32 | 6 | 1.9 | 1.5 | 1.9 | 2.6 | 217 | 38.6 | 106 | 93 | 81 | 0 | 6 | 2 | 1 |
| PEORIA | 39 | 30 | 49 | 20 | 35 | 7 | 1.6 | 1.1 | 1.4 | 2.1 | 165 | 31.7 | 93 | 95 | 79 | 0 | 5 | 4 | 1 |
| QUINCY | 39 | 30 | 46 | 22 | 34 | 5 | 1.3 | .9 | 1.3 | 1.8 | 161 | 30.0 | 81 | 91 | 78 | 0 | 5 | 1 | 1 |
| ROCKFORD | 35 | 26 | 40 | 15 | 31 | 6 | 1.7 | 1.2 | 1.7 | 2.4 | 201 | 30.4 | 85 | 96 | 79 | 0 | 6 | 1 | 1 |
| SPRINGFIELD | 43 | 32 | 56 | 28 | 38 | 7 | 1.6 | 1.1 | 1.4 | 1.9 | 145 | 29.1 | 87 | 94 | 77 | 0 | 4 | 3 | 1 |
| IN EVANSVILLE | 51 | 34 | 58 | 28 | 43 | 7 | .3 | -.5 | .2 | .9 | 40 | 34.9 | 87 | 88 | 50 | 0 | 4 | 2 | 0 |
| FORT WAYNE | 41 | 30 | 53 | 22 | 36 | 7 | .5 | -.1 | .3 | 1.2 | 81 | 43.1 | 128 | 96 | 78 | 0 | 5 | 3 | 0 |
| INDIANAPOLIS | 43 | 33 | 56 | 30 | 38 | 7 | .4 | -.3 | .2 | .9 | 51 | 43.2 | 114 | 91 | 73 | 0 | 4 | 3 | 0 |
| SOUTH BEND | 40 | 30 | 54 | 25 | 35 | 6 | .5 | -.1 | .3 | 1.5 | 84 | 36.2 | 98 | 91 | 75 | 0 | 6 | 3 | 0 |
| IA DES MOINES | 35 | 28 | 43 | 15 | 31 | 6 | 1.3 | 1.1 | .6 | 1.6 | 252 | 33.2 | 110 | 94 | 80 | 0 | 5 | 5 | 1 |
| SIOUX CITY | 31 | 22 | 40 | 10 | 27 | 4 | .3 | .2 | .3 | .5 | 107 | 29.7 | 118 | 99 | 81 | 0 | 7 | 4 | 0 |
| WATERLOO | 34 | 26 | 38 | 10 | 30 | 9 | .6 | .3 | .2 | 1.0 | 136 | 30.4 | 94 | 99 | 90 | 0 | 5 | 4 | 0 |
| KS CONCORDIA | 33 | 23 | 46 | 17 | 28 | -3 | .9 | .7 | .7 | 1.2 | 256 | 41.2 | 153 | 93 | 76 | 0 | 7 | 2 | 1 |
| DODGE CITY | 29 | 16 | 34 | 7 | 23 | -11 | .6 | .5 | .4 | 1.2 | 366 | 22.7 | 113 | 95 | 79 | 0 | 7 | 2 | 0 |
| GOODLAND | 27 | 14 | 36 | 9 | 21 | -10 | .2 | .1 | .2 | .2 | 62 | 25.7 | 161 | 92 | 72 | 0 | 7 | 1 | 0 |
| TOPEKA | 39 | 31 | 50 | 22 | 35 | 3 | 1.7 | 1.4 | 1.2 | 1.9 | 238 | 35.9 | 109 | 96 | 70 | 0 | 5 | 2 | 2 |
| WICHITA | 38 | 28 | 49 | 22 | 33 | -1 | 1.0 | .8 | .6 | 1.1 | 181 | 35.1 | 124 | 95 | 71 | 0 | 6 | 2 | 1 |
| KY BOWLING GREEN | 53 | 36 | 60 | 29 | 44 | 6 | .7 | -.3 | .6 | 1.5 | 55 | 37.4 | 79 | 93 | 62 | 0 | 1 | 3 | 1 |
| LEXINGTON | 50 | 37 | 59 | 34 | 44 | 8 | .4 | -.4 | .2 | 1.0 | 43 | 48.3 | 109 | 87 | 63 | 0 | 0 | 3 | 0 |
| LOUISVILLE | 52 | 38 | 61 | 35 | 45 | 8 | .6 | -.2 | .6 | 1.0 | 47 | 40.2 | 95 | 93 | 64 | 0 | 0 | 3 | 1 |
| LA BATON ROUGE | 64 | 48 | 72 | 43 | 56 | 3 | 1.9 | .8 | 1.6 | 4.0 | 132 | 69.6 | 129 | 99 | 77 | 0 | 0 | 4 | 1 |
| LAKE CHARLES | 64 | 48 | 75 | 39 | 56 | 3 | .8 | -.4 | .7 | 2.8 | 91 | 61.6 | 118 | 98 | 79 | 0 | 0 | 2 | 1 |
| NEW ORLEANS | 65 | 50 | 72 | 42 | 58 | 3 | 3.8 | 2.5 | 2.2 | 5.5 | 171 | 81.9 | 142 | 97 | 75 | 0 | 0 | 4 | 2 |
| SHREVEPORT | 56 | 40 | 65 | 30 | 48 | -1 | 4.1 | 3.2 | 2.0 | 5.1 | 214 | 50.7 | 120 | 95 | 70 | 0 | 2 | 3 | 3 |

Based on 1951-80 normals.

## Weather Data for the Week Ending December 19, 1992

| STATES AND STATIONS | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP. | |
| | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTREME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Dec 1 | PCT. NORMAL SINCE Dec 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| ME CARIBOU | 32 | 20 | 42 | 8 | 26 | 11 | .3 | -.5 | .2 | .4 | 18 | 35.1 | 99 | 92 | 74 | 0 | 6 | 4 | 0 |
| PORTLAND | 40 | 23 | 44 | 18 | 32 | 7 | .9 | -.1 | .9 | 1.2 | 41 | 37.6 | 90 | 90 | 57 | 0 | 7 | 1 | 1 |
| MD BALTIMORE | 47 | 33 | 60 | 28 | 40 | 4 | .4 | -.4 | .3 | 3.8 | 179 | 38.0 | 94 | 95 | 71 | 0 | 2 | 2 | 0 |
| SALISBURY | 50 | 34 | 63 | 28 | 42 | 4 | .4 | -.4 | .4 | 3.7 | 163 | 44.4 | 101 | 97 | 70 | 0 | 3 | 1 | 0 |
| MA BOSTON | 44 | 32 | 56 | 27 | 38 | 5 | .6 | -.5 | .5 | 7.2 | 260 | 42.7 | 102 | 91 | 65 | 0 | 5 | 2 | 0 |
| CHATHAM | 46 | 37 | 54 | 30 | 41 | 6 | .7 | -.4 | .6 | 5.0 | 164 | 66.1 | 147 | 92 | 69 | 0 | 2 | 2 | 1 |
| MI ALPENA | 39 | 28 | 50 | 22 | 34 | 10 | .1 | -.3 | .1 | .7 | 53 | 25.9 | 92 | 94 | 71 | 0 | 6 | 3 | 0 |
| DETROIT | 45 | 33 | 54 | 30 | 39 | 10 | .4 | -.2 | .3 | .9 | 57 | 35.9 | 120 | 91 | 63 | 0 | 5 | 2 | 0 |
| FLINT | 44 | 31 | 54 | 26 | 37 | 10 | .3 | -.1 | .2 | .7 | 53 | 35.5 | 126 | 92 | 65 | 0 | 5 | 4 | 0 |
| GRAND RAPIDS | 41 | 31 | 52 | 28 | 36 | 9 | .5 | -.1 | .2 | 1.1 | 65 | 39.9 | 122 | 97 | 73 | 0 | 6 | 3 | 0 |
| HOUGHTON LAKE | 36 | 25 | 40 | 17 | 31 | 8 | .3 | -.1 | .1 | 1.2 | 99 | 28.5 | 105 | 99 | 77 | 0 | 6 | 5 | 0 |
| LANSING | 43 | 30 | 54 | 25 | 36 | 10 | .3 | -.3 | .1 | .7 | 47 | 33.5 | 116 | 93 | 70 | 0 | 5 | 3 | 0 |
| MARQUETTE | 31 | 19 | 37 | 4 | 25 | 8 | 1.1 | .5 | .6 | 1.5 | 95 | 30.3 | 83 | 96 | 88 | 0 | 6 | 4 | 1 |
| MUSKEGON | 42 | 30 | 53 | 24 | 36 | 8 | .3 | -.3 | .3 | 1.4 | 86 | 28.5 | 94 | 93 | 72 | 0 | 6 | 3 | 0 |
| SAULT ST. MARIE | 35 | 27 | 44 | 18 | 31 | 12 | 1.0 | .5 | .5 | 1.7 | 107 | 34.1 | 105 | 92 | 73 | 0 | 6 | 5 | 0 |
| MN ALEXANDRIA | 24 | 14 | 32 | -7 | 19 | 6 | .6 | .4 | .5 | .6 | 121 | 18.0 | 74 | 96 | 77 | 0 | 7 | 2 | 0 |
| DULUTH | 27 | 13 | 34 | -7 | 20 | 6 | .4 | .1 | .1 | .6 | 70 | 28.1 | 97 | 94 | 74 | 0 | 7 | 5 | 0 |
| INT'L FALLS | 23 | 6 | 33 | -14 | 14 | 6 | .6 | .4 | .4 | .8 | 135 | 22.5 | 95 | 95 | 78 | 0 | 7 | 5 | 0 |
| MINNEAPOLIS | 31 | 22 | 36 | 1 | 27 | 8 | .5 | .4 | .3 | .7 | 131 | 29.4 | 114 | 94 | 74 | 0 | 5 | 5 | 0 |
| ROCHESTER | 30 | 20 | 35 | 1 | 25 | 8 | .6 | .4 | .3 | 1.0 | 182 | 26.8 | 96 | 97 | 85 | 0 | 7 | 5 | 0 |
| MS GREENWOOD | 59 | 41 | 68 | 36 | 50 | 4 | 1.6 | .4 | .6 | 3.6 | 110 | 44.7 | 87 | 95 | 61 | 0 | 0 | 3 | 3 |
| JACKSON | 60 | 44 | 69 | 38 | 52 | 4 | 1.3 | .1 | 1.0 | 3.2 | 97 | 47.3 | 95 | 93 | 66 | 0 | 0 | 4 | 1 |
| MERIDIAN | 60 | 44 | 67 | 37 | 52 | 5 | 2.3 | 1.0 | 1.8 | 4.8 | 141 | 64.3 | 126 | 91 | 61 | 0 | 0 | 2 | 1 |
| MO CAPE GIRARDEAU | 49 | 33 | 57 | 30 | 41 | -- | .5 | -.3 | .4 | 1.0 | 42 | 37.8 | 87 | 96 | 69 | 0 | 3 | 3 | 0 |
| COLUMBIA | 43 | 31 | 48 | 26 | 37 | 4 | 1.8 | 1.4 | 1.5 | 2.6 | 208 | 34.3 | 95 | 95 | 75 | 0 | 4 | 4 | 1 |
| KANSAS CITY | 41 | 30 | 48 | 21 | 36 | 3 | 3.3 | 3.0 | 2.6 | 3.6 | 402 | 50.5 | 142 | 94 | 72 | 0 | 5 | 3 | 2 |
| SAINT LOUIS | 45 | 34 | 55 | 32 | 40 | 6 | 3.0 | 2.5 | 2.8 | 3.4 | 238 | 33.2 | 100 | 89 | 73 | 0 | 3 | 3 | 1 |
| SPRINGFIELD | 45 | 33 | 51 | 29 | 39 | 3 | 2.9 | 2.4 | 1.8 | 4.1 | 245 | 47.8 | 124 | 95 | 74 | 0 | 5 | 4 | 2 |
| MT BILLINGS | 27 | 12 | 35 | -1 | 19 | -8 | .1 | -.1 | .0 | .3 | 73 | 11.3 | 78 | 83 | 48 | 0 | 7 | 2 | 0 |
| GLASGOW | 25 | 5 | 43 | -14 | 15 | -1 | T | -.1 | T | T | 17 | 9.0 | 84 | 89 | 65 | 0 | 7 | 2 | 0 |
| GREAT FALLS | 29 | 10 | 43 | -8 | 20 | -6 | T | -.1 | T | .1 | 13 | 14.3 | 97 | 81 | 44 | 0 | 7 | 2 | 0 |
| HAVRE | 24 | 5 | 44 | -14 | 15 | -5 | T | -.1 | T | T | 0 | 9.1 | 79 | 83 | 60 | 0 | 7 | 0 | 0 |
| HELENA | 26 | 8 | 37 | -4 | 17 | -6 | T | -.1 | T | .2 | 54 | 9.0 | 80 | 83 | 50 | 0 | 7 | 2 | 0 |
| KALISPELL | 24 | 10 | 32 | -1 | 17 | -7 | .3 | -.1 | .2 | .5 | 53 | 15.7 | 103 | 93 | 72 | 0 | 7 | 4 | 0 |
| MILES CITY | 26 | 4 | 36 | -11 | 15 | -6 | .1 | .0 | .1 | .1 | 38 | 14.4 | 103 | 93 | 64 | 0 | 7 | 3 | 0 |
| MISSOULA | 28 | 13 | 33 | 4 | 21 | -4 | T | -.3 | T | .2 | 23 | 10.5 | 83 | 89 | 57 | 0 | 7 | 1 | 0 |
| NE GRAND ISLAND | 30 | 19 | 42 | 10 | 24 | -2 | .4 | .2 | .3 | .5 | 126 | 31.2 | 137 | 93 | 74 | 0 | 7 | 2 | 0 |
| LINCOLN | 33 | 24 | 47 | 14 | 28 | 2 | .7 | .5 | .4 | .9 | 212 | 25.7 | 96 | 98 | 74 | 0 | 7 | 4 | 0 |
| NORFOLK | 30 | 19 | 41 | 5 | 25 | 1 | .4 | .3 | .3 | .8 | 216 | 29.0 | 124 | 95 | 75 | 0 | 7 | 3 | 0 |
| NORTH PLATTE | 29 | 10 | 34 | -3 | 20 | -6 | .2 | .2 | .1 | .3 | 127 | 23.0 | 121 | 95 | 70 | 0 | 7 | 3 | 0 |
| OMAHA | 32 | 25 | 43 | 15 | 29 | 2 | .5 | .3 | .3 | .9 | 177 | 35.0 | 117 | 90 | 78 | 0 | 7 | 4 | 0 |
| SCOTTSBLUFF | 25 | 4 | 33 | -7 | 15 | -13 | .2 | .0 | .1 | .6 | 207 | 15.8 | 110 | 93 | 70 | 0 | 7 | 3 | 0 |
| VALENTINE | 27 | 6 | 30 | -5 | 16 | -8 | .1 | .0 | .1 | .1 | 55 | 18.3 | 107 | 90 | 69 | 0 | 7 | 1 | 0 |
| NV ELY | 28 | 6 | 31 | -8 | 17 | -9 | .1 | -.1 | .1 | .3 | 60 | 9.1 | 106 | 77 | 46 | 0 | 7 | 2 | 0 |
| LAS VEGAS | 49 | 34 | 52 | 30 | 42 | -3 | T | -.1 | T | 1.1 | 688 | 9.3 | 238 | 61 | 25 | 0 | 4 | 1 | 0 |
| RENO | 37 | 16 | 41 | 7 | 27 | -6 | T | -.3 | T | .7 | 99 | 4.2 | 62 | 90 | 42 | 0 | 7 | 1 | 0 |
| WINNEMUCCA | 33 | 13 | 39 | -9 | 23 | -7 | .2 | .0 | .1 | .8 | 154 | 3.9 | 53 | 90 | 58 | 0 | 7 | 2 | 0 |
| NH CONCORD | 39 | 17 | 40 | 8 | 28 | 4 | .7 | -.1 | .7 | 1.5 | 69 | 29.0 | 82 | 97 | 58 | 0 | 7 | 1 | 1 |
| NJ ATLANTIC CITY | 47 | 29 | 58 | 21 | 38 | 2 | .5 | -.3 | .4 | 3.2 | 145 | 36.2 | 90 | 95 | 66 | 0 | 5 | 3 | 0 |
| NM ALBUQUERQUE | 36 | 21 | 49 | 10 | 29 | -6 | .2 | .0 | .1 | 1.0 | 323 | 11.9 | 154 | 90 | 48 | 0 | 7 | 3 | 0 |
| CLOVIS | 42 | 21 | 60 | 17 | 32 | -7 | .2 | .1 | .2 | .2 | 69 | 19.8 | 118 | 94 | 46 | 0 | 7 | 1 | 0 |
| ROSWELL | 51 | 25 | 66 | 18 | 38 | -2 | T | -.1 | T | .5 | 236 | 13.1 | 126 | 88 | 34 | 0 | 7 | 0 | 0 |
| NY ALBANY | 39 | 23 | 41 | 13 | 31 | 5 | .5 | -.2 | .5 | 2.2 | 116 | 30.5 | 88 | 95 | 63 | 0 | 6 | 2 | 1 |
| BINGHAMTON | 38 | 25 | 43 | 18 | 32 | 6 | .7 | .1 | .7 | 1.7 | 94 | 39.8 | 111 | 88 | 57 | 0 | 6 | 3 | 1 |
| BUFFALO | 45 | 27 | 53 | 14 | 36 | 7 | .4 | -.4 | .3 | 1.8 | 86 | 45.6 | 126 | 84 | 51 | 0 | 5 | 3 | 0 |
| NEW YORK | 46 | 35 | 55 | 30 | 41 | 5 | .9 | .1 | .9 | 4.7 | 206 | 36.7 | 89 | 88 | 61 | 0 | 1 | 2 | 1 |
| ROCHESTER | 41 | 26 | 47 | 15 | 33 | 5 | .1 | -.5 | .1 | 1.6 | 100 | 34.9 | 115 | 93 | 58 | 0 | 5 | 2 | 0 |
| SYRACUSE | 42 | 25 | 47 | 13 | 34 | 6 | .7 | -.1 | .5 | 1.4 | 70 | 42.5 | 113 | 93 | 56 | 0 | 5 | 3 | 0 |
| NC ASHEVILLE | 52 | 32 | 58 | 25 | 42 | 2 | 1.9 | 1.2 | 1.3 | 2.4 | 125 | 52.7 | 124 | 97 | 60 | 0 | 5 | 3 | 2 |
| CHARLOTTE | 54 | 36 | 64 | 30 | 45 | 2 | .5 | -.3 | .4 | 1.2 | 60 | 52.2 | 125 | 89 | 56 | 0 | 2 | 2 | 0 |
| GREENSBORO | 51 | 32 | 63 | 28 | 42 | 2 | .4 | -.4 | .2 | 1.7 | 84 | 43.2 | 105 | 93 | 58 | 0 | 5 | 2 | 0 |
| HATTERAS | 57 | 46 | 68 | 41 | 52 | 3 | T | -1.0 | T | 1.8 | 68 | 58.2 | 108 | 95 | 70 | 0 | 0 | 1 | 0 |
| NEW BERN | 60 | 43 | 70 | 39 | 51 | 5 | .1 | -.8 | .1 | 1.8 | 80 | 49.0 | 95 | 92 | 61 | 0 | 0 | 1 | 0 |
| RALEIGH | 55 | 36 | 65 | 32 | 45 | 4 | T | -.7 | T | 1.3 | 70 | 42.1 | 104 | 94 | 59 | 0 | 1 | 1 | 0 |
| WILMINGTON | 60 | 41 | 68 | 33 | 51 | 3 | T | -.7 | T | 2.4 | 114 | 64.1 | 123 | 93 | 59 | 0 | 0 | 1 | 0 |
| ND BISMARCK | 22 | 7 | 30 | -13 | 14 | -1 | .2 | .1 | .2 | .3 | 113 | 12.6 | 84 | 91 | 72 | 0 | 7 | 3 | 0 |
| FARGO | 22 | 10 | 34 | -7 | 16 | 4 | .3 | .1 | .2 | .3 | 92 | 20.2 | 106 | 90 | 76 | 0 | 7 | 3 | 0 |
| GRAND FORKS | 21 | 6 | 32 | -9 | 14 | 3 | .3 | .2 | .2 | .5 | 143 | 16.9 | 94 | 92 | 79 | 0 | 7 | 2 | 0 |
| WILLISTON | 23 | 2 | 32 | -16 | 13 | -3 | .1 | .0 | .1 | .1 | 27 | 12.1 | 91 | 92 | 72 | 0 | 7 | 2 | 0 |
| OH AKRON-CANTON | 45 | 31 | 52 | 25 | 38 | 8 | .3 | -.3 | .2 | 1.0 | 62 | 43.9 | 127 | 93 | 63 | 0 | 5 | 3 | 0 |
| CINCINNATI | 48 | 35 | 57 | 32 | 41 | 8 | .3 | -.4 | .3 | .9 | 48 | 37.0 | 95 | 86 | 62 | 0 | 1 | 3 | 0 |
| CLEVELAND | 47 | 30 | 56 | 25 | 38 | 7 | .4 | -.2 | .4 | 1.1 | 64 | 45.3 | 132 | 89 | 57 | 0 | 4 | 2 | 0 |
| COLUMBUS | 46 | 30 | 56 | 25 | 38 | 6 | .2 | -.4 | .2 | .7 | 44 | 39.0 | 109 | 94 | 67 | 0 | 5 | 3 | 0 |
| DAYTON | 44 | 29 | 55 | 24 | 36 | 5 | .3 | -.2 | .3 | .7 | 46 | 39.8 | 118 | 94 | 63 | 0 | 6 | 3 | 0 |

Based on 1951-80 normals.

## Weather Data for the Week Ending December 19, 1992

| STATES AND STATIONS | TEMPERATURE °F | | | | | | PRECIPITATION | | | | | | | RELATIVE HUMIDITY, PERCENT | | NUMBER OF DAYS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | TEMP. °F | | PRECIP. | |
| | AVERAGE MAXIMUM | AVERAGE MINIMUM | EXTRME HIGH | EXTREME LOW | AVERAGE | DEPARTURE FROM NORMAL | WEEKLY TOTAL, IN. | DEPARTURE FROM NORMAL | GREATEST IN 24-HOUR, IN. | TOTAL, IN., SINCE Dec 1 | PCT. NORMAL SINCE Dec 1 | TOTAL, IN., SINCE Jan 1 | PCT. NORMAL SINCE Jan 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| TOLEDO | 43 | 32 | 55 | 26 | 38 | 10 | .2 | -.4 | .2 | 1.0 | 60 | 34.5 | 113 | 92 | 64 | 0 | 5 | 3 | 0 |
| YOUNGSTOWN | 45 | 29 | 53 | 21 | 37 | 8 | .2 | -.4 | .2 | 1.4 | 80 | 40.6 | 112 | 94 | 58 | 0 | 5 | 2 | 0 |
| OK OKLAHOMA CITY | 46 | 30 | 57 | 26 | 38 | -1 | 1.5 | 1.2 | .9 | 3.1 | 422 | 43.3 | 143 | 93 | 66 | 0 | 6 | 2 | 2 |
| TULSA | 44 | 33 | 52 | 28 | 38 | -1 | 3.1 | 2.7 | 2.2 | 4.8 | 406 | 43.0 | 113 | 97 | 75 | 0 | 5 | 3 | 2 |
| OR ASTORIA | 46 | 34 | 52 | 25 | 40 | -3 | 1.5 | -1.1 | .4 | 4.0 | 56 | 46.7 | 71 | 98 | 74 | 0 | 2 | 7 | 0 |
| BURNS | 26 | 4 | 29 | -7 | 15 | -12 | .1 | -.3 | .1 | 1.0 | 103 | 9.1 | 94 | 91 | 66 | 0 | 7 | 2 | 0 |
| MEDFORD | 40 | 29 | 44 | 27 | 35 | -3 | .2 | -.6 | .1 | 2.4 | 112 | 13.8 | 75 | 100 | 79 | 0 | 6 | 3 | 0 |
| PENDLETON | 39 | 26 | 52 | 14 | 32 | -3 | .1 | -.2 | .1 | .5 | 49 | 8.5 | 74 | 91 | 61 | 0 | 7 | 3 | 0 |
| PORTLAND | 45 | 34 | 49 | 27 | 39 | -1 | .9 | -.6 | .4 | 3.6 | 92 | 27.7 | 79 | 97 | 70 | 0 | 3 | 4 | 0 |
| SALEM | 44 | 33 | 50 | 27 | 39 | -2 | 1.4 | -.2 | .6 | 5.9 | 139 | 31.5 | 84 | 92 | 72 | 0 | 4 | 4 | 2 |
| PA ALLENTOWN | 43 | 28 | 47 | 20 | 36 | 5 | .8 | .0 | .7 | 2.8 | 120 | 38.2 | 89 | 93 | 61 | 0 | 5 | 2 | 1 |
| ERIE | 46 | 33 | 54 | 25 | 39 | 9 | .3 | -.4 | .2 | 1.2 | 57 | 41.9 | 108 | 86 | 54 | 0 | 2 | 3 | 0 |
| HARRISBURG | 42 | 31 | 47 | 22 | 37 | 4 | .8 | .0 | .8 | 1.8 | 91 | 32.4 | 85 | 91 | 65 | 0 | 3 | 1 | 1 |
| PHILADELPHIA | 47 | 33 | 60 | 26 | 40 | 5 | .5 | -.3 | .5 | 4.1 | 194 | 29.9 | 75 | 86 | 57 | 0 | 3 | 2 | 0 |
| PITTSBURGH | 45 | 30 | 51 | 25 | 38 | 6 | .5 | -.1 | .5 | 1.9 | 126 | 35.7 | 101 | 93 | 59 | 0 | 5 | 3 | 0 |
| SCRANTON | 42 | 27 | 46 | 19 | 35 | 5 | .7 | .1 | .7 | 1.7 | 110 | 28.3 | 84 | 87 | 58 | 0 | 6 | 1 | 1 |
| RI PROVIDENCE | 45 | 30 | 56 | 22 | 38 | 6 | 1.0 | -.1 | .8 | 5.5 | 200 | 46.1 | 106 | 95 | 67 | 0 | 5 | 2 | 1 |
| SC CHARLESTON | 63 | 44 | 75 | 35 | 53 | 4 | T | -.7 | T | 1.1 | 61 | 53.6 | 107 | 91 | 57 | 0 | 0 | 1 | 0 |
| COLUMBIA | 59 | 33 | 72 | 27 | 46 | -1 | .2 | -.6 | .2 | 1.0 | 47 | 47.7 | 100 | 98 | 58 | 0 | 4 | 1 | 0 |
| FLORENCE | 60 | 40 | 70 | 34 | 50 | 3 | T | -.7 | T | .7 | 42 | 47.0 | 110 | 90 | 53 | 0 | 0 | 1 | 0 |
| GREENVILLE | 53 | 33 | 63 | 26 | 43 | -1 | 2.6 | 1.7 | 2.1 | 3.5 | 145 | 59.0 | 119 | 96 | 59 | 0 | 5 | 3 | 2 |
| SD ABERDEEN | 26 | 14 | 32 | -3 | 20 | 4 | .1 | -.1 | .0 | .1 | 40 | 16.8 | 96 | 91 | 72 | 0 | 7 | 2 | 0 |
| HURON | 28 | 14 | 33 | 0 | 21 | 2 | .2 | .1 | .1 | .3 | 90 | 22.5 | 123 | 95 | 76 | 0 | 7 | 4 | 0 |
| RAPID CITY | 26 | 6 | 35 | -5 | 16 | -10 | .1 | .0 | .1 | .5 | 169 | 13.5 | 84 | 94 | 62 | 0 | 7 | 1 | 0 |
| SIOUX FALLS | 28 | 16 | 34 | 0 | 22 | 3 | .4 | .3 | .3 | .5 | 117 | 32.2 | 136 | 94 | 78 | 0 | 7 | 4 | 0 |
| TN CHATTANOOGA | 55 | 35 | 59 | 30 | 45 | 4 | 1.5 | .3 | 1.0 | 2.5 | 81 | 52.8 | 104 | 99 | 61 | 0 | 3 | 4 | 1 |
| KNOXVILLE | 52 | 34 | 56 | 29 | 43 | 2 | 2.3 | 1.2 | 1.2 | 3.3 | 121 | 40.9 | 90 | 100 | 65 | 0 | 4 | 3 | 2 |
| MEMPHIS | 55 | 37 | 62 | 30 | 46 | 3 | 1.1 | .0 | .6 | 2.2 | 74 | 46.2 | 93 | 92 | 59 | 0 | 2 | 2 | 1 |
| NASHVILLE | 54 | 38 | 60 | 29 | 46 | 5 | .6 | -.5 | .3 | 1.1 | 38 | 38.0 | 82 | 89 | 59 | 0 | 2 | 3 | 0 |
| TX ABILENE | 55 | 33 | 65 | 26 | 44 | -2 | .8 | .6 | .5 | 1.0 | 180 | 27.8 | 121 | 91 | 56 | 0 | 4 | 2 | 1 |
| AMARILLO | 36 | 17 | 54 | 8 | 27 | -11 | T | -.1 | T | .4 | 140 | 20.5 | 109 | 95 | 64 | 0 | 7 | 1 | 0 |
| AUSTIN | 65 | 44 | 73 | 36 | 54 | 3 | 2.1 | 1.6 | 1.1 | 2.8 | 218 | 45.6 | 149 | 97 | 62 | 0 | 0 | 4 | 2 |
| BEAUMONT | 64 | 48 | 74 | 39 | 56 | 2 | 2.0 | .9 | 1.5 | 5.5 | 180 | 64.2 | 120 | 100 | 79 | 0 | 0 | 3 | 1 |
| BROWNSVILLE | 72 | 56 | 81 | 47 | 64 | 2 | .1 | -.2 | .1 | .2 | 25 | 31.2 | 126 | 96 | 69 | 0 | 0 | 2 | 0 |
| CORPUS CHRISTI | 70 | 53 | 78 | 44 | 61 | 3 | .5 | .2 | .5 | .9 | 119 | 41.3 | 135 | 96 | 66 | 0 | 0 | 2 | 0 |
| DEL RIO | 65 | 42 | 77 | 33 | 54 | 1 | .2 | .0 | .2 | .2 | 57 | 20.3 | 119 | 79 | 38 | 0 | 0 | 1 | 0 |
| EL PASO | 51 | 32 | 64 | 23 | 41 | -3 | .1 | .0 | .1 | 1.2 | 527 | 11.2 | 151 | 84 | 39 | 0 | 4 | 2 | 0 |
| FORT WORTH | 57 | 39 | 63 | 33 | 48 | 1 | 4.1 | 3.8 | 1.9 | 4.6 | 429 | 42.6 | 140 | 96 | 65 | 0 | 0 | 4 | 3 |
| GALVESTON | 63 | 53 | 70 | 43 | 58 | 1 | 2.7 | 1.9 | 2.0 | 3.5 | 158 | 52.4 | 134 | 95 | 77 | 0 | 0 | 4 | 2 |
| HOUSTON | 64 | 45 | 76 | 35 | 55 | 0 | 2.0 | 1.2 | 1.4 | 3.2 | 138 | 52.1 | 116 | 97 | 68 | 0 | 0 | 2 | 2 |
| LUBBOCK | 47 | 23 | 63 | 14 | 35 | -6 | .5 | .4 | .3 | 1.1 | 500 | 22.2 | 128 | 91 | 51 | 0 | 6 | 2 | 0 |
| MIDLAND | 55 | 28 | 69 | 22 | 42 | -4 | .5 | .4 | .3 | .5 | 183 | 21.3 | 160 | 92 | 39 | 0 | 5 | 2 | 0 |
| SAN ANGELO | 60 | 35 | 74 | 27 | 47 | 0 | .6 | .5 | .5 | .7 | 187 | 21.0 | 118 | 91 | 43 | 0 | 3 | 3 | 0 |
| SAN ANTONIO | 66 | 44 | 75 | 34 | 55 | 3 | 1.5 | 1.2 | .9 | 1.8 | 203 | 46.1 | 162 | 95 | 59 | 0 | 0 | 4 | 2 |
| VICTORIA | 67 | 49 | 75 | 41 | 58 | 2 | 1.6 | 1.1 | .8 | 1.9 | 142 | 51.2 | 142 | 98 | 69 | 0 | 0 | 3 | 2 |
| WACO | 58 | 40 | 69 | 34 | 49 | 0 | 2.7 | 2.3 | 1.7 | 3.2 | 268 | 38.5 | 128 | 97 | 72 | 0 | 0 | 3 | 2 |
| WICHITA FALLS | 52 | 33 | 65 | 26 | 43 | -1 | 1.3 | 1.0 | .7 | 2.2 | 295 | 29.0 | 111 | 94 | 62 | 0 | 3 | 2 | 2 |
| UT CEDAR CITY | 29 | 8 | 35 | -7 | 19 | -12 | .2 | .0 | .1 | .5 | 117 | 10.8 | 108 | 89 | 58 | 0 | 7 | 2 | 0 |
| SALT LAKE CITY | 30 | 14 | 33 | 4 | 22 | -8 | .3 | .0 | .1 | .7 | 87 | 11.7 | 80 | 91 | 60 | 0 | 7 | 3 | 0 |
| VT BURLINGTON | 40 | 24 | 42 | 17 | 32 | 10 | .5 | -.1 | .5 | .6 | 38 | 30.5 | 93 | 94 | 56 | 0 | 5 | 1 | 0 |
| VA NORFOLK | 52 | 38 | 65 | 33 | 45 | 2 | T | -.7 | T | 2.0 | 106 | 46.1 | 105 | 94 | 69 | 0 | 0 | 2 | 0 |
| RICHMOND | 50 | 34 | 64 | 30 | 42 | 2 | .1 | -.7 | .1 | 1.4 | 69 | 40.4 | 95 | 95 | 68 | 0 | 4 | 2 | 0 |
| ROANOKE | 49 | 35 | 60 | 30 | 42 | 4 | .8 | .1 | .5 | 1.6 | 90 | 41.9 | 111 | 89 | 59 | 0 | 2 | 2 | 1 |
| WA QUILLAYUTE | 44 | 32 | 51 | 24 | 38 | -2 | 4.4 | .4 | 2.4 | 6.7 | 62 | 87.2 | 87 | 99 | 78 | 0 | 3 | 5 | 4 |
| SEATTLE-TACOMA | 42 | 33 | 49 | 28 | 37 | -4 | 1.5 | .0 | .6 | 3.4 | 87 | 32.2 | 89 | 96 | 66 | 0 | 5 | 4 | 2 |
| SPOKANE | 28 | 14 | 36 | 6 | 21 | -8 | .5 | .0 | .2 | .9 | 62 | 13.3 | 85 | 95 | 78 | 0 | 7 | 3 | 0 |
| YAKIMA | 32 | 14 | 43 | 1 | 23 | -8 | .3 | .0 | .3 | 1.3 | 176 | 7.2 | 99 | 97 | 66 | 0 | 7 | 2 | 0 |
| WV BECKLEY | 45 | 34 | 53 | 29 | 40 | 6 | .9 | .2 | .5 | 2.3 | 122 | 36.4 | 89 | 95 | 66 | 0 | 3 | 2 | 1 |
| CHARLESTON | 49 | 34 | 60 | 29 | 42 | 5 | .9 | .2 | .8 | 2.3 | 118 | 38.9 | 95 | 94 | 59 | 0 | 3 | 2 | 1 |
| HUNTINGTON | 50 | 35 | 58 | 28 | 43 | 6 | .8 | .1 | .7 | 2.0 | 104 | 36.6 | 92 | 96 | 57 | 0 | 3 | 2 | 1 |
| PARKERSBURG | 48 | 34 | 55 | 28 | 41 | 6 | .3 | -.3 | .2 | 1.3 | 82 | 34.2 | 93 | 96 | 59 | 0 | 4 | 3 | 0 |
| WI GREEN BAY | 34 | 25 | 39 | 10 | 30 | 9 | 1.2 | .8 | 1.0 | 1.9 | 209 | 29.9 | 110 | 95 | 76 | 0 | 5 | 4 | 1 |
| LACROSSE | 33 | 25 | 38 | 7 | 29 | 8 | .6 | .4 | .3 | 1.1 | 154 | 31.5 | 106 | 94 | 76 | 0 | 4 | 4 | 0 |
| MADISON | 35 | 25 | 39 | 14 | 30 | 8 | 1.2 | .9 | 1.2 | 1.8 | 182 | 31.5 | 105 | 91 | 75 | 0 | 5 | 4 | 1 |
| MILWAUKEE | 39 | 28 | 49 | 19 | 33 | 8 | .9 | .4 | .9 | 1.4 | 111 | 33.0 | 110 | 92 | 74 | 0 | 5 | 2 | 1 |
| WAUSAU | 31 | 21 | 36 | 2 | 26 | 8 | 1.0 | .7 | .8 | 1.2 | 153 | 32.9 | 105 | 99 | 88 | 0 | 7 | 5 | 1 |
| WY CASPER | 25 | 6 | 30 | -2 | 15 | -10 | .3 | .2 | .3 | .7 | 247 | 9.2 | 84 | 85 | 60 | 0 | 7 | 3 | 0 |
| CHEYENNE | 27 | 9 | 33 | 3 | 18 | -11 | .2 | .2 | .2 | .5 | 223 | 13.0 | 99 | 88 | 51 | 0 | 7 | 3 | 0 |
| LANDER | 19 | -2 | 25 | -8 | 9 | -14 | .2 | .1 | .2 | .8 | 253 | 13.1 | 103 | 88 | 61 | 0 | 7 | 1 | 0 |
| SHERIDAN | 23 | -1 | 33 | -11 | 11 | -14 | .2 | .1 | .2 | .8 | 182 | 14.6 | 99 | 92 | 64 | 0 | 7 | 1 | 0 |

Based on 1951-80 normals.

# HEATING DEGREE DAYS (Base 65° F)
# December 13 - 19, 1992
## (Cumulative totals and departures from normal are for the period July 1 - December 19, 1992)

| STATES AND STATIONS | WEEKLY TOTAL | WEEKLY DEPARTURE | CUMULATIVE TOTAL | CUMULATIVE DEPARTURE | CUMULATIVE DEP. from '91 |
|---|---|---|---|---|---|
| AL BIRMINGHAM | 120 | -17 | 924 | 42 | 66 |
| MOBILE | 64 | -24 | 516 | 33 | -59 |
| MONTGOMERY | 101 | -13 | 713 | 30 | -3 |
| AK ANCHORAGE | 381 | 21 | 4195 | 7 | 290 |
| BARROW | 550 | -1 | 7742 | 46 | -74 |
| FAIRBANKS | 498 | -31 | 5609 | 127 | 302 |
| JUNEAU | 270 | 4 | 3237 | -235 | -32 |
| KODIAK | 262 | 10 | 3493 | 50 | 256 |
| NOME | 428 | -4 | 5767 | 419 | 1052 |
| AZ FLAGSTAFF | 315 | 67 | 2383 | -23 | 279 |
| PHOENIX | 117 | 33 | 352 | -33 | 86 |
| PRESCOTT | 250 | 54 | 1415 | -101 | 61 |
| TUCSON | 144 | 51 | 552 | 84 | 136 |
| WINSLOW | 293 | 64 | 1793 | 255 | 133 |
| YUMA | 95 | 32 | 269 | 9 | 96 |
| AR FORT SMITH | 161 | -6 | 1065 | 25 | 43 |
| LITTLE ROCK | 146 | -8 | 973 | 25 | 58 |
| CA BAKERSFIELD | 162 | 42 | 585 | -38 | -97 |
| EUREKA | 143 | 24 | 1447 | -372 | -168 |
| FRESNO | 160 | 20 | 666 | -137 | -44 |
| LOS ANGELES | 75 | 19 | 240 | -159 | 34 |
| REDDING | 144 | 13 | 724 | -51 | 33 |
| SACRAMENTO | 156 | 18 | 706 | -94 | 01 |
| SAN DIEGO | 74 | 18 | 227 | -69 | 45 |
| SAN FRANCISCO | 115 | 3 | 636 | -387 | -95 |
| STOCKTON | 158 | 19 | 664 | -118 | -51 |
| CO DENVER | 319 | 93 | 2150 | 214 | 89 |
| GRAND JCT. | 285 | 26 | 1831 | 9 | -10 |
| PUEBLO | 309 | 83 | 2202 | 432 | 194 |
| CT BRIDGEPORT | 182 | -36 | 1589 | 116 | 191 |
| HARTFORD | 220 | -36 | 2002 | 149 | 288 |
| DE WILMINGTON | 177 | -32 | 1453 | 20 | 162 |
| DC WASHINGTON | 163 | -22 | 1293 | 123 | 211 |
| FL APALACHICOLA | 32 | -41 | 304 | -52 | -95 |
| DAYTONA BEACH | 21 | -26 | 184 | -17 | -6 |
| FORT MYERS | 9 | -17 | 52 | -32 | -9 |
| JACKSONVILLE | 47 | -29 | 375 | -3 | -10 |
| KEY WEST | 3 | -2 | 3 | -8 | 03 |
| MIAMI | 3 | -4 | 13 | -10 | 05 |
| ORLANDO | 13 | -22 | 132 | -2 | -6 |
| TALLAHASSEE | 44 | -41 | 443 | -20 | -68 |
| TAMPA | 14 | -26 | 136 | -24 | -19 |
| W. PALM BEACH | 5 | -9 | 36 | -6 | 04 |
| GA ATLANTA | 134 | -11 | 946 | 44 | 151 |
| AUGUSTA | 133 | 5 | 805 | 33 | 51 |
| MACON | 117 | 2 | 784 | 105 | 118 |
| SAVANNAH | 77 | -25 | 539 | -12 | 55 |
| ID BOISE | 287 | 54 | 2139 | 208 | 266 |
| LEWISTON | 240 | 30 | 1881 | 21 | 167 |
| POCATELLO | 322 | 52 | 2589 | 223 | 237 |
| IL CHICAGO | 224 | -38 | 2093 | 214 | -4 |
| MOLINE | 227 | -44 | 2089 | 167 | -20 |
| PEORIA | 212 | -49 | 1893 | 37 | -99 |
| QUINCY | 213 | -34 | 1882 | 178 | 09 |
| ROCKFORD | 240 | -42 | 2276 | 182 | 29 |
| SPRINGFIELD | 191 | -50 | 1651 | -6 | -128 |
| IN EVANSVILLE | 155 | -52 | 1354 | -70 | -83 |
| FORT WAYNE | 205 | -49 | 1931 | 44 | 35 |
| INDIANAPOLIS | 188 | -47 | 1700 | 7 | 46 |
| SOUTH BEND | 206 | -46 | 1975 | 94 | -2 |
| IA DES MOINES | 234 | -41 | 2103 | 169 | -134 |
| DUBUQUE | 251 | -45 | 2508 | 268 | 23 |
| SIOUX CITY | 266 | -27 | 2300 | 190 | -154 |
| WATERLOO | 241 | -63 | 2373 | 64 | -197 |
| KS CONCORDIA | 256 | 17 | 1931 | 255 | 95 |
| DODGE CITY | 294 | 74 | 1942 | 404 | 210 |
| GOODLAND | 309 | 66 | 2281 | 328 | 332 |
| TOPEKA | 207 | -26 | 1691 | 84 | 06 |
| WICHITA | 221 | 6 | 1523 | 91 | -28 |
| KY BOWLING GREEN | 144 | -45 | 1340 | 22 | 46 |
| LEXINGTON | 147 | -56 | 1476 | 24 | 55 |
| LOUISVILLE | 140 | -55 | 1276 | -75 | 14 |
| LA BATON ROUGE | 60 | -26 | 518 | 36 | 07 |
| LAKE CHARLES | 60 | -18 | 481 | 33 | 03 |
| NEW ORLEANS | 50 | -23 | 415 | 12 | -67 |
| SHREVEPORT | 118 | 3 | 756 | 95 | 69 |
| ME CARIBOU | 270 | -80 | 3058 | -82 | 32 |
| PORTLAND | 231 | -47 | 2302 | 0 | 164 |
| MD BALTIMORE | 170 | -32 | 1414 | 47 | 82 |
| SALISBURY | 159 | -26 | 1324 | 58 | 131 |
| MA BOSTON | 187 | -36 | 1761 | 186 | 250 |
| CHATHAM | 166 | -45 | 1688 | 36 | 223 |
| MI ALPENA | 219 | -74 | 2762 | 157 | 161 |
| DETROIT | 183 | -75 | 1976 | -1 | 94 |
| FLINT | 194 | -72 | 2192 | 78 | 29 |
| GRAND RAPIDS | 202 | -64 | 2218 | 134 | 36 |
| HOUGHTON LAKE | 240 | -56 | 2660 | 58 | 61 |
| LANSING | 200 | -68 | 2326 | 219 | 77 |
| MARQUETTE | 278 | -53 | 3366 | 278 | -3 |
| MUSKEGON | 203 | -56 | 2184 | 126 | 55 |
| SAULT ST MARIE | 238 | -82 | 3117 | 188 | 169 |
| MN ALEXANDRIA | 321 | -35 | 2948 | 96 | -217 |
| DULUTH | 314 | -46 | 3347 | 149 | -246 |
| INT'L FALLS | 353 | -47 | 3524 | 55 | -227 |
| MINNEAPOLIS | 269 | -53 | 2549 | 96 | -362 |
| ROCHESTER | 280 | -46 | 2788 | 231 | -245 |
| SAINT CLOUD | 294 | -56 | 2929 | 106 | -276 |
| MS GREENWOOD | 104 | -27 | 792 | -41 | 13 |
| JACKSON | 88 | -28 | 733 | 23 | 16 |
| MERIDIAN | 86 | -34 | 722 | -42 | -8 |
| MO CAPE GIRARDEAU | 167 | -33 | 1357 | 35 | 53 |
| COLUMBIA | 194 | -32 | 1669 | 124 | 16 |
| KANSAS CITY | 202 | -30 | 1700 | 150 | -60 |
| SAINT LOUIS | 174 | -42 | 1412 | -52 | 12 |
| SPRINGFIELD | 180 | -22 | 1437 | 35 | 17 |
| MT BILLINGS | 319 | 56 | 2402 | 74 | 71 |
| GLASGOW | 347 | 11 | 2823 | -42 | 26 |
| GREAT FALLS | 317 | 44 | 2729 | 192 | 210 |
| HAVRE | 351 | 29 | 2926 | 75 | 153 |
| HELENA | 333 | 43 | 2854 | 48 | 222 |
| KALISPELL | 335 | 51 | 3058 | 49 | 184 |
| MILES CITY | 348 | 45 | 2486 | -65 | -7 |
| MISSOULA | 310 | 30 | 2908 | 130 | 367 |
| NE GRAND ISLAND | 282 | 14 | 2228 | 202 | 70 |
| LINCOLN | 256 | -12 | 2068 | 135 | -16 |
| NORFOLK | 279 | -9 | 2267 | 80 | -103 |
| NORTH PLATTE | 316 | 42 | 2414 | 166 | 190 |
| OMAHA | 252 | -14 | 2052 | 194 | -125 |
| SCOTTSBLUFF | 351 | 90 | 2545 | 343 | 330 |
| VALENTINE | 338 | 51 | 2592 | 251 | 116 |
| NV ELY | 333 | 58 | 2556 | -22 | 120 |
| LAS VEGAS | 163 | 24 | 763 | -2 | 60 |
| RENO | 268 | 38 | 1714 | -354 | 184 |
| WINNEMUCCA | 295 | 51 | 2159 | -42 | 248 |
| NH CONCORD | 256 | -31 | 2483 | 146 | 300 |
| NJ ATLANTIC CITY | 188 | -19 | 1577 | 142 | 194 |
| NM ALBUQUERQUE | 251 | 43 | 1517 | 91 | 150 |
| CLOVIS | 233 | 53 | 1410 | 115 | -63 |
| ROSWELL | 188 | 29 | 1122 | 78 | -51 |
| NY ALBANY | 238 | -35 | 2229 | 141 | 251 |
| BINGHAMTON | 233 | -42 | 2509 | 269 | 448 |
| BUFFALO | 202 | -54 | 2106 | 114 | 174 |
| NEW YORK | 170 | -35 | 1399 | 63 | 241 |
| ROCHESTER | 219 | -35 | 2243 | 277 | 243 |
| SYRACUSE | 217 | -42 | 2193 | 205 | 253 |
| NC ASHEVILLE | 162 | -19 | 1451 | 81 | 160 |
| CAPE HATTERAS | 92 | -24 | 579 | -65 | 78 |
| CHARLOTTE | 140 | -19 | 1001 | -11 | 178 |
| GREENSBORO | 162 | -13 | 1291 | 113 | 243 |
| NEW BERN | 94 | -41 | 761 | -49 | 85 |
| RALEIGH-DURHAM | 136 | -27 | 1093 | 29 | 146 |
| WILMINGTON | 98 | -21 | 719 | 30 | 45 |
| ND BISMARCK | 353 | 6 | 3027 | 124 | -5 |
| FARGO | 340 | -27 | 3043 | 121 | -154 |
| GRAND FORKS | 357 | -21 | 3180 | 39 | -221 |
| WILLISTON | 365 | 15 | 3158 | 154 | 125 |
| OH AKRON-CANTON | 186 | -59 | 2019 | 160 | 176 |
| CLEVELAND | 185 | -54 | 1886 | 77 | 165 |
| COLUMBUS | 188 | -44 | 1713 | -8 | 71 |
| CINCINNATI | 164 | -56 | 1656 | 75 | 108 |
| DAYTON | 199 | -35 | 1800 | 101 | 68 |
| TOLEDO | 189 | -72 | 1965 | -24 | 80 |
| YOUNGSTOWN | 194 | -57 | 2099 | 121 | 224 |
| OK OKLAHOMA CITY | 184 | 8 | 1176 | 79 | 35 |
| TULSA | 186 | 9 | 1235 | 147 | 157 |
| OR ASTORIA | 170 | 16 | 1899 | 67 | 124 |
| BURNS | 348 | 83 | 2871 | 479 | 535 |
| MEDFORD | 212 | 19 | 1342 | -261 | 42 |
| PENDLETON | 226 | 24 | 1905 | 113 | 257 |
| PORTLAND | 179 | 11 | 1425 | -132 | 172 |
| SALEM | 182 | 13 | 1478 | -195 | 102 |
| PA ALLENTOWN | 204 | -33 | 1850 | 110 | 237 |
| ERIE | 179 | -68 | 1802 | -155 | 104 |
| HARRISBURG | 197 | -26 | 1687 | 102 | 188 |
| PHILADELPHIA | 173 | -36 | 1358 | -56 | 124 |
| PITTSBURGH | 189 | -48 | 1853 | 36 | 170 |
| SCRANTON | 209 | -40 | 1930 | 1 | 119 |
| RI PROVIDENCE | 191 | -41 | 1739 | 33 | 243 |
| SC CHARLESTON | 79 | -28 | 577 | -30 | 47 |
| COLUMBIA | 133 | 3 | 876 | 84 | 115 |
| FLORENCE | 102 | -25 | 770 | 30 | 88 |
| GREENVILLE | 155 | 2 | 1181 | 196 | 232 |
| SD ABERDEEN | 313 | -27 | 2836 | 152 | 01 |
| HURON | 305 | -17 | 2668 | 139 | -22 |
| RAPID CITY | 341 | 69 | 2553 | 220 | 134 |
| SIOUX FALLS | 298 | -20 | 2569 | 114 | -170 |
| TN CHATTANOOGA | 140 | -25 | 1135 | 24 | 87 |
| KNOXVILLE | 153 | -16 | 1241 | 106 | 98 |
| MEMPHIS | 132 | -20 | 950 | 0 | 27 |
| NASHVILLE | 131 | -39 | 1131 | -8 | 03 |
| TX ABILENE | 145 | 15 | 789 | -2 | -97 |
| AMARILLO | 268 | 81 | 1587 | 267 | 74 |
| AUSTIN | 72 | -18 | 479 | -5 | -7 |
| BEAUMONT | 61 | -12 | 476 | 66 | 46 |
| BROWNSVILLE | 23 | -11 | 152 | 16 | -36 |
| CORPUS CHRISTI | 37 | -11 | 253 | 6 | -13 |
| DEL RIO | 77 | -12 | 438 | -14 | -10 |
| EL PASO | 164 | 18 | 960 | 77 | 102 |
| FORT WORTH | 117 | 1 | 705 | 59 | -23 |
| GALVESTON | 50 | -8 | 325 | 26 | 07 |
| HOUSTON | 74 | -4 | 483 | 46 | 14 |
| LUBBOCK | 207 | 42 | 1127 | 33 | -75 |
| MIDLAND-ODESSA | 162 | 29 | 892 | 59 | -110 |
| SAN ANGELO | 121 | 1 | 713 | 6 | -112 |
| SAN ANTONIO | 72 | -14 | 467 | 12 | 02 |
| VICTORIA | 56 | -8 | 360 | 25 | 13 |
| WACO | 112 | 3 | 636 | 51 | 15 |
| WICHITA FALLS | 156 | 7 | 917 | 22 | -12 |
| UT BLANDING | 300 | 50 | 1896 | -73 | 158 |
| CEDAR CITY | 323 | 84 | 1962 | 42 | 93 |
| SALT LAKE CITY | 298 | 53 | 1990 | 119 | 196 |
| VT BURLINGTON | 231 | -70 | 2416 | -7 | 137 |
| VA LYNCHBURG | 162 | -27 | 1350 | 35 | 150 |
| NORFOLK | 140 | -12 | 940 | 7 | 104 |
| RICHMOND | 159 | -19 | 1222 | 41 | 201 |
| ROANOKE | 158 | -31 | 1439 | 106 | 244 |
| WA COLVILLE | 313 | 51 | 2676 | 121 | 299 |
| QUILLAYUTE | 186 | 18 | 2081 | -93 | 96 |
| SEATTLE-TACOMA | 192 | 24 | 1593 | -187 | 150 |
| SPOKANE | 306 | 55 | 2506 | 111 | 295 |
| YAKIMA | 291 | 57 | 2190 | 81 | 273 |
| WV BECKLEY | 176 | -45 | ---- | -- | --- |
| CHARLESTON | 159 | -39 | 1482 | 29 | 157 |
| HUNTINGTON | 156 | -43 | 1446 | 0 | 95 |
| PARKERSBURG | 167 | -40 | 1584 | 88 | 76 |
| WI GREEN BAY | 246 | -65 | 2601 | 114 | -48 |
| LA CROSSE | 249 | -57 | 2408 | 123 | -266 |
| MADISON | 243 | -57 | 2413 | 51 | -75 |
| MILWAUKEE | 220 | -60 | 2164 | 10 | 20 |
| WAUSAU | 272 | -57 | 2870 | 191 | -154 |
| WY CASPER | 346 | 71 | 2505 | -21 | -9 |
| CHEYENNE | 324 | 75 | 2582 | 174 | 146 |
| LANDER | 393 | 101 | 2747 | 83 | 128 |
| SHERIDAN | 377 | 95 | 2761 | 152 | 174 |

Based on 1951-80 normals.

# National Agricultural Summary

**December 14 - 20, 1992**

**HIGHLIGHTS:** A slow-moving storm early in the week brought rain and snow to the middle portion of the country. By midweek, the storm moved into the Eastern part of the country, bringing rain and above normal temperatures. By week's end, the system moved out to sea, lowering temperatures over the Eastern portion of the Nation and leaving below normal temperatures elsewhere. Cold weather in the upper Midwest at week's end improved harvest prospects. Frost was reported in the desert areas of California, causing possible crop damage.

**SMALL GRAINS:** The winter wheat crop remained in generally good condition across the Southeast. Snow cover remained inadequate for the crop in Montana, while most winter wheat in Washington, Idaho, and Wyoming had good cover. Wheat in central and western Kansas also enjoyed good snow cover. Barley, oats, and rye continued in generally good condition nationwide, though some insect problems were reported in Texas.

**CORN:** Corn harvest continued to advance slowly as rain and snow hampered progress. The Iowa harvest remained slow with most of the unharvested corn located in the southern and eastern portion of the State. In Illinois, harvest advanced to 95 percent (%) complete, with the northern districts only 80 to 85% complete. Much of the unharvested crop in Missouri is in the northern third of the State, as weather conditions brought harvest to a virtual stop last week. Deep snow cover in North Dakota brought harvest to a stop in some fields. The South Dakota harvest was nearly complete with only poor quality corn left in the field. Wet field conditions continued to hamper harvest in Wisconsin. Cold temperatures, at the end of the week in the upper Midwest, froze muddy fields and increased harvest prospects.

**Corn, Percent Harvested**
**(in selected States)**

| State | Current | Last Wk | Avg. |
|---|---|---|---|
| CO | NA | 89 | 100 |
| GA | 100 | 100 | 100 |
| IL | 95 | 91 | 100 |
| IN | 93 | 89 | 100 |
| IA | NA | 91 | 100 |
| KS | 97 | 97 | 100 |
| KY | 100 | 100 | 100 |
| MI | 60 | 50 | 100 |
| MN | 96 | 95 | 99 |
| MO | NA | 90 | 100 |
| NE | NA | 92 | 100 |
| NC | 100 | 100 | 100 |
| OH | NA | 85 | 100 |
| PA | 79 | 72 | 98 |
| SD | 91 | 82 | 100 |
| TX | 100 | 100 | 100 |
| WI | 65 | 61 | 100 |
| 17 States | NA | 88 | 100 |

**SOYBEANS:** Soybean harvest continued to be hampered by wet fields and rain in the Southeast. Harvest was 83% completed in North Carolina. Rain and wet fields delayed the completion of harvest in Georgia.

**COTTON:** Cotton harvest advanced in the southeast but remained behind last year's pace and average due to rain and wet fields. Harvest was winding down in Arkansas, New Mexico, and Florida. Wet weather delayed stalk shredding in Arizona. In Texas, the harvest was delayed by wet weather, with 90% of the crop harvested compared with 86% last year, and 93% average.

**SORGHUM:** Sorghum harvest was active in North Carolina and eastern Colorado, but came to a halt in Kansas. In Kansas, harvest progress was 85% completed, unchanged from the previous week, as wet, muddy fields continued to plague producers.

**OTHER FIELD CROPS:** Hay harvest continued light in all regions of Arizona. Sunflower harvest progress remained slow in North Dakota, due to snow filled fields. Sugarcane harvest and planting remained active in Florida, while muddy fields continued to hamper the harvest in Louisiana. Tobacco seed bed preparation was active in Florida and North Carolina. The peanut harvest in the low plains and south regions of Texas continued as weather permitted. Rains delayed planting of the Georgia onion crop, while in the Rio Grande Valley of Texas, the crop was progressing well. Irrigation of the crop in the Trans-Pecos region was underway.

**FRUIT AND NUTS:** The citrus harvests continued active in central and western Arizona, Florida, and California. Citrus groves and trees continued in good to excellent condition, though some irrigation was needed in Florida. Producers in California were prepared for the cold snap at the end of the week. Orange tangerine, and grapefruit harvests continued in Florida and California. The pecan harvest neared completion in the South and advanced in Texas and New Mexico. In Texas, the harvest was interrupted by rain. Harvest was virtually completed in the Plains and Trans-Pecos regions.

**VEGETABLES:** Normal growing conditions were reported in the major vegetable areas of Florida, though dry conditions in the southwest required the use of irrigation. Wet conditions hindered harvest in Tulare County, CA. Recent low temperatures in Texas caused some damage to the pepper crop. Broccoli harvest continued in western and central Arizona and in California. Cabbage harvest advanced in Arizona, California, and Florida. Cauliflower harvest was light with variable quality reported in Salinas-Watsonville and in the Santa Maria area of California. Celery harvest was light, with good quality in the Salinas-Watsonville area, and moderate, with variable quality in the Santa Maria area. The tomato harvest was active in Florida, while tomato acres were treated in Modesto California.

**PASTURES AND LIVESTOCK:** Light moisture in the West continued to improve pasture conditions. Pastures elsewhere in the Nation remained in fair to good condition. More moisture was needed in the Northwest to improve livestock water supplies. Snow covered wheat pastures in the Midwest. Supplemental feeding increased with the lower temperatures. Some livestock sickness reported in Kansas. Cattle condition on the Texas High Plains continued to decline. Elsewhere, cattle were generally in good condition.

## State Summaries of Weather and Agriculture

These summaries 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.

**ALABAMA:** Rainfall 2.28 to 5.18 in. north; 2.19 to 5.63 in. central; 1.32 to 6.74 in. south. Temperatures 3° to 8 above north; 2 to 8° above normal central; 4 to 10° above normal south; lows 26 to 38° north; 29 to 39° central; 33 to 42° south. Highs 57 to 68° north; 65 to 71° central; 68 to 78° south.

Days suitable for fieldwork 2.4. Soil moisture 10% adequate, 90% surplus. Winter wheat 92% seeded, 95% 1991, 95% avg. Pasture 10% poor, 34% fair, 53% good, 3% excellent. Livestock 24% fair, 69% good, 7% excellent. Primary activities: Harvesting cotton, soybeans, timber; planting small grains; marketing cattle; maintaining farm records, equipment; land-use planning, management, repairing machinery, fences; general care of livestock, poultry, catfish.

**ARIZONA:** Colder air, scattered rain statewide, snow higher elevations. Snow on 18th; 3 to 11 in. Mogollon Rim, White Mountains. On 19th, dense fog, Phoenix. Largest rainfall 0.50 in., McNary. Temperatures 4 to 12° below normal. Extremes 3°; 62° higher elevations; 22°; 64° deserts.

Cotton stalk shredding, plowdown slowed by wet weather, central, southeast. Alfalfa condition mostly good; harvest, light all areas. Small grains planted 70%, 71% 1991, 65% avg.; stands established 52%, 57% 1991, 41% avg.; field preparations limited, central, southeast. Fruit, vegetable harvest active. Broccoli, cabbage, green onions, lettuce, napa, spinach available western, central areas. Also available west: Cauliflower, escarole, endive, anise. Squash, sweet corn, leeks, beets, dill, mixed greens, rapini available, central. Citrus harvest active central, western areas. Pecan harvest active.

**ARKANSAS:** Temperatures above normal, rain statewide, first of week. Extremes 25°; 66°. Rainfall 1.08 to 5.41 in.

Days suitable for fieldwork 1. Soil moisture supplies adequate to surplus. Cotton gins were cleaning up modules, starting to close down. As of 17th, the cotton classing office reported 1,572,135 bales of Arkansas cotton had been classed. Livestock good. Pastures good.

**CALIFORNIA:** High pressure dominated pattern beginning week, was pushed eastward as lower pressure moved over State. This brought light rain north State followed by cold air. Snow levels northern Sierra Nevada 1,000 feet. Cold overnight low temperatures, below freezing sheltered areas, occurred 18th night.

Field activities slowed considerably; wet soils most areas. Few fields rice stubble remain for burning, discing. Cotton harvest complete. Plowdown for pink bollworm control limited areas; compliance deadlines rapidly approaching. Ground preparation next year's crop halted until soils dry. Rains beneficial newly emerged small grains, winter forages, alfalfa; growth excellent. Seedbed preparation, seeding barley, oats, wheat isolated areas. Some wheat sprayed broadleaf herbicide. Orchard, vineyard pruning, weed control activities pursued, weather permitting. Some areas too wet dormant spraying. Cold snap 19th morning little, no adverse effect citrus crop. Growers well prepared, used wind machines. Throughout week Navel oranges picked increasing pace. Fruit quality, size outstanding. Tangerines, grapefruit, some lemons harvested. Blood oranges, Pummelos packed, shipped. Stockton nursery stock strawberries dug, shipped. Broccoli harvest moderate, variable quality Salinas-Watsonville, Santa Maria. Cauliflower shipping light, variable quality Salinas-Watsonville, Santa Maria. Celery harvest light, generally good quality Salinas-Watsonville; harvest moderate, variable quality Santa Maria. Winter vegetables harvested Merced. Tomato acreage Modesto treated pre-plant chemicals; planting peas, spinach. Fall head lettuce harvest Westside completed. Cabbage, freezer broccoli harvested Westside. Tulare County broccoli, cauliflower, cabbage, mixed lettuce harvests winding down; wet fields hampered harvesting. Leaf lettuce, radishes, cabbage harvested Riverside. San Jacinto district potatoes good. Coachella Valley harvested cabbage, broccoli, lettuce, oriental vegetables, parsley, Palo Verde head lettuce. Other crops harvested: radishes, beets, sweet potatoes, turnips. Rains improved rangeland, pasture. Conditions good to poor. Forage growth, development made gains. Runoff needed to fill stock ponds. Supplemental feeding active. Movement light. Lambing, calving active. Sheep grazed alfalfa.

**COLORADO:** Two weather systems affected State during the period. One system moved across southern areas, northern New Mexico on the 13th and over southeast areas on the 14th before leaving the region on the 16th. This resulted in snow accumulations of 3 to 14 in. over southern Colorado with lesser amounts in the north. High pressure brought fair weather on the 17th. A Pacific system struck southern areas on the 18th. Very heavy snow, 2 to 3 ft. fell over State's southwest mountains. Northern, eastern areas received only light snowfall. The system left on the 19th to bring clearing statewide. A mix of Northern Pacific, Canadian air brought cold temperatures to the State.

Some harvesting of late maturing corn and sorghum is still occurring along the Nebraska-Kansas border.

**FLORIDA:** Temperatures 7 to 11° above normal north, 4 to 7° above normal Peninsula. Highs; 80° north, lower 80s central, south. Lows; low 40s Panhandle, 50° central, south. Rain occurred 1 to 3 days north, east coast. Rain 2.00 to 3.00 in. Panhandle, generally under 0.25 in. elsewhere.

Soil moisture adequate to surplus in Panhandle, short to adequate Peninsula. Soybean harvest complete. Scrapping last of the cotton fields. Winter wheat for grain planting virtually complete. Sugarcane harvest, planting active. Tobacco plant bed preparation active. Citrus groves very good to excellent. Moisture short, irrigation most areas. Early, midseason orange harvest active for processing. Grapefruit movement increasing for domestic, export use. Early tangerine harvest almost over. Dancy tangerine harvest increasing for Christmas trade. Tangelo movement increasing. Caretakers cutting cover crops, placing, fueling heaters. Major vegetable producing areas growing conditions seasonally normal with cool nights, mild to warm days. Soil moisture short southwest requiring heavy irrigation. Volume leaders: Tomatoes, peppers, cucumbers, celery, squash. Also available: Snap beans, cabbage, carrots, sweet corn, eggplant, escarole, iceberg lettuce, specialty lettuces, radishes, strawberries, cherry tomatoes. State's pastures poor to excellent. Pasture ratings, 10% poor, 35% fair, 50% good, and 5% excellent. Moisture levels short to surplus. State's cattle herds fair to good.

**GEORGIA:** Warm week, temperatures 3 to 5° above normal north, central areas to 5 to 10° above south. Warmest near 60° extreme north to near 80 extreme south. Coldest mid to upper 20s mountains, low to mid 40s extreme south. Very heavy rains northern areas weekly totals 3.00 to 6.00 in. common, some localized flooding. Elsewhere rain 1.00 in. locally more than 2.00 in. southwest to east central, less than 0.50 in. south central, southeast.

Rain, wet fields limited field activity, delayed soybean, cotton harvest, planting of small grains, onions. Land preparation slow. Crop, pasture fair, cattle mostly fair to good, hogs fair to good.

**HAWAII:** Mostly sunny weather with some shower activity was generally beneficial to agriculture. Record high temperatures were recorded Honolulu interrupting seasonally cool weather. Temperatures high 50s to high 80s. Rainfall none to 3.00 in.

Days suitable for fieldwork 7.0. Sunny weather allowed farmers to resume normal operations previously delayed by continuous shower

activity in recent weeks. Sunshine favorable for orchard crops. Soil moisture levels were adequate but irrigation still necessary for some locations. Banana, papaya harvesting active. Worsening vog conditions (from volcanic eruption) Hawaii island resulted in burning ban on outdoor fires hampering sugarcane burning efforts associated with harvesting on that island.

**IDAHO**: Temperatures 5 to 14° below normal throughout State. Precipitation was reported throughout State accept Orofino, Salmon.

Soil moisture varied across State. Adequate amount southwest, southeast, north; short amount south central. Activities: Marketing crops, repairing farm machinery, attending commodity meetings, workshops. Winter wheat condition mostly good. Hay, roughage supplies adequate. Livestock activities: marketing cattle, cattle on winter hay, some lambing has begun. Livestock good.

**ILLINOIS**: Mild wet weather in the northern, central areas, warm drier weather in the south were the norm across the State. Temperatures 20 to 40° with average precipitation of 0.40 to 1.50 in. Light snow, rain fell with a passing cold front on 19th.

Corn harvest progressed to 95% complete for the State, while the two northern districts report only 80 to 85% harvested as of December 20, 1992. Sorghum harvest is 99% complete. Soil moisture 1% short, 42% adequate, 57% surplus. Winter wheat 17% excellent, 75% good, 8% fair.

**INDIANA**: Temperatures 2 to 7° above normal. Highs upper 30s to near 50°. Lows, mid 20s to low 30s. Precipitation 0.17 to 0.57 in.

Topsoil moisture 43% adequate, 57% surplus. Subsoil moisture 6% short, 58% adequate, 36% surplus. Corn harvest 93%, 89% last week. Corn moisture content 22%, same as last week. Thawing of ground, precipitation made harvest difficult. Other activities: Plowing, stripping tobacco, machinery repair, hauling grain, fence repair, bookkeeping, care of livestock.

**IOWA**: Temperatures 4 to 6° above normal. Extremes -2° Decorah, 20th; 45° Burlington 15th. Mild with unseasonably heavy rainfall early week; colder, drier by weekend. Precipitation 0.09 in. Sioux City to 1.92 in. Burlington; average 0.62 in. (normal 0.24 in.).

Remaining corn harvest slow. Unharvested mostly southern, eastern areas. Marketings for all commodities slowed by rain, mud.

**KANSAS**: Temperatures 7 to 10° below normal west, near normal central, 1 to 5° above normal east. Precipitation 0.30 to 0.60 in. west, 0.75 to 1.00 in central, 2.00 to 3.25 in east.

Days suitable for fieldwork 1.0. Surface moisture 3% short, 23% adequate, 64% surplus. Subsurface moisture 3% short, 69% adequate, 28% surplus. Corn harvest 97% complete, unchanged from a week ago. Sorghum harvest 85% complete, unchanged from last week. Soybean harvest 96% complete, unchanged from last week. Wet weather, muddy fields keeping harvest progress at a stand still. Wheat 93% good to excellent, 5% fair, 2% poor. Snowcover providing insulation central, western areas. Wheat pasture reduced by snow cover. Feed grain, hay, forage supplies generally adequate. Wet, muddy lots, cold weather increasing feed, care requirement. Some sickness reported.

**KENTUCKY**: Highs around 51°, lows around 35°. Precipitation 1.10 in., most fell over east.

Soil moisture adequate. Kentucky burley sales reached 344.8 million lbs. thru 17th. Avg. price $183.07 per cwt. Volume declined at most points end of week, 10.9% to date going government pool. Market closed for holidays, sales resume January 4th. Livestock good, some supplemental feeding.

**LOUISIANA**: Temperatures 1.5° below to 3.7° above normal. Extremes 29°; 75°. Rainfall 1.14 in. southwest to 3.87 in. northwest.

Sugarcane harvesting continued in the mud. Pecan harvesting virtually complete. Crawfishing, caring for livestock. Topdressing pastures.

**MARYLAND & DELAWARE**: MARYLAND: Precipitation 0.55 in. Temperature 39.6°, normal 35.6°. Extremes 7°; 62°.

Snow in western pastures; cattle mostly excellent. Hay supplies adequate. Small grains good. Holiday preparations. Cutting firewood, scraping roads, feeding hay, caring for livestock.

DELAWARE: Precipitation 0.58 in. Temperature 40.8°, normal 37.1°. Extremes 24°; 64°.

Hay supplies adequate. Pastures, livestock mostly excellent. Small grains good. Holiday preparations. Cutting firewood.

**MICHIGAN**: Extremes 17°; 43°. Precipitation 0.14 to 1.32 in. across the State.

Soybeans 95% harvested, 100% 1991, 100% avg. Corn 60% harvested, 100% 1991, 100% avg. Major activities: Harvesting, drying corn, spreading fertilizer, cutting wood, some fall tillage, repairing machinery, packing for Florida vacation.

**MINNESOTA**: Temperatures 3 to 8° above normal. Extremes 25°; 42°. Precipitation 0.12 to 0.55 in., 0.01 in. below normal to 0.29 in. above normal. Snowfall 1 to 5 in. with snow depth averaging 2 to 11 in.

Continued seasonably mild except for a cold 19th morning which brought subzero temperatures to most reporting stations. Some areas still finishing up with corn harvest. Corn harvest for the State now estimated to be 96% complete.

**MISSISSIPPI**: Temperatures 50°, 2.3° above normal. Extremes 22°; 72°. Entire State received above normal rainfall. State rainfall 2.26 in., 0.99 above normal. Soil temperature 49°.

Days suitable for fieldwork 1.3, 3.4 1991, 3.4 avg. Soil moisture 67% surplus, 33% excessive. Wheat emerged 99%, 98% 1991, 95% avg.; 13% poor, 74% fair, 13% good. Pecans 95% harvested, 85% 1991, 94% avg.; 17% very poor, 53% poor, 23% fair, 7% good. Hay supply 100% adequate. Feed grain 100% adequate. Livestock 37% fair, 51% good, 12% excellent. Pasture 90% of normal. Activities: Feeding livestock.

**MISSOURI**: Temperatures 3° above normal. Precipitation 1.88 in., varying 1.00 in. or less northwestern, southeastern districts to over 2.00 in. west central, central, east central, southwestern, south central districts, with flooding in low areas.

Continued wet weather continued to delay completion of late crop harvesting, with virtually no fieldwork possible. Of the nearly 10% of the corn crop left to be harvested, most is in northern third of State.

**MONTANA**: Temperatures 10° below normal. Precipitation below normal.

Grazing open. Winter wheat snowcover protectiveness is poor.

**NEBRASKA**: Temperatures 13° below normal northwest to 3° above normal east. Scattered light precipitation throughout the week; around 0.10 in.

Limited harvesting. Producers giving special care to grain in storage, routine chores.

**NEVADA**: High pressure off west coast dominated early in week with cold temperatures, brisk north winds. Weak ridge 16th gave way to a much stronger winter storm spreading snow showers across northern, central areas 17th. Light snow showers lingered across the north with some light rain in the south. 19th brought a return to clear, bitter cold weather especially northeast where minimum temperatures fell well below zero.

Livestock feeding requirements greater due to cooler weather, snow. Farm/ranch activities: feeding and care of livestock, chopping ice, general maintenance.

**NEW ENGLAND**: Precipitation 0.76 to 1.10 in. Connecticut, 0.33 to 1.04 in. elsewhere. Temperatures mid 20s to high 30s. Maximum temperatures high 30s to mid 50s. Minimum temperatures 5 to 19° north, 10 to 28° south.

Major farm activities: Tending livestock, cutting firewood, making general repairs.

**NEW JERSEY**: Temperatures above normal, averaged 34° north, 38° south, 41° coastal. Extremes 13°; 60°. Precipitation near normal; averaged 1.03 in. north, 0.87 in. south, 0.74 in coastal. Heaviest 24 hour total 0.82 in. on 17th, 18th. Depth of snow on ground 21st 4.00 in.

Farmers busy deer hunting, cutting, digging, selling Christmas trees, pruning fruit, caring for livestock.

**NEW MEXICO**: Periods of cloudiness with snow alternated with sunny skies to cause large day-to-day swings in temperatures. Overall, the State remained cold with weekly averages 5 to 12° below normal. All but the southern deserts reported precipitation with amounts generally less than 0.20 in. water equivalent in the east, south to between 0.20 to 0.50 in. across the north, west.

Pecan, chile harvest progressed during the week, as well as the tail end of the cotton crop. Ranchers busy with supplemental feeding.

**NEW YORK**: Temperatures close to normal, upper 20s to mid 30s. Extremes 4°; 41°. Precipitation near normal, 0.20 to 1.15 in. Most areas received from 0.50 to 1.00 in.

Major activities: Caring for livestock, grading onions, scattered cabbage harvesting, corn harvesting, drying corn, winter chores.

**NORTH CAROLINA**: Temperatures 1 to 5° above normal. Precipitation 6.34 in. at Bryson City to 0.01 in. at Cape Hatteras.

Days suitable for fieldwork 3.1. Soil moisture 47% adequate, 53% surplus. Crop condition: Pasture 6% poor, 36% fair, 57% good 1% excellent. Cotton 5% very poor, 14% poor, 67% fair, 14% good. Soybeans 3% very poor, 13% poor, 46% fair, 36% good 2% excellent. Winter wheat 1% poor, 26% fair, 69% good, 4% excellent. Oats 2% poor, 25% fair, 72% good, 1% excellent. Barley 21% fair, 77% good, 2% excellent. Rye 2% poor, 22% fair, 75% good 1% excellent. Wheat 87% emerged, 81% 1991, 90% avg. Cotton harvested 84%, 97% 1991, 100% avg. Soybeans harvested 83%, 99% 1991, 100% avg. Winter wheat planted 93%, 100% 1991, 99% avg. Oats planted 98%, 100% 1991, 100% avg. Hay, roughage supplies 94% adequate, 6% surplus. Feed grain supplies 2% short, 92% adequate, 6% surplus. Major activities: Harvesting soybeans, cotton. Other activities: Harvesting sorghum; seeding small grains; preparing tobacco plant beds; tending livestock; equipment repair.

**NORTH DAKOTA**: Temperatures 3° below normal in the southwest to 3° above normal east central, southeast. Extremes -22° west central; 34° southwest, east central, southeast. Precipitation 0.06 in. northwest, southwest to 0.39 in. northeast.

Snowcover mostly adequate. Corn, sunflower harvest continuing. Spring harvest will be necessary in some areas due to heavy snow. Livestock good condition with adequate feed supplies available. Grain marketing normal.

**OHIO**: Mild temperatures prevailed much of the time. One front slipped by about midweek with another cold front passing through the State 19th night. Skies were cloudy or mostly cloudy on many days although high pressure did bring a fairly sunny day 20th. Temperatures 4 to 11° warmer than normal. Highs were in the low 40s to around 50°. Lows mid 20s to mid 30s. Extremes highs in the 50s to lows in the mid teens Monday morning. Warmer than normal temperatures on average did keep soils from freezing solid. This was disappointing to some farmers who are still harvesting corn, need a hard freeze in order to finish. Four-inch soil temperatures averaged in the mid 30s to low 40s. Most of the State experienced some precipitation although amounts were generally below normal. Precipitation totals (liquid equivalent) were generally 0.25 to 0.50 in. Some areas mainly in the south had 0.50 to 1.00 in.

**OKLAHOMA**: Temperatures 10° below normal Panhandle to 2° below normal northeast. Precipitation 0.03 in. southwest to 2.79 in. southeast.

Winter wheat seedings, cotton harvest lag behind last year due to continued wet conditions. Cattle in good condition. Prices for yearling steers mixed. Calves steady to lower, heifer calves $2.00 to $5.00 lower.

**OREGON**: Below normal temperatures, statewide; 1 to 3° below normal western, northeastern areas, southeastern, south central areas as much as 15° below normal. All areas received some snow: Willamette Valley 1 to 3 in., 1 foot or more Cascades, Lakeview, Klamath Falls 15 in. High winds; 50 mph Portland, 70 mph northern Coast.

Soil moisture mostly adequate to surplus west, short to adequate east. Fruit, nut orchard winter activities continue, Willamette Valley. Pruning, resanding cranberry fields, southern coast. Christmas tree, holly harvest winding down. Livestock good. Western pastures continue improvement. Some pasture flooding southern coast. Rains, snows have improved eastern stockwater supplies; pastures, ranges dormant, continued supplemental feeding. Some frozen stockwater problems northeastern areas.

**PENNSYLVANIA**: Temperature 37°, 5° above normal. Extremes 11°; 60°. Precipitation 0.75 in., 0.03 in. above normal.

Corn 79% harvested, 100% 1991, 100% avg. Soybean harvest 94% complete, 100% 1991. Activities: Hauling manure; maintaining machinery; harvesting soybeans, grain corn; caring for livestock.

**PUERTO RICO**: Rainfall 1.35 in. was 0.37 in. above normal. Rainfall 6.37 in. at Dos Bocas, 5.55 in. at Adjuntas Aes, 5.53 in. at Arecibo Ionos. Obs. Highest 24-hour total 4.60 in. at Dos Bocas on 14th. Island temperatures 77° on the Coast, 72 to 73° Interior with Mean station temperature 69.6° at Cayey 1E to 79.7° at San Juan WSFO. Extremes 51°; 90°.

**SOUTH CAROLINA**: Temperatures across the State 2° above normal Upstate, Midlands to 7° above normal Coast. Rainfall 0.50 in. statewide.

Farm activities: Wet fields slowed land preparation for small grains, also slowed completion of cotton, soybean harvest; pastures wet; livestock fair to good.

**SOUTH DAKOTA**: Temperatures 0 to 3° above normal in the east, 1 to 8° below normal over the rest of the State. Extremes 32°; 41°. Precipitation 0.10 to 0.40 in. east to a trace to 0.10 in.over the rest of the State.

Days suitable for fieldwork 2.5. Topsoil 4% very short, 18% short, 67% adequate, 11% surplus. Subsoil 11% very short, 24% short, 56% adequate, 9% surplus. Corn harvest 91% complete, 100% 1991, 100% avg. Winter wheat 1% poor, 24% fair, 67% good, 8% excellent. Winter rye 25% fair, 72% good, 3% excellent. The corn harvest was near complete with mostly poor quality corn left to harvest. Livestock 6% fair, 78% good, 16% excellent. Pasture 78% of normal.

**TENNESSEE**: Temperatures 1 to 3° below normal statewide. Precipitation was less than 0.50 in. below normal.

Cotton harvest is virtually complete. Soybean harvest is also nearing completion with only a few fields remaining to be harvested in most areas. Tobacco markets were busy as the final pre-Christmas sale was on the 17th. Cattle mostly good.

**TEXAS**: Storm system pushed across State early producing heavy rainfall portions southeast, some wintery precipitation west. The 16th through 18th generally dry, some light showers from time to time, mainly eastern half State. Increased moisture from Gulf, Pacific allowed cloudy, wet weather to return eastern half State over weekend. Precipitation near, below normal north, west while amounts typically above normal south. Heaviest rains occurred early on along Upper Coast, east, south central. Temperatures below normal west, north, near normal elsewhere.

Crops: Cotton harvest Plains delayed by snow. Harvest remaining fields Trans-Pecos also interrupted by weather. Cotton 90% harvested, 86% 1991, 93% avg. Small grain stands improving most areas with increased moisture. Some late wheat being planted South Texas, while some replanting took place High Plains. Producers Blacklands unable to spray greenbugs due wet conditions. Central Texas, occurrences greenbug infestation wheat, oat fields. Statewide wheat 67% normal, 77% 1991. Peanut fields Low Plains, South Texas harvested where conditions allowed. 96% harvested, 91% 1991, 96% avg.

Commercial Vegetables: Rio Grande Valley, onions progressing well. Some peppers damaged recent low temperatures. East Texas, sweetpotato harvest nearing completion. Some turnip greens harvested. Trans-Pecos onion irrigation in progress. Some lettuce along Rio Grande harvested. Pecan harvest continued several areas, periodic delays from rain. Harvest virtually complete Plains, Trans-Pecos, most remaining nuts damaged, poor quality.

Range and Livestock: Condition cattle High Plains continued decline with persistent winter weather. Supplemental feeding Plains heavier than other areas. Providing water for livestock also a chore, with sub-freezing temperatures. Winter pastures improving with increased moisture, but cattle moved off extremely wet winter pastures to prevent damage. Overall livestock conditions remained fair, good.

**UTAH**: Temperature 7° less than normal, minimums 1° less than normal. Precipitation was moderate in all divisions except the Uinta Basin division, where it was light.

Major farm/ranch activities: shipping onions, marketing hay, grain, feeding, caring for livestock, year end bookkeeping, financial planning.

**VIRGINIA**: Temperatures below normal the beginning of the week, above normal the rest of the week. Extremes 13°; 65°. Precipitation near to slightly above normal. The greatest amount was 2.36 in. recorded at Bristol.

Days suitable for fieldwork 2.4. Topsoil 43% adequate, 57% surplus. Soybeans harvested 90%, 100% 1991, 93% avg. Cotton harvested 90%, 100% 1991, 100% avg. Winter grains, grazing crops 5% poor, 44% fair, 51% good. Forage from pastures, grazing crops dairy cattle 24%, beef cattle 39%, sheep 46%. Wet weather continued to delay soybean, cotton harvesting. Marketing dark-fired, burley tobacco, peanuts. Livestock fall calving, lambing, active. Heavy snows in western Virginia caused increased hay feeding.

**WASHINGTON**: Temperatures 2 to 5° below normal west; 1 to 11° below normal, east. Rainfall 0.41 to 1.34 in. west; none to 0.47 in. east.

Days suitable for fieldwork 2.5. Soil moisture 44% short, 35% adequate, 21% surplus. Hay, other roughage 14% short, 70% adequate, 16% surplus. Range, pasture 16% very poor, 31% poor, 27% fair, 21% good, 5% excellent. Winter wheat dryland 79% fair, 21% good; irrigated 100% good. Barley dryland 93% fair, 7% good; irrigated 100% good. Cold weather, snow limited farming activities. Farmers actively repaired equipment; pruned, trained trees during weather breaks. Snow made transportation difficult; farmers welcomed the cover. Livestock on winter feeding programs; frozen water sources added to chores.

**WEST VIRGINIA**: Temperature 41°. Extremes 19°; 60°. Precipitation 1.29 in.

Days suitable for fieldwork 1.6. Soil moisture 52% adequate, 48% surplus. Corn virtually harvested. Cattle 10% fair, 90% good. Sheep 8% fair, 92% good. Hay feed supplies 96% adequate, 4% surplus. Other feed supplies adequate. Soybeans virtually harvested. Farm activities: General maintenance, feeding livestock.

**WISCONSIN**: Temperature 26°; 8° above normal. Extremes -16°; 49°. Rain on the 14th, 15th; many locations across the central, southern districts received over an inch of rain. This rain changed to snow in the north central district resulting in a quick 2 to 5 in. Patchy flurries, freezing drizzle lingered across the State through midweek. On the 18th, a combination of snow, freezing drizzle overspread the State. Most of the snow fell in the northern, central sections with a few areas receiving up to 4 in.

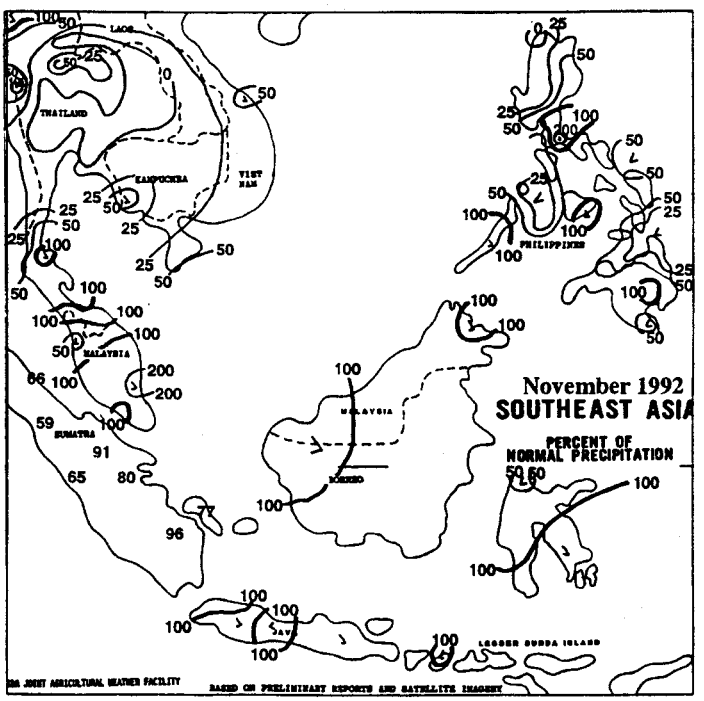
Corn 65% harvested. There was very little progress in the northern, central districts because of wet field conditions, snow.

**WYOMING**: Cold, snowy weather across State last week. Temperatures 5 to 14° below normal. The coldest spot was the far northeast where temperatures 11° below normal. Precipitation was above normal with most of the State receiving one- to three-tenths of an inch. The northeast corner received the most precipitation.

1993 Winter wheat fair to good, snow cover adequate in most areas. Livestock mostly good. Cold weather increasing feed requirements. Snowcover decreased winter pasture, supplemental feeding continuing. Preparation for calving, lambing, tax season.

(Continued from front cover)

**Umiat, AK**, and to -45°F in **Fort Yukon, AK**. In the Southern United States, heavy rain drifted eastward, causing local flooding from **Louisiana** to the **southern Appalachians** at midweek. Mountain snows became prevalent in the **West** after midweek in advance of the surge of cold air. Nearly a foot of new snow was reported in **Klamath Falls, OR**, and in **Coeur d'Alene, ID**. As much as 30 inches fell in **Utah's Wasatch Range**. By Friday, frigid air infiltrated the **Northwest** and the **northern Plains**. **Spokane, WA**, reported a low of 6°F with a 6-inch snow cover. Mather Air Force Base, near **Sacramento, CA**, reached 25°F. A day later, **Great Falls, MT**, noted a low of -8°F, but had only a trace of snow cover. Farther east, wind chills fell to as low as -45°F across **North Dakota**. At week's end, cold air spilled through the **Great Basin** and into the **Southwest's deserts**, while farther east, rain stretched from the **Tennessee Valley** to **New England**.




The *Southeast Asia percent of normal precipitation map* that was unavailable for last week's issue appears above.

# International Weather and Crop Summary
## HIGHLIGHTS

### December 13 - 19, 1992

**FSU:** Overwintering conditions continued favorable for dormant winter grains.

**EUROPE:** Light precipitation and cool weather covered winter grains.

**NORTHWESTERN AFRICA:** Rain in Morocco and western Algeria eased developing drought.

**SOUTH AFRICA:** Dryness worsened in the western corn belt, but conditions favored eastern corn establishment.

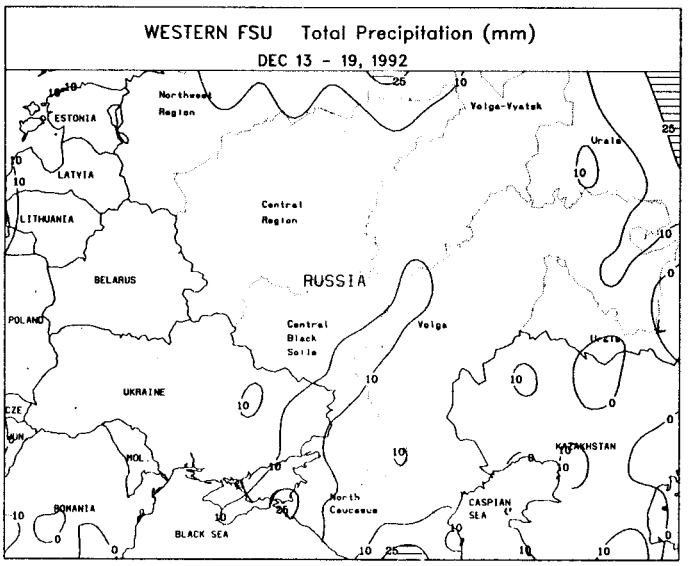
**EASTERN ASIA:** Winter wheat entered dormancy in the north, while rain replenished southeastern reservoirs.

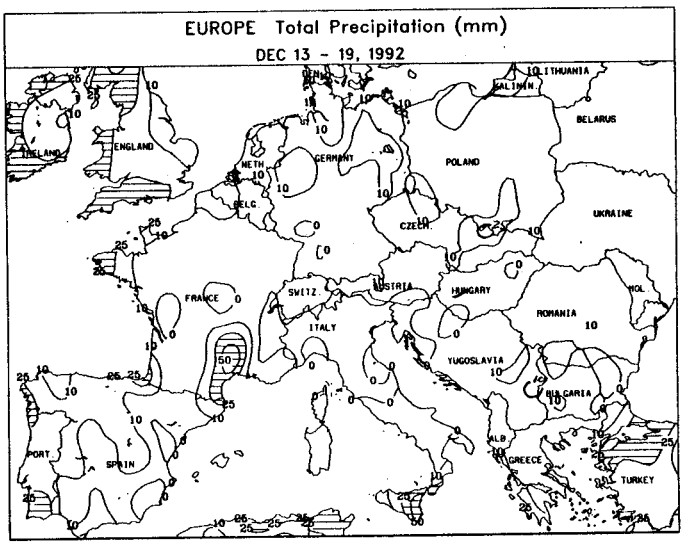
**AUSTRALIA:** Wetness delayed wheat harvest in the south and east, while drier weather aided western wheat harvesting.

**SOUTH ASIA:** Seasonable conditions favored winter plantings and main season harvests.

**SOUTHEAST ASIA:** Widespread showers continued over Indonesia and Malaysia. Showers returned to eastern Philippines.

**SOUTH AMERICA:** Widespread showers continued to hamper winter wheat maturation in Argentina. Scattered showers aided soybeans across southern Brazil.

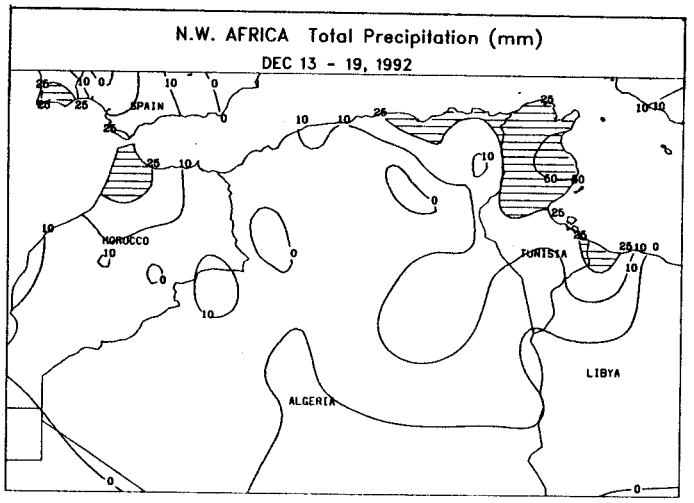


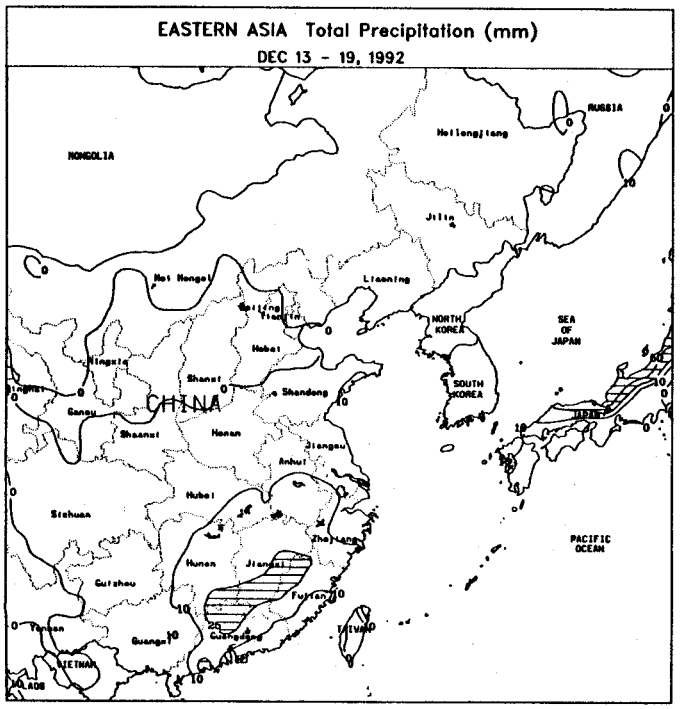

**FSU-WESTERN:** Light precipitation (generally less than 10 mm) covered dormant winter grains. Precipitation fell as snow in the north, while freezing drizzle mixed with snow at times in the south. Winter grain areas in eastern Belarus, Central Region, Volga Vyatsk, Central Black Soils, and Volga Valley were covered by a shallow to moderate snow cover. Although winter grains in Baltic States, Ukraine, and North Caucasus remained snow-free, minimum temperatures, ranging from -2 to -10 degrees Celsius (C), remained above the threshold for potential winterkill. Weekly average temperatures were 2-5 degrees C above normal in most areas, except in southern Ukraine where temperatures averaged slightly below normal.

**EUROPE:** Light precipitation fell throughout most of Europe, with weekly amounts diminishing from the previous week in most areas. The exceptions were heavier rain (10-55 mm) maintaining ample moisture in England and beneficial, but variable showers (5-36 mm) in Spain. Moisture is needed in the Iberian peninsula for the winter growing season. Dry weather prevailed in Italy where substantial rain fell the previous week. Light showers (less than 10 mm) covered eastern Europe, although heavier amounts (10-41 mm) benefited winter crops in eastern Germany, extreme southern Poland, and northern Czechoslovakia. Weekly temperatures averaged 1-3 degrees C above normal in the east and south, and 3-5 degrees C above normal in France and the Benelux countries.

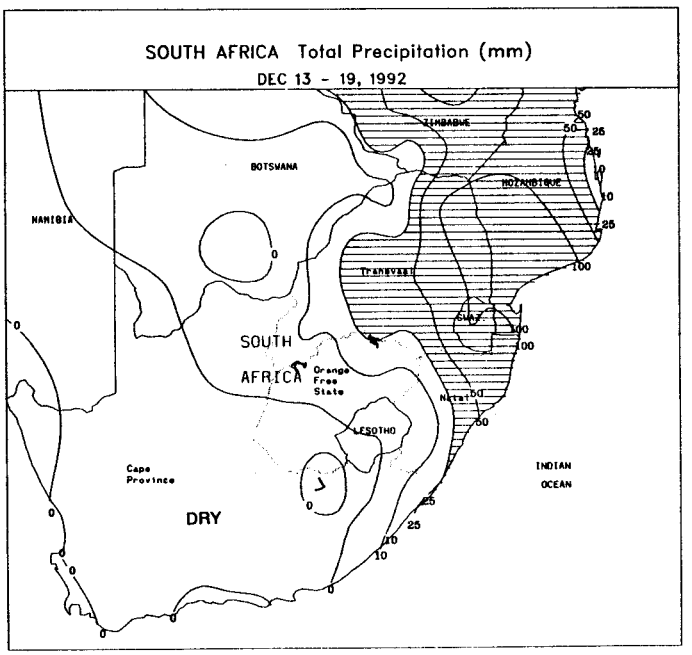
**NORTHWESTERN AFRICA:** Much-needed rain helped winter grains in Morocco and western Algeria. Precipitation amounts ranged from 10 to 22 mm, with amounts in excess of 25 mm in extreme northern areas. The moisture temporarily eased developing drought conditions. While this past week's rain helped condition soils for winter grain planting (slowed by earlier dryness), significant follow-up rains are needed for planting and crop establishment. Usually, the bulk of winter grains is planted from mid-November through mid-December. In eastern Algeria and Tunisia, late-week showers spread over most winter grain areas. Topsoil moisture is adequate for planting and crop establishment in the eastern winter grain areas.



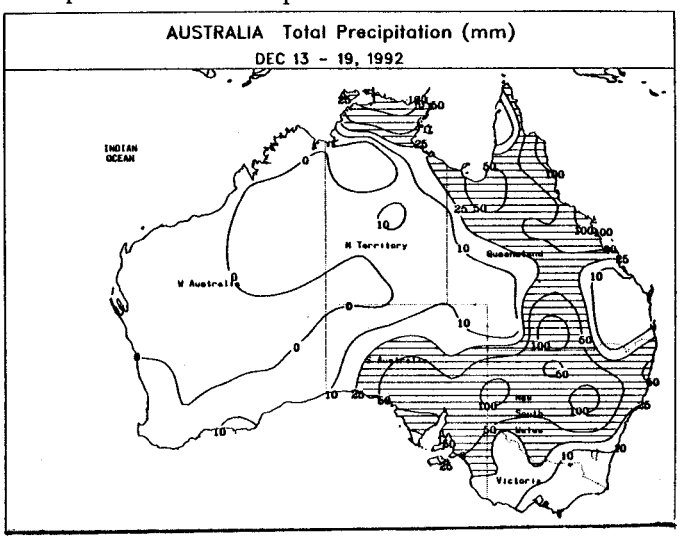

**EASTERN ASIA:** Light precipitation (less than 5 mm) fell across the North China Plain. Seasonably cool temperatures (daily minimums ranged from -5 to -11 degrees C) coaxed winter wheat into dormancy in the northern areas (Shanxi, Hebei, and Shandong). Freezing temperatures were reported as far south as the Yangtze Valley, helping to harden winter grains. Moderate rain (10-45 mm) fell across southeastern China, replenishing depleted reservoirs.



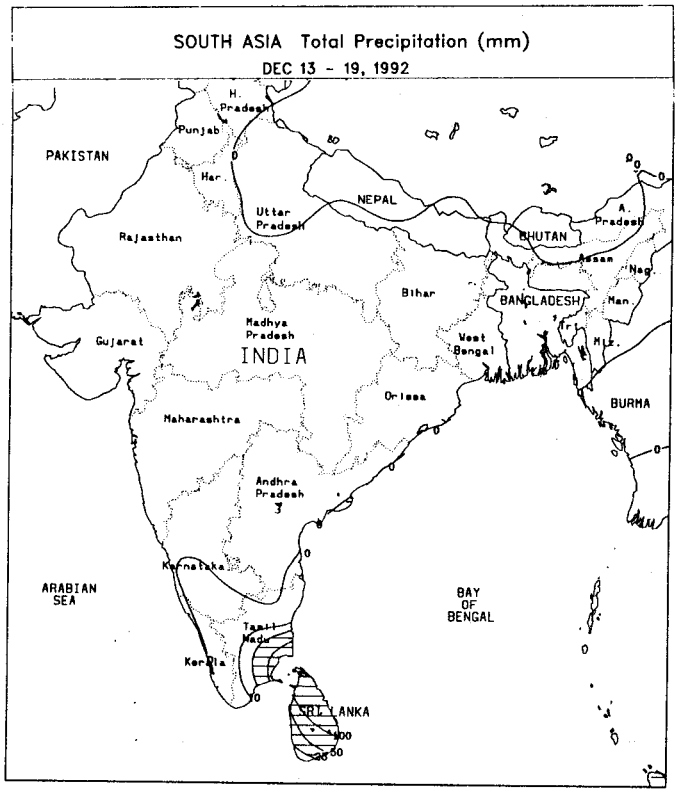

**SOUTH AFRICA:** Beneficial rain (20-30 mm or more) fell for the second week over primary eastern corn areas, with heavier amounts (100 mm or more) covering fringe crop areas of northern Natal and eastern Transvaal. However, unseasonably dry, warmer-than-normal weather persisted over the western two-thirds of the corn belt, reducing moisture for normal establishment. High temperatures of 32-37 degrees C enhanced evaporative losses in the driest areas. Rainfall was also unseasonably light (5-39 mm) in southern Natal and eastern Cape Province. However, moderate rain (22-39 mm) was reported in coastal sugarcane regions.



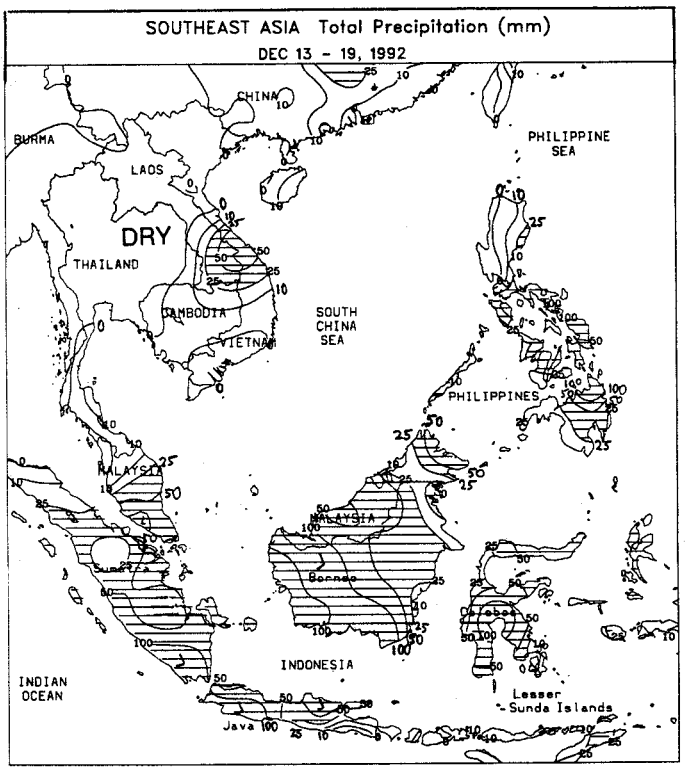

**AUSTRALIA:** Wet weather (13-69 mm) prevailed across South Australia, Victoria, and southern New South Wales, delaying wheat harvesting and contributing to potential quality and disease problems. In contrast, dry weather aided wheat maturation and harvesting across Western Australia. Beneficial rain (12-70 mm) favored germinating and vegetative summer crops across southern Queensland and northern New South Wales. In eastern rangelands, heavier rain and showers (50-125 mm) helped replenish groundwater supplies, but caused some local flooding. Moderate to heavy showers (40-140 mm) covered northeastern Queensland, favoring sugarcane. Temperatures averaged 2 to 5 degrees C below normal across most crop areas, slowing maturation of wheat and development of summer crops.



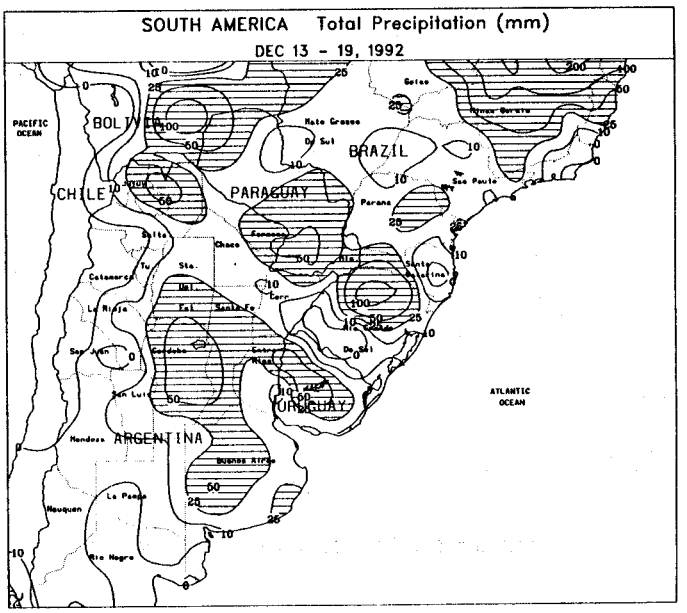
**SOUTH ASIA:** Dry, seasonably mild weather continued across India and Pakistan, with heavy showers (100-204 mm) falling over northeastern Sri Lanka. Moderate showers (25-50 mm) covered western Sri Lanka and isolated locations of Tamil Nadu. Summer crop harvests were winding down across the region, although cotton harvests typically last until spring. Temperatures fell below 5 degrees C in isolated locations of Pakistan and northern India, slowing winter wheat and oilseed germination. Winter crop plantings in northern regions are usually completed by January.




**SOUTHEAST ASIA:** Widespread, moderate to heavy showers (35-100 mm or more) maintained adequate to abundant moisture reserves throughout primary crop areas of Malaysia and Indonesia. However, rainfall tapered off over the Malay Peninsula, with mostly dry weather dominating rice areas of Peninsular Thailand and northwestern Malaysia. In the Philippines, beneficial showers returned to eastern corn and rice regions, with most locations from southern Luzon to Mindanao receiving at least 30 mm and some areas reporting rain in excess of 100 mm. December and January are among the wettest months of the year in the eastern Philippines, averaging 50-100 mm per week.




**SOUTH AMERICA:** In Argentina, drier weather (5-12 mm) favored maturing winter wheat in northeastern La Pampa. However, moderate rain (25-80 mm) fell across southern Cordoba, Santa Fe, and northern Buenos Aires, delaying early wheat harvest and contributing to potential quality problems. While the rain in these areas favored soil moisture reserves, it also slowed soybean, corn, and sunflower planting. Southern Paraguay and most of Formosa province in Argentina received moderate showers (15-65 mm), where excess moisture continued to hinder cotton development. In the remaining Argentina cotton areas, drier weather prevailed, aiding vegetative cotton. Across southern Brazil, moderate to heavy rain (66-150 mm) fell in northern Rio Grande do Sul and western Santa Catarina, with the majority of the rain falling on December 17th, causing local flooding. Minas Gerais received moderate to heavy rain (33-150 mm), where excess moisture has been a continuing problem. In the remaining soybean areas, scattered showers (10-45 mm) benefited vegetative soybeans. Temperatures averaged 1-2 degrees C below normal across Argentina and 1-2 degrees C above normal in southern Brazil.



The Weekly Weather and Crop Bulletin is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: domestic first class **$45**, foreign **$55** (in U.S. funds by international money order or check drawn on U.S. bank) payable to **U.S. Department of Commerce, NOAA.** POSTMASTER: Send address changes to **Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, DC 20250.** Order subscriptions from the office and address listed above. First class postage paid at Washington, DC, and additional mailing offices.

**U.S. DEPARTMENT OF COMMERCE**
National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor . . . . . ***Douglas Le Comte***
Meteorologists . . . . . ***Brad Rippey*** (202) 720-1444
***Vilhelm Bjerknes, David Secora, and Wes Byrd.***

Subscriptions . . . . . ***Joyce Houston*** (202) 720-7917

**U.S. DEPARTMENT OF AGRICULTURE**
Economics Management Staff
Editor . . . . . ***Sharon Lee***
National Agricultural Statistics Service
Agricultural Statistician . . .***David Mueller*** (202) 720-2157
World Agricultural Outlook Board
Agricultural Weather Analysts . ***Ray Motha*** (202) 720-9805
***Tom Puterbaugh, Mark Brusberg, and Bob Stefanski.***

# The Last of the "Old Breed" Departs

## Wes Byrd Retires

Wes Byrd, known in recent years as one of the few remaining meteorologists who can out-perform computer analysis programs, will retire at the end of 1992. His devotion to data quality control and superb knowledge of meteorology has allowed the *Weekly Weather and Crop Bulletin* to make a smooth transition from the "hand-drawn" age to the computer age during his career.

Wes began his 21-year tenure with the National Oceanic and Atmospheric Administration (NOAA) with the Environmental Data Service (EDS) on June 27, 1971, in Silver Spring, MD. He assisted Wayne Palmer in developing and perfecting the concepts we now know as the Palmer Drought Index (PDI) and the Crop Moisture Index (CMI).

In 1971, the *Weekly Weather and Crop Bulletin* was under the partial jurisdiction of NOAA/EDS, and Wes filled in during times of illness or vacation. When the Silver Spring research lab closed in 1973, Wes was permanently transferred to the Washington, DC, offices of the *Weekly Weather and Crop Bulletin.* Since then, Wes has been responsible for the production of most of the domestic charts in the *Bulletin.* In addition, he developed the international map series, which debuted in 1974.

Prior to his NOAA years, Wes retired from the U.S. Air Force (Air Weather Service), where he spent 18 years as a meteorologist. Later, he worked 5 years with a private weather firm, Northeast Weather Services (now Weather Services Incorporated).

Wes has been showered with honors during his career at NOAA, including numerous cash awards and outstanding ratings. He and his wife, Evelyn, plan to eventually retire to Cape Cod, MA, to be closer to their children and grandchildren.

**NOAA/USDA Joint Agricultural Weather Facility**
**USDA South Building, Room 5844**
**Washington, DC 20250**

**WEEKLY NEWS BULLETIN**
**FIRST CLASS**

FIRST CLASS MAIL
POSTAGE & FEES PAID
NOAA
PERMIT NO. G-19

**OFFICIAL BUSINESS**
**PENALTY FOR PRIVATE USE, $300**