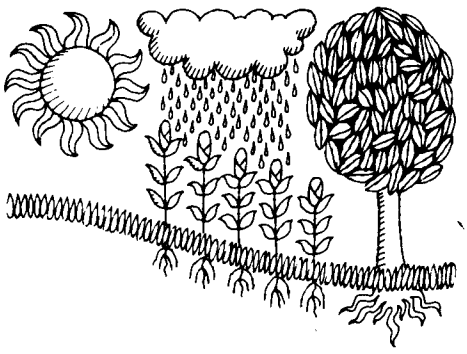

# WEEKLY WEATHER AND CROP BULLETIN


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

U.S. DEPARTMENT OF AGRICULTURE
Economics, Statistics, and Cooperatives Service
World Food and Agricultural Outlook and Situation Board

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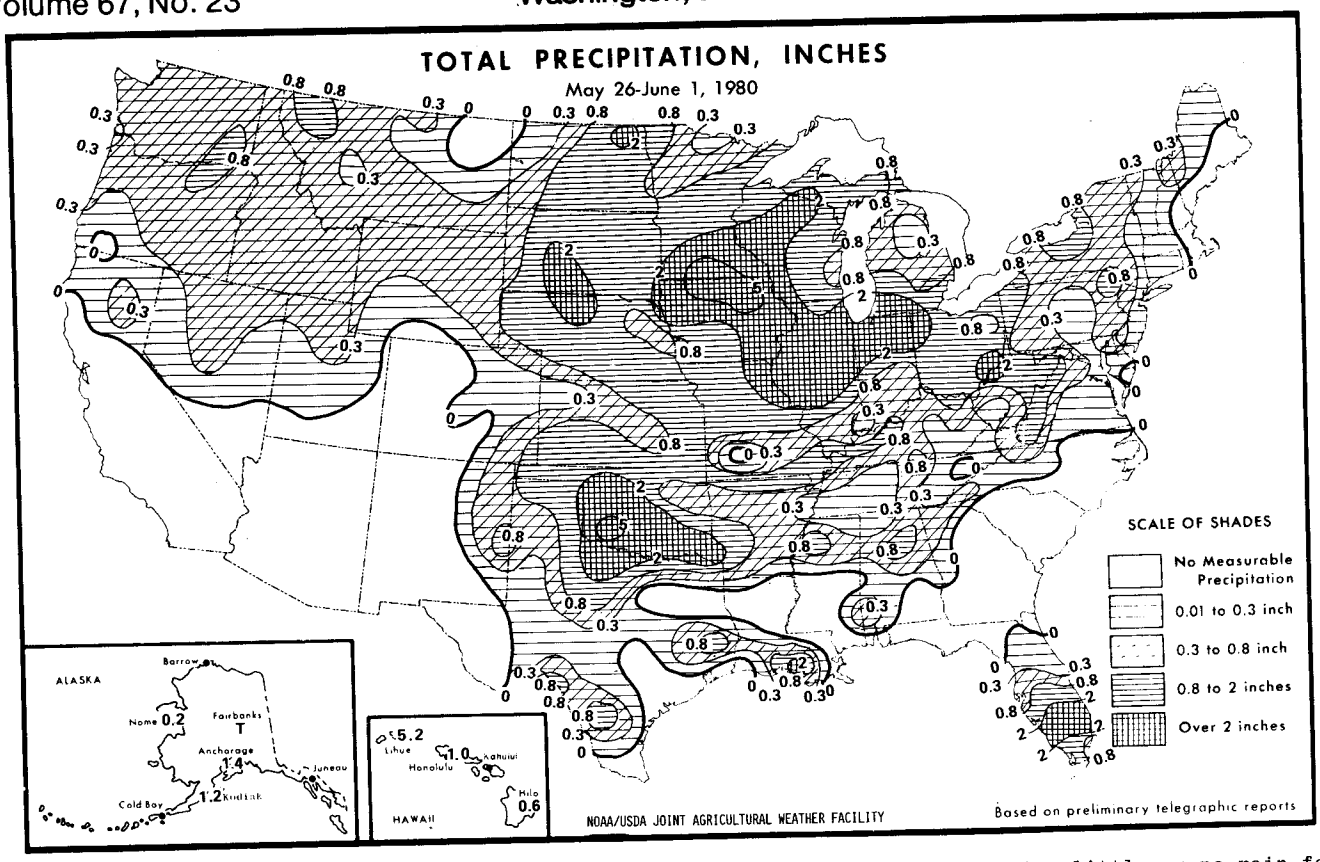


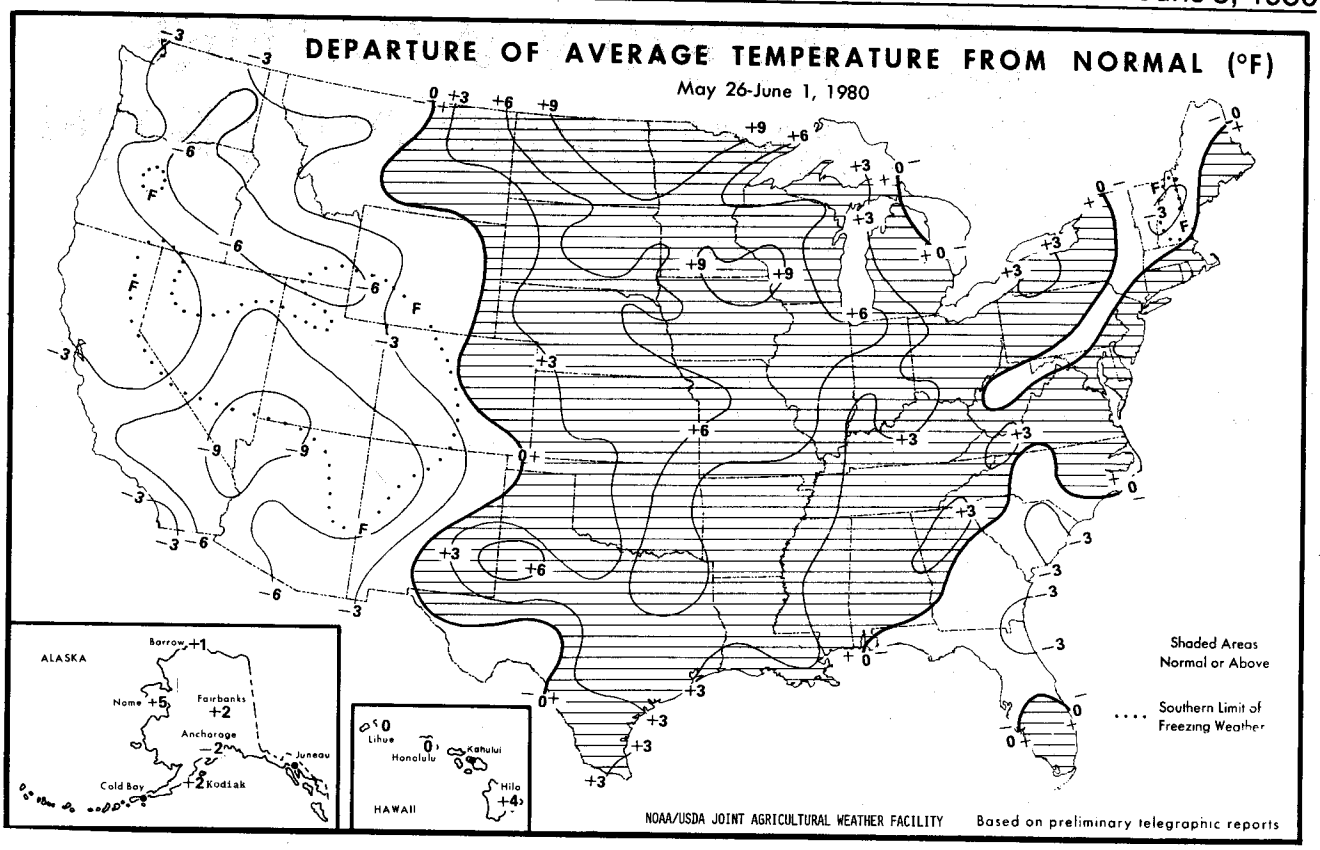
## National Weather Summary

May 26 - June 1

HIGHLIGHTS: A slow-moving frontal system moved through the northern Plains and Great Lakes during the week. Only light showers fell in the very dry areas of northeastern Montana and northwestern North Dakota. Other parts of the northern Plains and upper Mississippi Valley had scattered thunderstorms. Elsewhere, tornadoes and other severe weather shook the Nation from the Texas Panhandle through the Ohio Valley and the Great Lakes. Cool weather dominated the West while most of the East was warm and humid.

MONDAY...A cold front over the Plains States scattered showers and thunderstorms from Texas to the eastern Dakotas. Again, little or no rain fell in the very dry portions of the Dakotas and northeastern Montana. The heavier rain fell from eastern Nebraska through Oklahoma. Several tornadoes and hail hit eastern Nebraska. Isolated Nebraska points had heavy deluges that resulted in local flooding. Elsewhere, another low pressure system was bringing more rain to the Pacific Northwest. East of the Mississippi River, clear skies were the rule except for afternoon thunderstorms in the South and Southeast.

TUESDAY...The slow-moving cold frontal system stretched from the eastern Dakotas to eastern New Mexico and met warm moist air flowing northward from the Gulf of Mexico. Heavy thunderstorms resulted over the central and southern Plains. Large hail was reported from the Texas Panhandle into southeastern Colorado. Several tornadoes touched down in northwestern Texas. Local flooding occurred in northern Texas and southern Oklahoma. A few showers dotted an area from Louisiana to Florida. Portions of the northern Pacific Coast and northern Rockies also had some rain, and thundershowers were reported across portions of Iowa and Minnesota. It




was cool in the West with some parts of the Plateau and Rockies dropping into the twenties and thirties.

WEDNESDAY...The weather pattern changed little as the frontal system remained nearly stationary along the western sections of the Plains. The front continued to separate cooler and drier air in the West from the warm and humid air in much of the East. Showers and thunderstorms developed rapidly over portions of the Plains, the Mississippi Valley, the western Great Lakes area, and along the Gulf Coast and southeastern corner of the Nation. A tornado hit in the dry northwestern North Dakota region. Isolated hail and gusty winds also occurred there, but little rain fell. Severe weather spanned a region from Texas to Minnesota.

THURSDAY...Thunderstorms increased as a low pressure system developed in Nebraska. The front stretched from Minnesota to the low and to southwestern Texas. Tornadoes touched down west of the low pressure in southern Wyoming and in Minnesota, Iowa, South Dakota, Nebraska, and Oklahoma. At least 44 twisters were counted. Remarkably, very few reports of injuries were received. Heavy rain and local flooding was widespread. Showers and thunderstorms also extended from parts of the southeastern United States across the Tennessee and Ohio Valleys and the Appalachians to the upper Great Lakes. Other showers and thunderstorms dotted the northern Rockies and Plateau.

FRIDAY...The previously nearly stationary weather system began moving into the warm, humid air. The low pressure was centered in Iowa early in the day, and a warm front extended from it through the Great Lakes and then southeastward to Virginia. The cold front reached from the low to Southwest Texas. All areas south and southeast of the fronts were subjected to thunderstorms, especially in the afternoon and evening. Tornadoes and funnel clouds were sighted in the Great Lakes area. Most of the severe weather occurred in these areas. Welcome rain and showers fell on parts of South Dakota, Iowa, and southern Minnesota. Cool weather continued in most of the West, but the Southwest was warming.

SATURDAY...The storm center moved northeastward into Canada, and the front extended southward to the Ohio Valley and westward to another low in New Mexico. Showers and thunderstorms extended through the upper Mississippi Valley and the central Plains. Tornadoes hit Kansas and Nebraska. Thunderstorms also moved across the northern and central sections of the Appalachians and the lower Great Lakes. A tornado caused extensive property damage near Pittsburgh, Pa. A surge of cold air moved southward out of central Canada and brought much cooler weather to the northern Plains. Another Pacific cold front moved into southwestern Canada and northwestern United States.

SUNDAY...A warm front reached from New Jersey to a low pressure center in Kansas, and the cold front extended into New Mexico. Tornadoes touched down in Illinois and Indiana. Severe weather rolled from Texas through the Ohio Valley. Scattered thunderstorms also rumbled from the lower Great Lakes to the mid-Atlantic Coast, while both the southeastern and southwestern corners of the Nation remained dry. The Pacific front produced showers from eastern Alberta through western Montana.

## National Agricultural Summary

May 26 - June 1

HIGHLIGHTS: Rains brought limited relief to many areas of the northern Plains, but drought conditions still persist. Temperatures generally averaged above normal in all parts of the Nation except the West. Most areas of the Nation had 5 to 6 days suitable for fieldwork, except the south central and western States where only 2 to 5 days were available. Winter wheat rated fair to mostly good, except in the northern Plains where the lack of moisture prompted poor conditions. Winter wheat combining was limited to southern areas. Corn planting in the 17 major producing States advanced to 97% complete, surpassing last year's 92% and the 91% average. Soybean planting in the 18 major States reached 65% complete, ahead of last year's 57% and the 62% average. Progress in many of the south central and southeastern States continued behind normal due to earlier delays caused by wet soils. Cotton planting in the 14 major States was 81% complete, equal to a year earlier. Planting was virtually complete in all major States except Louisiana, New Mexico, Oklahoma, and Texas. Grain sorghum planting in the seven major States reached 59% complete, 1 point ahead of last year and the average. Only Colorado and Oklahoma lagged the average by a significant amount. Rice seeding in the five major States was 97% complete, 5 points ahead of last year. Planting was finished in California and Texas. Rice was 89% emerged. Spring wheat reached 87% emerged; heading ranged from 20% in Idaho and Montana to 100% in Califorina. A few fields in the northern Plains were being reseeded. Pastures rated mostly good to excellent except in the northern Plains where conditions were poor to fair; supplemental feeding was necessary for much of the roughage requirements. Vegetable planting continued active in northern areas. Fuel supplies held steady from the previous week. LP gas stood at 1% tight, 94% adequate, and 5% surplus. Diesel fuel rated 2% tight, 93% adequate, and 5% surplus. Gasoline was 2% tight, 93% adequate, and 5% surplus.

CORN: Corn planting in the 17 major producing States advanced to 97% complete, ahead of last year's 92% and the 91% average. The east north central States reported 97% complete, compared with 90% in 1979 and the average of 87%. Planting in the west north central States reached 98% finished, compared with 93% a year ago and the average of 93%. The southeastern States advanced to 99%, equal to last year. Good stands are reported in many areas. Tasseling was underway in southern areas and was advancing northward.

SOYBEANS: Soybean seeding in the 17 major producing States was 65% complete, ahead of last year's 57% and the 62% average. Growers in the east north central States advanced planting to 74%, ahead of the 65% last year and the 63% average. Planting in the west north central States reached 83%, compared with only 67% a year ago and the 72% average. Planting in the south central and southeastern States continued to lag the average due to earlier delays caused by wet conditions.

COTTON: Cotton planting was 81% complete, equal to a year earlier. Excluding California and Arizona, where planting was virtually finished, seeding reached 77% complete, equal to last year but slightly behind the 83% average. Some replanting was completed where the crop suffered damage from earlier heavy rains.

SMALL GRAINS: Winter wheat rated fair to mostly good except in the northern Plains where conditions remain poor to fair from lack of moisture. Combining was limited to southern areas.

Spring wheat seeding neared completion. Spring wheat was 87% emerged. Heading ranged from 20% in Idaho and Montana to 100% in California. A few fields in the northern Plains were being reseeded.

OTHER CROPS: Grain sorghum planting in the seven major producing States advanced to 59%, 1 point ahead of both a year ago and the average. Progress lagged the average by 21 points in Colorado, 17 points in Oklahoma, and 4 points in Texas. In Texas, 80% of the crop was planted, 21% had headed, and 5% had turned color. Planting was delayed by rain, hail, and high winds in northern Texas. Earlier planted stands were in good condition.

Rice seeding reached 97%, 5 points ahead of a year earlier, in the five major producing States. Excluding California, seeding advanced to 96%, compared with 90% last year and the 96% average. Seeding was complete in California and Texas.

Peanut planting ranged from 29% in Texas to 99% in North Carolina. Except for Texas, where rains delayed progress, planting in most States moved ahead of the average.

Tobacco transplanting remained generally on schedule as plant supplies continued adequate. Problems with blue mold continued in Georgia.

Hay harvesting was active in most areas.

FRUITS AND NUTS: Apples reached the petal fall stage in Michigan. Orchards generally rated good with an excellent set reported. Peach harvesting advanced across the South and reached 9% in Georgia--slightly behind normal.

Florida citrus groves rated excellent with near-ideal growing weather for trees and fruit. The Valencia harvest continued active while the grapefruit harvest was virtually complete. California growers harvested grapefruit, Valencias and lemons while the Navel orange harvest was winding down. In Arizona, the grapefruit and Valencia orange harvest made seasonable progress with new crop prospects generally good.

VEGETABLES: Growers in northern production areas continued to plant a wide variety of vegetables and were harvesting early vegetables. Florida vegetable shipments were up 1 percent from the previous week. Supplies of watermelons increased considerably while shipments of snap beans, cabbage, carrots, celery, okra, cucumbers, escarole, lettuce, parsley, radishes, squash, and tomatoes decreased.

PASTURE AND LIVESTOCK: Pastures rated mostly good except in the northern Plains where conditions were poor and supplemental feeding was necessary for most of the roughage requirements. Livestock continued to be moved to summer pastures.

## Weather Data for the Week Ending June 1, 1980

| States and Stations | Temperature °F | | | | | | Precipitation | | | | | Relative Humidity, percent | | Number of Days | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | Temperature °F | | Precipitation | |
| | 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 March 3 | Pct. normal since March 3 | Average maximum | Average minimum | 90 and above | 32 and below | .01 inch or more | .50 inch or more |
| AL BIRMINGHAM | 86 | 64 | 89 | 57 | 75 | 1 | 1.6 | .8 | 1.0 | 30.2 | 213 | 93 | 49 | 0 | 0 | 2 | 2 |
| MOBILE | 88 | 68 | 89 | 66 | 78 | 0 | 0 | -1.1 | 0 | 41.5 | 243 | 96 | 48 | 0 | 0 | 0 | 0 |
| MONTGOMERY | 86 | 67 | 89 | 65 | 77 | 1 | 0 | - .8 | 0 | 22.0 | 159 | 94 | 52 | 0 | 0 | 0 | 0 |
| AK ANCHORAGE | 54 | 43 | 59 | 41 | 48 | -2 | 1.4 | 1.3 | 1.1 | 2.0 | 154 | 75 | 58 | 0 | 0 | 5 | 1 |
| BARROW | 30 | 25 | 33 | 21 | 27 | 1 | T | - .1 | T | 0 | 0 | 83 | 75 | 0 | 6 | 0 | 0 |
| FAIRBANKS | 65 | 46 | 73 | 38 | 56 | 2 | T | - .2 | T | .5 | 24 | 65 | 42 | 0 | 0 | 1 | 0 |
| KODIAK | 53 | 43 | 58 | 42 | 48 | 2 | 1.2 | .2 | .5 | 11.7 | 98 | 82 | 64 | 0 | 0 | 3 | 1 |
| NOME | 53 | 40 | 60 | 31 | 45 | 5 | .2 | .2 | .1 | 2.0 | 100 | 76 | 55 | 0 | 1 | 5 | 0 |
| AZ FLAGSTAFF | 63 | 28 | 65 | 27 | 45 | -8 | 0 | - .1 | 0 | 7.2 | 195 | 66 | 17 | 0 | 6 | 0 | 0 |
| PHOENIX | 89 | 61 | 96 | 58 | 75 | -5 | 0 | 0 | 0 | 1.2 | 100 | 29 | 10 | 2 | 0 | 0 | 0 |
| TUCSON | 90 | 53 | 93 | 49 | 72 | -5 | 0 | 0 | 0 | 1.3 | 130 | 32 | 9 | 3 | 0 | 0 | 0 |
| WINSLOW | 76 | 42 | 80 | 38 | 59 | -8 | 0 | 0 | 0 | 1.2 | 100 | -- | -- | 0 | 0 | 0 | 0 |
| YUMA | 87 | 59 | 91 | 57 | 73 | -8 | 0 | 0 | 0 | .8 | 160 | 43 | 18 | 2 | 0 | 0 | 0 |
| AR FORT SMITH | 87 | 69 | 89 | 65 | 78 | 4 | .1 | -1.1 | .1 | 9.8 | 70 | 90 | 55 | 0 | 0 | 1 | 0 |
| LITTLE ROCK | 87 | 69 | 90 | 64 | 78 | 4 | .6 | - .5 | .6 | 19.3 | 125 | 86 | 51 | 2 | 0 | 1 | 0 |
| CA BAKERSFIELD | 79 | 56 | 85 | 50 | 67 | -5 | 0 | 0 | 0 | 2.2 | 129 | -- | 30 | 0 | 0 | 0 | 0 |
| EUREKA | 58 | 50 | 60 | 49 | 54 | 0 | .1 | - .3 | T | 12.0 | 122 | 91 | 69 | 0 | 0 | 1 | 0 |
| FRESNO | 81 | 52 | 85 | 48 | 67 | -4 | 0 | 0 | 0 | 2.3 | 72 | 68 | 23 | 0 | 0 | 0 | 0 |
| LOS ANGELES | 66 | 53 | 68 | 49 | 59 | -7 | 0 | 0 | 0 | 2.4 | 69 | 87 | 55 | 0 | 0 | 0 | 0 |
| RED BLUFF | 82 | 54 | 87 | 49 | 68 | -3 | .3 | .2 | .3 | 4.5 | 88 | 74 | 34 | 0 | 0 | 1 | 0 |
| SAN DIEGO | 67 | 60 | 70 | 57 | 64 | -1 | T | 0 | T | 4.3 | 172 | 70 | 56 | 0 | 0 | 0 | 0 |
| SAN FRANCISCO | 65 | 49 | 69 | 43 | 57 | -3 | T | 0 | T | 3.3 | 75 | 87 | 50 | 0 | 0 | 0 | 0 |
| STOCKTON | 80 | 51 | 83 | 49 | 65 | -3 | 0 | 0 | 0 | 2.1 | 58 | 86 | 32 | 0 | 0 | 0 | 0 |
| CO DENVER | 79 | 47 | 83 | 40 | 63 | 2 | T | - .6 | T | 6.5 | 110 | 54 | 17 | 0 | 0 | 0 | 0 |
| GRAND JUNCTION | 78 | 46 | 83 | 34 | 62 | -4 | 0 | - .1 | 0 | 3.6 | 189 | 40 | 14 | 0 | 0 | 0 | 0 |
| PUEBLO | 85 | 46 | 88 | 40 | 65 | 0 | 0 | - .4 | 0 | 6.4 | 173 | 78 | 16 | 0 | 0 | 0 | 0 |
| CT BRIDGEPORT | 73 | 56 | 80 | 51 | 65 | 2 | .1 | - .6 | .1 | 16.8 | 163 | 68 | 49 | 0 | 0 | 1 | 0 |
| HARTFORD | 78 | 51 | 86 | 44 | 64 | 1 | .1 | - .7 | .1 | 13.1 | 120 | 71 | 31 | 0 | 0 | 1 | 0 |
| DC WASHINGTON | 83 | 63 | 90 | 55 | 73 | 3 | T | - .8 | T | 10.7 | 109 | 78 | 48 | 1 | 0 | 1 | 0 |
| FL APALACHICOLA | 83 | 67 | 84 | 63 | 75 | -2 | 0 | - .8 | 0 | 12.2 | 109 | 93 | 57 | 0 | 0 | 0 | 0 |
| DAYTONA BEACH | 83 | 70 | 85 | 66 | 77 | -1 | T | -1.0 | T | 8.1 | 95 | 80 | 51 | 0 | 0 | 0 | 0 |
| FORT MYERS | 88 | 69 | 92 | 67 | 79 | 0 | 2.1 | .7 | 1.1 | 10.4 | 113 | 94 | 52 | 3 | 0 | 2 | 2 |
| JACKSONVILLE | 86 | 63 | 87 | 59 | 74 | -3 | 0 | -1.0 | 0 | 13.7 | 138 | -- | 51 | 0 | 0 | 0 | 0 |
| KEY WEST | 87 | 77 | 88 | 76 | 82 | 0 | 1.0 | .2 | .8 | 5.0 | 77 | 80 | 58 | 0 | 0 | 3 | 1 |
| MIAMI | 84 | 74 | 85 | 67 | 79 | 0 | .3 | -1.5 | .2 | 10.2 | 84 | 81 | 62 | 0 | 0 | 3 | 0 |
| ORLANDO | 86 | 65 | 88 | 63 | 76 | -3 | .3 | - .7 | .3 | 11.7 | 127 | 98 | 47 | 0 | 0 | 1 | 0 |
| TALLAHASSEE | 87 | 65 | 88 | 62 | 76 | -1 | 0 | -1.1 | 0 | 22.6 | 165 | 93 | 46 | 0 | 0 | 1 | 0 |
| TAMPA | 86 | 69 | 88 | 65 | 78 | -2 | .3 | - .6 | .3 | 10.2 | 120 | 87 | 48 | 0 | 0 | 1 | 0 |
| WEST PALM BEACH | 86 | 72 | 87 | 65 | 79 | 0 | 2.2 | .7 | 1.9 | 11.9 | 98 | 74 | 53 | 0 | 0 | 2 | 1 |
| GA ATLANTA | 88 | 68 | 89 | 67 | 78 | 6 | 0 | - .8 | 0 | 21.6 | 157 | 85 | 44 | 0 | 0 | 0 | 0 |
| AUGUSTA | 87 | 58 | 89 | 56 | 73 | -2 | 0 | - .8 | 0 | 14.8 | 130 | -- | 42 | 0 | 0 | 0 | 0 |
| MACON | 87 | 65 | 88 | 63 | 76 | 0 | 0 | - .8 | 0 | 17.1 | 140 | 89 | 47 | 0 | 0 | 0 | 0 |
| SAVANNAH | 85 | 63 | 86 | 61 | 74 | -2 | 0 | -1.1 | 0 | 15.8 | 141 | 93 | 45 | 0 | 0 | 0 | 0 |
| HI HILO | -- | -- | -- | -- | 78 | 4 | .6 | -1.2 | -- | 62.1 | 173 | -- | -- | 0 | 0 | - | - |
| HONOLULU | 84 | 72 | 86 | 71 | 78 | 0 | 1.0 | .8 | .6 | 5.0 | 91 | 85 | 57 | 0 | 0 | 4 | 1 |
| KAHULUI | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | - | - | - | - |
| LIHUE | -- | -- | -- | -- | 76 | 0 | 5.2 | 4.7 | -- | 18.5 | 181 | -- | -- | 0 | 0 | - | - |
| ID BOISE | 64 | 44 | 72 | 42 | 54 | -6 | .8 | .5 | .5 | 7.5 | 214 | 85 | 43 | 0 | 0 | 2 | 0 |
| LEWISTON | 69 | 48 | 75 | 45 | 58 | -3 | .4 | 0 | .3 | 4.2 | 114 | 91 | 49 | 0 | 0 | 4 | 0 |
| POCATELLO | 62 | 39 | 65 | 33 | 51 | -7 | .5 | .2 | .5 | 5.2 | 158 | 84 | 42 | 0 | 0 | 3 | 0 |
| IL CAIRO | 85 | 68 | 90 | 62 | 77 | 4 | 1.2 | 0 | .7 | 10.3 | 72 | -- | -- | 1 | 0 | 4 | 1 |
| CHICAGO | 81 | 57 | 86 | 42 | 69 | 6 | 3.1 | 2.3 | 1.3 | 9.2 | 92 | 85 | 42 | 0 | 0 | 4 | 3 |
| MOLINE | 83 | 58 | 88 | 46 | 71 | 5 | 2.7 | 1.8 | 1.3 | 9.1 | 89 | 85 | 45 | 0 | 0 | 4 | 2 |
| PEORIA | 85 | 63 | 90 | 57 | 74 | 8 | 2.3 | 1.4 | 2.1 | 9.7 | 87 | 81 | 46 | 1 | 0 | 2 | 1 |
| ROCKFORD | 81 | 60 | 87 | 47 | 71 | 7 | 1.8 | .9 | .9 | 6.6 | 64 | 79 | 44 | 0 | 0 | 4 | 2 |
| SPRINGFIELD | 87 | 64 | 90 | 56 | 75 | 7 | 2.6 | 1.8 | 2.6 | 11.3 | 107 | 86 | 46 | 2 | 0 | 3 | 1 |
| IN EVANSVILLE | 84 | 63 | 87 | 52 | 73 | 3 | .1 | - .8 | .1 | 10.7 | 82 | 86 | 50 | 0 | 0 | 2 | 0 |
| FORT WAYNE | 79 | 57 | 87 | 46 | 68 | 3 | 3.0 | 2.1 | 2.8 | 12.7 | 126 | 77 | 46 | 0 | 0 | 3 | 1 |
| INDIANAPOLIS | 82 | 58 | 87 | 47 | 70 | 3 | .5 | - .5 | .5 | 9.2 | 79 | 86 | 43 | 0 | 0 | 3 | 0 |
| SOUTH BEND | 84 | 59 | 90 | 50 | 71 | 8 | 3.6 | 2.9 | 3.5 | 12.3 | 123 | 76 | 52 | 1 | 0 | 3 | 1 |
| IA BURLINGTON | 84 | 63 | 87 | 59 | 73 | 7 | 2.8 | 1.9 | 2.3 | 10.6 | 105 | -- | -- | 0 | 0 | 4 | 1 |
| DES MOINES | 83 | 62 | 89 | 55 | 72 | 7 | 1.7 | .6 | .8 | 4.6 | 49 | 81 | 42 | 0 | 0 | 6 | 1 |
| DUBUQUE | 80 | 60 | 89 | 54 | 70 | 7 | 2.4 | 1.2 | -- | 7.5 | 63 | 79 | 44 | 0 | 0 | 0 | 0 |
| SIOUX CITY | 80 | 59 | 90 | 52 | 70 | 4 | 2.6 | 1.6 | 1.3 | 6.3 | 85 | 90 | 56 | 1 | 0 | 5 | 1 |
| KS CONCORDIA | 81 | 60 | 91 | 54 | 71 | 3 | 1.5 | .4 | .6 | 7.7 | 95 | 82 | 59 | 1 | 0 | 4 | 1 |
| DODGE CITY | 82 | 59 | 87 | 50 | 71 | 2 | 1.6 | .8 | 1.3 | 8.2 | 130 | 91 | 55 | 0 | 0 | 2 | 1 |
| GOODLAND | 79 | 50 | 85 | 44 | 65 | 1 | T | - .6 | T | 8.2 | 167 | 83 | 33 | 0 | 0 | 1 | 0 |
| TOPEKA | 82 | 63 | 87 | 59 | 73 | 4 | 4.2 | 3.1 | 1.9 | 10.0 | 102 | 90 | 58 | 0 | 0 | 6 | 2 |
| WICHITA | 82 | 63 | 88 | 55 | 73 | 2 | .5 | - .4 | .4 | 7.9 | 93 | 88 | 55 | 0 | 0 | 1 | 0 |
| KY LEXINGTON | 82 | 61 | 86 | 52 | 72 | 3 | .1 | - .9 | .1 | 11.0 | 87 | 85 | 46 | 0 | 0 | 2 | 0 |
| LOUISVILLE | 84 | 63 | 89 | 55 | 74 | 5 | .4 | - .6 | .3 | 11.9 | 89 | 84 | 46 | 0 | 0 | 3 | 0 |

Based on preliminary reports and 1941-70 normals

## Weather Data for the Week Ending June 1, 1980

| States and Stations | Temperature °F | | | | | | Precipitation | | | | | Relative Humidity, percent | | Number of Days | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 March 3 | Pct. normal since March 3 | Average maximum | Average minimum | Temperature °F: 90 and above | Temperature °F: 32 and below | Precipitation: .01 inch or more | Precipitation: .50 inch or more |
| LA BATON ROUGE | 90 | 70 | 93 | 66 | 80 | 2 | 0 | - .9 | 0 | 30.3 | 209 | 92 | 40 | 6 | 0 | 0 | 0 |
| LAKE CHARLES | 88 | 72 | 92 | 68 | 80 | 2 | 0 | -1.1 | 0 | 30.9 | 240 | 97 | 59 | 2 | 0 | 0 | 0 |
| NEW ORLEANS | 90 | 72 | 93 | 67 | 81 | 3 | T | -1.0 | T | 35.3 | 238 | 92 | 50 | 4 | 0 | 0 | 0 |
| SHREVEPORT | 91 | 72 | 94 | 70 | 81 | 5 | 0 | -1.0 | 0 | 13.2 | 92 | 95 | 52 | 6 | 0 | 0 | 0 |
| ME CARIBOU | 65 | 44 | 76 | 37 | 55 | 0 | T | - .7 | T | 7.9 | 104 | 81 | 42 | 0 | 0 | 2 | 0 |
| PORTLAND | 70 | 46 | 80 | 37 | 58 | 1 | T | - .8 | T | 12.2 | 118 | 88 | 39 | 0 | 0 | 0 | 0 |
| MD BALTIMORE | 80 | 58 | 89 | 46 | 69 | 1 | .3 | - .5 | .3 | 12.9 | 128 | 75 | 35 | 0 | 0 | 2 | 0 |
| MA BOSTON | 75 | 55 | 84 | 51 | 65 | 2 | T | - .8 | T | 12.0 | 111 | 66 | 36 | 0 | 0 | 0 | 0 |
| CHATHAM | 65 | 51 | 69 | 48 | 58 | -- | T | - .8 | T | 11.2 | 104 | 84 | 61 | 0 | 0 | 0 | 0 |
| MI ALPENA | 66 | 44 | 84 | 39 | 54 | -1 | .4 | - .2 | .3 | 7.4 | 106 | -- | -- | 0 | 0 | 2 | 0 |
| DETROIT | 76 | 54 | 84 | 41 | 65 | 2 | 1.4 | .6 | 1.1 | 11.6 | 127 | 80 | 35 | 0 | 0 | 3 | 1 |
| FLINT | 73 | 50 | 81 | 39 | 62 | 1 | .4 | - .3 | .2 | 8.0 | 99 | 88 | 47 | 0 | 0 | 3 | 0 |
| GRAND RAPIDS | 77 | 53 | 87 | 42 | 65 | 3 | 1.3 | .6 | .6 | 9.1 | 101 | 74 | 50 | 0 | 0 | 3 | 1 |
| HOUGHTON LAKE | 71 | 46 | 78 | 37 | 59 | 1 | .2 | - .5 | .1 | 6.1 | 87 | 78 | 51 | 0 | 0 | 3 | 0 |
| LANSING | 77 | 51 | 86 | 40 | 64 | 3 | .6 | - .2 | 0 | 6.5 | 75 | 92 | 48 | 0 | 1 | 2 | 0 |
| MARQUETTE | 71 | 46 | 81 | 36 | 58 | 4 | 1.7 | 1.0 | .8 | 6.9 | 95 | 91 | 51 | 0 | 0 | 4 | 2 |
| MUSKEGON | 73 | 53 | 81 | 45 | 63 | 2 | .8 | .2 | .6 | 7.3 | 88 | 83 | 50 | 0 | 0 | 3 | 1 |
| SAULT STE. MARIE | 65 | 42 | 70 | 33 | 53 | 0 | .5 | - .3 | .4 | 5.4 | 76 | 82 | 53 | 0 | 0 | 5 | 0 |
| MN DULUTH | 67 | 48 | 81 | 44 | 58 | 4 | 1.4 | .5 | .9 | 3.3 | 43 | 73 | 52 | 0 | 0 | 3 | 1 |
| INT'L FALLS | 79 | 53 | 92 | 44 | 66 | 11 | .3 | - .5 | .2 | 2.4 | 43 | 72 | 35 | 2 | 0 | 2 | 0 |
| MINNEAPOLIS | 80 | 60 | 93 | 52 | 70 | 8 | 2.4 | 1.5 | 1.2 | 4.9 | 69 | 75 | 43 | 1 | 0 | 4 | 2 |
| ROCHESTER | 81 | 58 | 92 | 53 | 69 | 8 | 3.1 | 2.1 | 2.0 | 5.7 | 74 | 72 | 45 | 2 | 0 | 4 | 2 |
| SAINT CLOUD | 77 | 56 | 91 | 48 | 66 | 6 | 1.9 | .9 | 1.2 | 4.2 | 57 | 91 | -- | 1 | 0 | 5 | 1 |
| MS JACKSON | 89 | 67 | 90 | 64 | 78 | 2 | 0 | - .9 | 0 | 34.2 | 233 | 96 | 45 | 4 | 0 | 0 | 0 |
| MERIDAN | 89 | 65 | 90 | 64 | 77 | 1 | 0 | - .8 | 0 | 33.8 | 227 | 95 | 50 | 1 | 0 | 0 | 0 |
| MO COLUMBIA | 85 | 64 | 87 | 59 | 74 | 6 | 1.6 | .5 | 1.4 | 8.5 | 75 | 91 | 51 | 0 | 0 | 2 | 1 |
| KANSAS CITY | 82 | 63 | 87 | 59 | 72 | 4 | 1.3 | .2 | 1.0 | 7.7 | 75 | 86 | 58 | 0 | 0 | 5 | 1 |
| SAINT LOUIS | 87 | 67 | 90 | 60 | 77 | 6 | 1.2 | .3 | .7 | 8.9 | 82 | 78 | 43 | 1 | 0 | 2 | 1 |
| SPRINGFIELD | 85 | 65 | 87 | 62 | 75 | 6 | T | -1.1 | T | 9.3 | 76 | 93 | 53 | 0 | 0 | 0 | 0 |
| MT BILLINGS | 68 | 48 | 76 | 44 | 58 | 0 | .8 | .2 | .6 | 6.4 | 136 | 69 | 37 | 0 | 0 | 4 | 1 |
| GLASGOW | 75 | 47 | 81 | 44 | 61 | 3 | T | - .5 | T | 1.0 | 40 | 71 | 26 | 0 | 0 | 0 | 0 |
| GREAT FALLS | 62 | 44 | 65 | 38 | 53 | -3 | .4 | - .3 | .1 | 6.5 | 141 | 80 | 43 | 0 | 0 | 5 | 1 |
| HAVRE | 69 | 44 | 75 | 41 | 57 | -2 | .2 | - .3 | .2 | 3.5 | 113 | 86 | 34 | 0 | 0 | 1 | 0 |
| HELENA | 64 | 43 | 68 | 40 | 54 | -2 | .3 | - .2 | .1 | 5.9 | 179 | 89 | 42 | 0 | 0 | 3 | 0 |
| KALISPELL | 60 | 45 | 65 | 41 | 53 | -1 | .8 | .3 | .4 | 6.6 | 178 | 91 | 60 | 0 | 0 | 5 | 0 |
| MILES CITY | 74 | 49 | 84 | 44 | 61 | 1 | .2 | - .4 | .2 | 1.3 | 32 | 57 | 30 | 0 | 0 | 1 | 0 |
| MISSOULA | 62 | 43 | 66 | 35 | 52 | -3 | .4 | - .1 | .2 | 9.4 | 276 | 95 | 54 | 0 | 0 | 6 | 0 |
| NE GRAND ISLAND | 82 | 58 | 92 | 53 | 70 | 4 | 1.0 | 0 | .8 | 6.4 | 84 | 89 | 37 | 2 | 0 | 2 | 1 |
| LINCOLN | 83 | 60 | 90 | 53 | 71 | 4 | 1.4 | .4 | 1.1 | 6.4 | 84 | 90 | 50 | 1 | 0 | 2 | 1 |
| NORFOLK | 82 | 59 | 94 | 51 | 70 | 5 | .5 | - .5 | .4 | 3.8 | 52 | 87 | 42 | 1 | 0 | 4 | 0 |
| NORTH PLATTE | 79 | 54 | 85 | 52 | 67 | 4 | 1.1 | .3 | .6 | 6.2 | 98 | 78 | 43 | 0 | 0 | 4 | 1 |
| OMAHA | 83 | 59 | 88 | 49 | 71 | 7 | .7 | - .4 | .5 | 4.4 | 51 | 90 | 44 | 0 | 0 | 2 | 1 |
| VALENTINE | 79 | 51 | 90 | 43 | 65 | 3 | 2.1 | 1.3 | 1.9 | 4.7 | 87 | 78 | 33 | 1 | 0 | 5 | 1 |
| NV ELY | 61 | 32 | 64 | 26 | 46 | -7 | .1 | - .1 | T | 4.8 | 178 | 82 | 34 | 0 | 4 | 4 | 0 |
| LAS VEGAS | 81 | 55 | 86 | 50 | 68 | -9 | 0 | 0 | 0 | 1.2 | 150 | 33 | 14 | 0 | 0 | 0 | 0 |
| RENO | 69 | 41 | 74 | 27 | 55 | -3 | .1 | 0 | .1 | 2.4 | 160 | 76 | 29 | 0 | 1 | 2 | 0 |
| WINNEMUCCA | 67 | 41 | 71 | 35 | 54 | -3 | .5 | .3 | .3 | 2.9 | 138 | 52 | 31 | 0 | 0 | 1 | 0 |
| NH CONCORD | 75 | 39 | 83 | 29 | 57 | -3 | T | - .7 | T | 8.0 | 94 | -- | 30 | 0 | 3 | 0 | 0 |
| NJ ATLANTIC CITY | 76 | 52 | 87 | 42 | 64 | -2 | .1 | - .7 | .1 | 13.2 | 117 | 85 | 42 | 0 | 0 | 1 | 0 |
| TRENTON | 76 | 58 | 84 | 52 | 67 | 1 | .1 | - .7 | .1 | 13.5 | 130 | -- | -- | 0 | 0 | 2 | 0 |
| NM ALBUQUERQUE | 86 | 43 | 88 | 37 | 64 | -6 | T | - .1 | T | 1.8 | 138 | 31 | 6 | 0 | 0 | 0 | 0 |
| ROSWELL | 93 | 60 | 97 | 54 | 77 | 4 | T | - .3 | T | 1.8 | 95 | -- | -- | 7 | 0 | 0 | 0 |
| NY ALBANY | 74 | 47 | 80 | 37 | 61 | -2 | T | - .7 | T | 8.6 | 101 | 80 | 36 | 0 | 0 | 2 | 0 |
| BINGHAMTON | 73 | 50 | 79 | 42 | 61 | 1 | .5 | - .3 | .4 | 13.2 | 136 | 74 | 39 | 0 | 0 | 2 | 0 |
| BUFFALO | 73 | 52 | 84 | 44 | 63 | 2 | .5 | - .1 | .3 | 8.5 | 96 | 75 | 43 | 0 | 0 | 2 | 0 |
| NEW YORK | 75 | 60 | 83 | 57 | 68 | 1 | .1 | - .6 | .1 | 17.5 | 162 | 61 | 36 | 0 | 0 | 2 | 0 |
| ROCHESTER | 74 | 52 | 89 | 42 | 63 | 2 | 1.0 | .4 | .5 | 8.1 | 103 | 74 | 36 | 0 | 0 | 2 | 0 |
| SYRACUSE | 74 | 50 | 88 | 41 | 62 | 0 | .8 | .1 | .7 | 9.6 | 105 | 86 | 39 | 0 | 0 | 3 | 1 |
| NC ASHEVILLE | 81 | 57 | 83 | 51 | 69 | 2 | .1 | - .7 | T | 17.4 | 151 | 89 | 51 | 0 | 0 | 2 | 0 |
| CHARLOTTE | 83 | 61 | 86 | 53 | 72 | -1 | 0 | - .7 | 0 | 13.9 | 130 | 95 | 46 | 0 | 0 | 0 | 0 |
| GREENSBORO | 81 | 58 | 86 | 49 | 70 | -1 | T | - .8 | T | 11.0 | 113 | 84 | 45 | 0 | 0 | 1 | 0 |
| HATTERAS | 80 | 62 | 83 | 47 | 71 | 0 | 0 | - .9 | 0 | 11.8 | 117 | 96 | 58 | 0 | 0 | 0 | 0 |
| RALEIGH | 86 | 61 | 91 | 50 | 73 | 2 | 0 | - .8 | 0 | 8.8 | 89 | 88 | 51 | 1 | 0 | 0 | 0 |
| WILMINGTON | 85 | 61 | 89 | 54 | 74 | -1 | 0 | -1.0 | 0 | 10.9 | 100 | 93 | 40 | 0 | 0 | 0 | 0 |
| ND BISMARCK | 79 | 51 | 92 | 39 | 65 | 6 | 1.1 | .4 | .6 | 1.8 | 39 | 82 | 32 | 1 | 0 | 3 | 1 |
| FARGO | 82 | 57 | 92 | 48 | 69 | 10 | .7 | .1 | .4 | 1.3 | 25 | 83 | 34 | 2 | 0 | 4 | 0 |
| WILLISTON | 79 | 49 | 90 | 41 | 64 | 6 | .1 | - .4 | .1 | .7 | 20 | 68 | 24 | 1 | 0 | 3 | 0 |
| OH AKRON-CANTON | 77 | 54 | 81 | 42 | 65 | 2 | .4 | - .4 | .3 | 13.5 | 130 | 86 | 41 | 0 | 0 | 2 | 0 |
| CINCINNATI | 82 | 60 | 88 | 48 | 71 | 3 | .8 | - .1 | .5 | 13.0 | 117 | 90 | 49 | 0 | 0 | 2 | 1 |
| CLEVELAND | 77 | 53 | 83 | 39 | 65 | 2 | .9 | .1 | .5 | 8.9 | 89 | 84 | 43 | 0 | 0 | 3 | 0 |
| COLUMBUS | 80 | 55 | 86 | 41 | 67 | 1 | 1.2 | .2 | .8 | 10.9 | 98 | 87 | 44 | 0 | 0 | 2 | 1 |
| DAYTON | 81 | 57 | 88 | 47 | 69 | 2 | 1.2 | .3 | 1.1 | 14.0 | 136 | 85 | 35 | 0 | 0 | 1 | 1 |
| TOLEDO | 80 | 51 | 87 | 40 | 66 | 2 | 1.3 | .5 | .7 | 10.3 | 117 | 87 | 42 | 0 | 0 | 3 | 2 |
| YOUNGSTOWN | 76 | 50 | 80 | 39 | 63 | 1 | 1.1 | .3 | .5 | 10.8 | 102 | 82 | 41 | 0 | 0 | 2 | 0 |

Based on preliminary reports and 1941-70 normals

## Weather Data for the Week Ending June 1, 1980

| States and Stations | Temperature °F | | | | | | Precipitation | | | | | Relative Humidity, percent | | Number of Days | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | Temperature °F | | Precipitation | |
| | Average maximum | Average minimum | Extreme high | Extreme low | Average | Departure from normal | Weekly total, in. | Departure from normal | Greatest in 24-hours, in. | Total, in., since March 3 | Pct. normal since March 3 | Average maximum | Average minimum | 90 and above | 32 and below | .01 inch or more | .50 inch or more |
| OK OKLAHOMA CITY | 84 | 69 | 90 | 63 | 77 | 4 | 3.7 | 2.5 | 1.9 | 12.6 | 117 | 80 | 57 | 1 | 0 | 2 | 2 |
| TULSA | 88 | 71 | 92 | 68 | 80 | 7 | .4 | - .8 | .3 | 14.3 | 121 | 79 | 53 | 1 | 0 | 4 | 0 |
| OR ASTORIA | 58 | 50 | 62 | 48 | 54 | 0 | .3 | - .3 | .1 | 12.8 | 94 | 90 | 72 | 0 | 0 | 3 | 0 |
| BURNS | 60 | 41 | 67 | 36 | 51 | -4 | .5 | .2 | .2 | 2.2 | 88 | 95 | 42 | 0 | 0 | 6 | 0 |
| MEDFORD | 73 | 43 | 79 | 41 | 58 | -2 | T | - .3 | T | 3.7 | 90 | 88 | 32 | 0 | 0 | 0 | 0 |
| PENDLETON | 67 | 47 | 75 | 42 | 57 | -5 | .8 | .5 | .4 | 4.4 | 133 | -- | 46 | 0 | 0 | 3 | 0 |
| PORTLAND | 65 | 50 | 70 | 48 | 58 | -2 | .7 | .3 | .4 | 8.1 | 105 | 90 | 61 | 0 | 0 | 3 | 0 |
| SALEM | 65 | 45 | 72 | 42 | 55 | -3 | .8 | .4 | .6 | 8.9 | 105 | 72 | 60 | 0 | 0 | 2 | 1 |
| PA ALLENTOWN | 77 | 56 | 83 | 47 | 66 | 1 | .8 | 0 | .4 | 13.1 | 120 | 75 | 48 | 0 | 0 | 2 | 0 |
| ERIE | 73 | 52 | 83 | 38 | 63 | 2 | 1.1 | .3 | .7 | 10.2 | 105 | -- | -- | 0 | 0 | 2 | 1 |
| HARRISBURG | 78 | 54 | 85 | 45 | 66 | -1 | .2 | - .6 | .2 | 14.2 | 143 | 85 | 44 | 0 | 0 | 1 | 0 |
| PHILADELPHIA | 79 | 57 | 87 | 50 | 68 | 0 | .3 | - .5 | .3 | 14.8 | 142 | 64 | 48 | 0 | 0 | 3 | 0 |
| PITTSBURGH | 78 | 53 | 83 | 43 | 65 | 1 | .4 | - .4 | .3 | 13.0 | 125 | 87 | 44 | 0 | 0 | 3 | 0 |
| SCRANTON | 78 | 52 | 100 | 41 | 65 | 1 | 1.4 | .6 | 1.3 | 8.6 | 95 | 70 | 32 | 1 | 0 | 2 | 1 |
| RI PROVIDENCE | 73 | 51 | 85 | 46 | 62 | 1 | 0 | - .7 | 0 | 16.0 | 147 | 74 | 41 | 0 | 0 | 0 | 0 |
| SC CHARLESTON | 84 | 60 | 86 | 52 | 72 | -3 | 0 | -1.1 | 0 | 16.6 | 147 | -- | 50 | 0 | 0 | 0 | 0 |
| COLUMBIA | 85 | 59 | 87 | 50 | 72 | -4 | 0 | - .8 | 0 | 16.3 | 142 | 87 | 43 | 0 | 0 | 0 | 0 |
| GREENVILLE | 84 | 63 | 87 | 58 | 74 | 1 | 0 | - .7 | 0 | 20.3 | 162 | 93 | 50 | 0 | 0 | 0 | 0 |
| SD ABERDEEN | 77 | 55 | 87 | 48 | 66 | 5 | .8 | .1 | .3 | 4.0 | 73 | 89 | 47 | 0 | 0 | 4 | 0 |
| HURON | 81 | 55 | 91 | 47 | 68 | 6 | 1.6 | .8 | .5 | 3.8 | 64 | 90 | 46 | 2 | 0 | 5 | 1 |
| RAPID CITY | 73 | 49 | 86 | 42 | 61 | 1 | .6 | - .2 | .3 | 3.6 | 59 | 60 | 40 | 0 | 0 | 4 | 0 |
| SIOUX FALLS | 77 | 59 | 86 | 47 | 68 | 5 | 1.9 | 1.0 | 1.6 | 3.9 | 55 | 88 | 49 | 0 | 0 | 3 | 1 |
| TN CHATTANOOGA | 84 | 63 | 86 | 60 | 74 | 1 | .2 | - .5 | .2 | 24.9 | 187 | 90 | 47 | 0 | 0 | 1 | 0 |
| KNOXVILLE | 84 | 63 | 86 | 55 | 74 | 2 | 0 | - .8 | 0 | 15.7 | 135 | 83 | 54 | 0 | 0 | 0 | 0 |
| MEMPHIS | 88 | 70 | 92 | 62 | 79 | 5 | T | - .9 | T | 22.5 | 151 | 80 | 46 | 2 | 0 | 1 | 0 |
| NASHVILLE | 86 | 63 | 88 | 53 | 74 | 2 | .1 | - .8 | .1 | 16.6 | 127 | 94 | 47 | 0 | 0 | 1 | 0 |
| TX ABILENE | 89 | 71 | 93 | 65 | 80 | 4 | 1.8 | 1.0 | 1.8 | 5.9 | 80 | 82 | 42 | 3 | 0 | 1 | 1 |
| AMARILLO | 85 | 58 | 92 | 50 | 71 | 1 | .4 | - .4 | .3 | 5.1 | 104 | 88 | 33 | 1 | 0 | 3 | 0 |
| AUSTIN | 91 | 74 | 91 | 73 | 82 | 4 | T | - .8 | T | 10.7 | 114 | 95 | 55 | 7 | 0 | 0 | 0 |
| BEAUMONT | 89 | 74 | 91 | 71 | 81 | 3 | 0 | -1.1 | 0 | 15.2 | 127 | 89 | 58 | 0 | 0 | 0 | 0 |
| BROWNSVILLE | 92 | 78 | 93 | 75 | 85 | 4 | 0 | - .7 | 0 | 1.9 | 42 | 88 | 54 | 7 | 0 | 0 | 0 |
| CORPUS CHRISTI | 89 | 74 | 89 | 72 | 82 | 2 | T | - .7 | T | 3.4 | 52 | 93 | 58 | 0 | 0 | 0 | 0 |
| DEL RIO | 91 | 72 | 94 | 64 | 81 | 0 | 1.2 | .6 | 1.2 | 5.9 | 123 | 91 | 50 | 4 | 0 | 3 | 1 |
| EL PASO | 95 | 57 | 98 | 47 | 76 | -1 | 0 | - .1 | 0 | .6 | 50 | 26 | 8 | 7 | 0 | 0 | 0 |
| FORT WORTH | 95 | 74 | 99 | 69 | 84 | 8 | T | - .9 | T | 6.5 | 57 | 76 | 43 | 7 | 0 | 0 | 0 |
| GALVESTON | 83 | 76 | 86 | 76 | 80 | 1 | 0 | - .8 | 0 | 11.7 | 139 | 93 | 77 | 0 | 0 | 0 | 0 |
| HOUSTON | 91 | 75 | 94 | 73 | 83 | 4 | T | -1.2 | T | 12.7 | 111 | 94 | 59 | 5 | 0 | 0 | 0 |
| LUBBOCK | 91 | 66 | 94 | 63 | 79 | 6 | .2 | - .6 | .1 | 4.8 | 91 | 75 | 28 | 6 | 0 | 2 | 0 |
| MIDLAND | 92 | 65 | 96 | 60 | 79 | 3 | T | - .5 | T | 2.7 | 79 | 81 | 34 | 6 | 0 | 1 | 0 |
| SAN ANGELO | 88 | 69 | 91 | 64 | 78 | 0 | T | - .6 | T | 6.0 | 115 | 87 | 48 | 1 | 0 | 1 | 0 |
| SAN ANTONIO | 90 | 73 | 90 | 70 | 82 | 2 | T | - .7 | T | 8.9 | 122 | 83 | 53 | 6 | 0 | 1 | 0 |
| VICTORIA | 89 | 75 | 90 | 74 | 82 | 3 | T | - .9 | T | 8.9 | 106 | 94 | 59 | 3 | 0 | 0 | 0 |
| WACO | 92 | 73 | 95 | 69 | 83 | 5 | T | - .9 | T | 10.6 | 95 | 91 | 48 | 7 | 0 | 0 | 0 |
| WICHITA FALLS | 87 | 69 | 95 | 66 | 78 | 2 | 2.6 | 1.6 | 1.9 | 8.0 | 81 | 80 | 47 | 2 | 0 | 5 | 1 |
| UT BLANDING | 71 | 37 | 75 | 34 | 54 | -7 | 0 | - .1 | 0 | 2.9 | 132 | 55 | 13 | 0 | 0 | 0 | 0 |
| SALT LAKE CITY | 68 | 45 | 71 | 40 | 57 | -5 | .4 | .1 | .2 | 6.0 | 113 | 78 | 31 | 0 | 0 | 3 | 0 |
| VT BURLINGTON | 73 | 48 | 85 | 38 | 60 | 0 | .3 | - .4 | .3 | 6.4 | 86 | 78 | 37 | 0 | 0 | 1 | 0 |
| VA LYNCHBURG | 82 | 59 | 86 | 51 | 71 | 2 | T | - .8 | T | 11.8 | 126 | 80 | -- | 0 | 0 | 1 | 0 |
| NORFOLK | 81 | 62 | 89 | 55 | 72 | 1 | .1 | - .7 | .1 | 11.7 | 126 | 78 | 42 | 0 | 0 | 1 | 0 |
| RICHMOND | 84 | 59 | 89 | 51 | 72 | 1 | .8 | 0 | .7 | 13.5 | 141 | 73 | 50 | 0 | 0 | 2 | 1 |
| ROANOKE | 82 | 55 | 86 | 46 | 68 | 0 | .2 | - .6 | .1 | 12.6 | 131 | 51 | 40 | 0 | 0 | 3 | 0 |
| WA COLEVILLE | 63 | 47 | 73 | 44 | 55 | -3 | .7 | .3 | .2 | 6.8 | 189 | -- | -- | 0 | 0 | 6 | 0 |
| OMAK | 68 | 45 | 75 | 40 | 56 | -4 | .6 | .3 | .6 | 3.3 | 114 | 78 | 57 | 0 | 0 | 3 | 1 |
| QUILLAYUTE | 57 | 47 | 62 | 43 | 52 | -1 | .6 | - .3 | .3 | 21.8 | 94 | 94 | 77 | 0 | 0 | 5 | 0 |
| SEATTLE-TACOMA | 59 | 48 | 66 | 47 | 53 | -4 | .7 | .3 | .5 | 6.4 | 84 | 91 | 68 | 0 | 0 | 3 | 1 |
| SPOKANE | 60 | 45 | 70 | 42 | 52 | -5 | .5 | .1 | .4 | 4.3 | 98 | 94 | 65 | 0 | 0 | 6 | 0 |
| WALLA-WALLA | 65 | 51 | 75 | 47 | 59 | -4 | 1.0 | .6 | .8 | 4.5 | 96 | 86 | 57 | 0 | 0 | 4 | 2 |
| YAKIMA | 69 | 46 | 79 | 40 | 58 | -3 | .5 | .4 | .4 | 2.0 | 154 | 78 | 41 | 0 | 0 | 3 | 0 |
| WV BECKLEY | 77 | 53 | 81 | 42 | 65 | 2 | .2 | - .7 | .2 | 10.2 | 91 | 88 | 44 | 0 | 0 | 2 | 0 |
| CHARLESTON | 81 | 55 | 87 | 44 | 68 | 0 | .3 | - .5 | .2 | 12.2 | 113 | 94 | 45 | 0 | 0 | 2 | 0 |
| HUNTINGTON | 82 | 58 | 87 | 46 | 70 | 1 | .7 | - .1 | .3 | 10.5 | 95 | 82 | 49 | 0 | 0 | 3 | 0 |
| PARKERSBURG | 80 | 55 | 87 | 45 | 68 | 0 | 2.6 | 1.8 | 1.9 | 11.2 | 106 | 87 | 48 | 0 | 0 | 3 | 2 |
| WI GREEN BAY | 75 | 49 | 82 | 38 | 62 | 3 | 1.0 | .3 | .7 | 5.7 | 76 | 87 | 53 | 0 | 0 | 3 | 1 |
| LA CROSSE | 82 | 63 | 91 | 59 | 72 | 8 | 2.4 | 1.4 | 1.8 | 5.1 | 60 | 74 | 44 | 2 | 0 | 4 | 1 |
| MADISON | 79 | 55 | 89 | 45 | 67 | 7 | 1.0 | .1 | .6 | 5.3 | 65 | 81 | 43 | 0 | 0 | 4 | 1 |
| MILWAUKEE | 74 | 53 | 83 | 46 | 64 | 5 | .8 | .1 | .4 | 7.0 | 90 | 85 | 48 | 0 | 0 | 4 | 0 |
| WY CASPER | 68 | 39 | 78 | 35 | 54 | -3 | .4 | 0 | .2 | 4.4 | 100 | 80 | 31 | 0 | 0 | 3 | 0 |
| CHEYENNE | 70 | 41 | 75 | 38 | 56 | -1 | T | - .6 | T | 4.8 | 91 | 69 | 26 | 0 | 0 | 1 | 0 |
| LANDER | 66 | 40 | 72 | 37 | 53 | -4 | .2 | - .4 | .1 | 6.8 | 108 | 72 | 34 | 0 | 0 | 3 | 0 |
| SHERIDAN | 65 | 42 | 74 | 38 | 53 | -3 | .6 | - .1 | .4 | 5.3 | 88 | 84 | 50 | 0 | 0 | 4 | 0 |
| PR SAN JUAN | 89 | 77 | 94 | 75 | 84 | 4 | 2.3 | .8 | 1.4 | 8.8 | 74 | 90 | 62 | 3 | 0 | 4 | 2 |

Based on preliminary reports and 1941-70 normals

## 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 ESCS State offices in cooperation with the National Weather Service.

ALABAMA: Warm, dry except for scattered thundershowers. No rain most areas. Temperatures 2° above normal.

Fieldwork: 4.4 days suitable. Soil moisture adequate to surplus. Planting progress: Corn, cotton, peanuts, virtually complete. Soybeans 53%, 66% 1979, 61% average; sorghum 44%, 52% 1979. Wheat 95% turning; 16% harvested, 19% 1979, 27% average. Hay 15% harvested. Condition: Corn, peanuts, sorghum, soybeans, wheat mostly good; cotton fair; pastures, livestock good.

ALASKA: Spring showers followed by cooling temperatures slowed crop growth throughout railbelt. Farmers in Tanana and Matanuska Valleys averaged over 6 days work. Small grain emergence ranged 10 to 100% complete. Emergence early seeded fields spotty, slightly behind last year's pace. Warmer temperatures needed for better growth. Virtually no wind damage during week. Prospects of new feed growth on hay meadows and pastures rated fair to good. Livestock condition good to excellent. Field moisture supplies adequate.

Tanana Valley was fair and warm but turned cool with light rain. Seasonal rainfall below normal. Matanuska Valley and Kenai Peninsula were cool and rainy. Temperatures below normal. Rainfall above normal. Kodiak Island was rainy and cool, then moderately warm and dry. Seasonal rainfall still above normal.

ARIZONA: No rainfall. Average temperatures ranged 5 to 10° below normal.

Small grain harvest full swing. Nearly 50% acreage harvested. Cotton 99% planted, same as last year. Late plantings continue. Yuma area had some blooming. Corn planting almost complete, about 95% emerged. Frost damage Cochise County from late season frost, May 24. Sorghum 100% planted. Safflower setting seed. Sugarbeets 15% harvested. Lettuce harvest continued. Mixed vegetable harvest good progress. Dry onion harvest 50% complete. Potato harvest full swing. Deciduous fruit harvest relatively slow. Watermelons, cantaloups very good progress. Grapes growing well, limited harvest underway. Grapefruit, Valencia orange harvest seasonal progress, new crop prospects generally good. Range, pastures fair to good north, poor to fair south. Water short to adequate. Cattle, calves remain fair to good condition.

ARKANSAS: Temperatures above normal. Extremes: 54 and 91°. Rainfall zero to 2.27 in.

Fieldwork: 4.0 days suitable. Soil moisture adequate. Soybean seeding 24%, 18% 1979, 46% average. Rice 95% seeded, 74% 1979, 94% average. Cotton 99% planted, 97% 1979, 98% average. Corn 77% seeded, 72% 1979, 86% average. Sorghum 79% planted, 65% 1979. Wheat, oats good condition. Few fields cut. Apples, peaches good condition. Strawberry harvest winding down. Tomatoes good condition. Cattle good condition. Pastures average condition.

CALIFORNIA: Temperatures 5° below normal. Light precipitation amounts reported, mainly from mountainous regions.

Cool weather slowed small grain maturation, growth of cotton, other crops. Nearly all rice seeded, 79% emerged, same as last year. Controls for shrimp, weeds active. Most small grains turned color. Harvest activity increasing slowly. Hay harvest active. Early safflower heading. Seeding dry beans, sugarbeets, field corn seasonally normal. Harvesting early apricots, avocados, nectarines, plums. Active bing cherry harvest, heavy set. Harvesting table grapes in Desert. Outstanding Freestone peach quality. Cool weather beneficial to citrus crops. Heavy grapefruit picking. Navels and Desert Valencias finishing up. Active lemon and Valencia harvest, good quality. Cool nights delaying maturity vegetable, melon, berry crops. Asparagus from Delta going mainly to processing. Green bean harvest continues light. Cantaloup harvest increasing Imperial Valley. Carrot volume decreasing Desert; still slow Salinas, San Joaquin Valleys. Sweet corn volume decreased slightly due cool nights. Celery harvest moderate South Coast, increasing slightly Santa Maria. Lettuce volume increasing slightly. Onion shipments decreasing slightly Desert, still slow San Joaquin Valley. Klamath potato shipments declining seasonally. Kern County harvest active. Strawberries heavy to freezers south coast, moderate market shipments central. Market tomato harvest increasing Desert. Watermelon harvest remains light. Range, feed, water supplies excellent. Movement cattle summer ranges continues. Movement bee colonies from citrus to safflower and mountain areas active.

COLORADO: Generally dry with near normal temperatures throughout week.

Winter wheat 95% jointed, 79% 1979, 91% average; 28% headed, 43% 1979, 55% average. Barley seeded 96%, 94% 1979, 99% average; 93% emerged, 94% 1979, 99% average. Spring wheat seeded 97%, 93% 1979. Oats seeded 89%, 93% 1979. Corn seeded 91%, 92% 1979, 94% average; emerged 72%, 73% 1979, 88% average. Sugarbeets seeded 98%, 98% 1979. Sorghum seeded 24%, 44% 1979, 45% average; emerged 1%, 33% 1979. Dry beans seeded 21%, 24% 1979, 30% average; emerged 10%, 7% 1979, 10% average. Summer potatoes seeded 90%, 66% 1979, 86% average. Fall potatoes 87%, 92% 1979, 91% average. Fieldwork: 5.0 days suitable. Livestock good condition.

FLORIDA: Showers, thunderstorms scattered over central and south. Rainfall mostly 0.50 in. or less, few amounts over 2.00 in. High temperatures mainly in 80's, lows mainly 60's.

Soil moisture adequate. Corn, tobacco, sugarcane good condition. Peanut planting complete. Soybean planting active, 50% complete. Haymaking, small grain harvest underway. Peach harvest continues. Hail damage to some peaches in north. Grazing conditions improved, good to excellent. Cattle, calves continue mostly good condition. Citrus condition continues excellent. New crop fruit progressing normally, near ideal growing weather for trees and fruit. Valencia harvest continues active. Grapefruit harvest all but over. Most vegetable crops declining seasonally, completing harvest. Remaining crops in fair to good condition, some very good. Quality, size good. Overall vegetable shipments up 1% from previous week. Supplies watermelons increased considerably; eggplant, potatoes also gained. Sweet corn, peppers held steady but shipments snap beans, cabbage, carrots, celery, chinese cabbage, okra, cucumbers, escarole, lettuce, parsley, radishes, squash, tomatoes decreased. Potato supplies

increased Hastings. Shipments at peak level. Quality good. Watermelon volume declining southwest. Quality, size variable, mostly good. Vines not holding up. Volume increased west central area, peak harvest this week. Size good, yields fair to good. Volume increasing southeast area. Quality, size good.

GEORGIA: Temperatures averaged near normal. Localized heavy rains up to 3.00 in. early week.

Soil moisture mostly adequate. Fieldwork: 5.0 days suitable. Soybeans fair to mostly good, 59% planted, last year 73%, average 64%, some awaiting small grain harvest. Corn fair to mostly good, 13% silked. Peanuts fair to mostly good, 12% blooming, last year 31%, average 24%. Cotton fair to mostly good, 7% squaring. Tobacco fair to good. Mold problems persist. Sorghum 49% planted, last year 51% and average 50%. Hay crops good, some over-matured. Wheat 15% harvested, last year 34%, average 39%. Peaches fair to mostly good, sizing well, 9% harvested, 15% last year, 19% average. Apples fair to mostly good. Vegetables mostly fair to good. Watermelons fair to mostly good, 1% harvested, equal to last year and average. Pastures, cattle and hogs good.

IDAHO: Temperatures averaged 3 to 12° below normal. Extremes: 84 and 29°. Precipitation above normal. Most areas 0.50 to over 1.25 in. above normal.

Potatoes 82% planted, 96% 1979, 88% average. Corn 90% planted, 96% 1979, 87% average. Dry beans 46% planted, 55% 1979, 58% average. Fieldwork: 2.0 days favorable. Winter wheat 19% headed, 61% in boot, 100% jointed. Spring wheat 2% headed, 18% in boot, 64% jointed. Spring barley 1% headed, 13% in boot, 45% jointed. Sugarbeets 41% thinned. Ranges in excellent shape. Rains help clean up ash fallout.

ILLINOIS: Temperatures near normal south, 6 to 10° above normal north. Precipitation 1.00 to 3.00 in.

Soil moisture mostly adequate. Corn 92% full stand, average height 7 in., 2 in. 1979, 4 in. average; most advanced 12 in., 3 in. 1979, 6 in. average. Soybean planting 92% complete, 77% 1979, 76% average; crop condition 8% excellent, 78% good, 14% fair. Winter wheat 15% excellent, 78% good, 7% fair; 95% headed, 86% 1979, 89% average; 40% filled, 35% 1979, 60% average. Oats 20% excellent, 57% good, 20% fair, 3% poor; 15% headed, 14% 1979, 25% average. Alfalfa 28% excellent, 67% good, 5% fair; 35% first crop cut, 37% 1979, 40% average. Red clover 30% excellent, 66% good, 4% fair; 25% cut, 26% 1979, 37% average. Sorghum 55% planted. Pastures 19% excellent, 71% good, 10% fair. Fieldwork: 5.0 days suitable.

INDIANA: Rains over 4.00 in. east central, 2.00 to 4.00 in. central and north, only 0.20 in. southwest. Two tornadoes, no injuries. Temperatures averaged 4° above normal. Extremes: 42 to 92°.

Fieldwork: 5.0 days suitable. Topsoil and subsoil moisture adequate. Corn 97% planted, 1979 95%, average 85%. Corn 90% emerged, 1979 75%, average 75%. Corn 5 in. high, 1979 4 in., average 5 in. Soybeans 80% planted, 1979 75%, average 60%. Soybeans 50% emerged, 1979 35%, average 45%. Wheat 70% headed, 1979 70%, average 90%. Oats 8 in. high, 1979 8 in. Tobacco plants 10% set, 1979 10%, average 25%. Alfalfa 30% cut first time, 1979 30%, average 35%. Clover hay 15% cut, 1979 15%, average 20%. Tomato plants 80% set, 1979 80%, average 65%. Cantaloups 90% seeded or set, 1979 80%. Watermelons 85% seeded or set, 1979 85%.

IOWA: Warm, wet week. Temperatures averaged 6 to 7° above normal and rainfalls around 2.60 in.

Fieldwork: 5.5 days suitable. Corn acreage planted; 100%, 1979 98%, normal 97%. Corn acreage emerged; 97%, 1979 75%, normal 85%. Soybean acreage planted: 92%, 1979 84%, normal 86%. Soybean acreage emerged: 55%, 1979 31%, normal 53%. Topsoil moisture: 39% short, 54% adequate, 7% surplus. Subsoil moisture: 16% short, 82% adequate, 2% surplus. Cover crops fair to good, some improvement. Livestock good condition. Market movement increased.

KANSAS: Precipitation little northwest, 0.50 to 1.00 in. elsewhere. Local amounts over 1.00 in. east and south, over 3.00 in. few locations northeast. Temperatures 1 to 3° above normal southwest, south central and north central to 4 to 8° above normal elsewhere.

Spring fieldwork continues. First cutting alfalfa 55%, 60% last year and 55% average. Corn planted 85%, 90% last year and 95% average. Soybeans 40% planted, ahead of last year's 30% and 35% average. Sorghum planted 30%, behind last year's 35% but equal to average. Wheat 80% headed, same as last year, but behind 95% average.

KENTUCKY: Warm, humid weather covered State. Temperatures averaged 2 to 4° above normal. Precipitation mainly as showers. Totals from little or none to 1 to 2 in.

Fieldwork: 5.0 days suitable. Soil moisture mostly adequate. Corn 90% emerged, average height 8 to 9 in. Soybean planting 48% complete, 28% last year, average 40%. Burley tobacco setting 18%, 32% last year, average 45%. Dark tobacco 25% set, same as last year, average 40%. Small grain prospects good. Hay harvesting active. Pastures good to excellent.

LOUISIANA: Rain light. Temperatures 2 to 5° above normal. Extremes: 94 and 68°.

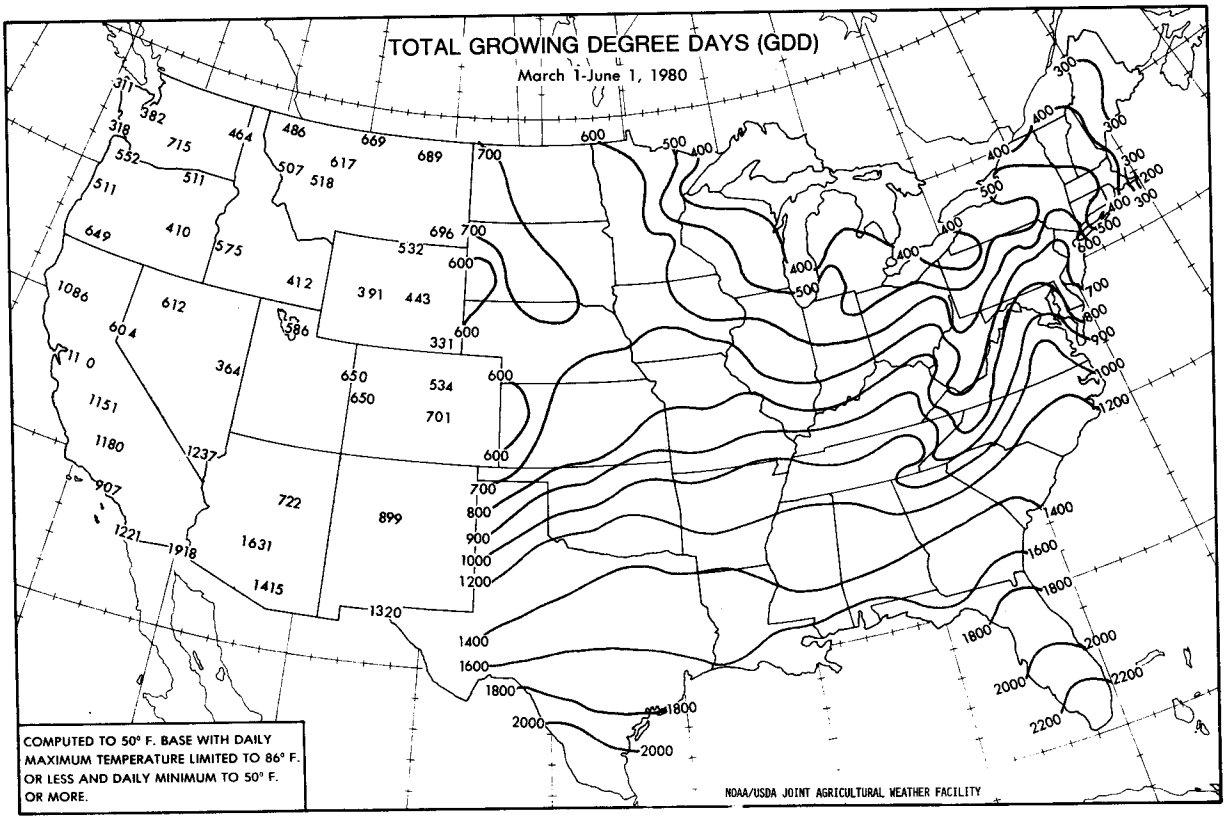
Soil moisture adequate. Fieldwork: 4.7 days suitable. Corn planting almost complete. Most emerged. Condition fair. Tasseled 13%, dough 3%. Cotton planted 82%, 99% 1979, 96% average. Emerged 68%, 94% 1979. Condition fair. Rice planted 95%, 98% 1979, 99% average. Emerged 91%, 95% 1979. Condition fair. Sorghums planted 47%, 68% 1979, 64% average. Emerged 40%, 45% 1979. Condition fair to good. Soybeans planted 37%, 63% 1979, 62% average. Emerged 20%, 47% 1979. Condition fair. Sugarcane good. Small grains turned 100%, harvested 10%, 22% 1979. Pastures good. Livestock good. Hay first cutting 35%. Vegetables fair. Sweetpotatoes planted 66%, 76% 1979, 69% average.

MARYLAND & DELAWARE: Temperatures near normal. Precipitation very light, averaging 0.52 in.

Corn planting 90% completed, 92% normal, 93% last year. Soybeans 35% planted, 28% a year ago, 37% normal. Small grains mostly good. Haymaking in full swing. Tobacco, 20% planted. Fruit crops good with heavy sets.

MICHIGAN: Temperatures near normal to 5° above normal. Precipitation ranged 2.50 in. western Upper to 2.00 in. southern Lower to 0.50 elsewhere.

Corn 90% planted, equal to last year and normal. Soybeans 61% planted, 62% last year, 59% normal. Dry beans 12% planted, 8% last year, 10% normal. Potatoes 94% seeded, 86% last year, 85% normal. Wheat 8% headed, 6% last year, 21% normal. Asparagus 71% harvested, 59% last year, 65% normal. Hay 4% first cut. Apples in petal fall. Cucumber planting started.




MINNESOTA: Temperatures averaged 6 to 10° below normal. Extremes: 93 and 40°. Precipitation averaged near normal north, up to 0.50 in. below normal north central, near normal to 2.00 in. above normal central, southwest, and southeast, and greater than 2.00 in. above normal south central.

Planting: Corn 97%, 1979 88%, normal 95%; soybeans 89%, 1979 71%, normal 84%; sunflowers 92%, 1979 55%, normal 77%; potatoes 92%, 1979 52%, normal 81%; flax 85%, 1979 50%, normal 77%. Emerged: Corn 79%, 1979 44%, normal 75%; soybeans 58%, 1979 17%, normal 51%; spring wheat 92%, 1979 60%, normal 87%; oats 97%, 1979 74%, normal 91%; barley 92%, 1979 49%, normal 83%; flax 85%, 1979 50%, normal 77%. Jointing: Spring wheat 9%, 1979 0%, normal 12%; oats 7%, 1979 0%, normal 13%; barley 10%, 1979 0%, normal 9%; winter wheat 65%, 1979 13%, normal 53%; rye 76%, 1979 18%, normal 44%. Heading: Winter wheat 12%, 1979 0%, normal 20%; rye 23%, 1979 5%, normal 25%. Alfalfa hay first cutting 2%, 1979 0%, normal 6%.

MISSISSIPPI: Mostly dry. Some northern counties received 1.00 in. rain. Temperature extremes: 50 and 92°.

Soil moisture adequate to surplus. Fieldwork: 4.6 days suitable. Cotton, rice, and corn planting mostly completed. Soybean planting full swing. Hay 17% harvested, 18% 1979, 24% average. Sweetpotatoes 47% planted, 58% 1979, 65% average. Sorghum 43% planted, 56% 1979, 56% average. Soybeans 43% planted, 37% 1979, 48% average; 20% up to stand, 25% 1979, 31% average. Rice 96% planted, 89% 1979, 94% average; 87% up to stand, 70% 1979, 82% average; condition good to fair. Wheat 53% ripe, 67% 1979; 4% harvested, 11% 1979; condition good to fair. Cotton 98% planted, 99% 1979, 99% average; 85% up to stand, 89% 1979, 89% average; condition fair to good. Corn 98% planted, 94% 1979, 94% average; 89% up to stand, 87% 1979; condition good to fair. Peaches mostly fair. Pasture good to fair.

MISSOURI: Temperatures averaged 3 to 7° above normal. Precipitation scattered and amounts ranged between 0.50 in. and 1.00 in.

Soybean planting 77% completed, 47% last year. Planting halted some areas until more rain received, some replanting will be necessary. Grain sorghum 77% planted, compared to 52% last year and 55% normal. Winter wheat maturing rapidly, 94% headed. Wheat 15% turned color. First cutting alfalfa hay 64% harvested. Dry conditions causing shorter hay and pastures. Fieldwork: 5.5 days suitable.

MONTANA: Heavy precipitation all but northeast and southeast. As much as 7 in. central mountains, 2 to 3 in. over western half. Other areas received moderate precipitation. Temperatures near normal, ranged 5° above normal in northeast to 5° below normal in southwest.

Topsoil moisture surplus in west, very short in east. Subsoil moisture mostly adequate. Fieldwork: 4.0 days suitable. Winter wheat fair. Winter wheat progress 35% not in boot, 45% in boot, and 20% headed. Spring wheat, barley 90% emerged. Condition of spring grains fair. Sugarbeets fair to good. Range feed short to adequate. Corn 80% planted, 65% 1979, 75% average. Potatoes 65% planted, 70% 1979, 70% average. Dry beans 95% planted, 80% 1979, 80% average.

NEBRASKA: Precipitation 0.10 in. southwest; 1.00 in. northeast. Temperatures 5° above normal.

Winter wheat good. Heading 65% complete; 30% last year; 60% normal. Corn emerged 90%; 65% last

year. Sorghum 85% planted; 70% last year and normal. Sorghum emerged 45%, 25% last year. Soybeans 80% planted; 70% last year and 65% normal. Soybeans 40% emerged, 20% last year. First crop alfalfa 25% harvested. Alfalfa mostly good. Topsoil moisture short to adequate. Subsoil mostly adequate. Range and pasture feed supplies short to mostly adequate. Wild hay fair to mostly good. Fieldwork: 5.9 days suitable.

NEVADA: Precipitation averaged above normal all areas except extreme south. Heaviest rainfall north, some road washouts. Temperatures averaged 4 to 11° below normal. Extremes: 86 and 26°.

Over 80% spring grains planted, good emergence. Alfalfa and small grains fair to good condition, mostly good. Plant growth slowed by recent cold weather. Calving, lambing about completed. About 80% cattle moved to spring ranges. Better progress sheep. Additional moisture boosting range feed prospects.

NEW ENGLAND: Temperatures 4 to 10° below normal early week warming to 5 to 10° above normal. Scattered light showers over north. Vermont, New Hampshire received 0.10 in. to 0.30 in. while southern region received light showers and Maine received traces.

Fieldwork: 6.0 days suitable. Potato planting over 90% completed south, over 70% north. Field corn 75% planted. Some hay cut. Dry weather slowed hay growth in Vermont. Soil moisture short northern region, adequate southern region. Grazing conditions adequate except in Vermont.

NEW JERSEY: Temperatures averaged near normal. Extremes: 38 and 90°. Rainfall averaged 0.69 in. north, 0.05 in. central, 0.07 in. south. Soil moisture in percent of field capacity averaged 78 north, 63 central, 48 south. Four inch soil temperature averaged 66° north, 69° central, 70° south.

Fieldwork: 5.9 days suitable. Soil moisture short some areas, irrigation being applied. Crop growth good. Harvest early vegetables increasing. Peach set heavy, thinning needed. Apple set varied. Blueberries sizing. Strawberry harvest general. Early field corn up a foot, planting continues. Early soybeans up, planting continues. Barley coloring.

NEW MEXICO: Soil moisture in short supply due to high winds. Light hail Curry County. Cotton planted 98%. Crop progressing slow due to cool nighttime temperatures. Alfalfa generally good, moderate insect infestation. Beginning first cutting of alfalfa. Corn good, 85% planted. Grain sorghum planting still in progress. Irrigated wheat, barley good condition. Aphids in wheat, barley in Mesilla Valley. Lettuce harvest complete. Onions good, grading underway. Frost damaged fruit trees San Juan County. Ranges fair to good. Windy conditions drying ranges, depleting surface water supplies. Cattle, sheep good condition with branding and marking in progress.

NEW YORK: Temperatures averaged near normal, rainfall light. Most areas quite dry.

Corn 80% planted, 80% 1979, 74% average. Oat planting 93% complete, 96% 1979, 94% average. First cutting alfalfa getting underway. Vegetable seeding slowed by dry conditions. Champlain Valley apple set good to heavy. Lake Ontario region apple set generally good. Cherry, peach prospects good.

NORTH CAROLINA: Temperatures near normal. Precipitation light. Fieldwork: 5.0 days suitable. Soil moisture adequate. Conditions: wheat, oats, barley mostly good; pastures mostly good; field tobacco fair to mostly good; corn mostly good; cotton good to mostly fair; irish potatoes fair to mostly good; peaches mostly good. Plantings; corn virtually complete, 1979 100%, average 100%; cotton virtually complete, 1979 100%, average 99%; peanuts 99%, 1979 75%, average 93%; sweetpotatoes 34%, 1979 59%, average 62%; sorghum 55%, 1979 50%, average 57%; soybeans 62%, 1979 55%, average 60%; flue-tobacco 97%, 1979 97%, average 98%; burley tobacco 57%, 1979 54%, average 55%.

NORTH DAKOTA: Thunderstorms brought needed rain to much of east and central areas. Thunderstorms and a possible tornado did some damage. West and northwest portions continued very dry. Precipitation well below normal since April 1. Temperatures average 5° above normal in the southwest to around 10° above normal in the northeast. Extremes: 38 and 95°.

Drought condition persists but rain brought some limited relief to many areas. Topsoil moisture rated short. Subsoil moisture rated short. Planting progress continues. Percents planted with current progress last year and average: Hard red spring wheat 93, 77, 84; durum wheat 93, 65, 78; barley 91, 74, 83; oats 93, 73, 83. Hard red spring wheat 78% emerged compared to 35% last year and 62% average. Percents of the other small grains emerged are: Durum wheat 76, barley 76 and oats 79. Flax planting 54% complete. Row crops planted percents are: Sunflower 54, corn 71, soybeans 68, dry edible beans 79, and potatoes 91. Spring seeded small grain rated mostly poor to fair. Pasture growth improved somewhat to 23% fair and 77% poor but is furnishing less than half of forage requirements. Livestock sales heavy due to drought.

OHIO: Temperatures averaged 1 to 5° above normal. Precipitation above normal all areas except the northeast. Vigorous thunderstorms over the weekend curtailed fieldwork. Soil temperatures averaged in the upper 50's to the upper 60's, and plant development was rapid. Weekly growing degree day accumulations above average.

Soybeans planted 75% 1980, 85% 1979, 80% average. Corn planted 95% 1980, 90% 1979, 95% average. Corn emerged 80%. Soybeans emerged 45%. Wheat headed 35% 1980, 60% 1979, 70% average. Tobacco transplanted 5% 1980, 15% 1979, 15% average. Fieldwork: 5.0 days suitable. Pasture condition good. Soil moisture adequate.

OKLAHOMA: Temperatures averaged near to 6° above normal. Precipitation ranged 0.64 in. east central to 3.37 southwest. Some flooding of fields and pastures reported.

Warm, dry weather needed for maturing wheat and drying fields, so spring planting can be completed. Pastures and ranges good condition and providing ample forage. Wheat heading 100% same for 1979, 100% average. Wheat soft dough to ripe 50%, 50% 1979, 75% average. Sorghum 30% planted, 40% 1979, 45% average. Sorghum up to stand 15%, 15% 1979, 20% average. Corn planted 95%, 100% 1979 and average. Corn 80% up to stand, 70% 1979, and 75% average. Cotton 20% planted, 35% 1979, 45% average. Cotton 5% up to stand, 15% 1979, 20% average. Fieldwork: 3.9 days suitable.

OREGON: Temperatures average along coast, 3 to 5° below in western valleys, 5 to 10° below east. Precipitation at coast varied 0.40 to 1.35 in., 0.25 to 0.75 in. western valleys, 0.05 to 1.34 in. east.

Soil moisture supplies adequate. Winter wheat good, 74% headed, 78% 1979. Frost damage in Klamath area; some reseeding may be necessary. Hay continues but hampered by wet conditions. Strawberries ripening. Scab problem in pears and apples. Cherry development slowed due to cool weather. Caneberry and cranberry prospects good. Filbert clusters showing. Cool, wet weather slowed development and planting of vegetables. Potato plantings mostly complete except a few late areas. Asparagus harvest continuing. Livestock, range and pastures mostly good to excellent. Recent rains brought on excellent forage growth.

PENNSYLVANIA: Temperatures near normal. Extremes: 32 and 88°. Rainfall 0.50 to 0.75 in. most areas with up to 1.50 in. under heavier thunderstorms.

Fieldwork: 6.0 days suitable. Soil moisture mostly adequate. Plowing 97%, last year 99%. Soybeans 51% planted, last year 42%. Potatoes 90%, same as last year. Corn 84% planted, last year 81%, average 83%. Barley 82% headed, 16% boot, last year 78% headed, 21% boot. Wheat 51% headed, 40% boot, last year 66% headed, 38% boot. Alfalfa hay good. Clo-tim good. Alfalfa first cutting 18% complete, last year 8%. Feed from pasture average.

PUERTO RICO: Average rainfall 5.01 in., 3.24 in. above normal. Highest total 11.12 in. Highest 24-hour total 7.40 in. Temperatures averaged 80° on coasts and 75 to 77° interior. Extremes: 94 and 59°.

SOUTH CAROLINA: Soil moisture adequate. Fieldwork: 5.0 days suitable. Corn planted, good condition. Cotton condition fair to good; virtually all planted but some replanting where dry soil hindered germination, some weed pressure. Soybean planting 57%, 71% last year, 63% average. Planting continues under ideal conditions. Tobacco sidedressing underway; some blue mold spreading in fields. Spraying tobacco budworms. Crop fair condition. Peanuts, fair to good, 86% planted. Peaches 2% harvested, 3% last year, 5% average. Condition fair to good. Apple condition good. Small grains fair to good, ripening rapidly. Wheat 45% ripe. Tomatoes good condition. Snap beans fair, 26% harvested, 55% last year. Cucumbers fair to good, 10% harvested, 37% last year.

SOUTH DAKOTA: Rain in many areas, largest amounts in east and southeastern. Average temperatures in 60's. Extremes: 30 and 98°.

Topsoil moisture adequate most of southeast and extreme southeast, short remainder of southeast, southwest and in north central, critically short elsewhere. Fieldwork: over 5.0 days suitable. Small grains poor condition and may not realize full potential. Winter wheat being reseeded. Row crop planting should increase in those areas that received rain. Livestock mostly good, ranges poor to fair. Stock water supplies short to very short. Flax 87% planted, 1979 75%, average 83%. Corn 94% planted, 1979 85%, average 87%. Soybeans 81% planted, 1979 55%, average 72%. Sorghum 56% planted, 1979 41%, average 44%. Sunflowers 55% planted, 1979 26%, average 23%.

TENNESSEE: Temperatures averaged 4 to 5° above normal. Spotty rains. Amounts generally less than 0.25 in.

Fieldwork: 4.4 days suitable. Soil moisture adequate. Corn 93% planted, 1979 85%, average 85%. Cotton 99% planted, 1979 95%, average 95%. Soybeans 45% planted, 1979 22%, average 43%. Tobacco 50% transplanted, 1979 54%, average 65%. Wheat turning color 45%, 1979 46%, average 70%. Wheat 5% ripe, 1979 3%, average 10%. Oats turning color 40%, 1979 39%, average 55%. Oats 5% ripe, 1979 4%, average 9%. First cutting alfalfa 90% complete, 1979 86%, average 82%. Pastures good. Strawberry harvest near completion.

TEXAS: Temperatures near to 2° above normal south, near normal elsewhere. Average temperatures low 70's Panhandle, near 80° south. Precipitation nearly 0.75 in. below normal southeast, near normal elsewhere. Average precipitation 0.50 in. or less west, 1.00 in. or more in southeast.

On the Plains, planting delayed due to rain. Moisture conditions adequate most areas. Dry, open weather now needed to complete planting and allow harvest of small grains to progress. Rains have caused many fields to be inaccessible, producers awaiting drier conditions. Cotton planting made excellent progress, 73% complete. High Plains, northern Low Plains progress continued slowly. Panhandle, hail, high winds damaged many fields, replanting may be necessary. Replanting of some fields has already taken place. Blacklands, Cross Timbers, Coast, Central stands in good condition, developing well. Squaring 13% south. Rio Grande Valley some fields setting bolls. Corn planting virtually complete. Stands in good to excellent condition. Fields tasseling Valley to Blacklands, some ears forming South. Sorghum planting progressed to 80%, 21% headed. Northern portion, planting slow as rain, hail and high winds stalled much activity. Planting expected to increase as soil conditions become drier. Early planted stands in good condition. Rice completed emergence, stands in excellent condition. Growers busy with fertilization, completion of permanent flooding. Peanut planting 29% complete, average 38%. Rains prevented farmers from completing field preparation. Small grains matured rapidly. Harvest has picked up despite rain delays. Fields continue to be grazed. Barley, flax harvest continues.

Lower Rio Grande Valley movement of cantaloups, watermelons, honeydew melons, peppers, okra, squash, tomatoes, cucumbers, sweet corn continued to increase Supplies of carrots, cabbage, onions also available. Onion harvest about over. In the Coastal Bend area, watermelon shipment began to increase. Watermelons smaller than normal. In the San Antonio-Winter Garden area, rain caused interruption in harvest progress. Potato harvest began. Supplies of squash, green beans, cucumbers available. Onion harvest about over. In Central most vegetables making good growth. Potatoes being dug. Tomatoes, peppers, beans, squash available. In East digging of potatoes continued. Supplies of squash, tomatoes, green beans, cucumbers available light volume. Planting watermelons, cantaloups, sweetpotatoes continued. In North harvest of squash, mustard, beets, turnips, spinach, green onions, beans, potatoes resumed as fields dried out. In Trans-Pecos onion harvest started. Cabbage, peppers making good growth. Cantaloups maturing. On High Plains, some carrots up to a stand. Onions, peppers, potatoes making good growth, however, there was some hail damage. Few early peaches were available.

Ranges, pastures continued to respond to recent moisture. Livestock condition improved. Sheep shearing continued in few areas.

Cotton planted 73%, 71% 1979, 79% average. Cotton squaring 13%, 11% 1979. Cotton setting bolls 7%, 4% 1979. Rice planted 100%, 100% 1979, 100% average. Rice emerged 100%, 93% 1979, 93% average. Sorghum planted 80%, 81% 1979, 84% average. Sorghum headed 21%, 24% 1979. Sorghum

turning color 5%, 6% 1979. Wheat headed 83%, 100% 1979. Wheat turning color 38%, 56% 1979. Wheat harvested 1%, 3% 1979, 6% 1979. Corn planted 99%, 99% 1979, 100% average. Peanuts planted 29%, 33% 1979, 38% average. Soybeans planted 23%, 29% 1979, 42% average.

UTAH: Rain in valleys and snow in mountains. Accumulations generally light to moderate except locally heavy. Temperatures continued well below normal. Averages ranged from 4 to 13° below normal.

Fieldwork: 5.3 days suitable. Soil moisture adequate to surplus. Small grains, hay doing well. Warm season crops needed warmer weather for good development. Winter wheat 70% jointed. Spring planted grains beginning to joint. Winter wheat in good condition, other small grains good to excellent. Corn 88% planted, 52% emerged. Germination and development have been slow due to low soil temperatures. Frost, mostly in east, damaged gardens and fruit trees, but did no damage in major fruit counties.

VIRGINIA: Mild first of period, cooler about midweek then hot, humid. Extremes: 39 and 90°. Rainfall light, mostly from scattered showers and thunderstorms. Soil temperature 66 to 76°.

Topsoil moisture mostly adequate. Fieldwork: 5.1 days suitable. Planting progress: corn 95%, 95% 1979, over 95% average; soybeans 45%, 25% 1979, 42% usual; flue-cured tobacco 75%, 82% 1979, 83% average; fire-cured tobacco 50%, 69% 1979, 64% usual; burley tobacco 25%, 34% 1979, 57% average; sun-cured tobacco 35%, 68% 1979, 65% usual. Pastures, tobacco, corn, peanuts good condition. Small grains combined: Barley 2%, 2% 1979, 4% average; oats 1%, 0% 1979, 1% usual; wheat 1%, 0% 1979, 1% average.

WASHINGTON: West: Temperatures averaged 1 to 4° below normal. Precipitation averaged 0.10 in. above to 0.50 in. below normal. Damage from Mount St. Helens to cattle and crops expected to be light. Planting of vegetables continued. Harvest rhubarb, early strawberries. Cane, bush berries in bloom. Dairymen continued to green chop. Hay supplies short.

East: Temperatures averaged 6° below normal. Precipitation averaged 0.40 to 0.50 in. above normal. First cutting of alfalfa hay severely damaged. Alfalfa and red clover seed crops in jeopardy due to lack of pollinating bees. Tree fruit crops good condition. Majority of spring seeded crops survived ash fallout, though some reseeding will be necessary. Hay supplies are short.

WEST VIRGINIA: Week started cool with light frost in mountains, ended with temperatures above average. Extremes: 90 and 31°. Precipitation from 2.27 in. to trace amounts.

Soil moisture adequate. Fieldwork: 4.8 days suitable. Wheat good to fair, 18% pre-jointed, 43% jointed, 39% headed, 8%, 46%, 46% respectively 1979. Barley good to fair, 18% pre-jointed, 17% jointed, 65% headed, 8%, 28%, 64% 1979. Oats good to fair, 94% planted, 86% emerged, 99%, 93% 1979. Corn fair to good, 80% planted, 61% emerged, 79%, 60% 1979. Tobacco fair to poor, 5% set, 22% 1979. Hay good to fair, 9% of first cut, 10% 1979. Pasture good. Potatoes 96% planted, 83% emerged, same as 1979. Fruit fair to good.

WISCONSIN: Temperatures 6° above normal. Extremes: 94 and 48°. Rainfall 1.00 in. east, 3.00 in. west. Some locally heavy rains up to 4.00 in.

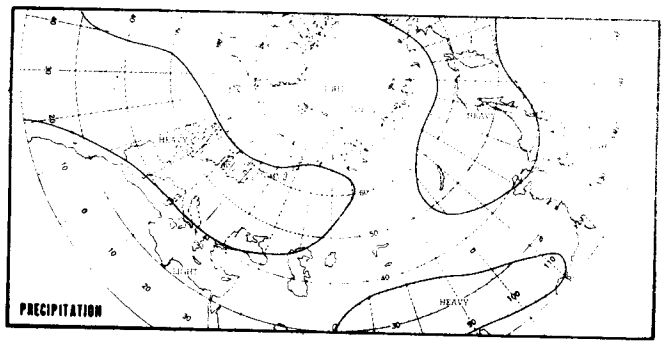
Most planting completed. Fieldwork: 6.0 days suitable. Corn 99% planted, 1979 80%, normal 85%. Early corn off to fine start. Soybeans 80% planted, 1979 60%, normal 60%. Early beans emerged. Oats variable, some stands very good and others spotty. Early fields of winter wheat, rye starting to head. First crop haying underway. Growth of first crop below normal due to winterkill and dry spring. Early peas starting to bloom. Late vegetable crops still being planted. Strawberries in blossom. Development of cranberries ahead of normal. Fruit trees have good set. Tobacco fields being readied for transplanting. Topsoil moisture mostly short but helped considerably by rains.

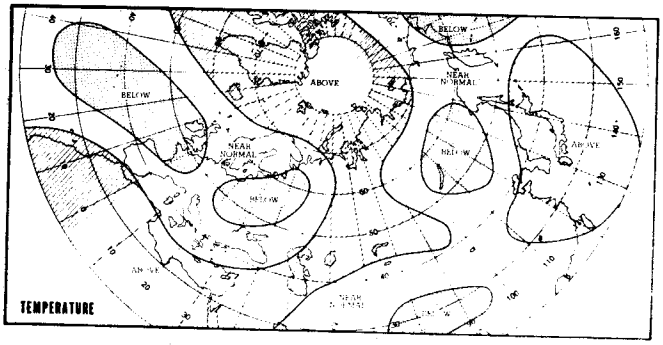
WYOMING: Temperatures mostly near normal or above. Precipitation varied, all areas at least a trace.

Fieldwork: 5.0 days suitable. Topsoil moisture adequate. Subsoil adequate. Winter wheat prospects fair to good, starting to head. Acreage planted: Corn 79%; potatoes 30%; dry beans 50%; spring wheat 96%; barley 98%. Acreage emerged: Corn 35%; dry beans 14%; spring wheat 78%; barley 87%; sugarbeets 97%. Sugarbeets thinned 22%. Crops emerging to good stands. Range ewes lambed 80%. Livestock mostly good condition.

## EURASIA WEATHER OUTLOOK FOR JUNE 1980

NOAA, National Weather Service
Climate Analysis Center



# International Weather and Crop Summary

MAY 26 TO JUNE 1

HIGHLIGHTS:

USSR: Winter grains heading in extreme south...development lagging to the north. Sowing spring grains in the New Lands...dry conditions in the east are expanding.

EUROPE: Winter grains nearly mature in south...too wet in Italy.

EASTERN ASIA: Winter grains nearly mature...conditions too wet. Early rice heading*...heavy rains returned.

SOUTH ASIA: Planting season near...monsoon apparently moving inland.

S.E.ASIA: Dry-season rice in vegetative stage*...continued good rainfall.

AUSTRALIA: Sowing winter grains...beneficial rains in northeastern areas.

NORTHWESTERN AFRICA: Winter grains harvest nearly complete*...generally favorable weather.

ARGENTINA: Harvesting soybeans*...favorable weather. Sowing winter wheat*...soil moisture good.

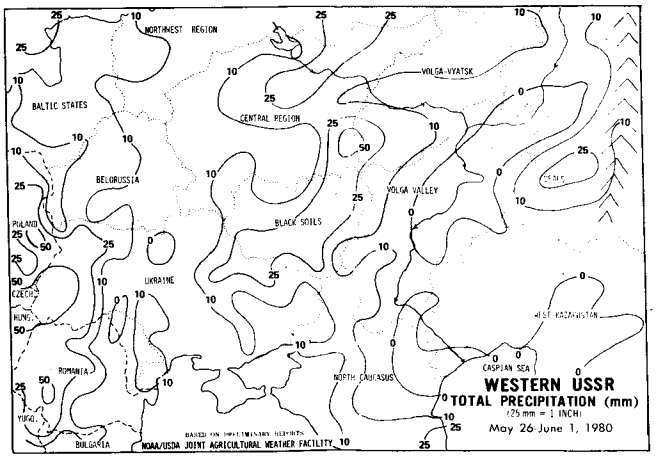
BRAZIL: Soybean harvest nearly complete...favorable weather.

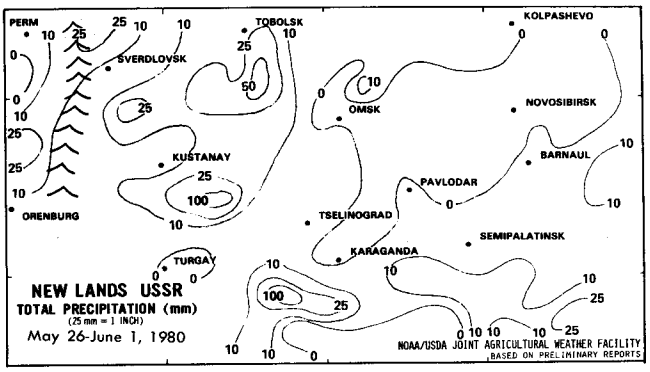
MEXICO: Summer crops and livestock moisture requirements increasing...severe drought continues in the northwest, beneficial showers in the east.

CANADA: Spring grain sowing nearly complete...frost northeastern areas.

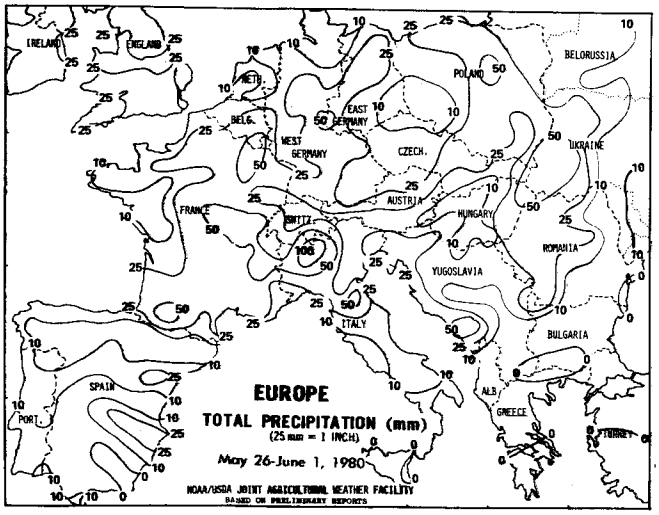
USSR. Temperatures warmed considerably in European USSR during the week, and averaged slightly below normal in most winter grain areas. This represents an improvement from the cool pattern of recent weeks, but much-above-normal temperatures will be needed for crop development to catch up from earlier delays. Rainfall occurred in a series of north south bands, dropping above-normal totals along the western border, from the eastern Ukraine northward, and in the southern Urals. Lighter amounts in other areas generally had no adverse effect on crops, but dry conditions in the Volga Valley may be causing problems for spring-planted crops. However, there has been no indication to date of hot, dry weather developing in the southeastern part of European USSR, which was so seriously affected last year.

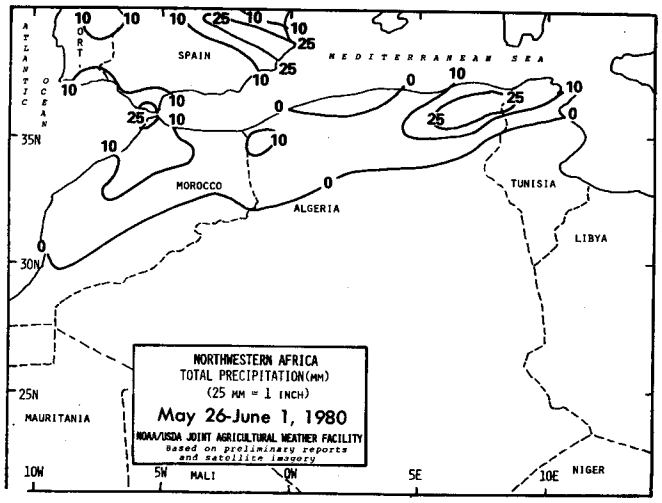
In the New Lands, rainfall was below normal just east of the Urals, but an extensive area to the east of Kustanay (and somewhat to the west of Tselinograd and Omsk) received much-above-normal rains of 15 to 30 mm. Heavier totals at some locations may have interrupted spring grain sowing activities, but overall the moisture benefited crops. Dry weather persisted over the eastern half of the New Lands, and the moisture-deficient area may be expanding. Mean temperatures in the dry area decreased to near normal, and although some extreme readings were recorded during the previous week, mean temperatures had not departed too far from normal. Nevertheless, conditions in this limited area remain quite unfavorable for spring grain germination.



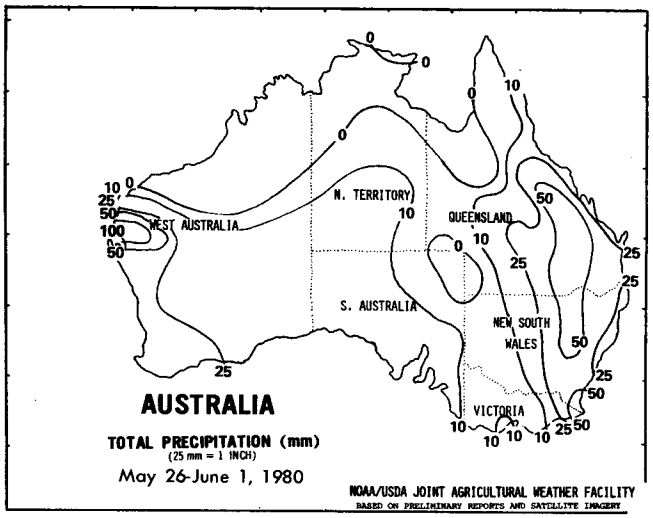
EUROPE. A series of storm systems dropped abundant rainfall, often more than twice normal, over much of Europe. Northern areas benefited the most from the moisture, especially western countries, where spring-planted crops had been suffering from dry conditions. Many southeastern areas dried out somewhat--a relief from prolonged wetness of recent weeks--but some areas stayed too wet. The greatest totals fell in northern Italy, maintaining too-wet conditions for maturing winter grains, which had been plagued by wet weather since early May. Many parts of Spain received above-normal rainfall following a break last week, and conditions in those areas remain not particularly favorable as the winter grain harvest should now be in its early stages.

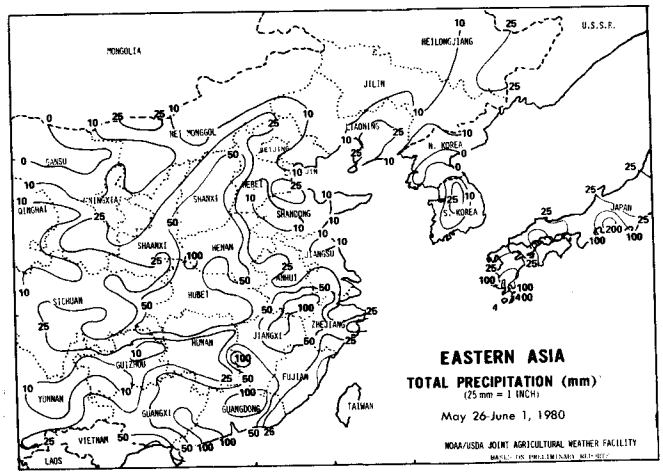



NORTHWESTERN AFRICA. Only light rain fell in most winter grain areas as the harvest wound down. Abnormal rains of 20 to 40 mm in eastern Algeria and western Tunisia will not cause damage to the crop if drier weather sets in again soon.

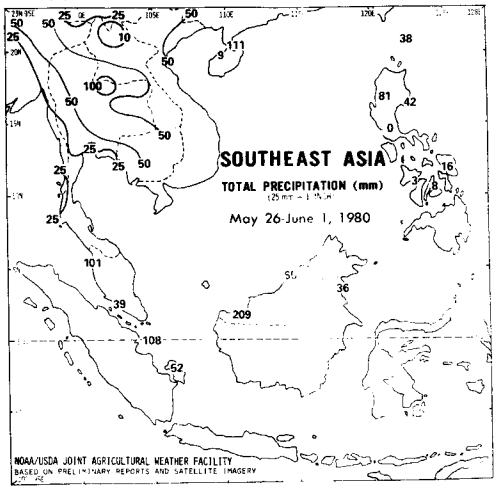
AUSTRALIA. A series of storm systems moved across the continent this week producing variable amounts of rain across the southern half of the country. Over 25 mm of rain benefited winter grains in West Australia, while only trace amounts fell in parts of Victoria. Grain areas of South Australia received mostly 10 to 15 mm, which maintained good growing conditions. Soaking rains in the winter grain area of New South Wales and Southern Queensland provided very timely moisture for germination. The entire region received over 25 mm and many areas reported over 50 mm.

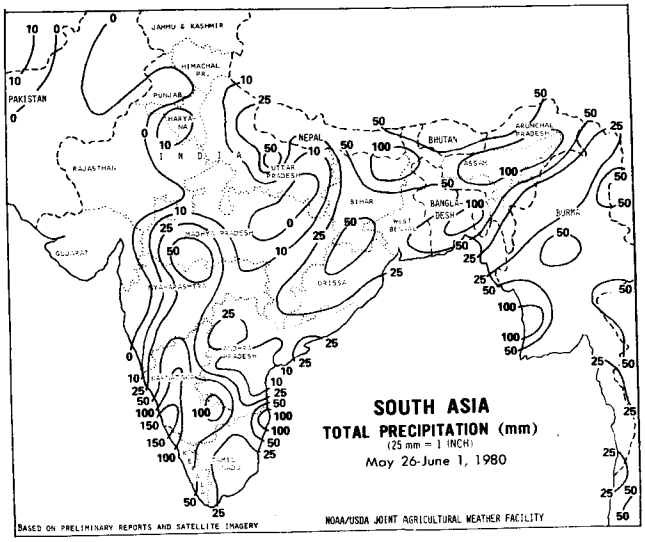




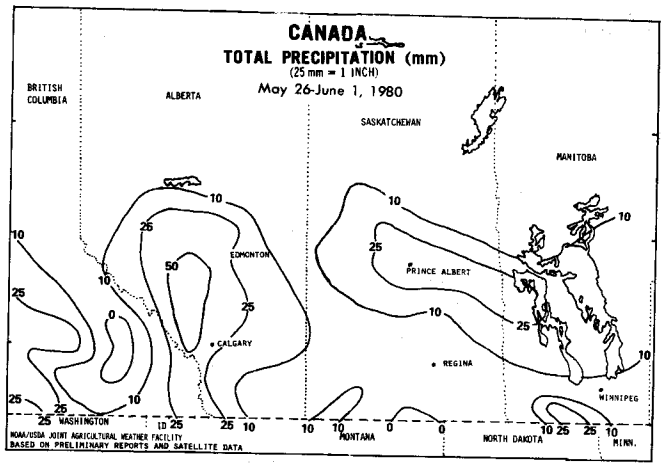

CHINA. A frontal system over southeastern China dissipated early in the week and gave way to fair weather in nearly all crop areas through Thursday. This favorable weather allowed fields to dry somewhat, but heavy rains returned toward the end of the week. Most of the winter wheat belt escaped with rainfall only slightly above normal, but this moisture did not help the area dry out from soaking rains of the previous 2 weeks, and the possibility for decreases in wheat quality persisted. Heavy rains in the hills west of the North China Plain had not direct impact on agriculture but may have caused some localized flooding. Following 2 weeks of relatively drier weather in the valleys south of the Yangtze River, heavy rainfall returned and with it water-control problems in the rice fields. Similarly, Guangdong Province on the southern coast was again drenched with excessive rainfall after a break of 1 week, promising more flooding of low fields.

SOUTHEAST ASIA. Data receipt from Thailand was poor again, but satellite information indicated that rainshowers were sporadic from day to day. In spite of this, moisture totals reported for the week showed that sufficient rain fell to maintain favorable growing conditions for rice and maize, and that some replenishment of reservoirs in the north probably occurred.



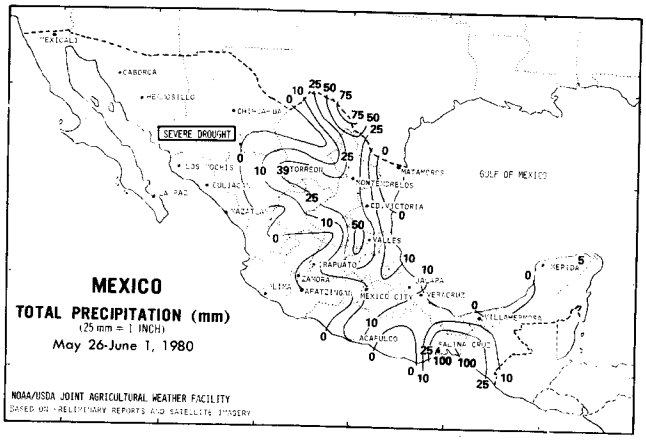



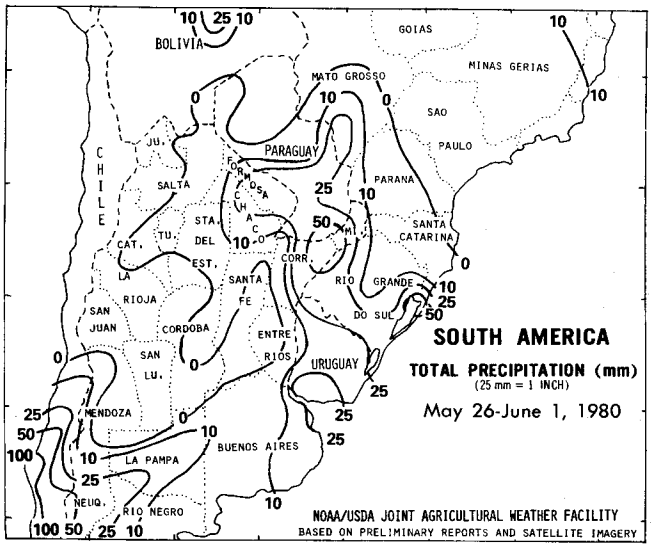

SOUTHERN ASIA. A dramatic increase in showers activity late in the week over southern and eastern India signaled the apparent onset of the monsoon. Previously, rainfall had been restricted mostly to coastal areas, but an indicative trough has shifted to the northwest and now lies over the subcontinent. Nearly all of Bangladesh received more than 50 mm of rainfall, and more than 25 mm fell over most of the southeastern half of India. Rainfall in Horyana and Uttar Pradesh resulted from a westerly weather system not related to the monsoon. With the onset of these rains, farmers will begin transplanting rice, and the danger now lies in the possibility that this is a false monsoon start, and that dry weather might return to wither the newly transplanted rice.




CANADA. A Pacific cold front moved slowly through the Prairie Provinces early in the week. In the spring wheat area of Alberta, rainfall amounts ranged from over 50 mm in the southwest to about 15 mm in the southeast. Growing conditions are now reportedly quite good over most of Alberta. Further east, rainfall was generally lighter, but still improved conditions for germination and early growth. By week's end, another Pacific cold front and light showers pushed across the region followed by an influx of cooler air, which dropped temperatures to near or slightly below freezing in much of the Canadian Prairies. Extensive frost was reported with some freeze damage to rapeseed fields in Saskatchewan. Damage to spring wheat and barley due to frost appeared to be light.

MEXICO. A moist, unstable airmass over the east supported showers, some locally heavy. Up to 60 mm in the Rio Verde citrus district, and an estimated 15 to 30 mm around Montemorelos should benefit young fruit. Soil moisture continued generally adequate in other citrus districts. Heavy showers at Torreon will help improve the moisture supply for cotton, but much more is needed to bring reservoir levels up to normal. The showery pattern temporarily relieved some northeastern rangelands and livestock. Another dry week intensified the severe drought over the northwest.




SOUTH AMERICA. Rainfall amounts remained generally light throughout the major agricultural areas of Argentina and Brazil. Favorable weather conditions prevailed for the late harvesting of soybeans in the state of Rio Grande do Sul in Brazil. Harvesting of soybeans proceeded in Buenos Aires province in Argentina without interruption, and soil moisture remained quite adequate for winter grain germination and growth.

# CROP PROGRESS

FOR WEEK ENDING JUNE 1, 1980

SOYBEAN
% PLANTED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| ALA | 53 | 66 | 61 |
| ARK | 24 | 18 | 46 |
| GA | 59 | 73 | 64 |
| ILL | 73 | 53 | 57 |
| IND | 80 | 75 | 60 |
| IOWA | 92 | 84 | 86 |
| KANS | 40 | 30 | 35 |
| KY | 48 | 28 | 40 |
| LA | 37 | 63 | 62 |
| MICH | 61 | 62 | 59 |
| MINN | 89 | 71 | 84 |
| MISS | 43 | 37 | 48 |
| MO | 77 | 47 | 53 |
| NEBR | 80 | 70 | 65 |
| N C | 62 | 55 | 60 |
| OHIO | 75 | 85 | 80 |
| S C | 57 | 71 | 63 |
| TENN | 45 | 22 | 43 |
| 18 STATES | 65 | 57 | 62 |

THESE 18 STATES PRODUCED 94% OF THE 1979 SOYBEAN CROP.

CORN
% PLANTED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| COLO | 91 | 92 | 94 |
| GA | 2/ | 2/ | 2/ |
| ILL | 98 | 88 | 86 |
| IND | 97 | 95 | 85 |
| IOWA | 100 | 98 | 97 |
| KANS | 85 | 90 | 95 |
| KY | 100 | 75 | 86 |
| MICH | 90 | 90 | 90 |
| MINN | 97 | 88 | 95 |
| MO | 99 | 88 | 80 |
| NEBR | 2/ | 2/ | 95 |
| N C | 100 | 100 | 100 |
| OHIO | 95 | 2/ | 95 |
| PA | 84 | 81 | 83 |
| S DAK | 94 | 85 | 87 |
| VA | 95 | 95 | 2/ |
| WIS | 99 | 80 | 85 |
| 17 STATES | 97 | 92 | 91 |

THESE 17 STATES PRODUCED 93% OF THE 1979 CORN CROP.

COTTON
% PLANTED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| ALA | 99 | 2/ | 2/ |
| ARIZ | 99 | 99 | NA |
| ARK | 99 | 97 | 98 |
| CALF | 100 | 100 | NA |
| GA | 2/ | 2/ | 2/ |
| LA | 82 | 99 | 96 |
| MISS | 98 | 99 | 99 |
| MO | 100 | 88 | 99 |
| N MEX | 95 | 95 | 98 |
| N C | 100 | 100 | 99 |
| OKLA | 22 | 33 | 47 |
| S C | 57 | 2/ | 2/ |
| TENN | 99 | 95 | 95 |
| TEX | 73 | 71 | 79 |
| 14 STATES | 81 | 81 | NA |
| EXCL. STATES WITH NA | 77 | 77 | 83 |

THESE 14 STATES PRODUCED 99% OF THE 1979 COTTON CROP.

SPRING WHEAT
% EMERGED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| IDA | 98 | 92 | 86 |
| MINN | 92 | 60 | 87 |
| MONT | 90 | 60 | NA |
| N D | 78 | 35 | 62 |
| S DAK | 100 | NA | NA |
| 5 STATES | 87 | NA | NA |
| EXCL. STATES WITH NA | 83 | 45 | 70 |

THESE 5 STATES PRODUCED 92% OF THE 1979 SPRING WHEAT CROP.

RICE
% PLANTED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| ARK | 95 | 82 | 94 |
| CALF | 100 | 100 | NA |
| LA | 95 | 98 | 99 |
| MISS | 96 | 89 | 94 |
| TEX | 100 | 100 | 100 |
| 5 STATES | 97 | 92 | NA |
| EXCL. STATES WITH NA | 96 | 90 | 96 |

THESE 5 STATES PRODUCED 99% OF THE 1979 RICE CROP.

RICE
% EMERGED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| ARK | 88 | NA | NA |
| CALF | 79 | 79 | NA |
| LA | 91 | 95 | 97 |
| MISS | 87 | 70 | 82 |
| TEX | 100 | 93 | 93 |
| 5 STATES | 89 | NA | NA |

THESE 5 STATES PRODUCED 99% OF THE 1979 RICE CROP.

SORGHUM
% PLANTED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| COLO | 24 | 44 | 45 |
| KANS | 30 | 35 | 30 |
| MO | 77 | 52 | 55 |
| NEBR | 85 | 70 | 70 |
| OKLA | 30 | 39 | 47 |
| S DAK | 56 | 41 | 44 |
| TEX | 80 | 81 | 84 |
| 7 STATES | 59 | 58 | 58 |

THESE 7 STATES PRODUCED 92% OF THE 1979 SORGHUM CROP.

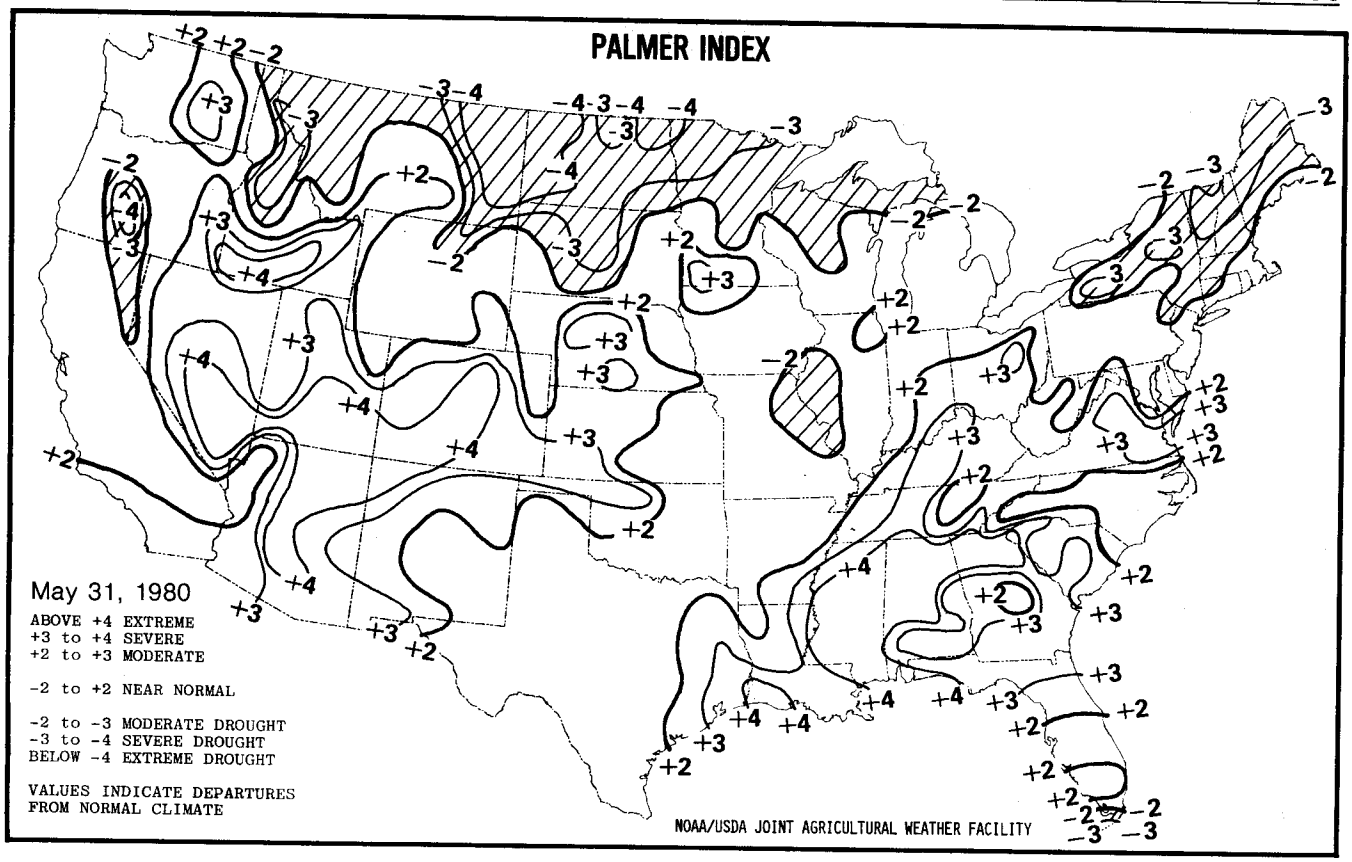
WINTER WHEAT
% HEADED

| | 1980 | 1979 | AVG. |
|---|---|---|---|
| CALF | 100 | 100 | NA |
| COLO | 28 | 43 | 55 |
| IDA | 20 | 12 | 13 |
| ILL | 95 | 86 | 89 |
| IND | 70 | 70 | 90 |
| KANS | 80 | 80 | 95 |
| MO | 94 | 86 | 98 |
| MONT | 20 | 0 | 1/ |
| NEBR | 65 | 30 | 60 |
| OHIO | 35 | 60 | 70 |
| OKLA | 99 | 98 | 100 |
| OREG | 74 | 78 | NA |
| S DAK | NA | 4 | 24 |
| TEX | 83 | 100 | NA |
| WASH | 23 | 30 | NA |

1/ LESS THAN 5%

2/ GREATER THAN 95%

NA = NOT AVAILABLE

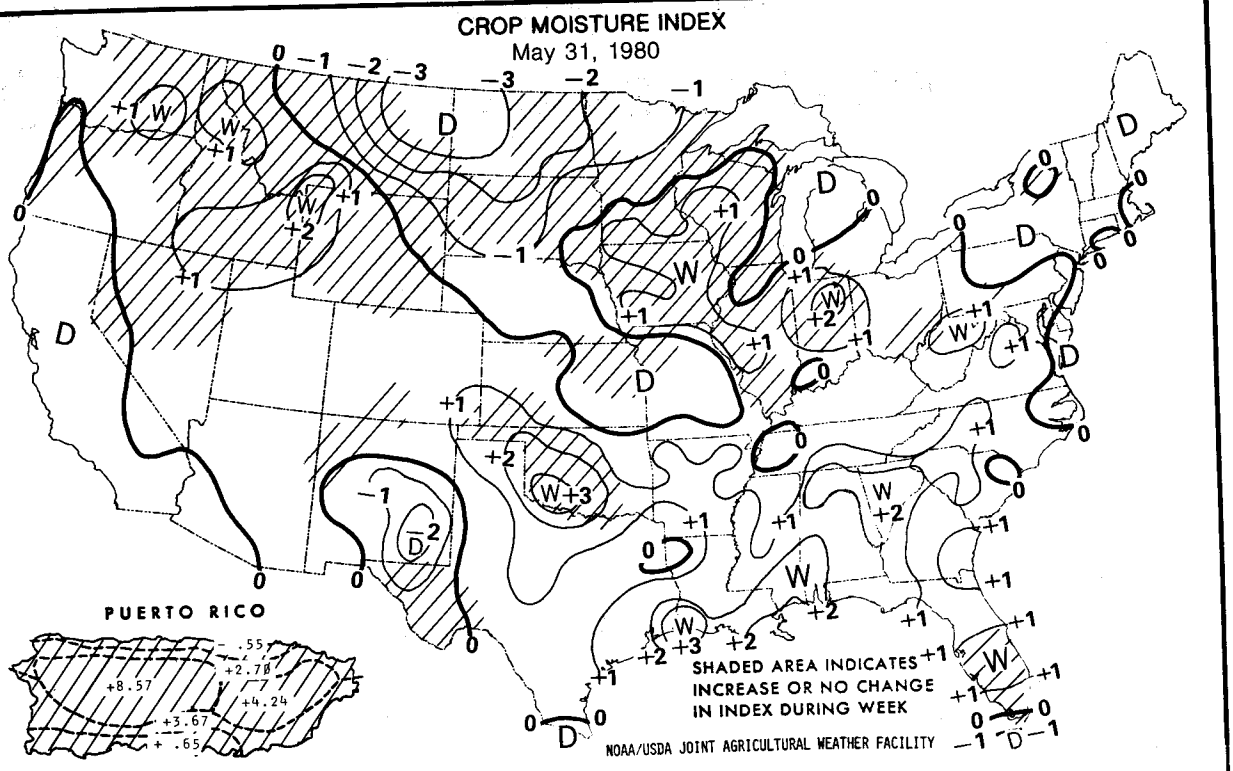



The Palmer Index

The Palmer Index is an index of meteorological drought, which may be defined as a prolonged and abnormal moisture deficiency. The general concept is one of supply and demand. Supply is represented by precipitation and stored soil moisture. Demand is the combination of potential evapotranspiration, the amount needed to recharge the soil moisture, and the runoff needed to keep the rivers, lakes, and reservoirs at a normal level. The results of this water balance accounting produce a positive or negative anomaly which is then weighted by a climate factor. The final product is an index that expresses the abnormality for that particular place for the period of time being computed. This manipulation allows the index to have a reasonably comparable local significance in space and time, that is, a certain index value obtained for a division in New York would have the same local significance as a like value in the more arid areas of western Kansas. This monthly increment is added to a portion of the previous month's index to include the duration of the anomaly in the final index.

The Palmer Index was designed as a climatological indicator of the scope and severity of past droughts. Using the Palmer Index on a real-time basis presents difficulties. A day or so of normal or better rainfall is certainly welcome in an area that has experienced a long drought, but one cannot know whether it indicates the end of the drought or just a brief respite. In order to make the program have some real-time value, a system of computing a "probability" that a weather spell has ended was devised. This is not entirely satisfactory, but does allow one to assign a definite index value at times when there may be some doubt as to whether it should be positive (wet) or negative (dry).

Another aspect of using the Palmer Index is that one must remember that the demand part of the computations includes three parameters---potential evapotranspiration, recharge of soil moisture, and runoff, any one of which may produce a negative index. For instance if only enough rain fell to satisfy most of the expected evapotranspiration, but not enough to supply the expected recharge and runoff, then a negative index would result. If such a situation continued then one might find that agriculture was progressing at a near normal pace but the Palmer Index would be indicating a worsening drought. In this situation the drought would cause shallow wells and springs to go dry and the levels of rivers, lakes and reservoirs to fall below normal and, if this odd situation continued long enough, would cause serious economic stress to the livestock industry and eventually to other industries and cities. Then if rainfall fell below the minimum needed for agriculture, crops would suffer drastic and rapid decline because there would be no reserve water in the soil. Such a situation, to some extent, occurred during the Northeast drought in the 1960's when New York City almost ran out of water.




The Crop Moisture Index measures the degree to which moisture requirements of growing crops were met during the previous week. The index is computed from average weekly values of temperature and precipitation. These values are used to calculate the potential moisture demand. Taking into account the previous soil moisture condition and current rainfall, the actual moisture loss is determined.

If the potential moisture demand, or potential evapotranspiration, exceeds available moisture supplies, actual evapotranspiration is reduced and the CMI gives a negative value. However, if moisture meets or exceeds demand the index is positive.

Shaded areas indicate the index was unchanged or increased from the previous week's value; soils dried in the unshaded areas. Centers of positive and negative areas are identified by W for wet and D for dry.

Local moisture conditions may vary because of differences in rainfall distribution or soil types. The type of agriculture and stage of crop development must be considered when assessing the impact of moisture conditions based on the Crop Moisture Index. Some general guidelines follow.

| UNSHADED AREAS: | | | INDEX DECREASED |
|---|---|---|---|
| ABOVE | | 3.0 | SOME DRYING BUT STILL EXCESSIVELY WET |
| 2.0 | to | 3.0 | MORE DRY WEATHER NEEDED, WORK DELAYED |
| 1.0 | to | 2.0 | FAVORABLE, EXCEPT STILL TOO WET IN SPOTS |
| 0 | to | 1.0 | FAVORABLE FOR NORMAL GROWTH AND FIELDWORK |
| 0 | to | -1.0 | TOPSOIL MOISTURE SHORT, GERMINATION SLOW |
| -1.0 | to | -2.0 | ABNORMALLY DRY, PROSPECTS DETERIORATING |
| -2.0 | to | -3.0 | TOO DRY, YIELD PROSPECTS REDUCED |
| -3.0 | to | -4.0 | POTENTIAL YIELDS SEVERELY CUT BY DROUGHT |
| BELOW | | -4.0 | EXTREMELY DRY, MOST CROPS RUINED |

| SHADED AREAS: | | | INDEX INCREASED OR DID NOT CHANGE |
|---|---|---|---|
| ABOVE | | 3.0 | EXCESSIVELY WET, SOME FIELDS FLOODED |
| 2.0 | to | 3.0 | TOO WET, SOME STANDING WATER |
| 1.0 | to | 2.0 | PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET |
| 0 | to | 1.0 | MOISTURE ADEQUATE FOR PRESENT NEEDS |
| 0 | to | -1.0 | PROSPECTS IMPROVED BUT RAIN STILL NEEDED |
| -1.0 | to | -2.0 | SOME IMPROVEMENT BUT STILL TOO DRY |
| -2.0 | to | -3.0 | DROUGHT EASED BUT STILL SERIOUS |
| -3.0 | to | -4.0 | DROUGHT CONTINUES, RAIN URGENTLY NEEDED |
| BELOW | | -4.0 | NOT ENOUGH RAIN, STILL EXTREMELY DRY |

THE EXTREME DROUGHT AREA IN NORTHEASTERN MONTANA AND NORTHWESTERN NORTH DAKOTA RECEIVED VERY LITTLE RAIN AND THE DROUGHT WORSENED. IN OTHER PORTIONS OF THE VERY DRY AREA, WIDELY SCATTERED SHOWERS EASED THE DROUGHT, BUT MORE RAIN IS URGENTLY NEEDED. IN SOUTHWESTERN OKLAHOMA AND THE NORTHERN EDGE OF TEXAS, HEAVY RAIN, ASSOCIATED WITH THUNDERSTORMS, LEFT THE AREA EXCESSIVELY WET WITH SOME FIELDS FLOODED. A RETURN TO DRIER WEATHER IN THE SOUTHEAST HAS IMPROVED THE WET AREAS THERE.

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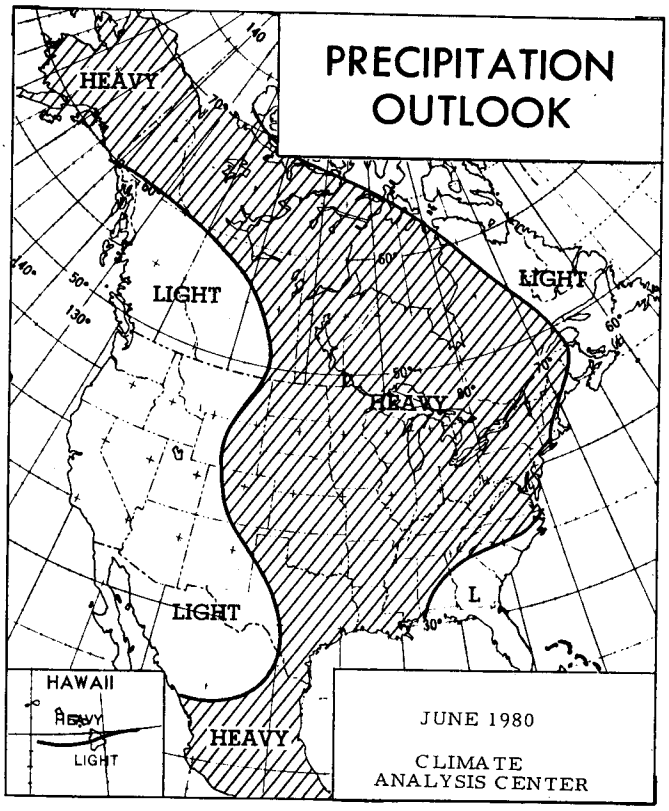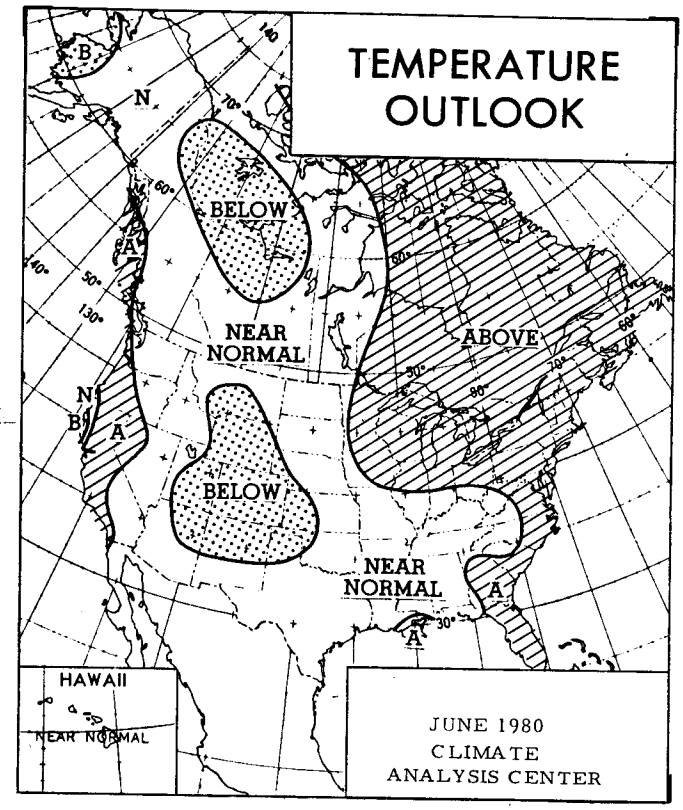
## Average Monthly Weather Outlook