

WEEKLY WEATHER AND CROP BULLETIN

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

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

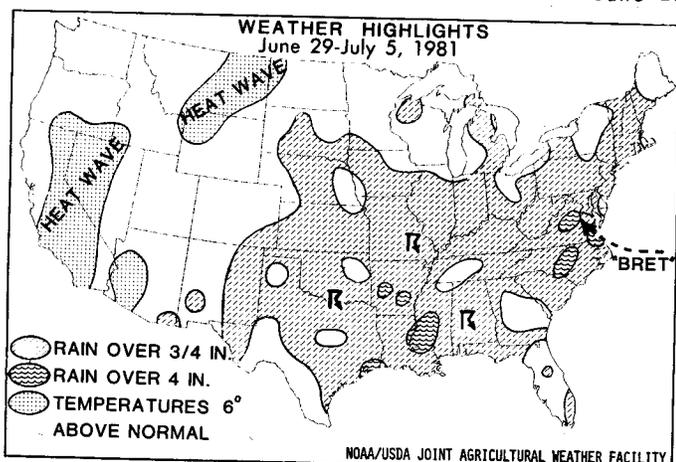
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National Weather Summary

June 29-July 5, 1981



HIGHLIGHTS: A heat wave over the desert Southwest spread across the Rockies into the northwestern Plains as temperatures averaged 6 to 8° above normal. Afternoon highs reached 118° at Blythe, California, and 104° at Billings, Montana. The heat maintained both the short- and long-term drought across the area. In contrast, the Southeast was cooler than usual. Fronts moving through northern and central States, afternoon heating along the Gulf Coast, and tropical systems drifting along the eastern seaboard triggered widespread rains. Downpours fell over the lower and mid-Mississippi Valleys and from the Tennessee Valley to the mid-Atlantic coast. The eastern half of the Nation was quite wet on its birthday.

MONDAY...A wide band of showers and thundershowers accompanied a cold front from eastern Arizona to the Great Lakes. Heavy rainfall, over 2 inches, doused parts of Missouri, Michigan, and southern Iowa. Light rains dotted the Gulf Coast. Cool, dry air settled over the northern Rockies, northern Plains and mid-Atlantic Coast. Record daily low temperatures were set from the Carolinas to Florida, while the West continued hot and dry. A tropical disturbance formed well off the North Carolina coast and began moving toward land.

TUESDAY...Heavy rains fell over parts of Oklahoma, Missouri, and Ohio as the front drifted eastward. Tropical Storm Brett developed with winds to nearly 60 mph and moved closer to the Carolina-Virginia coast. Afternoon thundershowers popped up over the cloudy humid Southeast, the Texas coast, and southern Rockies. Another front brought cool air into the Pacific Northwest while the Southwest deserts warmed to over 100°.

WEDNESDAY...Tropical Storm Brett moved into southeastern Virginia, weakened and tracked

northwestward toward a dissipating front that had become stationary from New England to New Mexico. Rains were widespread over the East and from the South into eastern Arizona. Locally heavy rains were dumped on the Delta States. Another front moving across the central Rockies triggered showers as far east as the Dakotas and Nebraska.

THURSDAY...Rains were widespread over the eastern seaboard and South even though Brett and a stationary front gradually dissipated. Heavy thundershowers hit the central Gulf Coast States. Another rainy front moved into the Plains. Over 9 inches was dumped on parts of the Nebraska Panhandle. The West had fair skies.

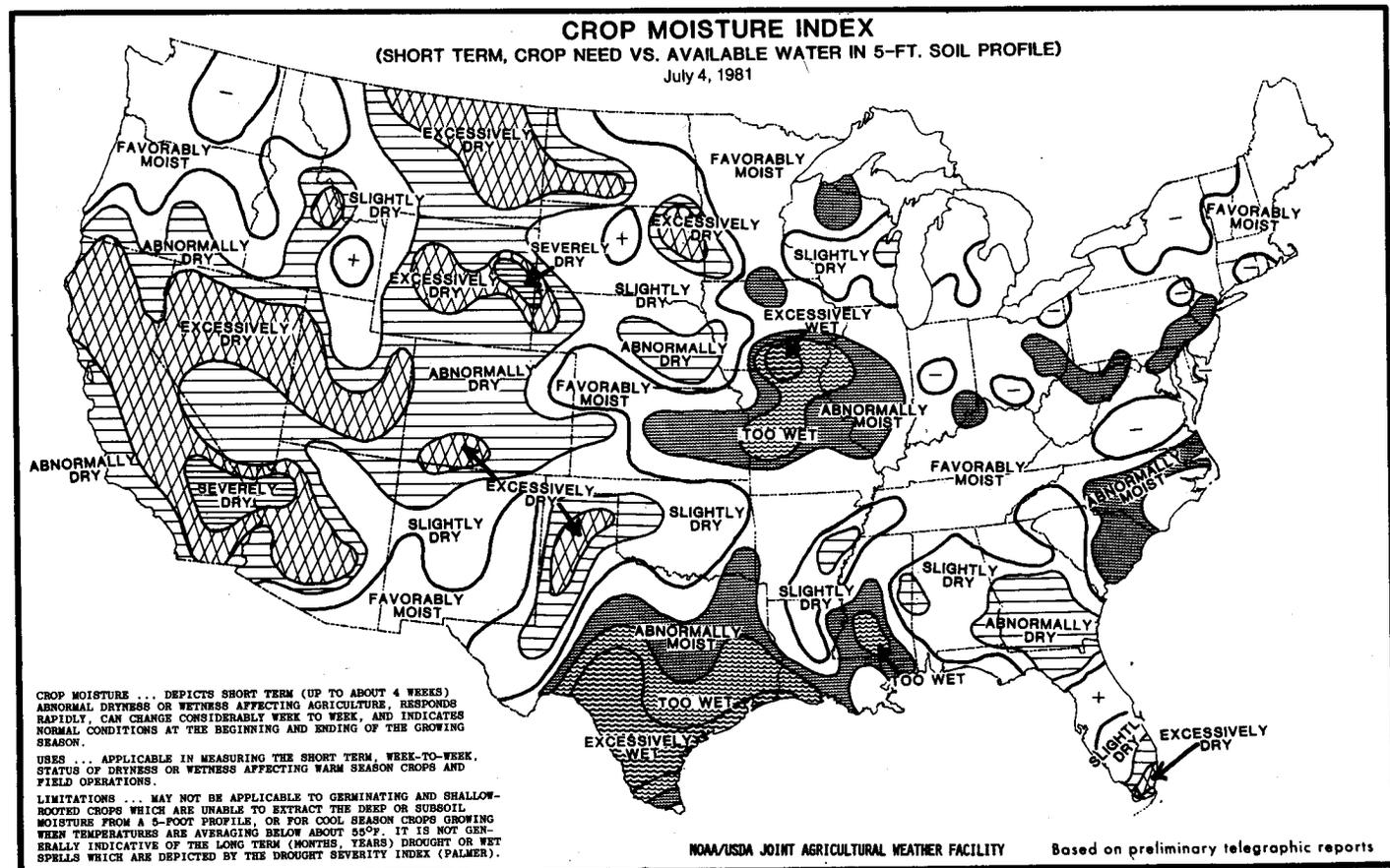
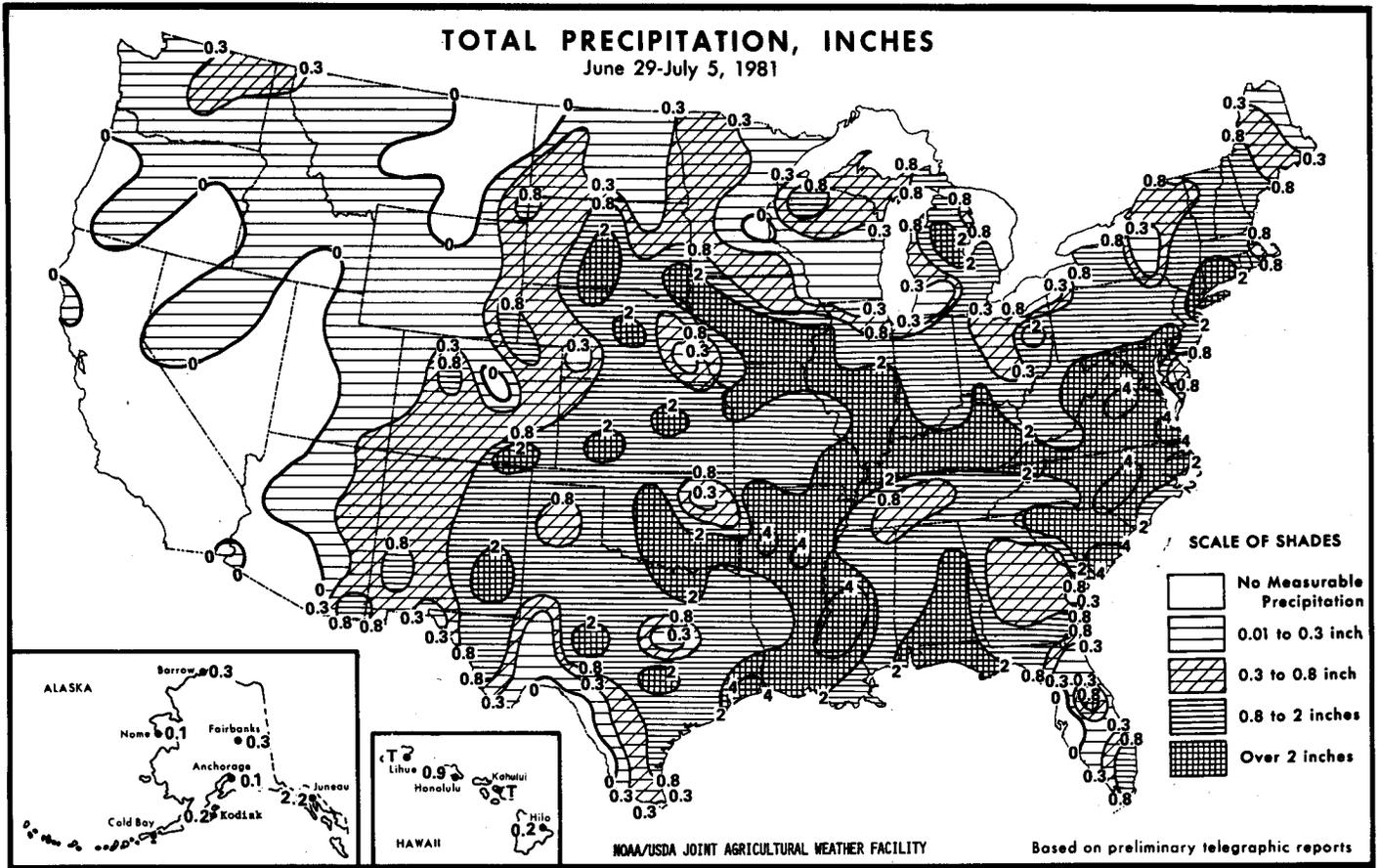
FRIDAY...The front advanced into the eastern Plains producing heavy rains over parts of Iowa, Missouri, and Oklahoma. A tropical wave of low pressure developing along the Southeast Coast dumped heavy rains inland. Fair weather continued over the western half of the Nation.

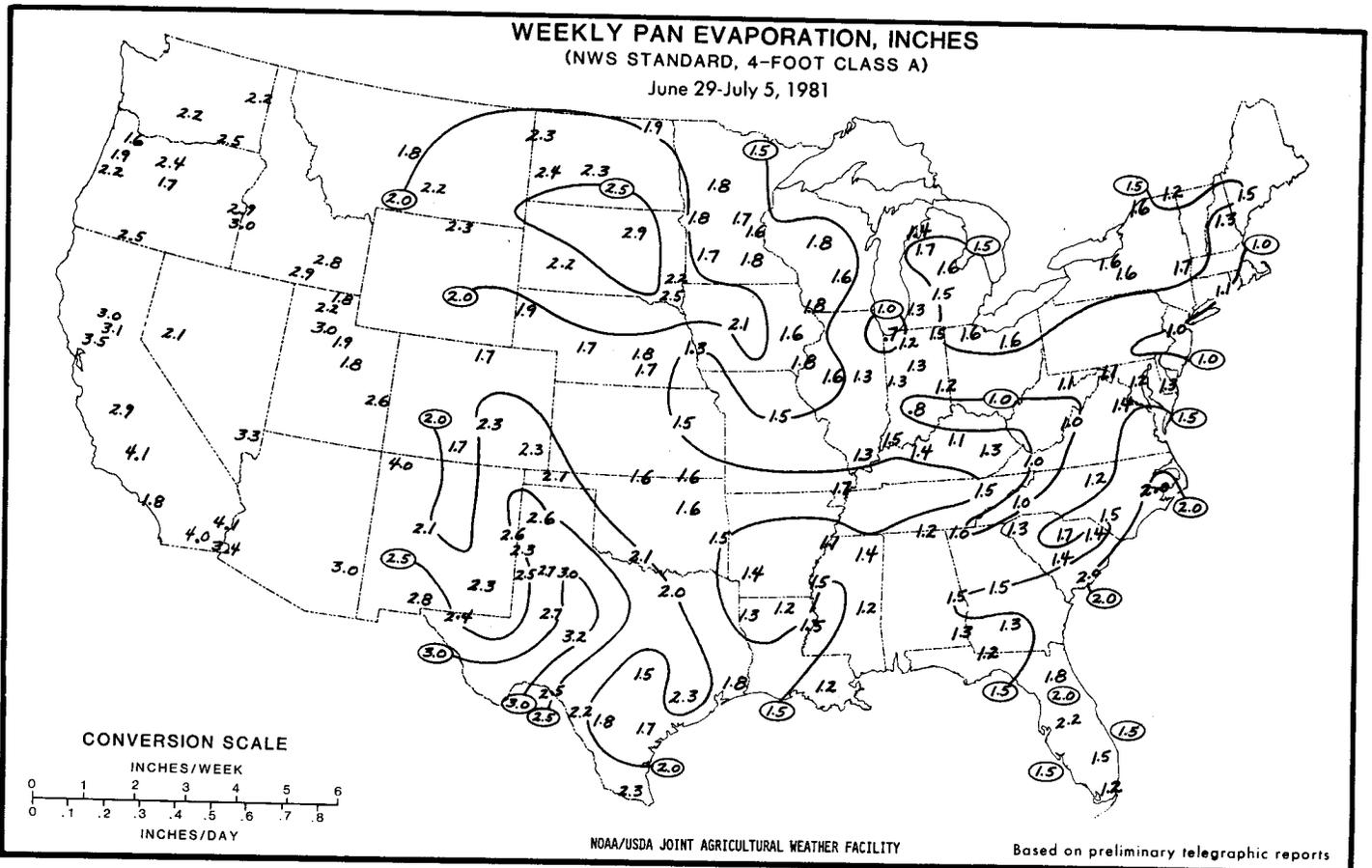
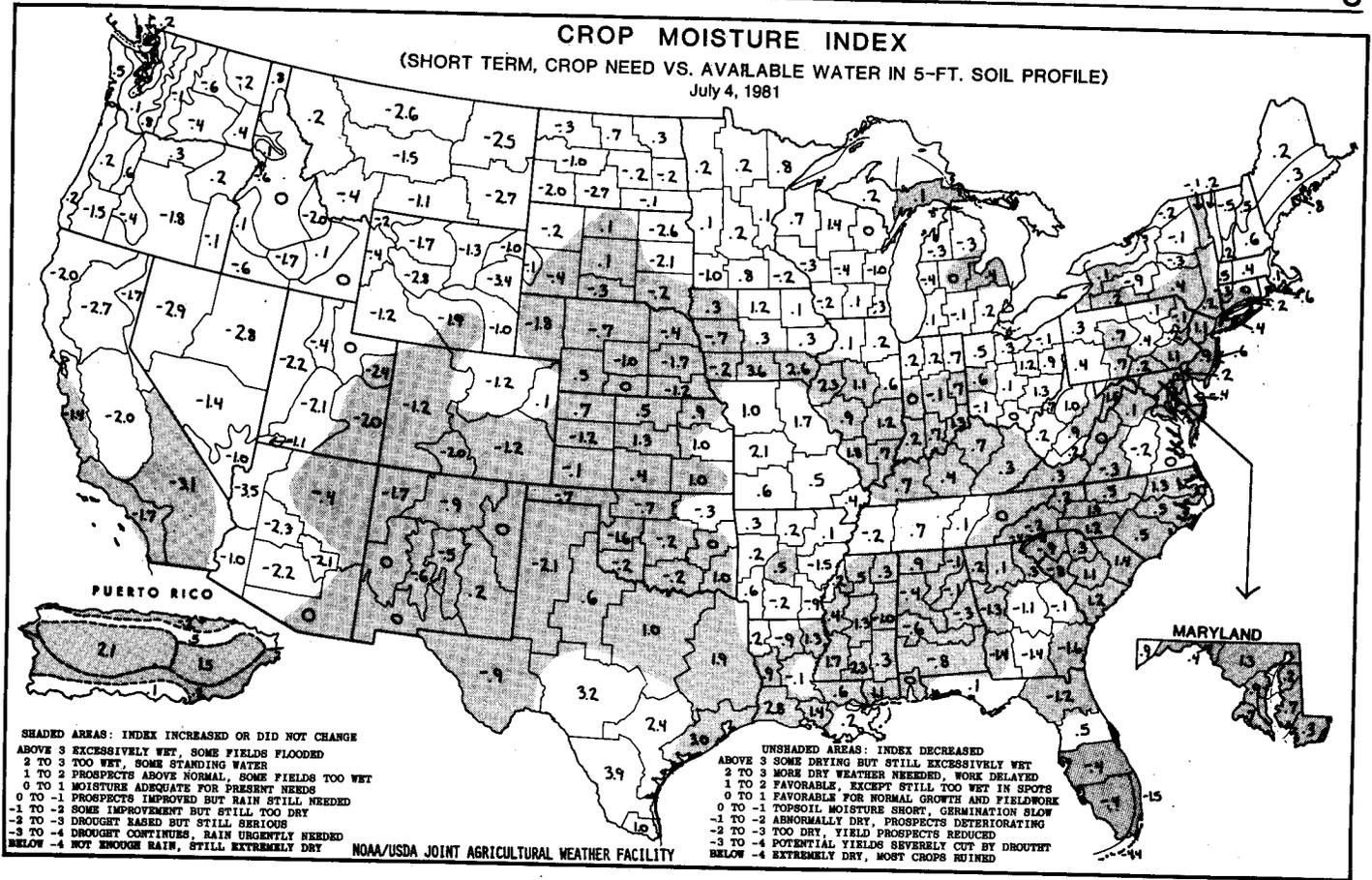
SATURDAY...Unusually heavy rains continued over the mid-Atlantic coast into New England as the tropical low moved across the Carolinas into Maryland. Meanwhile, downpours occurred over the southern Corn Belt along a front stretching from the Great Lakes to Texas. A heat wave spread into northern parts of the West; over 100° readings reached from Oregon into Montana.

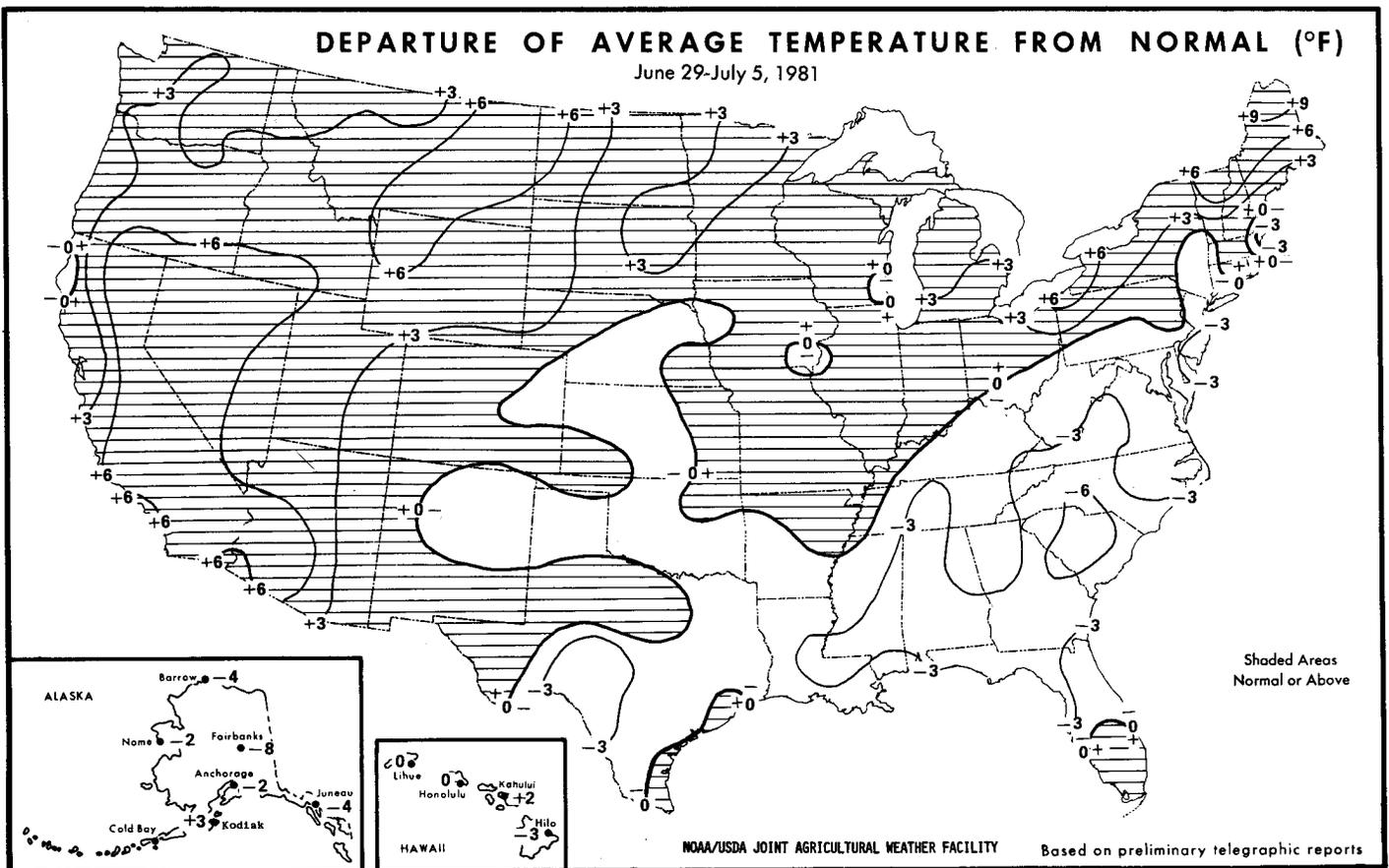
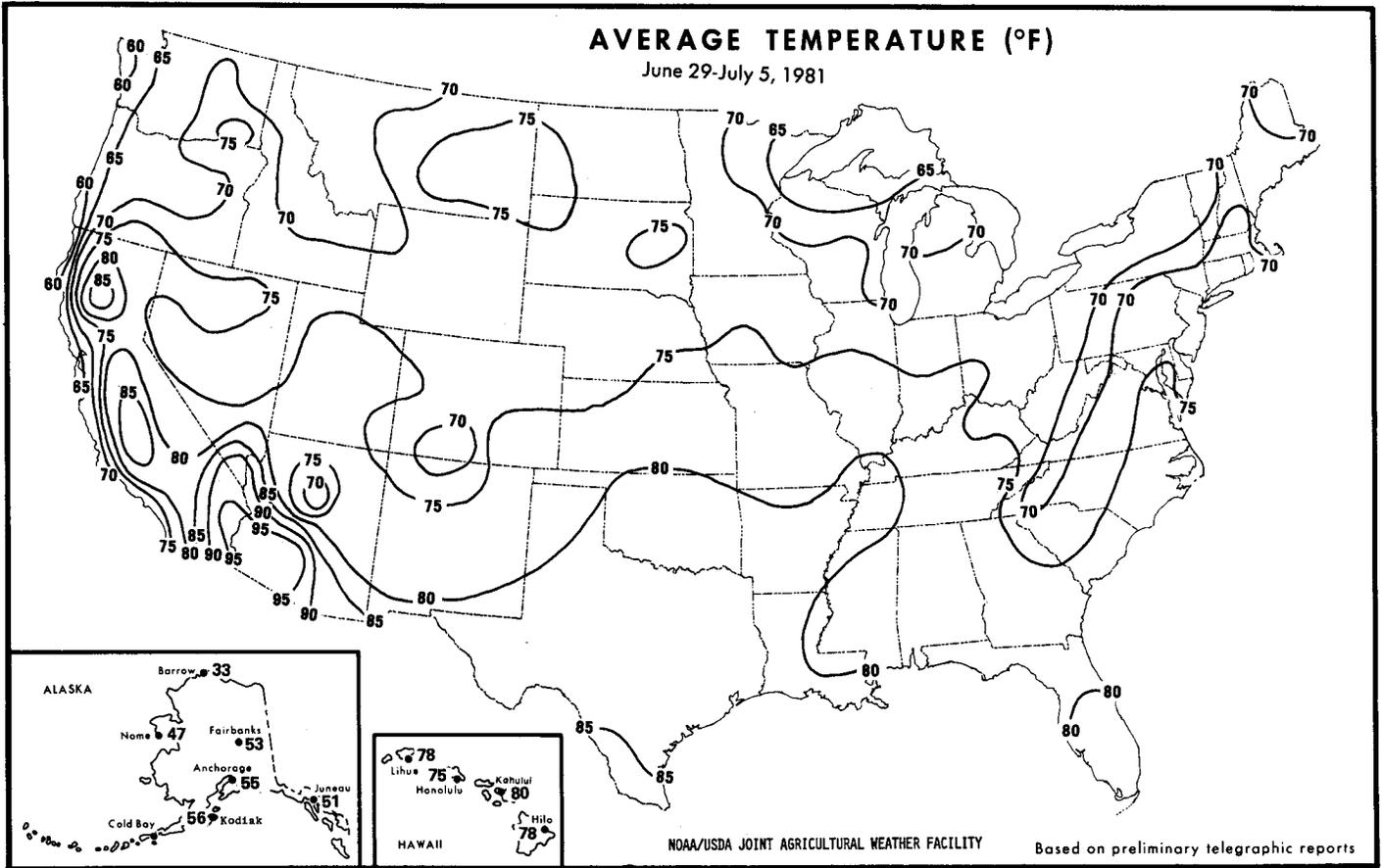
SUNDAY...The heat wave with over 100° readings broke some daily records in the northern Plains. Much of the West was hot; Blythe, California had 118°. In contrast, most of the East was mild with clouds and scattered showers. A front extended from Texas to Maine as a weakening tropical low moved northeastward along the New England coast.

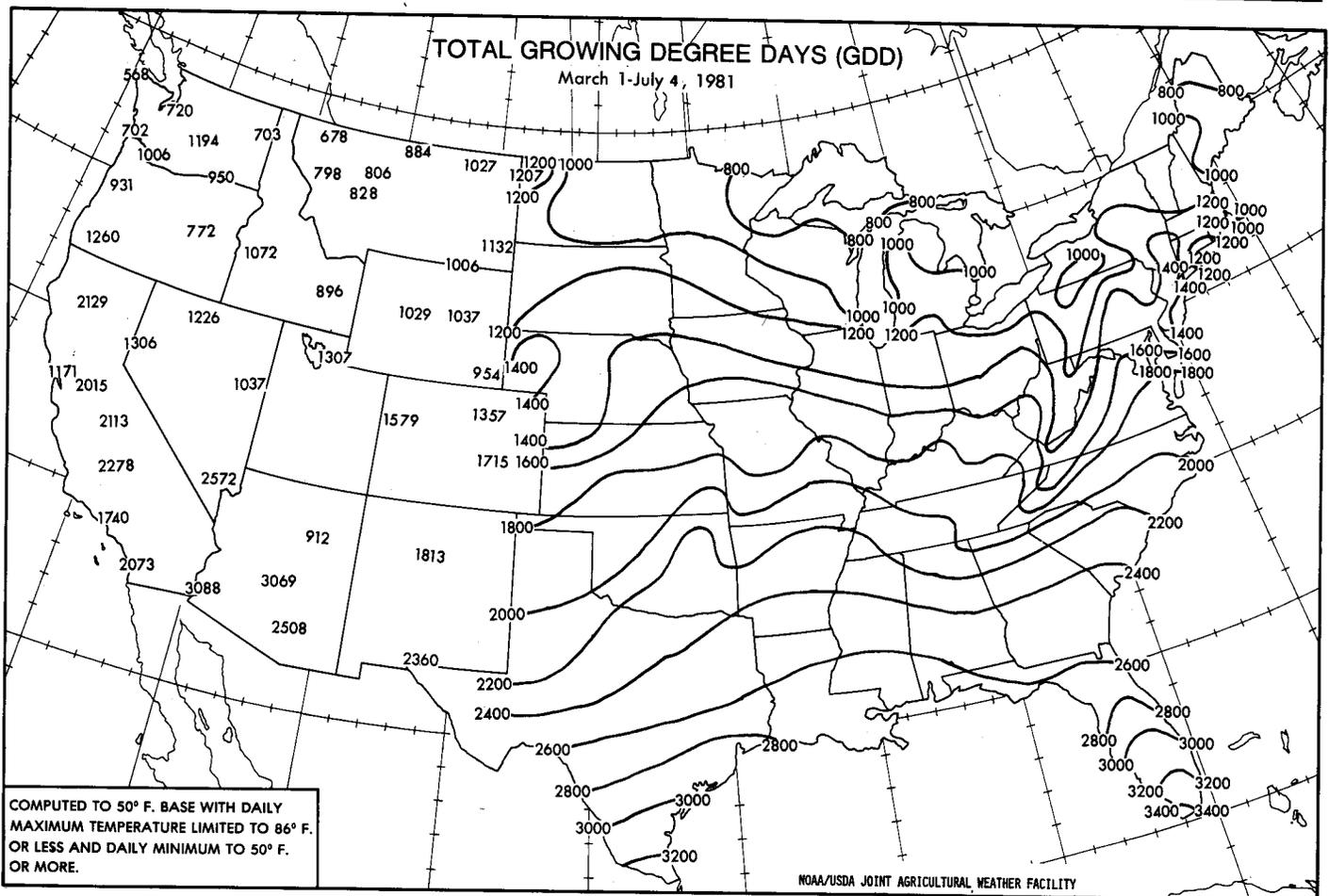
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USING THE GROWING DEGREE DAY

Plants grow, develop, and produce best within a certain range of air temperature. At temperatures above or below this range, heat or cold can hinder plant productivity. Within these limits, there is a direct relationship between temperature and the speed a plant develops.

The range of temperature for growth varies with the type of plant. For corn and soybeans, the apparent limits are about 50° and 86°, and for small grains, 40° and 90°. Each degree of temperature above the minimum for growth contributes to development of the crop and is called a growing degree day (GDD) unit.

To calculate the GDD accumulation for a certain day:

$$GDD = \frac{\text{daily max. } (86^{\circ}) + \text{daily min. } (50^{\circ})}{2.0} - 50^{\circ}$$

Use 86° for maximum temperatures above 86° because above that point heat does not contribute to crop development. For minimums below 50°, use 50° temperatures below this level stop development.

GDD information has many uses. A grower who knows the expected growing degree day accumulation can select varieties that utilize the entire growing season, and minimize the risk of frost damage. If adverse weather delays planting, a grower can select other varieties. In the same way, GDD information is useful if reseeding is required and also helps in the selection of seed.

After selecting and planting the seed, the grower can follow crop development or progress of the growing season. First, the grower should note the number of GDDs accumulated at the time of planting from the map on this page. This value is the base figure.

For example, assume 350 GDDs had accumulated at planting time. If as of a certain date, 1,200 GDDs had accumulated, only 850 contributed to development of the crop. If the variety requires 2,400 to mature, 1,550 still are needed before the crop is safe from frost. Use a table of normals in the same way to determine if the season is progressing normally.

LONG-TERM MEAN GROWING DEGREE DAYS (ADJUSTED 50° BASE):
ACCUMULATED WEEKLY MARCH 1 TO INDICATED DATES

| Station | Mar. 8 | Mar. 15 | Mar. 22 | Mar. 29 | Apr. 5 | Apr. 12 | Apr. 19 | Apr. 26 | May 3 | May 10 | May 17 | May 24 | May 31 | June 7 | June 14 | June 21 | June 28 | July 5 | July 12 | July 19 |
|-----------------------|--------|---------|---------|---------|--------|---------|---------|---------|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|---------|---------|
| West: | | | | | | | | | | | | | | | | | | | | |
| Phoenix, Ariz. | 76 | 160 | 252 | 352 | 458 | 579 | 710 | 839 | 974 | 1123 | 1274 | 1442 | 1614 | 1794 | 1976 | 2172 | 2378 | 2593 | 2817 | 3045 |
| Fresno, Calif. | 50 | 102 | 164 | 232 | 309 | 391 | 481 | 570 | 663 | 767 | 877 | 1008 | 1139 | 1276 | 1411 | 1569 | 1732 | 1895 | 2066 | 2243 |
| Denver, Colo. | 13 | 30 | 52 | 83 | 117 | 152 | 199 | 255 | 311 | 378 | 447 | 524 | 613 | 708 | 819 | 937 | 1068 | 1212 | 1360 | 1510 |
| Pocatello, Idaho | 4 | 7 | 15 | 30 | 51 | 77 | 113 | 148 | 188 | 247 | 305 | 378 | 456 | 540 | 630 | 734 | 846 | 965 | 1101 | 1244 |
| Glasgow, Mont. | 1 | 2 | 7 | 18 | 35 | 54 | 85 | 117 | 159 | 209 | 274 | 347 | 429 | 517 | 613 | 716 | 827 | 934 | 1073 | 1217 |
| Pendleton, Ore. | 8 | 20 | 41 | 66 | 99 | 142 | 187 | 231 | 281 | 345 | 418 | 504 | 592 | 686 | 795 | 913 | 1033 | 1159 | 1303 | 1460 |
| North Central: | | | | | | | | | | | | | | | | | | | | |
| Des Moines, Iowa | 5 | 14 | 23 | 41 | 67 | 94 | 138 | 194 | 259 | 340 | 428 | 525 | 629 | 753 | 897 | 1046 | 1201 | 1369 | 1535 | 1705 |
| Minneapolis, Minn. | 0 | 1 | 4 | 11 | 25 | 40 | 60 | 86 | 122 | 162 | 224 | 295 | 374 | 458 | 555 | 691 | 854 | 1103 | 1252 | 1409 |
| North Platte, Nebr. | 10 | 24 | 39 | 67 | 100 | 133 | 180 | 236 | 296 | 366 | 440 | 523 | 617 | 722 | 846 | 977 | 1115 | 1271 | 1424 | 1580 |
| Omaha, Nebr. | 8 | 20 | 33 | 58 | 91 | 127 | 178 | 244 | 316 | 405 | 502 | 607 | 722 | 844 | 1007 | 1165 | 1327 | 1504 | 1677 | 1855 |
| Fargo, N. Dak. | 0 | 0 | 2 | 8 | 17 | 30 | 54 | 85 | 134 | 186 | 250 | 325 | 404 | 503 | 612 | 724 | 839 | 968 | 1108 | 1253 |
| Huron, S. Dak. | 2 | 5 | 12 | 26 | 46 | 70 | 108 | 154 | 210 | 272 | 345 | 425 | 514 | 621 | 743 | 870 | 1001 | 1150 | 1305 | 1462 |
| Green Bay, Wis. | 0 | 1 | 3 | 7 | 17 | 28 | 55 | 85 | 125 | 176 | 234 | 302 | 374 | 466 | 573 | 683 | 797 | 923 | 1050 | 1182 |
| Madison, Wis. | 1 | 3 | 8 | 17 | 33 | 53 | 89 | 132 | 186 | 255 | 325 | 406 | 491 | 597 | 719 | 845 | 977 | 1119 | 1258 | 1406 |
| South Central: | | | | | | | | | | | | | | | | | | | | |
| Fort Smith, Ark. | 41 | 87 | 131 | 191 | 269 | 348 | 437 | 551 | 664 | 794 | 929 | 1081 | 1240 | 1405 | 1589 | 1774 | 1964 | 2159 | 2355 | 2553 |
| Dodge City, Kans. | 20 | 46 | 76 | 121 | 172 | 222 | 286 | 365 | 442 | 537 | 634 | 741 | 865 | 997 | 1154 | 1318 | 1487 | 1657 | 1847 | 2026 |
| Topeka, Kans. | 18 | 42 | 63 | 101 | 148 | 194 | 254 | 337 | 418 | 519 | 623 | 741 | 867 | 1006 | 1168 | 1333 | 1503 | 1687 | 1862 | 2042 |
| Wichita, Kans. | 22 | 50 | 77 | 121 | 177 | 231 | 297 | 388 | 474 | 582 | 691 | 816 | 952 | 1100 | 1271 | 1447 | 1628 | 1819 | 2010 | 2196 |
| Shreveport, La. | 61 | 132 | 203 | 282 | 384 | 488 | 593 | 728 | 866 | 1020 | 1178 | 1348 | 1525 | 1706 | 1902 | 2100 | 2300 | 2504 | 2712 | 2916 |
| Columbia, Mo. | 18 | 39 | 58 | 93 | 137 | 184 | 245 | 330 | 417 | 519 | 627 | 741 | 864 | 1003 | 1168 | 1330 | 1501 | 1681 | 1857 | 2039 |
| St. Louis, Mo. | 19 | 41 | 64 | 101 | 142 | 190 | 254 | 345 | 436 | 541 | 647 | 770 | 899 | 1047 | 1220 | 1389 | 1566 | 1752 | 1932 | 2119 |
| Oklahoma City, Okla. | 35 | 76 | 119 | 174 | 246 | 318 | 400 | 505 | 605 | 728 | 849 | 988 | 1137 | 1294 | 1475 | 1658 | 1844 | 2039 | 2233 | 2428 |
| Amarillo, Tex. | 33 | 78 | 123 | 180 | 244 | 308 | 385 | 474 | 560 | 667 | 770 | 889 | 1019 | 1156 | 1311 | 1478 | 1649 | 1830 | 2010 | 2187 |
| Corpus Christi, Tex. | 95 | 210 | 324 | 445 | 587 | 728 | 878 | 1049 | 1229 | 1411 | 1600 | 1794 | 1998 | 2200 | 2412 | 2626 | 2840 | 3055 | 3270 | 3487 |
| Fort Worth, Tex. | 57 | 122 | 191 | 271 | 369 | 470 | 578 | 710 | 838 | 988 | 1140 | 1308 | 1486 | 1670 | 1871 | 2072 | 2278 | 2488 | 2702 | 2916 |
| Midland, Tex. | 57 | 128 | 200 | 282 | 376 | 473 | 579 | 700 | 822 | 964 | 1110 | 1263 | 1431 | 1603 | 1788 | 1978 | 2171 | 2364 | 2558 | 2754 |
| Midwest: | | | | | | | | | | | | | | | | | | | | |
| Chicago, Ill. | 5 | 10 | 18 | 35 | 61 | 81 | 124 | 177 | 238 | 313 | 391 | 481 | 579 | 701 | 843 | 984 | 1142 | 1310 | 1470 | 1639 |
| Moline, Ill. | 5 | 10 | 18 | 36 | 61 | 90 | 135 | 192 | 261 | 344 | 429 | 526 | 629 | 755 | 898 | 1045 | 1200 | 1365 | 1524 | 1691 |
| Peoria, Ill. | 8 | 16 | 25 | 46 | 74 | 105 | 152 | 214 | 284 | 367 | 454 | 554 | 660 | 788 | 938 | 1085 | 1245 | 1415 | 1576 | 1746 |
| Indianapolis, Ind. | 12 | 26 | 39 | 64 | 95 | 128 | 175 | 250 | 324 | 411 | 499 | 602 | 708 | 834 | 986 | 1132 | 1293 | 1462 | 1623 | 1792 |
| Louisville, Ky. | 22 | 48 | 71 | 108 | 156 | 207 | 272 | 370 | 466 | 569 | 677 | 801 | 932 | 1073 | 1239 | 1399 | 1572 | 1752 | 1926 | 2110 |
| Flint, Mich. | 2 | 5 | 9 | 19 | 35 | 53 | 87 | 127 | 175 | 239 | 302 | 375 | 455 | 555 | 676 | 795 | 924 | 1064 | 1197 | 1338 |
| Grand Rapids, Mich. | 1 | 5 | 10 | 20 | 37 | 55 | 89 | 131 | 185 | 252 | 321 | 398 | 482 | 588 | 717 | 841 | 976 | 1121 | 1259 | 1408 |
| Columbus, Ohio | 12 | 26 | 38 | 64 | 95 | 129 | 176 | 246 | 320 | 404 | 490 | 593 | 697 | 818 | 964 | 1104 | 1260 | 1424 | 1581 | 1749 |
| Northeast: | | | | | | | | | | | | | | | | | | | | |
| Portland, Maine | 0 | 1 | 1 | 4 | 12 | 24 | 41 | 65 | 94 | 135 | 181 | 237 | 304 | 386 | 470 | 563 | 668 | 787 | 903 | 1032 |
| Albany, N.Y. | 1 | 4 | 6 | 16 | 33 | 51 | 84 | 130 | 179 | 244 | 313 | 393 | 478 | 586 | 702 | 820 | 963 | 1110 | 1248 | 1402 |
| Binghamton, N.Y. | 1 | 3 | 5 | 14 | 28 | 41 | 66 | 105 | 149 | 198 | 253 | 320 | 387 | 476 | 580 | 683 | 805 | 938 | 1058 | 1197 |
| Syracuse, N.Y. | 2 | 5 | 8 | 19 | 36 | 51 | 83 | 126 | 174 | 236 | 300 | 376 | 457 | 559 | 677 | 794 | 930 | 1075 | 1212 | 1360 |
| Harrisburg, Pa. | 8 | 17 | 28 | 52 | 83 | 116 | 163 | 228 | 295 | 377 | 463 | 563 | 667 | 792 | 936 | 1075 | 1239 | 1410 | 1573 | 1748 |
| Philadelphia, Pa. | 8 | 20 | 31 | 57 | 91 | 125 | 175 | 238 | 302 | 384 | 475 | 576 | 681 | 811 | 955 | 1094 | 1262 | 1436 | 1604 | 1785 |
| Pittsburgh, Pa. | 10 | 21 | 32 | 55 | 82 | 111 | 154 | 212 | 287 | 364 | 442 | 533 | 625 | 736 | 869 | 994 | 1140 | 1295 | 1458 | 1595 |
| Williamsport, Pa. | 10 | 10 | 15 | 33 | 58 | 84 | 126 | 182 | 243 | 318 | 397 | 485 | 576 | 686 | 814 | 937 | 1083 | 1237 | 1380 | 1537 |
| Richmond, Va. | 29 | 61 | 89 | 137 | 194 | 254 | 327 | 425 | 517 | 620 | 733 | 858 | 984 | 1120 | 1279 | 1430 | 1608 | 1786 | 1962 | 2147 |
| Southeast: | | | | | | | | | | | | | | | | | | | | |
| Macon, Ga. | 58 | 127 | 195 | 278 | 375 | 471 | 580 | 715 | 858 | 999 | 1149 | 1314 | 1484 | 1656 | 1842 | 2029 | 2225 | 2421 | 2616 | 2814 |
| Raleigh, N.C. | 39 | 82 | 118 | 174 | 240 | 311 | 389 | 497 | 604 | 718 | 839 | 976 | 1113 | 1255 | 1420 | 1579 | 1757 | 1936 | 2113 | 2293 |
| Memphis, Tenn. | 39 | 85 | 127 | 183 | 258 | 337 | 429 | 539 | 659 | 793 | 935 | 1094 | 1257 | 1427 | 1618 | 1804 | 1999 | 2198 | 2398 | 2599 |
| Nashville, Tenn. | 35 | 74 | 109 | 158 | 222 | 288 | 363 | 474 | 585 | 705 | 831 | 974 | 1120 | 1276 | 1454 | 1626 | 1810 | 1998 | 2194 | 2376 |

LONG-TERM MEAN GROWING DEGREE DAYS (ADJUSTED 50° BASE):
ACCUMULATED WEEKLY MARCH 1 TO INDICATED DATES

| Station | July 26 | Aug. 2 | Aug. 9 | Aug. 16 | Aug. 23 | Aug. 30 | Sept. 6 | Sept. 13 | Sept. 20 | Sept. 27 | Oct. 4 | Oct. 11 | Oct. 18 | Oct. 25 | Nov. 1 | Nov. 8 | Nov. 15 | Nov. 22 | Nov. 29 | Dec. 6 |
|--------------------------|---------|--------|--------|---------|---------|---------|---------|----------|----------|----------|--------|---------|---------|---------|--------|--------|---------|---------|---------|--------|
| West: | | | | | | | | | | | | | | | | | | | | |
| Phoenix, Ariz. | 3274 | 3499 | 3721 | 3943 | 4161 | 4373 | 4582 | 4792 | 4986 | 5168 | 5347 | 5511 | 5664 | 5822 | 5930 | 6040 | 6141 | 6218 | 6297 | 6372 |
| Fresno, Calif. | 2422 | 2603 | 2773 | 2946 | 3115 | 3274 | 3436 | 3592 | 3734 | 3878 | 4016 | 4137 | 4250 | 4352 | 4446 | 4526 | 4596 | 4643 | 4683 | 4716 |
| Denver, Colo. | 1663 | 1818 | 1971 | 2118 | 2256 | 2394 | 2512 | 2630 | 2733 | 2815 | 2900 | 2981 | 3052 | 3111 | 3161 | 3193 | 3228 | 3271 | 3273 | 3292 |
| Pocatello, Idaho | 1389 | 1535 | 1677 | 1815 | 1943 | 2062 | 2172 | 2283 | 2372 | 2452 | 2527 | 2608 | 2665 | 2707 | 2739 | 2757 | 2771 | 2776 | 2780 | 2781 |
| Glasgow, Mont. | 1366 | 1511 | 1658 | 1794 | 1925 | 2037 | 2135 | 2229 | 2300 | 2365 | 2427 | 2498 | 2529 | 2559 | 2581 | 2606 | 2615 | 2620 | 2623 | 2624 |
| Pendleton, Ore. | 1611 | 1768 | 1919 | 2071 | 2214 | 2337 | 2465 | 2584 | 2685 | 2785 | 2863 | 2926 | 2981 | 3026 | 3057 | 3074 | 3087 | 3097 | 3109 | 3115 |
| North Central: | | | | | | | | | | | | | | | | | | | | |
| Des Moines, Iowa | 1880 | 2057 | 2228 | 2384 | 2535 | 2688 | 2822 | 2942 | 3044 | 3133 | 3218 | 3289 | 3371 | 3427 | 3467 | 3489 | 3512 | 3527 | 3534 | 3539 |
| Minneapolis, Minn. | 1572 | 1732 | 1889 | 2030 | 2167 | 2303 | 2418 | 2519 | 2600 | 2666 | 2725 | 2777 | 2826 | 2875 | 2901 | 2912 | 2921 | 2927 | 2928 | 2929 |
| North Platte, Nebr. | 1740 | 1906 | 2068 | 2216 | 2357 | 2503 | 2625 | 2740 | 2840 | 2935 | 3004 | 3071 | 3136 | 3213 | 3261 | 3288 | 3316 | 3334 | 3349 | 3360 |
| Omaha, Nebr. | 2039 | 2222 | 2401 | 2566 | 2734 | 2889 | 3031 | 3159 | 3268 | 3352 | 3430 | 3507 | 3574 | 3624 | 3671 | 3708 | 3735 | 3792 | 3802 | 3810 |
| Fargo, N. Dak. | 1405 | 1551 | 1696 | 1828 | 1957 | 2082 | 2186 | 2278 | 2353 | 2413 | 2468 | 2515 | 2565 | 2614 | 2616 | 2627 | 2632 | 2635 | 2635 | 2635 |
| Huron, S. Dak. | 1623 | 1783 | 1942 | 2088 | 2229 | 2373 | 2491 | 2598 | 2687 | 2761 | 2830 | 2890 | 2955 | 2998 | 3030 | 3048 | 3063 | 3072 | 3076 | 3078 |
| Green Bay, Wis. | 1324 | 1463 | 1597 | 1714 | 1828 | 1948 | 2057 | 2151 | 2228 | 2291 | 2346 | 2389 | 2442 | 2474 | 2495 | 2506 | 2513 | 2520 | 2521 | 2522 |
| Madison, Wis. | 1557 | 1708 | 1853 | 1986 | 2117 | 2249 | 2368 | 2471 | 2560 | 2633 | 2703 | 2759 | 2823 | 2863 | 2890 | 2907 | 2920 | 2929 | 2931 | 2934 |
| South Central: | | | | | | | | | | | | | | | | | | | | |
| Fort Smith, Ark. | 2754 | 2958 | 3157 | 3349 | 3540 | 3726 | 3905 | 4070 | 4229 | 4378 | 4508 | 4628 | 4747 | 4843 | 4925 | 4981 | 5045 | 5097 | 5138 | 5169 |
| Dodge City, Kans. | 2211 | 2398 | 2587 | 2761 | 2929 | 3103 | 3257 | 3399 | 3531 | 3641 | 3748 | 3847 | 3941 | 4020 | 4089 | 4105 | 4144 | 4172 | 4195 | 4213 |
| Topeka, Kans. | 2231 | 2420 | 2608 | 2779 | 2949 | 3120 | 3274 | 3414 | 3542 | 3655 | 3756 | 3849 | 3934 | 4010 | 4077 | 4111 | 4150 | 4178 | 4197 | 4211 |
| Wichita, Kans. | 2392 | 2590 | 2788 | 2971 | 3148 | 3328 | 3493 | 3645 | 3784 | 3905 | 4019 | 4121 | 4214 | 4298 | 4359 | 4396 | 4437 | 4467 | 4488 | 4504 |
| Shreveport, La. | 3124 | 3333 | 3542 | 3747 | 3951 | 4150 | 4345 | 4529 | 4709 | 4881 | 5034 | 5173 | 5309 | 5422 | 5521 | 5595 | 5674 | 5751 | 5814 | 5864 |
| Columbia, Mo. | 2226 | 2414 | 2598 | 2769 | 2937 | 3107 | 3263 | 3404 | 3535 | 3651 | 3756 | 3847 | 3934 | 4014 | 4089 | 4103 | 4144 | 4173 | 4192 | 4207 |
| St. Louis, Mo. | 2213 | 2507 | 2696 | 2872 | 3046 | 3220 | 3381 | 3527 | 3661 | 3784 | 3892 | 3984 | 4081 | 4151 | 4205 | 4239 | 4278 | 4308 | 4326 | 4340 |
| Oklahoma City, Okla. | 2629 | 2831 | 3032 | 3226 | 3415 | 3603 | 3779 | 3941 | 4095 | 4241 | 4367 | 4482 | 4587 | 4681 | 4759 | 4806 | 4865 | 4908 | 4942 | 4971 |
| Amarillo, Tex. | 2368 | 2552 | 2736 | 2911 | 3080 | 3250 | 3407 | 3553 | 3690 | 3813 | 3926 | 4029 | 4127 | 4205 | 4273 | 4317 | 4372 | 4414 | 4451 | 4484 |
| Corpus Christi, Tex. | 3704 | 3922 | 4138 | 4356 | 4573 | 4784 | 4998 | 5206 | 5411 | 5614 | 5798 | 5978 | 6154 | 6312 | 6452 | 6573 | 6691 | 6811 | 6917 | 7012 |
| Fort Worth, Tex. | 3132 | 3350 | 3567 | 3781 | 3990 | 4196 | 4397 | 4584 | 4766 | 4940 | 5094 | 5234 | 5376 | 5493 | 5592 | 5665 | 5746 | 5817 | 5877 | 5926 |
| Midland, Tex. | 2950 | 3149 | 3347 | 3541 | 3734 | 3920 | 4101 | 4270 | 4436 | 4593 | 4733 | 4864 | 4990 | 5093 | 5182 | 5246 | 5319 | 5381 | 5437 | 5483 |
| Midwest: | | | | | | | | | | | | | | | | | | | | |
| Chicago, Ill. | 1814 | 1989 | 2158 | 2316 | 2473 | 2631 | 2778 | 2905 | 3023 | 3123 | 3211 | 3283 | 3353 | 3415 | 3451 | 3473 | 3494 | 3512 | 3519 | 3524 |
| Moline, Ill. | 1863 | 2034 | 2206 | 2350 | 2499 | 2652 | 2787 | 2904 | 3014 | 3108 | 3193 | 3264 | 3345 | 3400 | 3439 | 3461 | 3484 | 3501 | 3508 | 3515 |
| Peoria, Ill. | 1922 | 2098 | 2266 | 2421 | 2574 | 2730 | 2871 | 2996 | 3110 | 3209 | 3295 | 3368 | 3448 | 3503 | 3542 | 3564 | 3589 | 3607 | 3615 | 3621 |
| Indianapolis, Ind. | 1987 | 2142 | 2308 | 2464 | 2618 | 2770 | 2915 | 3041 | 3161 | 3269 | 3360 | 3437 | 3519 | 3578 | 3618 | 3644 | 3672 | 3695 | 3706 | 3714 |
| Louisville, Ky. | 2301 | 2489 | 2673 | 2845 | 3018 | 3186 | 3353 | 3497 | 3630 | 3751 | 3859 | 3947 | 4011 | 4113 | 4166 | 4201 | 4241 | 4276 | 4296 | 4310 |
| Flint, Mich. | 1483 | 1628 | 1765 | 1893 | 2016 | 2145 | 2263 | 2364 | 2452 | 2527 | 2595 | 2652 | 2710 | 2752 | 2778 | 2796 | 2808 | 2820 | 2825 | 2825 |
| Grand Rapids, Mich. | 1560 | 1712 | 1858 | 1993 | 2125 | 2260 | 2387 | 2494 | 2590 | 2668 | 2740 | 2799 | 2862 | 2903 | 2931 | 2946 | 2961 | 2974 | 2979 | 2983 |
| Columbus, Ohio | 1917 | 2085 | 2247 | 2399 | 2553 | 2703 | 2849 | 2973 | 3087 | 3193 | 3282 | 3357 | 3436 | 3495 | 3533 | 3561 | 3585 | 3608 | 3620 | 3627 |
| Northeast: | | | | | | | | | | | | | | | | | | | | |
| Portland, Maine | 1164 | 1293 | 1411 | 1532 | 1646 | 1755 | 1856 | 1945 | 2018 | 2087 | 2145 | 2192 | 2236 | 2271 | 2293 | 2308 | 2315 | 2324 | 2328 | 2330 |
| Albany, N.Y. | 1557 | 1710 | 1851 | 1990 | 2123 | 2252 | 2378 | 2481 | 2568 | 2648 | 2717 | 2776 | 2833 | 2877 | 2905 | 2923 | 2934 | 2945 | 2950 | 2953 |
| Binghamton, N.Y. | 1334 | 1473 | 1601 | 1724 | 1844 | 1960 | 2077 | 2169 | 2245 | 2313 | 2372 | 2417 | 2468 | 2503 | 2524 | 2540 | 2548 | 2556 | 2562 | 2564 |
| Syracuse, N.Y. | 1511 | 1662 | 1805 | 1943 | 2072 | 2204 | 2333 | 2452 | 2565 | 2666 | 2767 | 2833 | 2900 | 2958 | 2983 | 2982 | 2986 | 2990 | 2991 | 2991 |
| Harrisburg, Pa. | 1925 | 2105 | 2270 | 2433 | 2593 | 2747 | 2902 | 3031 | 3148 | 3247 | 3336 | 3412 | 3485 | 3540 | 3578 | 3609 | 3631 | 3650 | 3659 | 3667 |
| Philadelphia, Pa. | 1969 | 2154 | 2323 | 2493 | 2660 | 2820 | 2985 | 3120 | 3244 | 3349 | 3444 | 3530 | 3606 | 3669 | 3712 | 3749 | 3785 | 3810 | 3815 | 3825 |
| Pittsburgh, Pa. | 1756 | 1917 | 2068 | 2214 | 2356 | 2497 | 2635 | 2751 | 2856 | 2946 | 3027 | 3092 | 3160 | 3211 | 3243 | 3267 | 3288 | 3310 | 3320 | 3327 |
| Williamsport, Pa. | 1697 | 1858 | 2006 | 2152 | 2294 | 2432 | 2569 | 2683 | 2784 | 2869 | 2946 | 3011 | 3076 | 3126 | 3158 | 3182 | 3197 | 3209 | 3219 | 3219 |
| Richmond, Va. | 2335 | 2521 | 2701 | 2881 | 3056 | 3224 | 3394 | 3539 | 3675 | 3794 | 3901 | 3997 | 4087 | 4160 | 4219 | 4272 | 4318 | 4363 | 4393 | 4415 |
| Southeast: | | | | | | | | | | | | | | | | | | | | |
| Macon, Ga. | 3014 | 3214 | 3415 | 3612 | 3808 | 3997 | 4185 | 4363 | 4532 | 4692 | 4839 | 4972 | 5095 | 5203 | 5292 | 5370 | 5441 | 5517 | 5574 | 5617 |
| Raleigh, N.C. | 2489 | 2678 | 2863 | 3046 | 3227 | 3399 | 3572 | 3725 | 3868 | 3997 | 4114 | 4217 | 4314 | 4395 | 4460 | 4518 | 4568 | 4623 | 4658 | 4683 |
| Memphis, Tenn. | 2804 | 3011 | 3214 | 3411 | 3604 | 3792 | 3974 | 4143 | 4303 | 4452 | 4584 | 4701 | 4816 | 4907 | 4981 | 5035 | 5093 | 5148 | 5187 | 5217 |
| Nashville, Tenn. | 2573 | 2770 | 2962 | 3145 | 3330 | 3508 | 3683 | 3842 | 3990 | 4125 | 4248 | 4354 | 4458 | 4540 | 4604 | 4650 | 4700 | 4746 | 4776 | 4800 |

Weather Data for the Week Ending July 5, 1981

| 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 June 1 | PCT. NORMAL SINCE June 1 | TOTAL, IN., SINCE Jan. 1 | PCT. NORMAL SINCE Jan. 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | TEMPERATURE °F | | PRECIPITATION | |
| | | | | | | | | | | | | | | | | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| AL BIRMINGHAM | 85 | 69 | 92 | 62 | 77 | -3 | 1.6 | .4 | .8 | 4.1 | 84 | 22.5 | 77 | 89 | 56 | 1 | 0 | 4 | 2 |
| AL MOBILE | 86 | 71 | 91 | 69 | 79 | -2 | 2.2 | .4 | 1.4 | 8.1 | 106 | 34.6 | 101 | 91 | 59 | 1 | 0 | 5 | 2 |
| AL MONTGOMERY | 85 | 70 | 92 | 68 | 78 | -3 | 2.4 | 1.3 | 1.8 | 5.4 | 108 | 28.3 | 105 | 87 | 58 | 1 | 0 | 3 | 2 |
| AK ANCHORAGE | 62 | 48 | 67 | 43 | 55 | -2 | .1 | .3 | .1 | .8 | 57 | 4.0 | 89 | 79 | 44 | 0 | 0 | 1 | 0 |
| AK BARRROW | 37 | 30 | 45 | 27 | 33 | -4 | .3 | .2 | .3 | .8 | 160 | -- | -- | 99 | 77 | 0 | 7 | 2 | 0 |
| AK FAIRBANKS | 61 | 32 | 67 | 26 | 53 | -8 | .3 | .1 | .3 | 2.1 | 116 | 3.6 | 86 | 89 | 41 | 0 | 5 | 4 | 0 |
| AK JUNEAU | 54 | 48 | 60 | 43 | 51 | -4 | 2.2 | 1.3 | 1.2 | 4.0 | 111 | 20.4 | 99 | 93 | 76 | 0 | 0 | 6 | 1 |
| AK KODIAK | 64 | 48 | 74 | 33 | 56 | 3 | .2 | .6 | .2 | 2.0 | 43 | 38.6 | 145 | 76 | 44 | 0 | 0 | 1 | 0 |
| AK NOME | 57 | 38 | 62 | 33 | 47 | -2 | .1 | .3 | .1 | .8 | 67 | 6.2 | 124 | 75 | 49 | 0 | 0 | 2 | 0 |
| AZ FLAGSTAFF | 83 | 53 | 89 | 50 | 68 | 4 | T | .4 | T | 1.0 | 111 | 9.8 | 118 | 76 | 23 | 0 | 0 | 1 | 0 |
| AZ PHOENIX | 107 | 84 | 111 | 79 | 96 | 7 | 0 | 0 | 0 | 0 | 0 | 3.1 | 119 | 38 | 13 | 7 | 0 | 0 | 0 |
| AZ TUCSON | 100 | 76 | 106 | 74 | 88 | 3 | T | .1 | T | .2 | 50 | 5.2 | 173 | 51 | 18 | 6 | 0 | 0 | 0 |
| AZ WINSLOW | 94 | 62 | 101 | 58 | 78 | 2 | .5 | .3 | .5 | .8 | 160 | 2.9 | 97 | -- | -- | 5 | 0 | 2 | 0 |
| AZ YUMA | 110 | 79 | 112 | 75 | 95 | 4 | T | 0 | T | T | +100 | 1.1 | 79 | 47 | 15 | 7 | 0 | 1 | 0 |
| AR FORT SMITH | 88 | 72 | 92 | 69 | 80 | -1 | .5 | .2 | .4 | 4.2 | 93 | 20.1 | 83 | 93 | 60 | 3 | 0 | 4 | 0 |
| AR LITTLE ROCK | 88 | 71 | 95 | 68 | 80 | -1 | 2.2 | 1.6 | 2.2 | 6.2 | 159 | 28.8 | 103 | 96 | 61 | 1 | 0 | 3 | 1 |
| CA BAKERSFIELD | 102 | 73 | 103 | 71 | 88 | 6 | 0 | 0 | 0 | 0 | 0 | 4.4 | 110 | 43 | 17 | 7 | 0 | 0 | 0 |
| CA EUREKA | 60 | 50 | 61 | 47 | 55 | -1 | T | .1 | T | .6 | 75 | 19.0 | 81 | 98 | 81 | 0 | 0 | 0 | 0 |
| CA FRESNO | 102 | 71 | 105 | 68 | 86 | 8 | 0 | 0 | 0 | 0 | 0 | 7.5 | 107 | 48 | 17 | 7 | 0 | 0 | 0 |
| CA LOS ANGELES | 80 | 64 | 96 | 62 | 72 | 5 | 0 | 0 | 0 | T | +100 | 6.6 | 84 | 84 | 52 | 1 | 0 | 0 | 0 |
| CA RED BLUFF | 100 | 70 | 106 | 65 | 85 | 5 | T | .1 | T | T | 0 | 16.3 | 119 | 63 | 19 | 6 | 0 | 0 | 0 |
| CA SAN DIEGO | 81 | 69 | 90 | 66 | 75 | 7 | 0 | 0 | 0 | +100 | 0 | 8.5 | 142 | 86 | 59 | 1 | 0 | 0 | 0 |
| CA SAN FRANCISCO | 74 | 53 | 83 | 52 | 63 | 1 | T | 0 | T | T | 0 | 12.2 | 99 | 90 | 48 | 0 | 0 | 0 | 0 |
| CA STOCKTON | 100 | 63 | 104 | 59 | 81 | 6 | 0 | 0 | 0 | 0 | 0 | 9.2 | 102 | 62 | 21 | 7 | 0 | 0 | 0 |
| CO DENVER | 85 | 60 | 90 | 57 | 72 | 2 | T | .4 | T | .7 | 30 | 8.5 | 92 | 75 | 31 | 2 | 0 | 0 | 0 |
| CO GRAND JUNCTION | 92 | 63 | 99 | 58 | 77 | 1 | T | 0 | T | .2 | 40 | 4.1 | 117 | 68 | 20 | 5 | 0 | 2 | 0 |
| CO PUEBLO | 89 | 63 | 97 | 58 | 76 | 1 | .5 | .2 | .4 | .7 | 41 | 3.0 | 48 | 87 | 33 | 4 | 0 | 2 | 0 |
| CT BRIDGEPORT | 76 | 64 | 83 | 56 | 70 | -2 | 2.7 | 2.1 | 1.3 | 4.8 | 150 | 15.8 | 84 | 96 | 67 | 0 | 0 | 4 | 2 |
| CT HARTFORD | 84 | 64 | 88 | 52 | 74 | 2 | 2.4 | 1.6 | .9 | 3.8 | 95 | 16.7 | 77 | 91 | 50 | 0 | 0 | 4 | 2 |
| DC WASHINGTON | 85 | 70 | 89 | 65 | 78 | 0 | 2.3 | 1.5 | 1.6 | 4.9 | 123 | 15.5 | 82 | 92 | 57 | 0 | 0 | 5 | 2 |
| FL APALACHICOLA | 85 | 70 | 90 | 63 | 77 | -4 | 3.7 | 2.0 | 1.7 | 4.5 | 69 | 13.3 | 53 | 86 | 61 | 1 | 0 | 3 | 2 |
| FL DAYTONA BEACH | 89 | 69 | 90 | 62 | 79 | -2 | T | 1.6 | T | 1.1 | 14 | 11.9 | 56 | 85 | 46 | 2 | 0 | 1 | 0 |
| FL FORT MYERS | 93 | 75 | 96 | 72 | 84 | 2 | .1 | 2.1 | .1 | 11.7 | 113 | 18.7 | 81 | 88 | 45 | 7 | 0 | 1 | 0 |
| FL JACKSONVILLE | 91 | 66 | 95 | 55 | 78 | -2 | T | 1.6 | T | 3.4 | 45 | 16.2 | 68 | 95 | 45 | 5 | 0 | 2 | 0 |
| FL KEY WEST | 88 | 80 | 90 | 79 | 84 | 0 | .3 | .8 | .3 | .9 | 17 | 5.3 | 35 | 87 | 65 | 1 | 0 | 1 | 0 |
| FL MIAMI | 89 | 76 | 94 | 74 | 83 | 1 | 1.9 | 0 | 1.1 | 6.3 | 61 | 18.0 | 68 | 88 | 54 | 3 | 0 | 3 | 2 |
| FL ORLANDO | 91 | 69 | 94 | 64 | 80 | -1 | 1.1 | .9 | 1.1 | 13.9 | 162 | 22.6 | 97 | 90 | 42 | 4 | 0 | 1 | 1 |
| FL TALLAHASSEE | 86 | 68 | 90 | 62 | 77 | -4 | 1.6 | .3 | .8 | 7.7 | 95 | 29.4 | 97 | 95 | 55 | 1 | 0 | 3 | 1 |
| FL TAMPA | 88 | 69 | 90 | 65 | 78 | -3 | 0 | 1.9 | 0 | 9.4 | 121 | 18.6 | 86 | 93 | 49 | 1 | 0 | 0 | 0 |
| FL WEST PALM BEACH | 90 | 75 | 91 | 70 | 82 | 1 | 1.0 | .7 | .6 | 5.5 | 59 | 18.8 | 73 | 85 | 53 | 5 | 0 | 4 | 1 |
| GA ATLANTA | 85 | 68 | 91 | 65 | 76 | -1 | .7 | .3 | .5 | 3.5 | 78 | 20.9 | 77 | 85 | 50 | 1 | 0 | 3 | 1 |
| GA AUGUSTA | 83 | 65 | 90 | 57 | 74 | -6 | .7 | .4 | .3 | 7.5 | 170 | 23.7 | 101 | 99 | 60 | 1 | 0 | 5 | 0 |
| GA MACON | 86 | 67 | 92 | 60 | 76 | -5 | .4 | .6 | .2 | 7.9 | 172 | 26.4 | 106 | 91 | 49 | 1 | 0 | 3 | 0 |
| GA SAVANNAH | 86 | 69 | 93 | 60 | 78 | -3 | .2 | 1.4 | .2 | 3.2 | 45 | 15.0 | 62 | 96 | 56 | 2 | 0 | 3 | 0 |
| HI HILO | 83 | 68 | 84 | 66 | 75 | 0 | .9 | .8 | .5 | 2.2 | 28 | -- | -- | 85 | 55 | 0 | 0 | 5 | 0 |
| HI HONOLULU | 88 | 72 | 90 | 70 | 80 | 2 | T | .1 | T | .1 | 20 | 4.5 | 34 | 80 | 49 | 1 | 0 | 1 | 0 |
| HI KAHULUI | 88 | 69 | 91 | 66 | 78 | 0 | T | 0 | T | 0 | -- | -- | -- | 70 | 47 | 2 | 0 | 1 | 0 |
| HI LIHUE | 86 | 72 | 88 | 70 | 79 | 1 | .3 | 0 | .1 | 1.1 | 55 | -- | -- | 88 | 58 | 0 | 0 | 3 | 0 |
| ID BOISE | 92 | 56 | 102 | 48 | 74 | 3 | T | .1 | T | .7 | 58 | 8.7 | 116 | 56 | 18 | 4 | 0 | 1 | 0 |
| ID LEWISTON | 89 | 57 | 99 | 49 | 73 | 3 | T | .3 | T | 1.9 | 86 | 8.0 | 100 | 69 | 22 | 3 | 0 | 1 | 0 |
| ID POCATELLO | 91 | 51 | 100 | 43 | 71 | 3 | T | .2 | T | .7 | 47 | 8.4 | 129 | 67 | 19 | 4 | 0 | 0 | 0 |
| IL CAIRO | 89 | 74 | 92 | 74 | 81 | 1 | 2.3 | 1.5 | 1.2 | 5. | 112 | 23.9 | 88 | -- | -- | 3 | 0 | 3 | 2 |
| IL CHICAGO | 82 | 63 | 96 | 59 | 73 | 2 | .6 | .3 | .4 | 4.7 | 100 | 19.7 | 115 | 97 | 59 | 1 | 0 | 3 | 0 |
| IL MOLINE | 83 | 65 | 89 | 61 | 74 | 0 | 2.6 | 1.5 | 1.6 | 6.4 | 123 | 15.7 | 84 | 94 | 62 | 0 | 0 | 4 | 2 |
| IL PEORIA | 84 | 68 | 91 | 64 | 76 | 2 | 1.2 | .3 | 1.1 | 7.3 | 162 | 22.4 | 118 | 93 | 66 | 1 | 0 | 2 | 1 |
| IL ROCKFORD | 83 | 65 | 86 | 61 | 74 | 2 | .2 | .8 | .2 | 5.9 | 113 | 16.3 | 88 | 90 | 55 | 0 | 0 | 1 | 0 |
| IL SPRINGFIELD | 87 | 68 | 94 | 65 | 77 | 2 | 3.1 | 2.1 | 3.0 | 9.0 | 180 | 24.5 | 130 | 95 | 58 | 3 | 0 | 2 | 1 |
| IN EVANSVILLE | 87 | 70 | 93 | 66 | 78 | 1 | 3.1 | 2.3 | 2.3 | 4.9 | 123 | 25.4 | 105 | 98 | 61 | 2 | 0 | 5 | 2 |
| IN FORT WAYNE | 81 | 67 | 87 | 64 | 74 | 1 | 1.8 | .9 | 1.8 | 7.9 | 172 | 22.1 | 113 | 82 | 55 | 0 | 0 | 2 | 1 |
| IN INDIANAPOLIS | 83 | 68 | 90 | 64 | 75 | 1 | 1.8 | .9 | .9 | 3.4 | 71 | 23.0 | 106 | 88 | 57 | 1 | 0 | 4 | 2 |
| IN SOUTH BEND | 82 | 65 | 90 | 60 | 74 | 2 | T | .9 | T | 7.0 | 159 | 22.7 | 121 | 93 | 60 | 1 | 0 | 1 | 0 |
| IA BURLINGTON | 83 | 66 | 89 | 61 | 74 | 0 | 3.2 | 2.2 | 1.2 | 10.2 | 192 | 22.6 | 124 | 96 | 69 | 0 | 0 | 5 | 3 |
| IA DES MOINES | 83 | 69 | 87 | 65 | 76 | 2 | 3.7 | 2.8 | 3.2 | 8.0 | 143 | 14.4 | 84 | 83 | 54 | 0 | 0 | 2 | 2 |
| IA DUBUQUE | 81 | 67 | 85 | 59 | 74 | 3 | .1 | 1.0 | .1 | 6.6 | 106 | 16.6 | 79 | 88 | 55 | 0 | 0 | 1 | 0 |
| IA SIOUX CITY | 82 | 64 | 86 | 58 | 73 | -1 | 2.7 | 1.7 | 2.3 | 5.5 | 106 | 10.4 | 73 | 87 | 54 | 0 | 0 | 3 | 1 |
| KS CONCORDIA | 84 | 66 | 88 | 64 | 75 | -1 | 1.8 | .9 | 1.0 | 6.3 | 113 | 16.7 | 111 | 98 | 55 | 0 | 0 | 3 | 1 |
| KS DODGE CITY | 89 | 69 | 94 | 63 | 79 | 1 | 2.2 | 1.5 | .9 | 3.4 | 87 | 12.1 | 110 | 86 | 44 | 3 | 0 | 4 | 2 |
| KS GOODLAND | 85 | 61 | 94 | 57 | 73 | -1 | .6 | .1 | .4 | .9 | 26 | 17.6 | 193 | 92 | 42 | 1 | 0 | 3 | 0 |
| KS TOPEKA | 86 | 70 | 89 | 67 | 78 | 1 | 1.4 | .2 | .8 | 9.9 | 148 | 20.0 | 109 | 90 | 63 | 0 | 0 | 3 | 1 |
| KS WICHITA | 86 | 70 | 92 | 68 | 78 | -1 | 1.1 | 0 | .9 | 4.5 | 85 | 14.0 | 90 | 91 | 56 | 1 | 0 | 2 | 1 |
| KY LEXINGTON | 81 | 66 | 89 | 63 | 74 | -2 | 2.4 | 1.3 | .7 | 4.7 | 92 | 21.4 | 85 | 94 | 60 | 0 | 0 | 5 | 2 |
| KY LOUISVILLE | 84 | 68 | 90 | 66 | 76 | 0 | 1.5 | .6 | .7 | 4.8 | 102 | 18.9 | 76 | 89 | 61 | 2 | 0 | 4 | 2 |
| LA BATON ROUGE | 86 | 72 | 91 | 70 | 79 | -3 | 2.8 | 1.5 | 1.3 | 7.6 | 158 | 25.4 | 89 | 98 | 66 | 1 | 0 | 3 | 2 |

+100 = NORMAL & ACTUAL NEAR THE SAME

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending July 5, 1981

| 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 June 1 | PCT. NORMAL SINCE June 1 | TOTAL, IN., SINCE Jan. 1 | PCT. NORMAL SINCE Jan. 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | TEMPERATURE °F | | PRECIPITATION | |
| | | | | | | | | | | | | | | | | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| LAKE CHARLES | 87 | 74 | 90 | 72 | 80 | -2 | 2.1 | -.7 | 1.4 | 16.4 | 265 | 30.6 | 109 | 97 | 69 | 1 | 0 | 4 | 1 |
| NEW ORLEANS | 88 | 73 | 91 | 70 | 80 | -1 | 1.0 | -.5 | .5 | 9.4 | 162 | 29.1 | 100 | 97 | 67 | 3 | 0 | 6 | 0 |
| SHREVEPORT | 87 | 72 | 93 | 70 | 80 | -2 | 1.1 | -.4 | 1.0 | 7.5 | 192 | 27.9 | 107 | 99 | 65 | 2 | 0 | 2 | 1 |
| ME CARIBOU | 82 | 62 | 87 | 55 | 72 | 9 | T | -.8 | T | 4.2 | 102 | 17.3 | 108 | 82 | 51 | 0 | 0 | 2 | 0 |
| PORTLAND | 74 | 59 | 81 | 50 | 66 | 0 | -.9 | -.3 | .8 | 5.5 | 153 | 20.7 | 99 | 99 | 73 | 0 | 0 | 2 | 1 |
| MD BALTIMORE | 82 | 66 | 86 | 56 | 74 | -1 | 2.6 | 1.7 | 2.3 | 8.0 | 186 | 18.3 | 91 | 90 | 59 | 0 | 0 | 4 | 1 |
| MA BOSTON | 75 | 61 | 82 | 56 | 68 | -4 | -.8 | -.2 | .7 | 2.5 | 69 | 14.9 | 69 | 95 | 65 | 0 | 0 | 4 | 1 |
| CHATHAM | 70 | 59 | 74 | 57 | 65 | -1 | -.4 | -.1 | .3 | 5.5 | - | 21.5 | - | 96 | 82 | 0 | 0 | 3 | 0 |
| MI ALPENA | 79 | 57 | 85 | 50 | 68 | 4 | -.5 | -.1 | .4 | 2.4 | 73 | 10.4 | 77 | 97 | 55 | 0 | 0 | 2 | 0 |
| DETROIT | 83 | 64 | 90 | 63 | 74 | 2 | T | -.7 | T | 3.3 | 85 | 13.8 | 83 | 84 | 54 | 1 | 0 | 1 | 0 |
| FLINT | 80 | 62 | 90 | 59 | 71 | 2 | 1.4 | -.6 | 1.1 | 4.4 | 112 | 15.2 | 100 | 94 | 54 | 1 | 0 | 4 | 1 |
| GRAND RAPIDS | 84 | 62 | 92 | 58 | 73 | 3 | .3 | -.5 | .2 | 4.3 | 105 | 22.4 | 135 | 95 | 55 | 1 | 0 | 2 | 1 |
| HOUGHTON LAKE | 80 | 59 | 83 | 51 | 69 | 4 | 2.2 | 1.5 | 2.1 | 4.1 | 105 | 13.8 | 99 | 98 | 54 | 0 | 0 | 2 | 0 |
| LANSING | 83 | 62 | 91 | 58 | 72 | 2 | T | -.7 | T | 3.3 | 85 | 16.2 | 101 | 98 | 56 | 1 | 0 | 1 | 0 |
| MARQUETTE | 77 | 52 | 83 | 41 | 64 | 1 | .3 | -.6 | .1 | 6.6 | 138 | 18.7 | 111 | 95 | 48 | 0 | 0 | 2 | 0 |
| MUSKEGON | 82 | 62 | 84 | 57 | 72 | 3 | .4 | -.2 | .3 | 3.8 | 127 | 14.9 | 97 | 95 | 54 | 0 | 0 | 2 | 0 |
| SAULT STE. MARIE | 77 | 52 | 81 | 43 | 65 | 2 | 1.2 | -.5 | 1.2 | 5.6 | 143 | 14.4 | 100 | 100 | 66 | 0 | 0 | 2 | 1 |
| MN DULUTH | 75 | 51 | 84 | 44 | 63 | 0 | -.2 | -.8 | .2 | 5.9 | 113 | 14.3 | 96 | 95 | 54 | 0 | 0 | 1 | 0 |
| INT'L FALLS | 82 | 55 | 92 | 49 | 69 | 4 | -.2 | -.7 | .2 | 3.9 | 87 | 9.6 | 82 | 77 | 40 | 1 | 0 | 2 | 0 |
| MINNEAPOLIS | 82 | 61 | 87 | 58 | 71 | 1 | T | -.9 | T | 4.4 | 98 | 11.8 | 89 | 87 | 44 | 0 | 0 | 0 | 0 |
| ROCHESTER | 81 | 58 | 86 | 54 | 70 | 0 | .3 | -.7 | .3 | 3.4 | 63 | 11.4 | 81 | 98 | 56 | 0 | 0 | 1 | 0 |
| SAINT CLOUD | 83 | 58 | 88 | 54 | 71 | -2 | -.2 | -.7 | .2 | 6.9 | 132 | 14.3 | 100 | 77 | 43 | 0 | 0 | 1 | 0 |
| MS JACKSON | 87 | 71 | 93 | 69 | 79 | -2 | 6.1 | 5.2 | 4.9 | 9.8 | 233 | 28.2 | 100 | 96 | 63 | 3 | 0 | 4 | 2 |
| MERIDIAN | 88 | 69 | 95 | 63 | 78 | -3 | 1.0 | -.1 | .6 | 3.6 | 78 | 26.4 | 92 | 91 | 57 | 3 | 0 | 2 | 1 |
| MO COLUMBIA | 83 | 70 | 90 | 68 | 77 | 1 | 1.8 | .8 | .8 | 9.0 | 170 | 25.5 | 126 | 95 | 65 | 1 | 0 | 4 | 1 |
| KANSAS CITY | 83 | 70 | 88 | 68 | 77 | 0 | 2.9 | 1.8 | 2.5 | 7.9 | 127 | 21.5 | 112 | 100 | 65 | 0 | 0 | 3 | 1 |
| SAINT LOUIS | 84 | 71 | 90 | 68 | 78 | 0 | 1.1 | -.1 | .6 | 6.9 | 130 | 22.9 | 115 | 96 | 64 | 1 | 0 | 4 | 1 |
| SPRINGFIELD | 88 | 69 | 93 | 67 | 78 | 2 | 1.5 | .5 | 1.3 | 8.5 | 157 | 22.7 | 104 | 96 | 61 | 2 | 0 | 2 | 1 |
| MT BILLINGS | 95 | 59 | 104 | 49 | 77 | 8 | T | -.3 | T | 1.7 | 61 | 11.6 | 132 | 62 | 23 | 6 | 0 | 1 | 0 |
| GLASGOW | 92 | 55 | 103 | 43 | 74 | 6 | 0 | -.5 | 0 | 1.9 | 63 | 4.7 | 75 | 59 | 16 | 4 | 0 | 0 | 0 |
| GREAT FALLS | 89 | 53 | 101 | 42 | 71 | 5 | T | -.5 | T | 1.3 | 36 | 9.8 | 101 | 59 | 17 | 4 | 0 | 1 | 0 |
| HAVRE | 89 | 49 | 99 | 41 | 69 | 2 | -.2 | -.3 | .1 | 1.4 | 48 | 4.9 | 70 | 79 | 17 | 4 | 0 | 2 | 0 |
| HELENA | 90 | 49 | 102 | 41 | 69 | 4 | T | -.4 | T | 1.1 | 41 | 9.3 | 139 | 69 | 18 | 4 | 0 | 1 | 0 |
| KALISPELL | 81 | 43 | 90 | 38 | 62 | 1 | -.1 | -.3 | .1 | 3.7 | 137 | 13.0 | 140 | 88 | 31 | 1 | 0 | 2 | 0 |
| MILES CITY | 93 | 63 | 102 | 53 | 78 | 7 | T | -.6 | T | 2.6 | 70 | 6.1 | 70 | 63 | 23 | 4 | 0 | 0 | 0 |
| MISSOULA | 87 | 49 | 96 | 43 | 68 | 4 | .3 | -.1 | .2 | 2.8 | 117 | 9.9 | 127 | 84 | 27 | 3 | 0 | 2 | 0 |
| NE GRAND ISLAND | 83 | 64 | 90 | 59 | 74 | -1 | 1.2 | -.3 | 1.0 | 1.7 | 33 | 10.8 | 78 | 99 | 53 | 1 | 0 | 3 | 1 |
| LINCOLN | 88 | 67 | 92 | 62 | 77 | 2 | 1.1 | -.9 | .1 | 1.0 | 18 | 8.1 | 55 | 93 | 49 | 2 | 0 | 3 | 0 |
| NORFOLK | 83 | 63 | 88 | 57 | 73 | -1 | .7 | -.2 | .4 | 3.9 | 70 | 9.4 | 67 | 93 | 48 | 0 | 0 | 3 | 0 |
| NORTH PLATTE | 83 | 59 | 90 | 54 | 71 | -2 | -.2 | -.6 | -.1 | 2.4 | 55 | 13.3 | 117 | 98 | 48 | 1 | 0 | 2 | 0 |
| OMAHA | 82 | 66 | 87 | 62 | 74 | 0 | .7 | -.3 | .6 | 2.1 | 38 | 9.1 | 58 | 90 | 60 | 0 | 0 | 4 | 1 |
| VALENTINE | 85 | 59 | 92 | 54 | 72 | 1 | 2.7 | 2.0 | 2.5 | 4.0 | 95 | 8.2 | 78 | 86 | 36 | 2 | 0 | 2 | 1 |
| NV ELY | 88 | 48 | 93 | 45 | 68 | 4 | T | -.2 | T | .2 | 18 | 5.7 | 121 | 58 | 15 | 2 | 0 | 0 | 0 |
| LAS VEGAS | 106 | 77 | 112 | 72 | 92 | 5 | T | -.1 | T | T | 0 | 2.2 | 110 | 23 | 9 | 7 | 0 | 0 | 0 |
| RENO | 95 | 53 | 99 | 46 | 74 | 7 | T | -.1 | T | T | 0 | 2.5 | 57 | 60 | 14 | 6 | 0 | 1 | 0 |
| WINNEMUCCA | 97 | 55 | 105 | 49 | 76 | 8 | T | -.1 | T | T | 0 | 4.1 | 80 | 39 | 11 | 7 | 0 | 1 | 0 |
| NH CONCORD | 80 | 60 | 87 | 50 | 70 | 2 | 1.8 | 1.1 | 1.5 | 4.7 | 121 | 20.1 | 114 | 97 | 55 | 0 | 0 | 2 | 1 |
| NJ ATLANTIC CITY | 79 | 64 | 86 | 51 | 71 | -3 | .8 | -.1 | .7 | 5.7 | 139 | 20.8 | 93 | 94 | 62 | 0 | 0 | 2 | 1 |
| TRENTON | 81 | 67 | 87 | 62 | 74 | 0 | 1.8 | .8 | 1.7 | 6.3 | 162 | 19.2 | 97 | 98 | 60 | 0 | 0 | 3 | 1 |
| NM ALBUQUERQUE | 89 | 65 | 97 | 62 | 77 | -1 | -.8 | -.5 | -.5 | .9 | 129 | 3.3 | 110 | 74 | 32 | 4 | 0 | 3 | 1 |
| ROSWELL | 91 | 67 | 94 | 61 | 79 | 0 | 3.2 | 2.8 | 3.1 | 4.7 | 313 | 9.6 | 218 | 88 | 37 | 6 | 0 | 2 | 1 |
| NY ALBANY | 82 | 57 | 86 | 44 | 69 | -2 | 1.1 | -.4 | .5 | 3.8 | 109 | 14.1 | 86 | 96 | 51 | 0 | 0 | 4 | 1 |
| BINGHAMTON | 77 | 62 | 83 | 58 | 70 | 2 | -.2 | -.6 | .1 | 3.6 | 90 | 14.3 | 76 | 86 | 56 | 0 | 0 | 3 | 0 |
| BUFFALO | 84 | 66 | 86 | 64 | 75 | 6 | 1.1 | -.6 | .7 | 4.0 | 154 | 15.9 | 94 | 92 | 53 | 0 | 0 | 4 | 1 |
| NEW YORK | 80 | 67 | 89 | 65 | 74 | -2 | 3.1 | 2.3 | 2.1 | 5.5 | 153 | 18.8 | 92 | 95 | 57 | 0 | 0 | 5 | 2 |
| ROCHESTER | 83 | 66 | 88 | 61 | 74 | 4 | 1.0 | -.3 | .5 | 3.7 | 123 | 13.5 | 85 | 92 | 59 | 0 | 0 | 3 | 1 |
| SYRACUSE | 86 | 64 | 91 | 55 | 75 | 4 | -.1 | -.6 | -.1 | 2.0 | 57 | 11.7 | 65 | 89 | 47 | 1 | 0 | 1 | 0 |
| NC ASHEVILLE | 78 | 60 | 83 | 53 | 69 | -4 | .6 | -.4 | .3 | 4.6 | 100 | 22.7 | 97 | 100 | 64 | 0 | 0 | 5 | 0 |
| CHARLOTTE | 81 | 64 | 87 | 58 | 73 | -6 | 1.7 | -.7 | 1.3 | 3.6 | 78 | 15.6 | 68 | 91 | 56 | 0 | 0 | 4 | 1 |
| GREENSBORO | 82 | 63 | 88 | 54 | 72 | -4 | 2.3 | 1.3 | 1.4 | 5.2 | 113 | 15.9 | 76 | 94 | 55 | 0 | 0 | 3 | 1 |
| HATTERAS | 82 | 68 | 85 | 63 | 75 | -2 | 1.9 | -.6 | 1.4 | 5.8 | 100 | 18.9 | 76 | 89 | 60 | 0 | 0 | 2 | 1 |
| RALEIGH | 84 | 67 | 91 | 57 | 75 | -1 | 4.6 | 3.6 | 1.5 | 5.1 | 116 | 16.8 | 80 | 90 | 53 | 2 | 0 | 5 | 4 |
| WILMINGTON | 83 | 66 | 89 | 56 | 75 | -5 | .9 | -.8 | .6 | 3.2 | 47 | 16.8 | 69 | 96 | 57 | 0 | 0 | 4 | 1 |
| ND BISMARCK | 88 | 53 | 100 | 46 | 70 | 2 | -.1 | -.6 | .1 | 1.8 | 44 | 4.0 | 43 | 92 | 31 | 3 | 0 | 1 | 0 |
| FARGO | 82 | 59 | 90 | 52 | 71 | 2 | .6 | -.2 | .6 | 3.2 | 82 | 8.5 | 85 | 88 | 47 | 1 | 0 | 2 | 1 |
| WILLISTON | 91 | 59 | 99 | 49 | 75 | 7 | 0 | -.6 | 0 | 3.6 | 97 | 5.9 | 75 | 79 | 32 | 5 | 0 | 0 | 0 |
| OH AKRON-CANTON | 83 | 64 | 92 | 62 | 74 | 2 | 2.3 | 1.4 | 1.5 | 8.0 | 190 | 27.7 | 142 | 87 | 52 | 1 | 0 | 2 | 2 |
| CINCINNATI | 83 | 66 | 90 | 64 | 75 | 0 | 1.3 | -.4 | .4 | 4.7 | 104 | 21.3 | 96 | 97 | 63 | 2 | 0 | 5 | 0 |
| CLEVELAND | 84 | 66 | 88 | 63 | 75 | 4 | .3 | -.5 | .3 | 5.1 | 128 | 17.1 | 89 | 85 | 52 | 0 | 0 | 2 | 0 |
| COLUMBUS | 82 | 65 | 87 | 62 | 73 | 0 | .5 | -.4 | .4 | 6.3 | 129 | 24.8 | 118 | 90 | 62 | 0 | 0 | 4 | 0 |
| DAYTON | 85 | 68 | 92 | 66 | 76 | 2 | 2.0 | 1.2 | 1.6 | 8.4 | 186 | 23.2 | 116 | 92 | 56 | 2 | 0 | 6 | 1 |
| TOLEDO | 83 | 64 | 90 | 60 | 73 | 1 | .5 | -.3 | .3 | 9.1 | 228 | 19.1 | 115 | 87 | 58 | 1 | 0 | 3 | 0 |
| YOUNGSTOWN | 84 | 66 | 91 | 62 | 75 | 5 | .9 | -.1 | .9 | 4.2 | 100 | 19.9 | 99 | 78 | 53 | 1 | 0 | 2 | 1 |
| OK OKLAHOMA CITY | 88 | 72 | 94 | 67 | 80 | 0 | 2.9 | 2.1 | 2.3 | 8.0 | 167 | 17.8 | 98 | 94 | 56 | 3 | 0 | 3 | 1 |

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

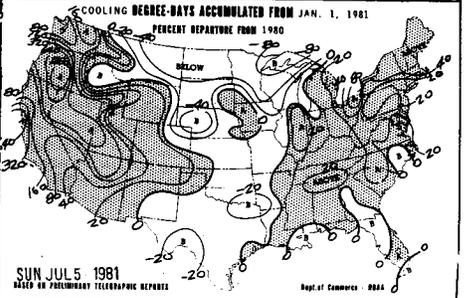
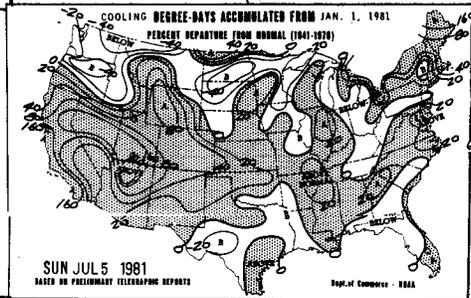
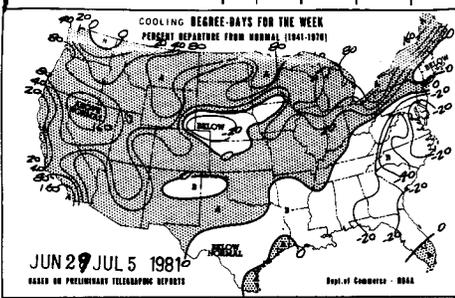
Weather Data for the Week Ending July 5, 1981

| 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 June 1 | PCT. NORMAL SINCE June 1 | TOTAL, IN., SINCE Jan. 1 | PCT. NORMAL SINCE Jan. 1 | AVERAGE MAXIMUM | AVERAGE MINIMUM | TEMPERA- TURE °F | | PRECIPI- TATION | |
| | | | | | | | | | | | | | | | | 90 AND ABOVE | 32 AND BELOW | .01 INCH OR MORE | .50 INCH OR MORE |
| OR TULSA | 90 | 73 | 95 | 71 | 82 | 1 | .1 | -.9 | .1 | 3.4 | 64 | 16.1 | 79 | 98 | 62 | 5 | 0 | 1 | 0 |
| OR ASTORIA | 70 | 53 | 77 | 47 | 62 | 3 | .1 | -.3 | .1 | 5.7 | 204 | 33.0 | 96 | 83 | 60 | 0 | 0 | 1 | 0 |
| OR BURNS | 88 | 48 | 97 | 41 | 68 | 3 | T | -.1 | T | .5 | 45 | 6.9 | 106 | 61 | 0 | 0 | 0 | 0 | |
| OR MEDFORD | 95 | 56 | 103 | 48 | 75 | 6 | T | -.1 | T | .5 | 50 | 5.9 | 55 | 75 | 23 | 5 | 0 | 1 | 0 |
| OR PENDLETON | 88 | 57 | 99 | 51 | 73 | 2 | T | -.1 | T | 1.5 | 150 | 8.1 | 111 | 62 | 21 | 2 | 0 | 1 | 0 |
| OR PORTLAND | 82 | 56 | 91 | 50 | 69 | 4 | .1 | -.1 | T | 3.3 | 194 | 15.2 | 78 | 89 | 42 | 2 | 0 | 2 | 0 |
| OR SALEM | 83 | 51 | 91 | 46 | 67 | 2 | T | -.2 | T | 3.4 | 213 | 16.5 | 75 | 95 | 38 | 3 | 0 | 0 | 0 |
| PA ALLENTOWN | 81 | 67 | 85 | 57 | 74 | 1 | 1.0 | 0 | .7 | 6.7 | 163 | 21.0 | 100 | 90 | 55 | 0 | 0 | 3 | 1 |
| PA ERIE | 83 | 67 | 88 | 65 | 75 | 7 | .2 | -.7 | .1 | 5.1 | 130 | 21.0 | 113 | 82 | 50 | 0 | 0 | 3 | 0 |
| PA HARRISBURG | 82 | 65 | 87 | 55 | 73 | -2 | 1.4 | -.6 | .9 | 6.0 | 162 | 18.0 | 96 | 91 | 58 | 0 | 0 | 3 | 1 |
| PA PHILADELPHIA | 80 | 65 | 85 | 57 | 73 | -3 | 2.6 | 1.7 | 2.3 | 7.0 | 163 | 20.3 | 101 | 94 | 60 | 0 | 0 | 3 | 1 |
| PA PITTSBURGH | 81 | 62 | 87 | 57 | 72 | 0 | 1.3 | .5 | .9 | 8.7 | 212 | 22.3 | 113 | 91 | 55 | 0 | 0 | 4 | 1 |
| PA SCRANTON | 80 | 64 | 87 | 54 | 72 | 1 | 1.0 | .1 | .4 | 4.5 | 107 | 20.4 | 117 | 83 | 55 | 0 | 0 | 4 | 0 |
| RI PROVIDENCE | 82 | 64 | 89 | 54 | 73 | 3 | 1.7 | 1.1 | 1.2 | 4.0 | 129 | 16.2 | 77 | 96 | 63 | 0 | 0 | 3 | 1 |
| SC CHARLESTON | 84 | 68 | 90 | 60 | 76 | -4 | 7.3 | 5.5 | 5.4 | 13.2 | 174 | 24.8 | 98 | 97 | 59 | 1 | 0 | 3 | 2 |
| SC COLUMBIA | 83 | 65 | 89 | 54 | 74 | -7 | 2.5 | 1.4 | 1.7 | 7.8 | 166 | 20.2 | 86 | 97 | 57 | 0 | 0 | 3 | 1 |
| SC GREENVILLE | 83 | 66 | 89 | 60 | 74 | -4 | 2.5 | 1.5 | 1.2 | 3.6 | 77 | 16.1 | 63 | 91 | 55 | 0 | 0 | 6 | 2 |
| SD ABERDEEN | 89 | 58 | 100 | 48 | 73 | 4 | .3 | -.5 | .3 | 2.4 | 56 | 6.6 | 62 | 90 | 36 | 3 | 0 | 1 | 0 |
| SD HURON | 90 | 63 | 99 | 56 | 77 | 5 | .6 | -.1 | .4 | 2.1 | 50 | 5.0 | 44 | 91 | 35 | 4 | 0 | 2 | 0 |
| SD RAPID CITY | 88 | 57 | 97 | 47 | 73 | 3 | .7 | -.1 | .7 | 2.6 | 62 | 6.1 | 54 | 85 | 33 | 4 | 0 | 2 | 1 |
| SD SIOUX FALLS | 84 | 62 | 88 | 55 | 73 | -2 | 2.1 | 1.2 | 2.0 | 6.0 | 118 | 9.4 | 68 | 83 | 43 | 0 | 0 | 3 | 1 |
| TN CHATTANOOGA | 85 | 67 | 91 | 62 | 76 | -2 | 1.7 | .6 | 1.6 | 5.5 | 122 | 24.0 | 87 | 87 | 53 | 1 | 0 | 3 | 1 |
| TN KNOXVILLE | 85 | 67 | 90 | 63 | 76 | -2 | 1.1 | .1 | .6 | 6.6 | 150 | 22.0 | 86 | 98 | 61 | 1 | 0 | 4 | 1 |
| TN MEMPHIS | 89 | 74 | 93 | 72 | 82 | 1 | 1.3 | .6 | 1.0 | 3.8 | 95 | 24.5 | 86 | 84 | 54 | 3 | 0 | 3 | 1 |
| TN NASHVILLE | 84 | 68 | 89 | 66 | 76 | -3 | .5 | -.3 | .3 | 8.6 | 215 | 25.3 | 96 | 90 | 55 | 0 | 0 | 3 | 0 |
| TX ABILENE | 95 | 73 | 98 | 71 | 84 | 1 | 1.7 | 1.1 | 1.1 | 4.4 | 133 | 13.9 | 109 | 87 | 37 | 7 | 0 | 3 | 1 |
| TX AMARILLO | 91 | 63 | 96 | 58 | 77 | -1 | .3 | -.4 | .3 | 1.1 | 28 | 6.4 | 69 | 87 | 35 | 5 | 0 | 4 | 0 |
| TX AUSTIN | 90 | 75 | 94 | 71 | 82 | -1 | 2.1 | 1.6 | 2.1 | 17.1 | 489 | 33.0 | 182 | 91 | 54 | 5 | 0 | 1 | 1 |
| TX BEAUMONT | 90 | 74 | 94 | 71 | 82 | -1 | 5.3 | 4.1 | 2.5 | 14.0 | 241 | 28.7 | 110 | 100 | 65 | 4 | 0 | 5 | 4 |
| TX BROWNSVILLE | 94 | 76 | 95 | 75 | 85 | 1 | .1 | -.3 | .1 | 2.3 | 77 | 14.7 | 140 | 90 | 50 | 7 | 0 | 2 | 0 |
| TX CORPUS CHRISTI | 92 | 76 | 94 | 74 | 84 | 0 | 1.2 | .8 | 1.1 | 4.2 | 135 | 20.6 | 158 | 92 | 52 | 7 | 0 | 2 | 1 |
| TX DEL RIO | 93 | 73 | 95 | 72 | 83 | -3 | 0 | -.3 | 0 | 5.6 | 255 | 17.5 | 201 | 92 | 49 | 6 | 0 | 0 | 0 |
| TX EL PASO | 95 | 70 | 103 | 69 | 83 | 1 | .2 | -.1 | .2 | .6 | 75 | 3.9 | 139 | 85 | 30 | 5 | 0 | 2 | 0 |
| TX FORT WORTH | 95 | 74 | 99 | 72 | 84 | 1 | 1.8 | 1.3 | 1.2 | 9.7 | 277 | 24.1 | 127 | 92 | 49 | 7 | 0 | 2 | 2 |
| TX GALVESTON | 87 | 79 | 90 | 71 | 83 | 0 | 3.5 | 2.5 | 2.9 | 14.2 | 289 | 22.6 | 120 | 83 | 68 | 1 | 0 | 3 | 2 |
| TX HOUSTON | 92 | 74 | 94 | 72 | 83 | 0 | 1.8 | .8 | 1.5 | 11.4 | 215 | 29.3 | 123 | 92 | 54 | 7 | 0 | 3 | 1 |
| TX LUBBOCK | 92 | 69 | 95 | 63 | 80 | 1 | 1.0 | .4 | 1.0 | 1.8 | 55 | 7.2 | 77 | 84 | 36 | 6 | 0 | 2 | 1 |
| TX MIDLAND | 96 | 68 | 100 | 65 | 82 | 0 | .1 | -.3 | .1 | .5 | 28 | 6.6 | 108 | 82 | 26 | 7 | 0 | 1 | 0 |
| TX SAN ANGELO | 92 | 69 | 95 | 66 | 80 | -4 | 2.7 | 2.3 | 2.3 | 4.7 | 224 | 17.4 | 196 | 91 | 41 | 6 | 0 | 2 | 1 |
| TX SAN ANTONIO | 89 | 75 | 92 | 72 | 82 | -2 | .5 | .1 | .3 | 8.9 | 278 | 23.5 | 164 | 99 | 59 | 4 | 0 | 3 | 0 |
| TX VICTORIA | 90 | 75 | 93 | 71 | 83 | -1 | 1.6 | .9 | .7 | 10.7 | 274 | 25.1 | 152 | 96 | 58 | 5 | 0 | 5 | 2 |
| TX WACO | 93 | 75 | 95 | 72 | 84 | -1 | .1 | -.3 | .1 | 7.3 | 235 | 18.0 | 98 | 93 | 52 | 6 | 0 | 2 | 0 |
| TX WICHITA FALLS | 94 | 74 | 99 | 73 | 84 | 0 | 1.1 | .5 | 1.1 | 5.7 | 150 | 18.6 | 118 | 84 | 40 | 6 | 0 | 1 | 1 |
| UT BLANDING | 87 | 59 | 98 | 54 | 73 | 2 | .3 | -.1 | .2 | .7 | 117 | 5.3 | 110 | 69 | 28 | 2 | 0 | 3 | 0 |
| UT SALT LAKE CITY | 92 | 62 | 100 | 56 | 77 | 4 | .1 | -.1 | .1 | 1.1 | 73 | 8.9 | 96 | 56 | 18 | 5 | 0 | 1 | 0 |
| VT BURLINGTON | 84 | 64 | 88 | 54 | 74 | 6 | .8 | 0 | .8 | 3.8 | 95 | 18.0 | 123 | 86 | 46 | 0 | 0 | 1 | 1 |
| VA LYNCHBURG | 81 | 62 | 86 | 56 | 71 | -4 | 2.4 | 1.5 | 1.3 | 7.6 | 185 | 17.8 | 94 | 91 | 55 | 0 | 0 | 5 | 2 |
| VA NORFOLK | 83 | 67 | 89 | 59 | 75 | -2 | 4.4 | 3.3 | 2.7 | 9.0 | 205 | 19.1 | 93 | 96 | 51 | 0 | 0 | 5 | 4 |
| VA RICHMOND | 85 | 66 | 90 | 57 | 76 | -2 | 2.2 | 1.1 | 1.6 | 5.9 | 137 | 20.7 | 105 | 95 | 46 | 1 | 0 | 5 | 1 |
| VA ROANOKE | 81 | 60 | 85 | 51 | 71 | -4 | 1.5 | .7 | .6 | 3.5 | 85 | 15.3 | 78 | 98 | 56 | 0 | 0 | 5 | 1 |
| WA COLVILLE | 83 | 53 | 90 | 46 | 68 | 2 | .5 | .3 | .5 | 3.5 | 206 | 12.5 | 140 | 81 | 39 | 1 | 0 | 2 | 0 |
| WA OMAK | 89 | 56 | 100 | 49 | 72 | -- | .3 | -- | .3 | 1.0 | -- | 6.1 | 88 | -- | -- | 3 | 0 | 1 | 0 |
| WA QUILLAYUTE | 69 | 49 | 81 | 43 | 59 | 1 | .1 | -.5 | .1 | 8.4 | 215 | 53.2 | 98 | 97 | 63 | 0 | 0 | 2 | 0 |
| WA SEATTLE-TACOMA | 75 | 55 | 85 | 52 | 65 | 2 | T | -.2 | T | 2.3 | 144 | 14.5 | 76 | 82 | 43 | 0 | 0 | 1 | 0 |
| WA SPOKANE | 83 | 52 | 92 | 46 | 68 | 1 | T | -.1 | T | 2.0 | 133 | 9.0 | 88 | 79 | 28 | 1 | 0 | 1 | 0 |
| WA WALLA-WALLA | 92 | 60 | 102 | 52 | 76 | 4 | T | -.1 | T | 2.7 | 192 | 13.3 | 137 | 64 | 22 | 5 | 0 | 1 | 0 |
| WA YAKIMA | 88 | 52 | 99 | 43 | 70 | 2 | .3 | .1 | .3 | .7 | 78 | 3.2 | 76 | 81 | 26 | 3 | 0 | 1 | 0 |
| WV BECKLEY | 75 | 60 | 79 | 55 | 68 | -2 | 1.9 | 1.1 | .7 | 6.6 | 129 | 19.7 | 85 | 95 | 67 | 0 | 0 | 3 | 2 |
| WV CHARLESTON | 82 | 64 | 87 | 59 | 73 | -2 | 1.3 | .2 | .8 | 7.4 | 180 | 22.8 | 105 | 94 | 55 | 0 | 0 | 4 | 1 |
| WV HUNTINGTON | 83 | 64 | 88 | 62 | 74 | -1 | 1.4 | .6 | .7 | 7.3 | 183 | 26.4 | 123 | 99 | 59 | 0 | 0 | 4 | 2 |
| WV PARKERSBURG | 83 | 66 | 88 | 63 | 74 | -1 | 1.8 | .8 | 1.4 | 6.9 | 143 | 19.6 | 92 | 88 | 59 | 1 | 0 | 4 | 1 |
| WI GREEN BAY | 80 | 60 | 87 | 55 | 70 | 2 | .1 | -.7 | .1 | 2.6 | 65 | 10.6 | 77 | 94 | 54 | 0 | 0 | 1 | 0 |
| WI LA CROSSE | 85 | 62 | 92 | 55 | 74 | 2 | .2 | -.8 | .1 | 2.6 | 51 | 11.7 | 76 | 99 | 51 | 2 | 0 | 1 | 0 |
| WI MADISON | 83 | 59 | 87 | 53 | 71 | 2 | .1 | -.9 | .1 | 5.1 | 102 | 12.0 | 78 | 90 | 47 | 0 | 0 | 1 | 0 |
| WI MILWAUKEE | 75 | 58 | 87 | 52 | 66 | -2 | .1 | -.7 | .1 | 2.2 | 52 | 13.7 | 93 | 99 | 65 | 0 | 0 | 1 | 0 |
| WY CASPER | 88 | 56 | 96 | 51 | 72 | 4 | T | .3 | T | .4 | 25 | 7.1 | 103 | 67 | 21 | 4 | 0 | 1 | 0 |
| WY CHEYENNE | 77 | 55 | 84 | 50 | 66 | 0 | .2 | -.3 | .2 | 1.9 | 68 | 9.3 | 104 | 90 | 43 | 0 | 0 | 2 | 0 |
| WY LANDER | 86 | 57 | 94 | 52 | 72 | 5 | T | .2 | T | 0 | 7.2 | 79 | 62 | 23 | 3 | 0 | 1 | 0 | |
| PR SHERIDAN | 89 | 53 | 100 | 44 | 71 | 4 | T | .5 | T | 2.0 | 59 | 8.0 | 75 | 74 | 24 | 3 | 0 | 0 | 0 |
| PR SAN JUAN | 92 | 79 | 93 | 77 | 85 | 4 | 1.9 | .6 | 1.0 | 5.9 | 89 | 29.6 | 119 | 88 | 63 | 7 | 0 | 6 | 2 |

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JUL. 5, 1981.
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1, 1981.

Table with columns for STATES AND STATIONS, WEEKLY ACCUMULATION, and SEASONAL ACCUMULATION. It lists data for various states including ALA., ARIZ., ARK., CALIF., COLO., CONN., DEL., D.C., FLA., GA., IDAHO, ILL., IND., IOWA, KANS., KY., LA., MAINE, MD., MASS., MICH., MINN., MISS., MO., MONT., NEBR., NEV., N.H., N.J., N.MEX., N.Y., N.DAK., OHIO, OKLA., OREG., PA., R.I., S.C., S.DAK., TENN., TEXAS, UTAH, VT., VA., WASH., W.VA., WIS., and WYO.



June Weather and Crop Summary

HIGHLIGHTS: Cumulative heavy rainfall over 8 inches kept fields soggy and reduced outdoor activities across parts of the southern Plains into the North Central region. Severe weather dotted the area with damaging winds, hail, and tornadoes. Some streets and cropland were flooded. West Central Florida had welcome rains which reduced the drought. However, rain was subnormal over the Florida Panhandle, parts of the area northward to southern Indiana and Illinois, the western Plains, and from Wyoming to California. Unusually hot weather over the Southwest extended southeastward across the central Plains. Temperatures up to 90° above normal sapped moisture from ranges and forest in California and kept crop irrigation requirements very high.

FIRST WEEK...Most of the Nation had beneficial rains except the desert Southwest. A tropical depression moved across the central Texas coast, then tracked northeastward before weakening. Very heavy rains were dumped from the eastern half of Texas to West Virginia, flooding streets and cropland. Continued soggy fields in the eastern Corn Belt further delayed planting, while almost daily showers brought welcome moisture to the Southeast, although the showers hampered the wheat harvest. Unseasonal warmth persisted over most areas except parts of the southern Plains. Very hot and dry conditions deteriorated rangeland grasses over the Southwest.

SECOND WEEK...Tropical air laden with moisture produced torrential downpours over south central Texas and southern Louisiana while fronts triggered heavy rains over parts of the north central States. Over 11 inches, 8 times the normal, accumulated around Austin, Texas. More than 4 inches doused some northwestern and eastern portions of the Corn Belt as well as winter wheatlands of eastern Kansas and western Missouri. Cooler-than-usual temperatures persisted over the northwestern third of the country. The remainder was unseasonably warm, up to 90° above normal from the Southwest to the west central Plains.

THIRD WEEK...A series of cold fronts produced a broad band of heavy rain, over 4 inches in spots, from south Texas into the north central region. Some fields continued too wet. Lighter amounts fell over the east and northern most States. Dry, sunny weather dominated the Southwest, the Plateau, and most of the South. It was unusually warm in the eastern third of the Nation and the Southwest. Temperatures up to 120° above normal, coupled with dry soils, greatly stressed California's native vegetation; potential crop water use was very high as indicated by weekly pan evaporation reading of over 5 inches at some sites.

FOURTH WEEK...Most of the Nation had rain -- even parts of the southern Plateau and southwestern desert -- as tropical moisture moved out of Mexico. Rains were very heavy over parts of Iowa, Missouri, Florida, and southeast Texas, causing local flooding. Most of the severe weather was confined to the north central

States. Unusually hot dry weather sapped moisture from rangeland and forests in California through the northern Plateau. The unseasonal warmth also extended into the central Plains and parts of the Southeast. Subnormal temperatures persisted across the Great Lakes, northern Rockies, and south Texas.

Row Crop Progress

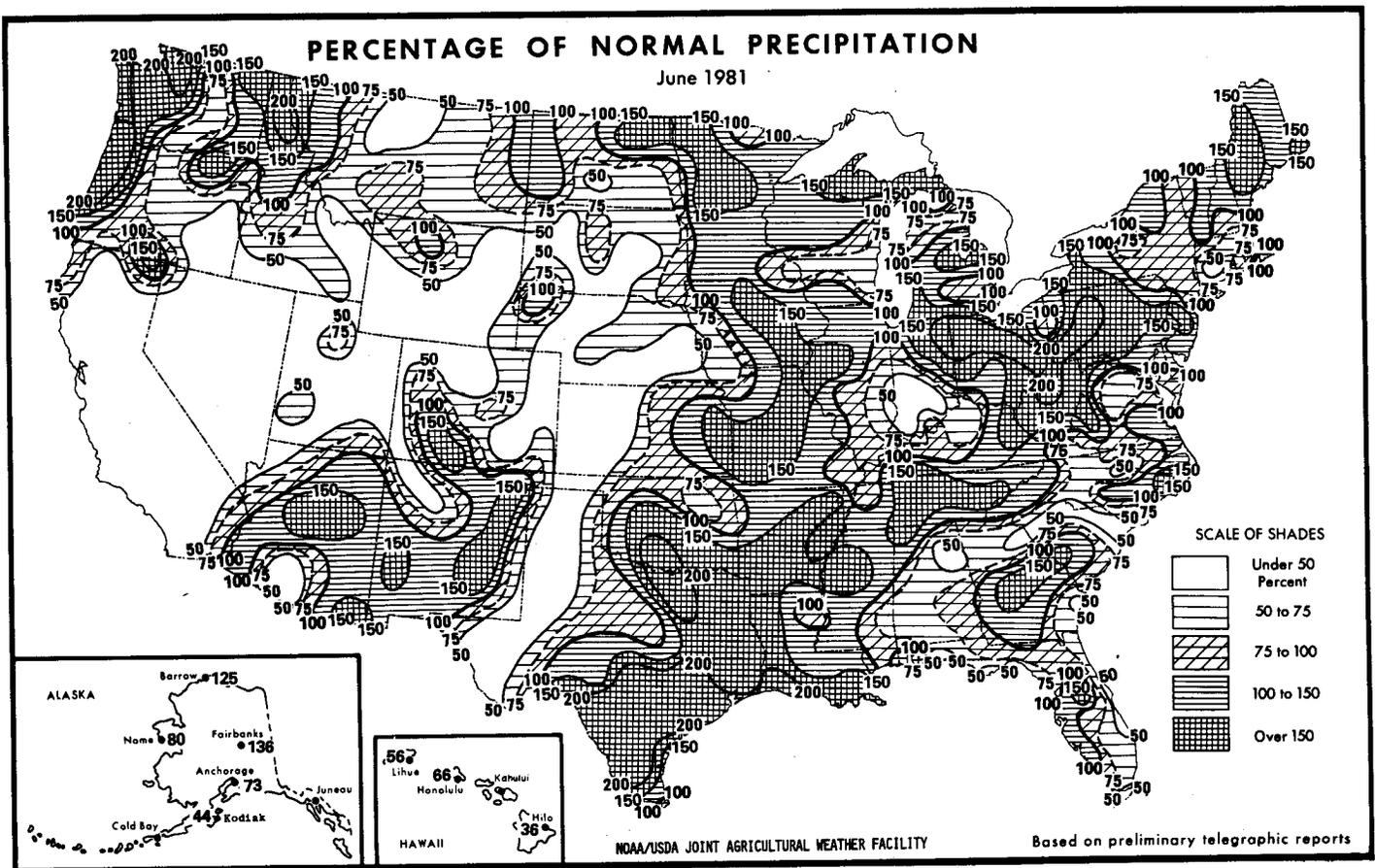
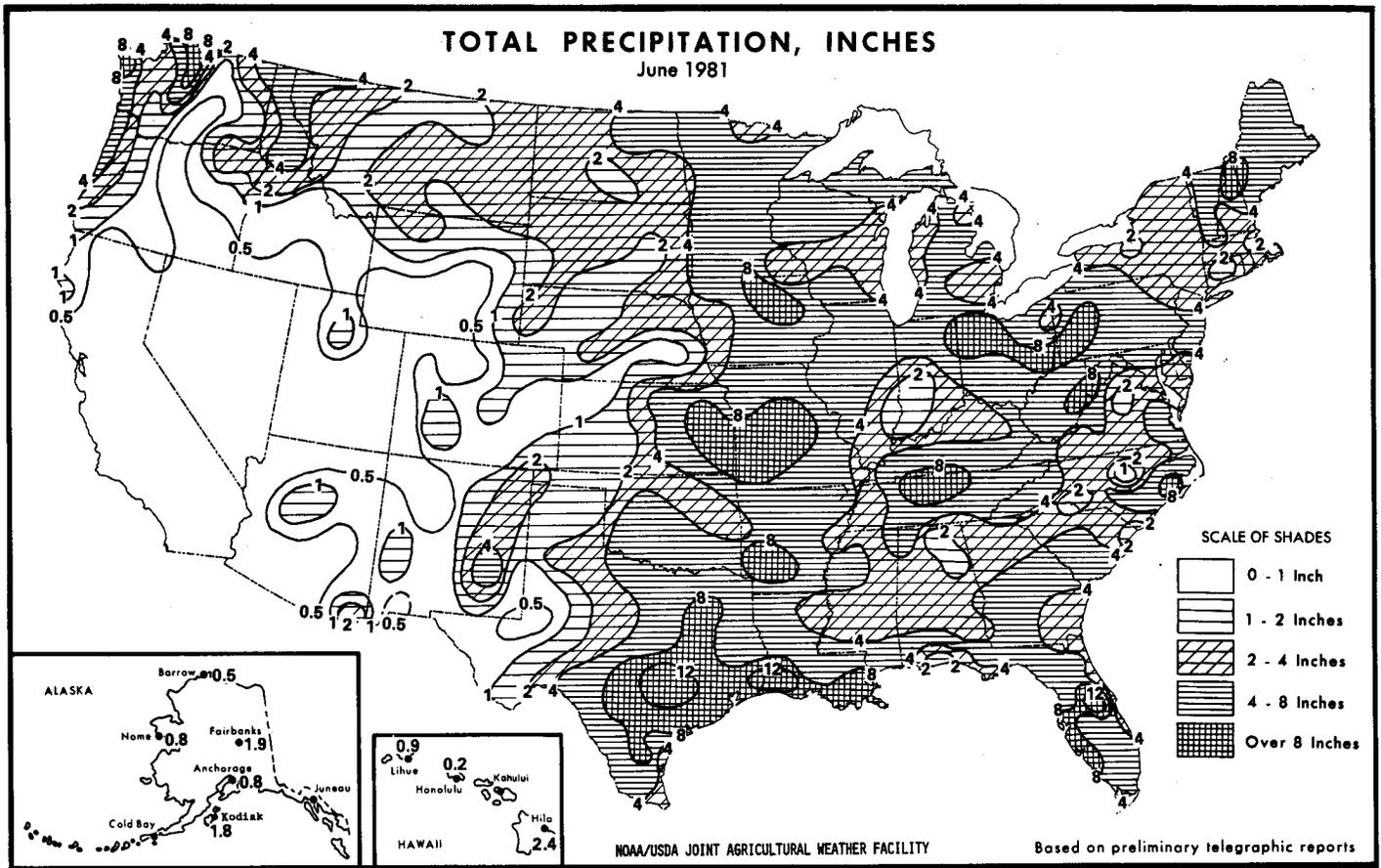
Heavy rains and wet fields in the eastern Corn Belt continued to delay planting activities during much of June, but in other areas, planting generally progressed on schedule. Much needed rain fell in the spring wheat areas and in the South and East, helping relieve dry conditions and providing needed moisture for growing crops. Dry, hot weather increased irrigation requirements in California.

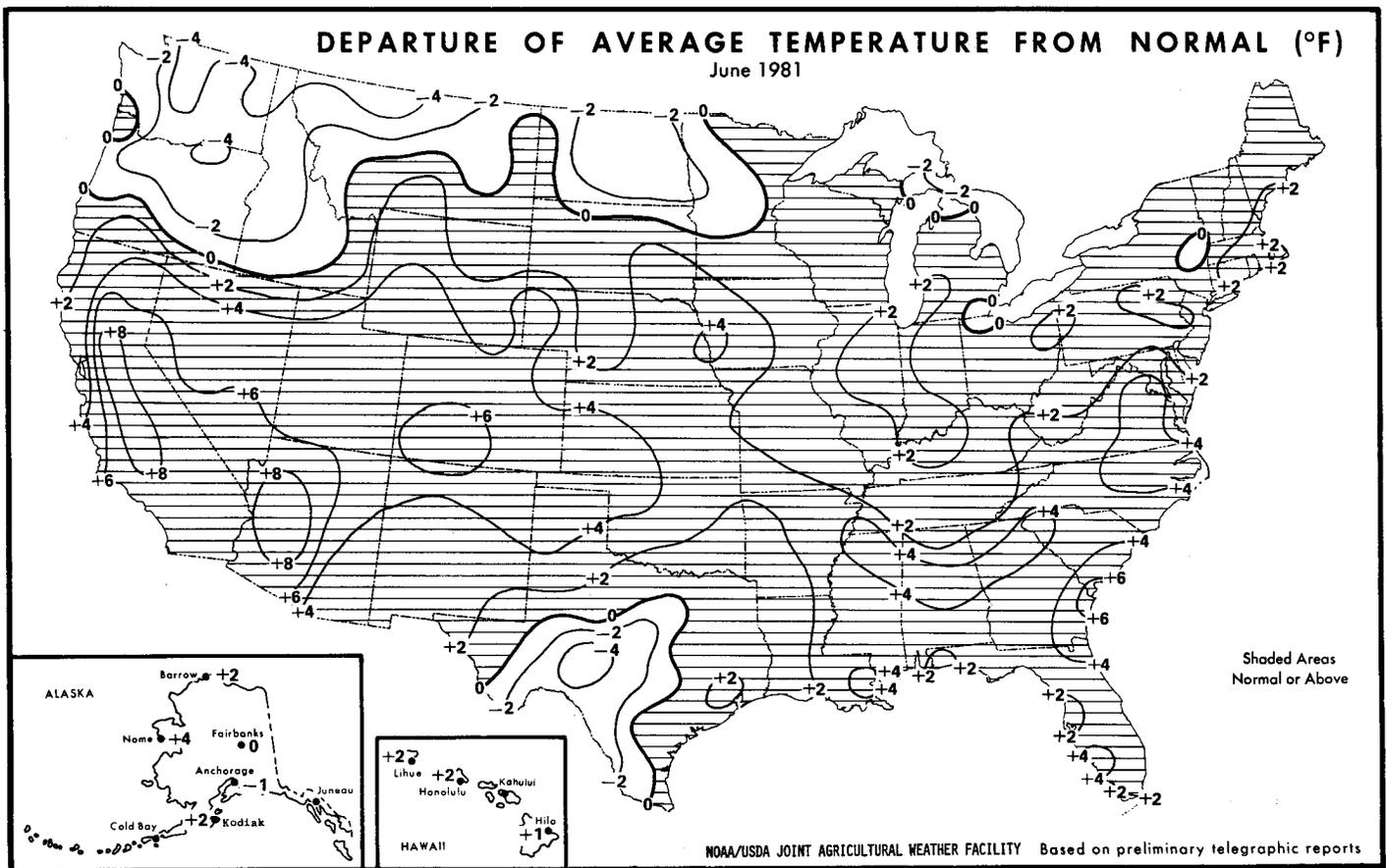
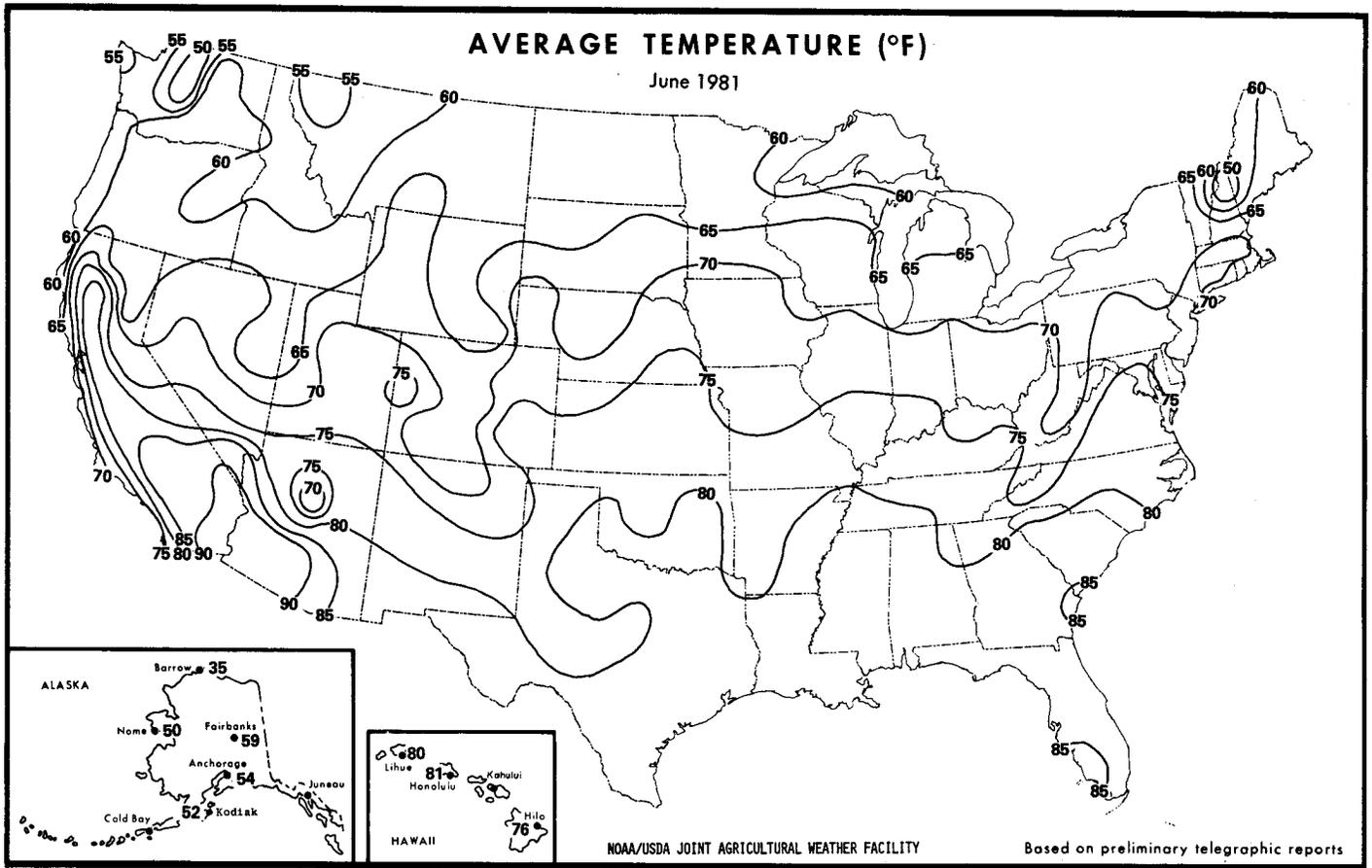
At the beginning of June, corn planting was 87 percent complete, 5 points later than normal. Progress was 45 points behind average in Indiana and 30 points behind in Ohio where rains have delayed fieldwork during most of the planting season. At mid-month, heavy rains caused flooding and extensive crop damage in Indiana, Illinois, and Ohio, further delaying the completion of planting this year's crops. By the end of June, planting was completed except in Indiana and Ohio where 95 percent and 88 percent of the acreages were planted, respectively. Corn was silking as far north as Virginia. Further South, much of the acreage was in the dough stage and some fields reached the dent stage. Corn generally rated fair to good throughout the Nation as June ended.

Soybean seeding was 46 percent finished at the beginning of June, well behind the 64 percent average. Progress in all major producing States except Louisiana, Minnesota, and Nebraska was slower than normal. Indiana growers were 60 percentage points behind schedule; Ohio, 55 points; Illinois, 39 points; Michigan, 23 points; and Missouri, 22 points slower than normal. Wet conditions throughout the season have delayed progress. By the end of the month, planting advanced to 89 percent finished. Ohio producers were 25 percentage points behind average; Kentucky, 22 points; Missouri, 19 points; and Indiana, 15 points. Progress in the Southeast was slow because many farmers were waiting to plant double-cropped soybeans after harvesting small grains. Some double-cropped soybeans were planted by the end of the month in early harvested winter wheat fields. Planting was finished in Iowa and Nebraska.

Cotton planting was almost complete by the beginning of June except in Texas and Oklahoma where cotton is seeded later. Squaring was underway on 10 percent of the acreage; by the end of the month 40 percent of the acreage was squaring. Boll set was well advanced in the Southeast and just getting started in the Delta and West. High winds and blowing sand damaged many dryland fields in the southern High Plains of Texas and necessitated replanting. Abundant moisture in the southern half of the State adversely affected the crop.

Grain sorghum seeding advanced on schedule and neared completion by July 1. Most of the crop was emerged and growing well. The 1981 harvest started in southern Texas during the last week of June.





Temperature and Precipitation Data for June 1981

| States and Stations | Temperature °F | | Precipitation Inches | | States and Stations | Temperature °F | | Precipitation Inches | | States and Stations | Temperature °F | | Precipitation Inches | |
|---------------------|----------------|-----------|----------------------|-----------|---------------------|----------------|-----------|----------------------|-------------|---------------------|----------------|-----------|----------------------|-----------|
| | Average | Departure | Total | Departure | | Average | Departure | Total | Departure | | Average | Departure | Total | Departure |
| AL BIRMINGHAM | 81 | 4 | 2.5 | - 1.5 | LA BATON ROUGE | 82 | 2 | 4.7 | -.9 | TOLEDO | 68 | - 1 | 8.5 | 5.1 |
| MOBILE | 83 | 3 | 6.5 | -.4 | LAKE CHARLES | 81 | 0 | 14.4 | 9.4 | YOUNGSTOWN | 70 | 3 | 3.2 | -.4 |
| MONTGOMERY | 83 | 4 | 3.1 | -.9 | NEW ORLEANS | 84 | 4 | 8.5 | 3.8 | OK OKLAHOMA CITY | 78 | 2 | 7.5 | 3.3 |
| AK ANCHORAGE | 54 | - 1 | .8 | -.3 | SHREVEPORT | 80 | 0 | 6.5 | 3.2 | TULSA | 80 | 3 | 3.3 | - 1.4 |
| BARROW | 35 | 2 | .5 | -.1 | ME CARIBOU | 61 | 1 | 4.2 | .8 | OR ASTORIA | 58 | 1 | 5.5 | 3.0 |
| FAIRBANKS | 59 | 0 | 1.9 | .5 | PORTLAND | 64 | 2 | 4.6 | 1.5 | BURNS | 57 | - 2 | .5 | -.5 |
| JUNEAU | -- | -- | -- | -- | MD BALTIMORE | 74 | 2 | 5.4 | 1.6 | MEDFORD | 66 | 2 | .5 | -.4 |
| KODIAK | 52 | 2 | 1.8 | - 2.3 | MA BOSTON | 71 | 3 | 1.7 | - 1.5 | PENDLETON | 62 | - 4 | 1.5 | .5 |
| NOME | 50 | 4 | .8 | -.2 | MI CHATHAM | 64 | 0 | 5.1 | 2.5 | PORTLAND | 62 | 0 | 3.2 | 1.6 |
| AZ FLAGSTAFF | 66 | 8 | 1.1 | .5 | ALPENA | 62 | 1 | 2.1 | -.8 | SALEM | 59 | - 2 | 3.3 | 1.9 |
| PHOENIX | 93 | 8 | T | -.1 | DETROIT | 68 | 0 | 3.3 | -.1 | PA ALLENTOWN | 72 | 2 | 5.7 | 2.2 |
| TUCSON | 86 | 3 | .2 | 0 | FLINT | 66 | 0 | 3.0 | -.4 | ERIE | 66 | 1 | 4.8 | 1.3 |
| WINSLOW | 76 | 4 | .8 | .5 | GRAND RAPIDS | 69 | 2 | 4.2 | .8 | HARRISBURG | 72 | 0 | 4.7 | 1.6 |
| YUMA | 93 | 7 | 0 | 0 | HOUGHTON LAKE | 64 | 1 | 4.0 | .7 | PHILADELPHIA | 72 | 0 | 4.4 | .7 |
| AR PORT SMITH | 79 | 1 | 3.8 | -.1 | LANSING | 67 | 0 | 3.2 | -.3 | PITTSBURGH | 69 | 0 | 8.2 | 4.7 |
| LITTLE ROCK | 80 | 2 | 6.2 | 3.0 | MARQUETTE | 60 | 1 | 6.6 | 2.4 | SCRANTON | 69 | 1 | 3.4 | 0 |
| CA BAKERSFIELD | 85 | 8 | 0 | -.1 | MUSKEGON | 66 | 0 | 3.9 | 1.3 | RI PROVIDENCE | 69 | 3 | 2.3 | -.4 |
| EUREKA | 56 | 1 | .6 | -.1 | SAULT STE. MARIE | 56 | - 3 | 5.6 | 2.3 | SC CHARLESTON | 83 | 5 | 6.0 | -.3 |
| FRESNO | 83 | 9 | 0 | -.1 | MN DULUTH | 59 | 0 | 5.8 | 1.4 | COLUMBIA | 81 | 2 | 5.3 | 1.5 |
| LOS ANGELES | 72 | 7 | T | 0 | INT'L FALLS | 62 | 2 | 3.7 | -.2 | GREENVILLE | 80 | 4 | 1.3 | - 2.8 |
| RED BLUFF | 82 | 6 | T | -.5 | MINNEAPOLIS | 67 | 0 | 4.4 | .5 | SD ABERDEEN | 65 | 0 | 2.1 | - 1.5 |
| SAN DIEGO | 73 | 7 | 0 | -.1 | ROCHESTER | 67 | 1 | 3.5 | - 1.1 | HURON | 69 | 2 | 1.5 | - 2.3 |
| SAN FRANCISCO | 65 | 3 | T | -.1 | SAINT CLOUD | 64 | - 1 | 6.6 | 2.0 | RAPID CITY | 65 | 1 | 1.9 | - 1.8 |
| STOCKTON | 81 | 9 | 0 | -.1 | MS JACKSON | 82 | 3 | 3.7 | .3 | SIoux FALLS | 70 | 2 | 3.9 | -.4 |
| CO DENVER | 70 | 4 | .6 | - 1.3 | MERIDIAN | 82 | 3 | 2.6 | - 1.1 | TN CHATTANOOGA | 78 | 2 | 3.7 | 0 |
| GRAND JUNCTION | 76 | 5 | .2 | -.4 | MO COLUMBIA | 74 | 1 | 8.0 | 3.4 | 77 | 1 | 5.5 | 1.9 | |
| PUEBLO | 76 | 5 | .2 | - 1.2 | KANSAS CITY | 74 | 1 | 7.4 | 1.8 | MEMPHIS | 83 | 4 | 2.9 | -.6 |
| CT BRIDGEPORT | 68 | 0 | 2.1 | -.5 | SAINT LOUIS | 76 | 1 | 5.8 | 1.4 | NASHVILLE | 78 | 1 | 8.1 | 4.7 |
| HARTFORD | 70 | 2 | 1.4 | - 2.1 | SPRINGFIELD | 76 | 2 | 8.5 | 3.8 | TX ABILENE | 80 | 0 | 2.7 | -.1 |
| DC WASHINGTON | 79 | 4 | 2.6 | -.9 | MT BILLINGS | 65 | 2 | 1.6 | - 1.0 | AMARILLO | 79 | 4 | 1.0 | - 2.5 |
| FL APALACHICOLA | 83 | 3 | .8 | - 4.5 | GLASGOW | 61 | - 1 | 1.8 | -.9 | AUSTIN | 81 | - 1 | 15.0 | 11.9 |
| DAYTONA BEACH | 82 | 3 | 1.0 | - 5.6 | GREAT FALLS | 58 | - 3 | 1.3 | - 1.8 | BEAUMONT | 82 | 1 | 9.2 | 4.4 |
| FORT MYERS | 86 | 5 | 11.8 | 2.9 | HAVRE | 58 | - 4 | 1.2 | - 1.4 | BROWNSVILLE | 84 | 1 | 2.3 | -.5 |
| JACKSONVILLE | 83 | 4 | 3.3 | - 3.0 | HELENA | 59 | 0 | 1.2 | - 1.2 | CORPUS CHRISTI | 83 | 1 | 3.0 | .3 |
| KEY WEST | 85 | 1 | .9 | - 3.7 | KALISPELL | 54 | - 3 | 3.6 | 1.0 | DEL RIO | 81 | - 3 | 5.5 | 3.5 |
| MIAMI | 84 | 3 | 5.5 | - 3.5 | MILES CITY | 64 | - 1 | 2.6 | -.7 | EL PASO | 83 | 3 | .6 | 0 |
| ORLANDO | 83 | 3 | 12.5 | 5.4 | MISSOULA | 58 | - 1 | 2.7 | .6 | FORT WORTH | 80 | - 1 | 7.9 | 4.8 |
| TALLAHASSEE | 82 | 2 | 6.2 | -.4 | NE GRAND ISLAND | 73 | 2 | .6 | - 3.8 | GALVESTON | 82 | 1 | 10.7 | 6.6 |
| TAMPA | 81 | 0 | 9.4 | 2.9 | LINCOLN | 75 | 3 | .9 | - 4.1 | HOUSTON | 83 | 2 | 9.7 | 5.2 |
| WEST PALM BEACH | 83 | 2 | 4.6 | - 3.5 | NORFOLK | 72 | 2 | 3.4 | - 1.5 | LUBBOCK | 80 | 3 | .8 | - 2.0 |
| GA ATLANTA | 81 | 5 | 2.7 | - 1.0 | NORTH PLATTE | 69 | 1 | 2.3 | - 1.5 | MIDLAND | 79 | - 1 | .5 | - 1.0 |
| AUGUSTA | 81 | 3 | 7.1 | 3.4 | OMAHA | 74 | 4 | 2.0 | - 2.9 | SAN ANGELO | 78 | - 4 | 2.0 | .1 |
| MACON | 83 | 3 | 7.5 | 3.6 | VALENTINE | 68 | 1 | 1.3 | - 2.3 | SAN ANTONIO | 82 | 0 | 8.7 | 5.9 |
| SAVANNAH | 85 | 6 | 3.0 | - 2.9 | NV ELY | 63 | 5 | .2 | -.7 | VICTORIA | 82 | 0 | 9.3 | 6.0 |
| HI HILO | 76 | 1 | 2.4 | - 4.2 | LAS VEGAS | 89 | 7 | T | -.1 | WACO | 82 | 0 | 2.7 | 0 |
| HONOLULU | 81 | 2 | .2 | -.1 | RENO | 68 | 6 | T | -.4 | WICHITA FALLS | 81 | 0 | 4.6 | 1.2 |
| KAHULUI | -- | -- | -- | -- | WINNEMUCCA | 66 | 4 | T | - 1.0 | UT BLANDING | 71 | 5 | .4 | -.1 |
| LIHUE | 80 | 2 | .9 | -.7 | NH CONCORD | 66 | 1 | 2.8 | -.6 | SALT LAKE CITY | 70 | 4 | 1.0 | -.3 |
| ID BOISE | 63 | - 2 | .8 | -.3 | NJ ATLANTIC CITY | 70 | 0 | 4.9 | 1.5 | VT BURLINGTON | 66 | 1 | 3.1 | -.4 |
| LEWISTON | 62 | - 3 | 1.9 | .1 | TRENTON | 73 | 2 | 5.4 | 2.2 | VA LYNCHBURG | 76 | 3 | 5.2 | 1.8 |
| POCATELLO | 62 | 0 | .7 | -.6 | NM ALBUQUERQUE | 77 | 2 | .4 | -.1 | NORFOLK | 78 | 3 | 5.0 | 1.4 |
| IL CAIRO | 79 | 1 | 3.7 | -.7 | ROSWELL | 79 | 2 | 4.6 | 3.4 | RICHMOND | 78 | 4 | 3.7 | .2 |
| CHICAGO | 70 | 2 | 4.5 | .3 | NY ALBANY | 67 | - 1 | 2.8 | -.2 | ROANOKE | 74 | 2 | 2.5 | - 1.0 |
| MOLINE | 71 | 0 | 5.5 | 1.1 | BINGHAMTON | 65 | 0 | 3.4 | -.2 | WA COLVILLE | 58 | - 3 | 3.0 | 1.3 |
| PEORIA | 73 | 2 | 6.2 | 2.3 | BUFFALO | 66 | 0 | 3.7 | 1.5 | OMAK | 63 | -- | .7 | -- |
| ROCKFORD | 70 | 1 | 5.9 | 1.5 | NEW YORK | 73 | 1 | 2.3 | -.6 | QUILLAYUTE | 54 | - 1 | 8.5 | 5.0 |
| SPRINGFIELD | 75 | 2 | 5.8 | 1.6 | ROCHESTER | 67 | 0 | 2.7 | .2 | SEATTLE-TACOMA | 58 | - 2 | 2.3 | .8 |
| IN EVANSVILLE | 77 | 2 | 1.8 | - 1.8 | SYRACUSE | 68 | 1 | 1.9 | - 1.2 | SPOKANE | 57 | - 5 | 1.9 | .5 |
| FORT WAYNE | 70 | 0 | 8.0 | 4.1 | NC ASHEVILLE | 74 | 3 | 4.4 | .4 | WALLA-WALLA | 64 | - 3 | 2.5 | 1.3 |
| INDIANAPOLIS | 73 | 1 | 1.6 | - 2.6 | CHARLOTTE | 78 | 2 | 1.8 | - 1.9 | YAKIMA | 62 | - 3 | .4 | -.3 |
| SOUTH BEND | 69 | 0 | 7.0 | 3.3 | GREENSBORO | 78 | 4 | 2.9 | - 1.0 | WV BECKLEY | 69 | 2 | 5.7 | 1.5 |
| IA BURLINGTON | 72 | 1 | 7.9 | 3.2 | HATTERAS | 78 | 4 | 3.9 | -.9 | CHARLESTON | 73 | 1 | 6.5 | 3.2 |
| DES MOINES | 73 | 2 | 5.0 | .1 | RALEIGH | 79 | 5 | .6 | - 3.1 | HUNTINGTON | 74 | 2 | 5.9 | 2.5 |
| DUBUQUE | 69 | 1 | 6.7 | 1.4 | WILMINGTON | 80 | 2 | 2.5 | - 3.1 | PARKERSBURG | 72 | 0 | 6.3 | 2.3 |
| SIoux CITY | 72 | 2 | 3.1 | - 1.5 | ND BISMARCK | 61 | - 3 | 1.7 | - 1.9 | WI GREEN BAY | 66 | 1 | 2.6 | -.8 |
| CONCORDIA | 75 | 2 | 4.7 | -.3 | FARGO | 63 | - 2 | 2.6 | -.6 | LA CROSSE | 69 | 0 | 2.5 | - 1.9 |
| DODGE CITY | 79 | 5 | 1.4 | - 1.9 | WILLISTON | 64 | 1 | 3.6 | .3 | MADISON | 67 | 1 | 5.0 | .7 |
| GOODLAND | 72 | 3 | .3 | - 2.6 | OH AKRON-CANTON | 70 | 2 | 5.8 | 2.3 | MILWAUKEE | 65 | 0 | 2.4 | - 1.2 |
| TOPEKA | 76 | 2 | 9.4 | 3.6 | CINCINNATI | 72 | 0 | 3.3 | -.5 | WY CASPER | 64 | 2 | .4 | - 1.0 |
| WICHITA | 78 | 2 | 4.3 | -.2 | CLEVELAND | 68 | 0 | 4.7 | 1.4 | CHEYENNE | 64 | 3 | 1.7 | -.7 |
| KY LEXINGTON | 74 | 1 | 2.3 | - 2.0 | COLUMBUS | 71 | 1 | 5.7 | 1.6 | LANDER | 65 | 4 | T | - 1.9 |
| LOUISVILLE | 76 | 3 | 3.2 | -.9 | DAYTON | 72 | 1 | 6.3 | 2.4 | SHERIDAN | 61 | 0 | 1.9 | - 1.1 |
| | | | | | | | | | PR SAN JUAN | 84 | 3 | 5.5 | -.1 | |

Based on 1941-70 normals

Heating Degree Days (Base 65° F.)

June 1981

| | | | | | |
|------------------------------|-----|-------------------------------|-----|-----------------------------|-----|
| ALA. Birmingham | 0 | MAINE, Caribou | 126 | OKLA. Okla. City | 0 |
| Mobile | 0 | Portland | 54 | Tulsa | 0 |
| Montgomery | 0 | MD. Baltimore | 1 | OREG. Astoria | 211 |
| ALASKA, Anchorage | 329 | MASS. Boston | 7 | Burns | 256 |
| Barrow | 906 | Chatham | 58 | Medford | 57 |
| Fairbanks | 218 | MICH. Alpena | 115 | Pendleton | 126 |
| Juneau | --- | Detroit | 19 | Portland | 108 |
| Nome | --- | Flint | 41 | Salem | 176 |
| ARIZ. Flagstaff | 50 | Grand Rapids | 8 | PA. Allentown | 6 |
| Phoenix | 0 | Houghton Lake | 80 | Erie | 42 |
| Tucson | 0 | Lansing | 24 | Harrisburg | 6 |
| Winslow | 6 | Marquette | 168 | Philadelphia | 4 |
| Yuma | 0 | S. Ste. Marie | 262 | Pittsburgh | 18 |
| ARK. Fort Smith | 0 | MINN. Duluth | 185 | Scranton | 19 |
| Little Rock | 0 | Internatl Falls | 108 | R. I. Providence | 13 |
| CALIF. Bakersfield | 0 | Minneapolis | 28 | S. C. Charleston | 0 |
| Eureka | 249 | Rochester | 42 | Columbia | 0 |
| Fresno | 0 | St. Cloud | --- | Greenville | 0 |
| Los Angeles | 0 | MISS. Jackson | 0 | S. DAK. Aberdeen | 44 |
| Red Bluff | 0 | Meridian | 0 | Huron | 12 |
| Stockton | 0 | MO. Columbia | 0 | Rapid City | 65 |
| San Diego | 0 | Kansas City | 2 | Sioux Falls | 5 |
| San Francisco | 53 | St. Louis | 0 | TENN. Chattanooga | 0 |
| COLO. Denver | 80 | Springfield | 0 | Knoxville | 0 |
| Grand Junction | 15 | MONT. Billings | 82 | Memphis | 0 |
| Pueblo | 3 | Glasgow | 144 | Nashville | 0 |
| CONN. Bridgeport | 8 | Great Falls | 218 | TEX. Abilene | 0 |
| Hartford | 10 | Havre | 219 | Amarillo | 0 |
| D. C. Washington | 0 | Helena | 191 | Austin | 0 |
| FLA. Apalachicola | 0 | Kalispell | 329 | Beaumont | 0 |
| Ft. Myers | 0 | Miles City | 92 | Brownsville | 0 |
| Jacksonville | 0 | Missoula | 228 | Dallas | --- |
| Key West | 0 | NEBR. Grand Island | 7 | Del Rio | 0 |
| Lakeland | 0 | Lincoln | 0 | El Paso | 0 |
| Miami | 0 | Norfolk | 5 | Fort Worth | 0 |
| Orlando | 0 | North Platte | 26 | Galveston | 0 |
| W. Palm Beach | 0 | Omaha | 1 | Houston | 0 |
| Tallahassee | 0 | Valentine | 37 | Lubbock | 0 |
| Tampa | 0 | NEV. Ely | 107 | Midland | 0 |
| GA. Atlanta | 0 | Las Vegas | 0 | San Angelo | 0 |
| Augusta | 0 | Reno | 48 | San Antonio | 0 |
| Macon | 0 | Winnemucca | 89 | Victoria | 0 |
| Savannah | 0 | N. H. Concord | 40 | Waco | 0 |
| IDAHO, Boise | 97 | N. J. Atlantic City | 14 | Wichita Falls | 0 |
| Lewiston | 111 | Trenton | 7 | UTAH, MILFORD | --- |
| Pocatello | 127 | N. MEX. Albuquerque | 2 | Salt Lake City | 46 |
| ILL. Cairo | 0 | Roswell | 0 | VT. Burlington | 43 |
| Chicago | 6 | N. Y. Albany | 30 | VA. Lynchburg | 2 |
| Moline | 3 | Binghamton | 56 | Norfolk | 0 |
| Peoria | 1 | Buffalo | 33 | Richmond | 0 |
| Rockford | 9 | New York | 4 | Roanoke | 3 |
| Springfield | 0 | Rochester | 26 | WASH. Colville | 203 |
| IND. Evansville | 0 | Syracuse | 27 | Omak | --- |
| Fort Wayne | 9 | N. C. Asheville | 0 | Quillayute | 314 |
| Indianapolis | 1 | Charlotte | 0 | Seattle-Tacoma | 220 |
| South Bend | 6 | Greensboro | 0 | Spokane | 243 |
| IOWA, Burlington | 0 | Hatteras | 0 | Walla Walla | 65 |
| Des Moines | 0 | Raleigh | 0 | Yakima | 117 |
| Dubuque | 9 | Wilmington | 0 | W. VA. Beckley | 15 |
| Sioux City | 3 | N. DAK. Bismarck | 144 | Charleston | 2 |
| KANS. Concordia | 2 | Fargo | 84 | Huntington | 0 |
| Dodge City | 0 | Williston | 70 | Parkersburg | 5 |
| Goodland | 18 | OHIO. Akron-Canton | 15 | WIS. Green Bay | 45 |
| Topeka | 0 | Cincinnati | 6 | Madison | 30 |
| Wichita | 0 | Cleveland | 30 | Milwaukee | 69 |
| KY. Lexington | 0 | Columbus | 14 | WYO. Casper | 86 |
| Louisville | 0 | Dayton | 9 | Cheyenne | 95 |
| LA. Baton Rouge | 0 | Toledo | 24 | Lander | 83 |
| Lake Charles | 0 | Youngstown | 16 | Sheridan | 136 |
| New Orleans | 0 | | | | |
| Shreveport | 0 | | | | |

National Agricultural Summary

June 29-July 5, 1981

HIGHLIGHTS: Heavy rainfall throughout most of the eastern half of the Nation limited fieldwork but helped relieve dry conditions in the Southeast. However, excessive rain in parts of Iowa caused flash flooding and resulted in loss of lives, property, and crops. Timely rains in the northern Plains improved pastures, ranges, and growing crops. Soil moisture supplies were rated adequate to surplus in Pennsylvania, Iowa, Missouri, West Virginia, Louisiana and Ohio. Supplies were short in California, Florida, Oklahoma, New Mexico, Utah and Wyoming. Elsewhere, soil moisture was short to mostly adequate. Rainfall has been light in the Southwest and soils are very dry. Rainfall and wet field conditions in Pennsylvania, Missouri, West Virginia, and Mississippi limited fieldwork to less than 4 days. In other areas of the Nation, up to 7 days were available. Six percent of the corn acreage was silking in the 17 major States. In southern areas, many fields were in the dent stage of development. Soybean seeding in the 18 major States was 95% completed. Blooming was evident in the Corn Belt. Planting of double-cropped soybeans gained momentum in the Southeast as farmers finished harvesting small grains. Winter wheat harvesting advanced northward into South Dakota. Combining in the 15 major States was 54% complete. Sixty seven percent of the spring wheat was headed in the 5 major States. Cotton was squaring on 51% of the acreage. Boll set became more evident in the West and Delta areas, and was well advanced in the Southeast. Grain sorghum planting neared completion; harvesting was underway in Texas. Peach harvesting moved northward into New Jersey. A wide variety of vegetables including sweet corn and tomatoes were harvested in northern production areas the spring harvest in Florida declined seasonally. Pastures and ranges were in fair to good condition, except in the dry Southwest where pastures again rated poor to fair.

CORN: Corn was silking as far north as the Corn Belt. In the 17 major producing States, 6% of the acreage was silking, equal to last year's progress. In southern areas, most of the acreage had silked, nearly a third was in the dough stage and early planted fields were in the dent stage. The crop was in fair to good condition. Average height of plants in Indiana was 23 inches smaller than the normal height of 42 inches--due to late planting.

SOYBEANS: Soybean seeding in the 18 major States was 95% finished, compared with 98% a year earlier. Missouri planting was 18 percentage points behind normal; planting of all soybeans was 90% finished while double-cropped soybeans were 43% planted. Seeding in Indiana and Ohio was 95% complete, only 5 points behind schedule. Planting of double-cropped soybeans gained momentum in the Southeast as small grain harvest was finishing. Blooming was evident in fields as far north as Illinois.

SMALL GRAINS: Winter wheat harvesting advanced northward through Nebraska into parts of South Dakota and became more widespread in the north central States. Combining in the 15 major producing States was 54% complete, ahead of last year's 49%. Rains caused delays in Kansas, but progress was still ahead of schedule. Grass and

weeds continued to cause harvesting problems and some loss in quality is expected.

Spring wheat heading in the 5 major States was 67% complete, slightly behind last year's 70% but ahead of the 59% average. Most growing areas received timely rains. As a result, the crop was in fair to good condition.

COTTON: Development lagged last year; however, good weather speeded growth. In the 14 major States, 51% of the cotton was squaring compared with 54% last year. Boll set gained momentum in the West and Delta areas and was well advanced in the Southeast. Sixty three percent of the acreage had set bolls in Georgia. Cotton was beginning to square on the High Plains of Texas with some early planted fields blooming. Grasshoppers were becoming a severe problem in some areas of the Low Plains. Growing conditions were ideal in Arizona where 95% of the fields were squaring.

OTHER CROPS: Grain sorghum planting neared completion in the 7 major producing States. The crop condition generally was good. Harvesting got underway in the Coastal Bend area of Texas where windy days helped dry out the soil and the grain. In the water-logged fields of the Upper Gulf Coast area, heads were not filling out properly. Some stands were spouting because of wet conditions.

Rice was 79% headed in Texas, 21 points ahead of last year. In Louisiana, heading reached 38%, 1 point ahead of a year ago. The crop generally rated good.

Tobacco was in fair to good condition. Harvesting picked up momentum in the Southeast, although many growers were still spraying and topping the crop. Traces of Blue Mold were reported in Kentucky.

Peanuts were in good condition. Warm, dry weather in Texas enabled farmers to make rapid planting progress. By the 5th of July, 89% of the acreage had been planted. Some fields were replanted in East Texas due to poor seed germination.

FRUITS AND NUTS: Sweet cherry harvesting advanced throughout northern production areas. Peach picking advanced as far north as New Jersey. Harvesting was 34% complete in South Carolina, 62% in Louisiana, and 55% in Georgia. Cranberries bloomed in New England.

Florida citrus growers were in good condition, although the need for rain increased and irrigation became more active. The Valencia harvest was virtually completed. In Arizona, harvest was also nearing completion. New crop prospects were good. California growers harvested Freestone peaches, nectarines, citrus, and Hass avocados.

VEGETABLES: Farmers in northern production areas harvested a wide variety of early vegetables, including sweet corn and tomatoes. The spring vegetable harvest in Florida was nearly complete, with land preparation for summer and fall planting underway. Total shipments declined 44% from the previous week. California growers harvested lettuce, broccoli, cauliflower, carrots, tomatoes, and peppers.

RANGE AND LIVESTOCK: Pastures and ranges were in fair to good condition, except in the Southwest where dry conditions resulted in poor to fair conditions. Stockwater supplies were becoming short in many of these dry areas. Extremely dry range conditions in California presented a serious fire hazard.

CROP PROGRESS
FOR WEEK ENDING JULY 5, 1981

| | WINTER WHEAT % HARVESTED | | |
|-------------------------|-----------------------------|------|------|
| | 1981 | 1980 | AVG. |
| CALIF | 77 | 65 | NA |
| COLO | 7 | 7 | 21 |
| IDAHO | 0 | 0 | 0 |
| ILL | 75 | 48 | 57 |
| IND | 25 | 15 | 35 |
| KANS | 75 | 65 | 55 |
| MO | 41 | 67 | 60 |
| MONT | 0 | 0 | 0 |
| NEBR | 25 | 25 | 25 |
| OHIO | 5 | 1 | 15 |
| OKLA | 97 | 90 | 94 |
| OREG | 0 | 0 | NA |
| S DAK | 3 | 3 | 3 |
| TEX | 94 | 85 | 89 |
| WASH | 0 | 0 | 0 |
| 15 STATES | 54 | 49 | NA |
| EXCL. STATES WITH NA | 55 | 50 | 50 |

THESE 15 STATES PRODUCED 88% OF THE 1980 WINTER WHEAT CROP.

NA - NOT AVAILABLE

| | COTTON % SQUARING | | |
|-------------------------|----------------------|------|------|
| | 1981 | 1980 | AVG. |
| ALA | 78 | 73 | 62 |
| ARIZ | 95 | 85 | 90 |
| ARK | 69 | 85 | NA |
| CALIF | 35 | 25 | NA |
| GA | 89 | 90 | NA |
| LA | 72 | 59 | 68 |
| MISS | 92 | 89 | 77 |
| MO | 65 | 75 | 39 |
| N MEX | 90 | 85 | NA |
| N C | 65 | 44 | NA |
| OKLA | 6 | 15 | 8 |
| S C | 98 | 91 | 86 |
| TENN | 66 | 78 | 52 |
| TEX | 41 | 48 | NA |
| 14 STATES | 51 | 54 | NA |
| EXCL. STATES WITH NA | 70 | 69 | 61 |

THESE 14 STATES PRODUCED 99% OF THE 1980 COTTON CROP.

NA - NOT AVAILABLE

| | CORN % SILKING | | |
|-------------------------|-------------------|------|------|
| | 1981 | 1980 | AVG. |
| COLO | 0 | 0 | 0 |
| GA | 96 | 85 | NA |
| ILL | 5 | 15 | 11 |
| IND | 0 | 0 | 0 |
| IOWA | 0 | 0 | 0 |
| KANS | 15 | 11 | 11 |
| KY | 20 | 5 | 15 |
| MICH | 0 | 0 | 0 |
| MINN | 1 | 0 | 8 |
| MO | 5 | 0 | NA |
| NEBR | 1 | 1 | 1 |
| N C | 65 | 51 | NA |
| OHIO | 0 | 0 | 1 |
| PA | 0 | 0 | 0 |
| S DAK | 0 | 0 | 0 |
| VA | 24 | 12 | NA |
| WIS | 0 | 0 | 0 |
| 17 STATES | 6 | 6 | NA |
| EXCL. STATES WITH NA | 2 | 3 | 4 |

THESE 17 STATES PRODUCED 93% OF THE 1980 CORN CROP.

NA - NOT AVAILABLE

| | SOYBEANS % PLANTED | | |
|-------------------------|-----------------------|------|------|
| | 1981 | 1980 | AVG. |
| ALA | 97 | 93 | NA |
| ARK | 91 | 96 | 94 |
| GA | 95 | 95 | NA |
| ILL | 98 | 100 | 100 |
| IND | 95 | 100 | 100 |
| IOWA | 100 | 100 | 100 |
| KANS | 80 | 98 | NA |
| KY | 90 | 98 | 96 |
| LA | 98 | 96 | 97 |
| MICH | 99 | 99 | 100 |
| MINN | 99 | 99 | 99 |
| MISS | 96 | 96 | 96 |
| MO | 80 | 100 | 98 |
| NEBR | 100 | 100 | 100 |
| N C | 94 | 99 | 95 |
| OHIO | 95 | 100 | 100 |
| S C | 93 | 94 | 95 |
| TENN | 92 | 96 | 90 |
| 18 STATES | 95 | 98 | NA |
| EXCL. STATES WITH NA | 95 | 99 | 98 |

THESE 18 STATES PRODUCED 95% OF THE 1980 SOYBEAN CROP.

NA - NOT AVAILABLE

| | SPRING WHEAT % HEADED | | |
|----------|--------------------------|------|------|
| | 1981 | 1980 | AVG. |
| IDAHO | 64 | 70 | 62 |
| MINN | 88 | 89 | 72 |
| MONT | 40 | 55 | 45 |
| N D | 59 | 58 | 49 |
| S DAK | 93 | 92 | 85 |
| 5 STATES | 67 | 70 | 59 |

THESE 5 STATES PRODUCED 92% OF THE 1980 SPRING WHEAT CROP.

| | SORGHUM % PLANTED | | |
|----------|----------------------|------|------|
| | 1981 | 1980 | AVG. |
| COLO | 93 | 100 | 100 |
| KANS | 90 | 100 | 100 |
| MO | 75 | 100 | 96 |
| NEBR | 100 | 100 | 100 |
| OKLA | 100 | 95 | 99 |
| S DAK | 100 | 100 | 100 |
| TEX | 100 | 100 | 99 |
| 7 STATES | 95 | 100 | 99 |

THESE 7 STATES PRODUCED 92% OF THE 1980 SORGHUM CROP.

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 ESS State Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures 3° below normal. Rainfall generous, over 1.00 in. at most locations.

Fieldwork: 4.2 days. Activities: Wheat harvest, planting soybeans and sorghum, and row crop cultivation. Corn silked 84%, 58% 1980, 65% average; dented 36%, 4% 1980. Soybeans: Planted 97%; blooming 10%, 5% 1980. Sorghum planted 88%, 83% 1980. Cotton: Squaring 78%, 73% 1980, 62% average; setting bolls 14%, 10% average. Peanuts pegging 42%, 29% 1980, 40% average. Wheat harvested 99%. Conditions: Corn, soybeans, cotton, peanuts, sorghum good; pastures fair.

ALASKA: Some daily precipitation slowed the farmwork in nearly all agricultural areas. Winds caused some lodging throughout Railbelt. Areas had fewer than four days suitable for haying activity. Grass hay harvesting ranged up to 95% complete. Grain heights on barley fields ranged from 24 to 30 in. Oats and barley fields advanced to boot stage with earliest fields heading out. Soil moisture supplies mostly adequate to surplus.

Tanana Valley: Cool, wet pattern continued. Temperatures remained below normal from 11 to 15°.

Heavy precipitation ranging from 0.50 to 1.33 in.

Matanuska Valley: Rainy and cool weather. Temperatures were below normal and precipitation moderate to heavy.

Kenai Peninsula: Mixture of fair and cloudy, damp days kept temperatures on the average about normal with light precipitation.

Kodiak Island: Warm and relatively dry week brought temperatures to above normal marks and kept precipitation light.

ARIZONA: Near normal temperatures 1st part of week, scattered showers eastern two-thirds. Sunny, hot, dry weather returned last half week. Average temperatures mostly 1 to 7° above normal.

Growing conditions ideal cotton; warm, dry, about 95% fields squaring compared 85% last year. Harvest wheat, barley winding down, virtually complete. Safflower, corn, sorghum excellent growth. Sugarbeet harvest very good progress. Harvest cantaloups, honeydews virtually complete, ahead of normal. First picking watermelons about complete. Grape harvest active, well ahead normal. Citrus harvest virtually complete, new crop prospects generally good. Ranges mid-to-higher ele-

vations fair, southern deserts very poor to poor. Livestock fair supplemental feeding required. Water supplies short southern Deserts, short to adequate higher elevations.

ARKANSAS: Scattered thundershowers. Highest temperature 99°, lowest 56°. All departures from normal +2 to -5°. Most rainfall 5.34 in.; least trace.

Soybean planting active following wheat harvest. Soybeans 91% planted, 96% 1980, 94% average; emergence 79%, 90% 1980. Wheat harvest virtually completed. Oats harvest virtually completed. Cotton 69% squared, 85% 1980. Five days available for fieldwork. Soil moisture supplies adequate. Forage cover on pastures slightly above average. Livestock condition good.

CALIFORNIA: Another week of above normal temperatures and little or no precipitation. The Central Valley continued to record well above normal temperatures but the Coast returned to near normal and the coastal low clouds moved into cool off the immediate coastline. In the mountains some showers and thundershowers appeared late in the week but only slight amounts of rain fell in widely scattered areas. Favorable warm weather trends.

Wheat 77% harvested, 65% one year earlier. Rice progressing well. Herbicide applications continue. Cotton making good progress. Squaring 35% complete, 25% one year earlier. Dry beans and sugarbeets continue to make good progress. Corn tasseling begun. Alfalfa tonnage and quality good. Freestone peach, nectarine, citrus, and Hass avocado harvest continued. Spraying for fruit moth in Cling peaches, prunes still necessary. High temperatures hindering some pest control activities, causing quality reductions Kiwi, Valencia oranges. Harvest continues, lettuce, broccoli, cauliflower. Harvest increasing carrots, all melons, tomatoes, peppers. Desert harvest above complete all crops. Hot weather affecting San Joaquin Valley crops. Ranges continue extremely dry with high fire danger. Range fires continue problem most areas. Stock water supplies being depleted some districts.

COLORADO: Moisture spread northward combining with eastward moving Pacific fronts, producing scattered showers and thunderstorms most days. Precipitation amounts were locally heavy over mountains and eastern Plains where from 1.00 to nearly 5.00 in. of rain fell. Temperatures averaged above seasonal normals in all basins.

Winter wheat turned color 90%, 92% 1980, 91% average; ripe 42%, 36% 1980, 51% average; harvest 7%, 7% 1980, 21% average. Barley headed 75%, 70% 1980; turned color 43%, 39% 1980; ripe 5%, 0% 1980. Corn average height 26 in.; 26 in. 1980; 32 in. average. Sorghum planted 93%, 100% 1980, 100% average; emerged 78%, 90% 1980, 99% average. Dry beans seeded 99%, 98% 1980, 99% average; emerged 94%, 96% 1980, 94% average. Alfalfa 1st cutting 83%, 78% 1980, 85% average; 2nd cutting 8%, 12% 1980, 14% average. Ranges and pastures fair condition. Livestock good condition. Five and one-half days suitable for fieldwork.

FLORIDA: Continued sunny, hot and dry, especially throughout central areas. High temperatures remained in 90's and lows in 70's with the lion's share of precipitation going to the Panhandle where some areas averaged 1.50 in. each day from July 1 to 5. Miami and extreme southeast experienced some street flooding and thundershowers on the 2nd.

Topsoil moisture mostly short. Some localities in Panhandle; a few areas West Coast and in South Florida have adequate to near adequate moisture. Extensive fires upper East Coast area burned over much acreage. Some unirrigated corn, drier cen-

tral, northern localities being salvaged for silage. Tobacco harvest making good progress. Showers beneficial to peanuts, some areas, but additional rain needed many areas. Soybean planting about finished most areas. Some stands poor due to dry soils. Some early planted fields blooming, setting early pods. Sugarcane fair to good progress, but more rain badly needed. Pastures in Panhandle and south mostly good condition. All other areas very poor to fair. General rain needed before improvement noted. Cattle mostly fair condition. Citrus grove condition good. Need for rain increasing; many caretakers irrigating. Lakes, ponds and streams at record low levels. Valencia harvest virtually complete. Weather continued sunny and hot in vegetable areas. Rainfall was generally light in most areas except the Panhandle and extreme southeast. Total vegetable shipments down 44% from previous week. Volume declined seasonally celery, sweet corn, cucumbers, eggplant, okra, peppers and tomatoes. Season complete squash. Watermelon harvest declining seasonally. Quality mostly good.

GEORGIA: Temperatures 2 to 5° below normal. Scattered thundershowers early and late in week. Rainfall amounts between 0.50 and 1.00 in., but ranged up to 2.00 in. in mountains and over southern third of the State. Widely scattered thundershowers 5th produced additional rainfall averaging near 0.25 in. Statewide. Temperatures near normal.

Soil moisture short to adequate. Average 5 days suitable for fieldwork. Corn fair to good; 96% silked, 75% dough, 42% dent, last year 85% silked, 49% dough, 22% dent. Soybeans fair to good; 95% planted, same as last year, 8% blooming, same as last year. Peanuts fair to mostly good; 90% blooming, 95% last year, 94% average, 65% pegging, 72% last year, 74% average. Cotton fair to good; 89% squaring, 90% last year, 63% setting bolls, 54% last year, 61% average. Tobacco fair to good; 19% harvested, 20% last year, 29% average. Sorghum 85% planted, 87% last year. Wheat 98% harvested, same as last year. Haying continuing, condition fair to good. Pastures and cattle fair to good; hogs in fair to mostly good condition. Peaches fair to good; 55% harvested, 61% last year, 73% average. Apples in fair to good condition. Watermelons mostly fair to good; 46% harvested, 32% last year, 59% average. Vegetables fair to good.

HAWAII: Weather most sections dry. Irrigation heavy to maintain fair to good crop growth. Voluntary water use in effect upper area, Island of Maui. Water for livestock use hauled in areas where needed. More moisture needed Island of Hawaii. Dry weather affecting crop progress, but not seriously. Vegetables: Supplies adequate. Chinese cabbage, heavy. Bananas: Supplies generally light. Orchards need more rain. Papayas: Supplies heavy. Condition generally fair to good. Light rains adding some soil moisture. Pineapples: Peak season now. Active harvesting all pineapple growing areas. Sugar: Harvesting accelerating at rapid pace due to dry weather. Lack of moisture showing stress some sections. Pastures: Water hauling for livestock use Island of Maui. Forage growth slow dry areas.

IDAHO: Temperatures ranged from 2° below normal to 6° above. Some stations in the south reported 100° plus, over the holiday weekend. Precipitation light, most stations reported a trace or none. Northern Panhandle reported up to 0.25 in.

Winter wheat headed 92%, 92% 1980, 94% average. Over 14% turning color. Problems with rust, aphids and lodging. Spring wheat headed 64%, 70%, 62%. Spring barley 64%, 64%, 65%. First cut alfalfa 84%, 81%, 75%. Cherries harvested 50%. Potatoes 22% closed rows. Recovering from frost. Development 1 to 3 weeks behind. Six days suitable.

ILLINOIS: Temperatures 0 to 2° above normal. Precipitation 0.20 in. northwest section, 1.00 to 3.00 in. southern half.

Corn condition 21% excellent, 57% good, and 22% fair; average height 45 in., most advanced 60 in.; 5% silked, 15% 1980, and 11% average. Soybean planting 98% complete, 100% 1980, 100% average; 5% blooming, 21% 1980, 15% average; condition 7% excellent, 63% good, 30% fair. Winter wheat harvest 75% complete, 48% 1980, 57% average. Oats 10% excellent, 84% good, 6% fair; 97% filled, 80% 1980, 84% average; 65% turning yellow, 30% 1980, 46% average, 20% ripe, 10% 1980, 17% average. Alfalfa condition 21% excellent, 69% good, 10% fair; second cutting 55% complete, 28% 1980, 36% average. Red clover condition 22% excellent, 64% good, 14% fair; first cutting 90% complete, 95% 1980, 96% average. Pastures 28% excellent, 68% good, 4% fair. Soil moisture 6% short, 79% adequate, 15% surplus. Fieldwork 5.5 days suitable.

INDIANA: Warm humid week. Heavy rains in southeast averaged 2.50 in. North central had only 0.30 in., elsewhere 0.50 to 2.00 in. Temperatures 2° above normal and ranged from 58 to 93°.

Fieldwork averaged 6 days. Topsoil and subsoil moisture mostly adequate. Soybeans 95% planted, 1980 100%, average 100%. Soybeans 85% emerged. Soybeans 6 in. high, 1980 11 in., average 11 in. Soybeans mostly fair to good. Corn mostly fair to good. Corn 23 in. high, 1980 41 in., average 42 in. Wheat 25% combined, 1980 15%, average 35%. Wheat 60% ripe, 1980 55%, average 70%. Oats 3% combined, 1980 1%, average 6%. Rye 20% combined, 1980 15%, average 35%. Alfalfa 30% cut and 2nd time, 1980 30%, average 30%.

IOWA: Near-seasonal temperatures with moderate to heavy rain excepting light over the northeast quarter of State. Light to moderate showers fell the 29th, Statewide, and moderate to heavy rains fell 3rd and 4th over the south and west. Rainfalls in excess of 7.00 in. fell in Wayne County and 6.00 in. in Clarke County with associated flash flooding resulting in loss of lives, property and crops.

Topsoil moisture: 11% short, 71% adequate, 18% surplus. Subsoil moisture: 34% short, 59% adequate, 7% surplus. Second cut alfalfa hay harvested: 18% complete, 1980 32%, normal 19%. First crop clover hay harvested: 91% complete, 1980 92%, normal 89%. Fieldwork: 4.5 days suitable. Crop conditions: Pasture, winter wheat, alfalfa hay, clover, oats, corn and soybeans good. Livestock good.

KANSAS: Precipitation generally 0.50 to 1.50 in. most of State, although drier areas extreme southwest and northeast received least. Temperatures averaged 75 to 79°, 1° below normal central, 2° above normal northeast and southwest.

Rain caused further delays wheat harvest, but still ahead of schedule. Grass, weed problems continue, some loss quality expected. Harvest 75% this year, 65% last year, average 55%. Corn making excellent growth, silking 15%. Sorghum 90% planted. Good growth early planted acreage, some replanting necessary. Heading zero this year, 1% last year, average 1%. Soybean planting, delayed by rain, 80% complete; blooming 4% this year, 10% last year, 4% average. Range and pasture good to excellent.

KENTUCKY: Rain fell most days this past week with averages well above the inch mark. Several locations reported over 2.00 in. Temperatures averaged close to normal.

Soybean planting advanced to 90% complete, last year 98%, average 96%. Corn 20% silked, ahead of last year's 5% and average of 15%. Wheat harvest 85% complete. Tobacco in fair condition. In-

sects on tobacco a problem. Blue mold confirmed in two counties.

LOUISIANA: Numerous showers across the State. Temperatures near normal to 2° below normal.

Soil moisture adequate to surplus. Days suitable: 4.6. Corn silked 96%, 72% 1980, 88% average; dough stage 79%, 40% 1980, 55% average; mature 37%, 4% 1980; condition good. Rice headed 38%, 37% 1980, 41% average; condition good. Cotton squaring 72%, 59% 1980, 68% average; setting bolls 35%, 16% 1980; condition fair to good. Soybeans planted 98%, 96% 1980, 97% average; emerged 94%, 91% 1980; blooming 10%, 13% 1980; setting pods 2%, 2% 1980; condition fair to good. Sorghum headed 52%, 17% 1980; turning color 19%; condition good. Sugarcane condition good. Sweetpotato transplanting virtually complete; condition good. Vegetables fair to good. Hay first cutting 92%, 96% 1980. Pastures, livestock good condition. Peach harvest 62%, 64% 1980; condition good.

MARYLAND AND DELAWARE: Corn in good condition, tasseling on Eastern Shore. Soybeans 95% planted, 90% normal and last year. Maryland wheat 40% cut, 65% last year. Delaware wheat 35% cut, 30% last year. Scab serious in north. Barley in Maryland 75% harvested, 90% last year; Delaware 80% this year, 90% last year. Oats in Maryland 50% harvested, 75% last year. Rye in Maryland 55% cut, in Delaware 45%. Alfalfa hay 2nd cut, Maryland 40%; Delaware 45%. Other hay 2nd cut, Maryland 25%, Delaware 20%. Tobacco planting complete. Pea harvest 100% in Maryland; 90% in Delaware. Cucumber harvest 30% in Maryland; 20% Delaware. Snap beans 50% Maryland; just began Delaware. Fieldwork: 5.5 days. Soil moisture adequate.

Temperatures 3° below normal. Highs in low 80's, lows in 60's. Rainfall between 0.25 and 0.75 in.

MICHIGAN: Above normal temperatures reported. Deviations averaged from 1 to 4° above normal. Precipitation light over southern, western and northern Lower Peninsula with moderate to heavy amounts through the central portions. As much as 2.00 in. reported over the tip of the thumb. The Upper Peninsula picked up amounts over 1.00 in. through the central portions.

Conditions excellent for crop growth and field activities. First cutting of hay continued with 85% cut. About 5 days were suitable for fieldwork. Dry bean plantings virtually complete. Corn 23 in., 25 in. last year, 29 in. normal. Strawberry picking is 90% complete, above last year, 86% normal. Fruit size: Apples, average for most varieties. Sweet cherry harvest underway with 5% harvested, same as last year, 18% normal. Vegetable development continues to be normal.

MINNESOTA: Temperatures averaged 2 to 4° above normal in all districts except locally in northeast, east central, and southeast where temperatures averaged from normal to 2° below normal. Extremes: 97° at Canby, 40° at Duluth. Precipitation was spotty but generally much of the State was below normal. Rainfall totals across portions of northern and southern districts averaged 0.50 in. to 1.25 in., while rest of State received little precipitation. Extremes Aitkin and Browns Valley no rainfall, 1.28 in. at Pipestone.

Dry weather with a few sunny days helped to alleviate excessive moisture. Crops greatly benefited from favorable weather and sustained excellent growth and development. Crops in southwest again beginning to show signs of stress and rain needed soon if growth to continue. Topsoil moisture 4% very short, 10% short, 78% adequate, and 8% surplus. Cultivated once: field corn 92%, 1980 97%, normal 93%; soybeans 86%, 1980 90%, normal 88%; sunflowers 90%, 1980 91%. Height: field corn 28 in., 1980 32 in., normal

36 in.; soybeans 9 in., 1980 12 in., normal 12 in.; sunflowers 18 in., 1980 23 in. Tasseling: field corn 1%, 1980 0%, normal 8%. Blooming: soybeans 2%, 1980 10%, normal 15%. Heading: spring wheat 88%, 1980 89%, normal 72%; oats 92%, 1980 90%, normal 79%; barley 90%, 1980 93%, normal 77%. Turning ripe: spring wheat 11%, 1980 13%, normal 13%; oats 11%, 1980 8%, normal 19%; barley 14%, 1980 19%, normal 20%; winter wheat 53%, 1980 55%, normal 53%; rye 52%, 1980 55%, normal 55%. Cut or swathed: oats 1%, 1980 0%, normal 1%; winter wheat 1%, 1980 0%, normal 2%; rye 1%, 1980 0%, normal 4%. First crop cut: alfalfa cut 89%, 1980 96%, normal 92%.

MISSISSIPPI: Temperatures 2 to 3° below normal. Low pressure combined with moist southerly winds produced rain throughout the State. Totals of 2.00 in. were common. Greatest 24-hour rainfall 5.62 in.

Soil moisture adequate. Fieldwork: 3.6 days suitable. Cotton 92% squaring, 89% last year, 77% average; 58% blooming, 38% last year, 31% average; 25% setting bolls, 3% last year, 10% average; condition good. Soybeans 96% planted, 96% last year and average; 5% blooming, 6% last year; condition good to fair. Corn 80% silking, 62% last year, 63% average; 47% dough stage, 20% last year; condition good. Sorghum 94% planted; 5% headed. Rice 5% headed; condition good. Winter wheat 99% harvested; hay 53%; peaches 43% and watermelons 31% harvested. Pasture condition good.

MISSOURI: Temperatures averaged near normal. Daytime highs were mostly in the mid to upper 80's and reached into the lower 90's on 29th. Conditions were humid with scattered thunderstorms 29th and 30th and again on 3rd and 4th.

Fieldwork: 2.4 days suitable. Corn 15% tasseled, last year 13%. Grain sorghum 75% planted, last year 100%, normal 96%. Soybeans 80% planted, last year 100%, normal 98%. Wheat 41% harvested, last year 67%, normal 60%. Oats 13% harvested, last year 24%. Alfalfa hay, 2nd cutting 39% harvested, last year 50%, normal 44%. Other hay 63% harvested, last year 85%. Cotton 65% squaring, last year 75%. Condition of cotton poor to fair. Condition of corn fair to good. Condition of pasture good to excellent. Topsoil moisture supplies adequate to surplus. Double-crop soybeans 43% planted, last year 48%.

MONTANA: Temperatures averaged above normal. Southwest, south central and southeast had temperatures about 5° above normal. Warmest temperatures occurred at end of week. Highest 102° at Glendive, lowest 29° at Wisdom. Precipitation was light. Some areas of northeast received 0.25 in. early in the week.

Topsoil moisture short to adequate, subsoil moisture short eastern third; adequate elsewhere. Fieldwork: 6 days suitable. Winter wheat condition good to excellent. Spring crops in good to excellent condition south central and fair to good in eastern third, good elsewhere. Sugarbeet thinning near completion. Crop progress compared with last year and average: winter wheat headed 75, 65, 70; spring wheat headed 40, 55, 45; barley headed 40, 50, 40; oats headed 40, 55, 45. First cutting alfalfa hay harvested 45, 50, 60; wild hay harvested 25, 20, 25. Stock water short in eastern third; mostly adequate elsewhere.

NEBRASKA: Precipitation: averaged 1.10 in.; heaviest amounts averaging 1.80 in. northeast. Temperatures: normal.

Winter wheat mostly fair; harvested 25%, same as last year and normal; mature 60%, last year and normal 70%. Corn fair to mostly good; silking 1%, same as last year and normal.

Soybeans fair to good; blooming 5%, last year 10%. Sorghum mostly fair to good. Chinch bugs continue widespread damage. Second cutting alfalfa 35%, previous year and normal 25%. Dry-land yields short. Pasture and range feed supplies short to adequate. Topsoil moisture short to adequate. Subsoil moisture mostly short to adequate. Days suitable: 5.0.

NEVADA: High pressure and a very warm air mass dominated weather throughout the week. Temperatures averaged well above normal most areas. Extremes: 110 and 30°.

Alfalfa first cuttings hay about 75% completed. Dry weather ideal for harvest. Hot, dry winds depelting irrigation supplies. Potatoes and garlic good condition. Small grain harvesting extending northward.

NEW ENGLAND: High pressure; temperatures near to somewhat above normal. Humidity increased through the week. Daytime highs: 70's and 80's, few 90's. Most coastal areas foggy and cool. Late week showers, south and central; local amounts in excess of 1.50 in.

Fieldwork: 5.5 days favorable. First crop hay cut, 65%. Potatoes; some blooming, cultivating and applying herbicides. Oats growing well, some heading. Apples: Scab, winter injury more apparent. Vegetables growing well, many insects, some Gypsy moth. Cranberries in bloom; active bees, heavy bloom. Strawberries: Active harvest, good yield prospects. Good conditions: Corn, potato, oats, vegetables, cranberries, strawberries. Fair condition: Apples. Soil moisture mostly adequate, grazing adequate.

NEW JERSEY: Temperatures averaged 1 to 3° below normal. Extremes: 50° at Long Valley on 30th and 91° at Toms River on 29th. Rainfall averaged 2.45 in. north, 1.88 in. central and 1.66 in. south. Heaviest 24-hour total 2.55 at Long Branch on 4th. Estimated soil moisture, in percent of field capacity, averaged: 81 north, 76 central and 74 south. Four inch soil temperature averaged: 72 north, 74 central and 75 south. Total sunshine at Trenton: June 29 to July 5 37% of possible hours.

Fieldwork: 5.3 days suitable. Soil moisture levels good. Vegetable movement increasing. Limited Irish potato digging begun. Blueberry supplies good. Peach movement continues light. Apples sizing well. Wheat combining begun. Barley harvest well advanced. Field corn and soybean growth good. Second cutting of hay begun. Hay and pasture growth very good. Soybean seeding continues following grain combining.

NEW MEXICO: Showers through the first half of week all sections and eastern section through last half. Temperatures averaged near normal.

Soil moisture continues in short supply. The main farm activities included irrigating, hay cutting, cultivation, and harvest of wheat, barley, and onions. Cotton in good condition with about 90% of the fields showing squares. Some fields in the southern areas beginning to bloom. Alfalfa fields in good condition, however, some down hay rain damaged. The second cutting is nearing completion in the south and progressing in the north. Corn and sorghum in good condition. Harvest of wheat and barley continuing with approximately 90% harvested. Chile and onions in good condition. Peanuts in the Portales area growing well. Range conditions improving in many areas due to recent rain. Cattle and sheep in fair to good condition with herd numbers continuing to be cut.

NEW YORK: Hot, humid weather with frequent showers. Poor haying conditions. First cutting alfalfa 70% done, 91% 1980, 81% average. Clover-Timothy hay 60% in, 76% 1980, 72% average. Grass silage harvesting 79% done, 91% 1980, 86% average.

Corn, wheat, oats in good condition. Wheat turning. Strawberry season nearing completion. Sweet corn planting about done, early varieties maturing. Sweet cherry harvest underway. Tart cherries to start soon.

NORTH CAROLINA: Temperatures: near normal. Precipitation: 0.50 in. in the west to nearly 4.00 in. in the east.

Fieldwork: 5.0 days suitable. Soil moisture: 8% very short, 55% short, 37% adequate. Conditions: pasture fair to good; peanuts fair to good; soybeans mostly good; hay crops fair to good; apples mostly good; peaches fair to mostly good; tobacco fair to mostly good; Irish potatoes and sweetpotatoes mostly good; cotton fair to mostly good; corn fair to good; truck crops fair to mostly good. Harvest: wheat 97%, 1980 98%, 89% average; oats 99%, 1980 100%, 93% average; barley 99%, 1980 100%, 95% average; rye 99%, 1980 100%, 93% average; peaches 39%, 1980 64%, 44% average; hay 66%, 1980 66%, 65% average; Irish potatoes 77%, 1980 62%, 73% average; flue cured tobacco 4%, 1980 2%, 3% average. Phenological stages: cotton squared 65%, 1980 41%; cotton setting bolls 12%, 1980 11%; corn silked 65%, 1980 51%; corn dough stage 35%, 1980 16%; corn dented 9%, 1980 5%; soybeans blooming 1%, 1980 2%. Fuel supplies adequate.

NORTH DAKOTA: Precipitation generally light with amounts averaging 0.25 in. or less, except for locally heavy storms. Temperatures quite hot, averaging 2 to 7° above normal. Extremes: 101° southwest to 40° southeast.

Hot, dry weather pushed crop development but dried topsoil. Signs of heat stress appearing. Additional moisture needed some areas to realize full yield potential. Topsoil moisture supplies short in 39%, up 16% last week, but still improved from 89% last year and 43% average. Small grain development ahead of average pace. Condition still mostly good to very good but somewhat lower than last week. Percents heading or beyond with last year and average; hard red spring wheat 59, 58, 49; durum 41, 49, 38; barley 68, 65, 57; oats 59, 64, 51. Winter wheat acreage 16% turning to ripe and rye 31%. Row crop development rapid, but still behind average pace. Row crops mostly good condition. Percent bloom or beyond last year and average; potatoes 8, 11, 18; dry beans 4, 6, 11; flax 7, 10, 13. Average height of all fields last year and average: sunflower 13, 14, 17; corn 16, 21, 22; soybeans 8, 8, 11.

OHIO: High temperatures early week around 90° but soon fell to upper 70's or low 80's. Averages near normal. Cloudiness kept lows from 3 to 5° above normal and fell below 60° at only few locations. Base 50 growing degree day accumulations ranged from around 150 to 170; 20 to 25 above normal. Precipitation averaged below normal but heavy rains south and east produced a few high readings. Totals ranged from 0.25 to 2.50 in.

Corn rated fair to good. Nutrient uptake a problem in many fields, and drowned out areas a common sight. Soybeans rated fair to good. Planting to be finished this week. Some acreage intended for soybeans or corn will be idle. Wheat rated fair to good. Leaf blight and other diseases have left heads partially unfilled in many fields. Severe lodging will cut yields. Oats in good condition. Virtually all headed. Tobacco transplanting 95% finished. Soybeans planted 95%, 100% 1980, 100% average. Alfalfa harvested, 1st cut 90%, 98% 1980, 100% average. Alfalfa harvested, 2nd cut 10%, 10% 1980, 15% average. Other hay harvested, 1st cut 75%, 90% 1980, 95% average. Wheat ripe 45%, 30% 1980, 45% average. Wheat harvested 5%, 1% 1980, 15% average. Oats ripe 4%, 5% 1980, 10% average. Days favorable: 4.5. Pasture condition

good. Soil moisture 3% short, 55% adequate, 42% surplus.

OKLAHOMA: Rainfall received Statewide. Averaged from 0.70 in southwest to 2.50 in southeast. Temperatures averaged near normal southern areas and east central areas. Elsewhere, ranged from 2° below normal north central to 1° above normal northeast.

Wheat harvest nearing completion. Short soil moisture supplies Panhandle and south central areas. Wheat harvested: 97%, 90% 1980, 94% average. Sorghum grain planted: 100%, 95% 1980, 99% average. Sorghum grain up to stand: 91%, 80% 1980, 85% average. Cotton squaring: 6%, 15% 1980, 8% average. Days suitable for fieldwork: 5.1.

OREGON: Temperatures again reached into the 90's in nearly the entire State except along the coastal strip and broke 100 in several locations over the weekend. Precipitation was limited to less than 0.10 along the coast and the northwest interior while the remainder of the State was dry.

Harvesting of barley started in east. Winter wheat expected to start shortly. About 84% of winter wheat turned color, same as last year. Condition of small grain ranges from very good in east to fair in west. Dry, sunny weather reduced soil moisture, mostly short to adequate. Harvesting of grass seed getting started. Warm sunny weather aided growth and development of vegetables. Green pea harvest progressing normally in Umatilla County. Strawberry harvest about over. Raspberry and blueberry harvest underway. Cherry picking progressing rapidly in Wasco County, later crop improved. Cherry picking underway in Willamette Valley, splitting not too extensive. Livestock, range and pasture condition good to excellent. Some pastures beginning to dry.

PENNSYLVANIA: Seasonably warm with noticeable increase in humidity the last half. Daily maximum mostly in the 70's and 80's and minimum 50's and 60's with extremes of 92 and 47°. Partly cloudy with showers and thunderstorms all but first day. Rainfall total 1.00 to 2.50 in. all areas except extreme northwest where only 0.10 in. This marks the sixth consecutive week that rainfall has equalled or exceeded normal.

Four days suitable. Soil moisture adequate to surplus. Activities: making hay and haylage, cultivating potatoes and corn; spraying potatoes and fruit trees; harvesting barley, tart cherries and vegetable crops. Average height of corn 29 in.; last year 22 in. Tobacco transplanting virtually complete, same as last year. Soybean planting virtually complete, same as last year. Barley 4% headed, 26% turning yellow, 37% ripe, and 33% harvested; last year 9% headed, 31% turning yellow, 38% ripe, and 22% harvested. Wheat 12% headed, 59% turning yellow 26% ripe, and less than 5% harvested; last year 24% headed, 65% turning yellow, 8% ripe, and less than 5% harvested. Oats 77% headed and 15% turning yellow; last year 79% headed and 5% turning yellow. First cutting alfalfa 94%; last year virtually complete. Second cutting 25%; last year 16%. Clo-tim 85% harvested; last year 88%. Quality of hay made fair to good. Feed from pasture average to above average.

PUERTO RICO: Island average rainfall 1.73 in. or 0.61 in. above normal. Highest weekly total 5.40 in. Temperatures averaged about 82° on Coasts and 79 to 77° Interior Divisions. Extremes: 94 and 60°.

SOUTH CAROLINA: Week was mostly cooler than usual changing to warmer by week's end. Highest reading reported on 5th at a number of places

was 90°. Showers and thundershowers occurring throughout the week except 29th.

Soil moisture short to adequate. Five days suitable for fieldwork. Corn fair condition 93% silking, 68% last year, 81% average. European corn borer active. Cotton 98% squaring, 91 last year, 86 average. Pesticides applied. Condition fair to good. Soybeans 93% planted, 94 last year, 95 average. Spraying active. Condition fair to good. Tobacco 83% topped, 50 last year, 71 average. Harvesting active. Peaches fair to good, 34% harvested, 29 last year, 41 average. Snap beans 79% harvested, 91 last year. Condition fair. All cucumbers fair, 94% harvested, 95 last year. Tomato harvest at 91%, 75 last year. Condition poor to fair. Small grain harvest virtually complete; yields better than earlier expected.

SOUTH DAKOTA: Precipitation over most of State. Southern three-quarters received from 1.00 to almost 3.00 in. Temperatures 0 to 3° above normal. Extremes: 101 and 45°.

Five days suitable. Topsoil moisture adequate south central, southeast and parts north central, northeast, east central and central districts; short elsewhere. All row crops in good condition. Average corn height 25 in., 1 in. behind normal. First cultivation near completion. Oats in fair condition, some being cut for oatlage. Winter wheat and winter rye harvest getting started. Other small grains in good condition. Ranges and pastures from very poor to fair condition. First crop alfalfa 91% cut. Spring wheat headed 93%, 1980 92%, average 85%. Winter wheat turning color 89%, 1980 92%, average 78%. Winter rye turning color 90%, 1980 87%, average 76%. Oats turning color 53%, 1980 45%, average 31%. Spring wheat turning color 35%, 1980 39%, average 22%. Barley turning color 60%, 1980 50%, average 36%.

TENNESSEE: Weak fronts dominated during the latter part of the week resulting in general rainfall and cloudiness. Temperatures ranged from near normal in the west to slightly below normal in the east. Rainfall ranged from 1.00 to 2.00 in. over much of the State.

Fieldwork: 4.7 days suitable. Soil moisture adequate. Soybean planting 92% completed, 1980 96%, average 90%. Soybean blooming 5%, 1980 and average. Cotton 66% squaring, 78% 1980, average 52%. Cotton setting bolls 5%, 1980 4%. Corn 37% silking, 1980 21%, average 27%. Corn in dough stage 6%, average 3%. Wheat 91% harvested, 1980 90%, average 87%. Oats 81% harvested, 1980 91%, average 80%. Barley 87% harvested, 1980 93%, average 84%. Tobacco blooming at the 10 to 12 leaf stage. Early planted home gardens being harvested. Japanese beetle causing moderate damage in eastern areas. Livestock and pastures in good condition. Face flies troublesome. Haymaking progressing very well. Second cutting of alfalfa 82% completed, 1980 75%, average 72%.

TEXAS: Weather: Weak cold front triggered thunderstorms South, North Texas. Warm moist southerly flow dominated Texas. Temperature near normal ranging from upper 70's High Plains; mid 80's Cross-Timbers, Blacklands, Lower Valley. Precipitation ranged from .033 in. Trans-Pecos; 2.50 in. Upper Coast, East Texas.

Crops: Dry, open weather allowed planting, harvesting good progress most areas. Scattered showers Panhandle interrupted field activities; provided much needed moisture some areas. Cotton beginning to square High Plains; some early fields blooming. Most fields making good growth with hot, dry weather. Grasshoppers becoming severe problem some areas Low Plains; some fields damaged. Reported condition Statewide is 11% excellent; 62% good; and 27% fair. Sorghum harvest started Coastal Bend; hot, windy days helped dry out both soil and grain. Upper Gulf Coast heads not filling out

properly in fields water-logged. Some stands grain started sprouting head because wet conditions. Panhandle fields good growth; some late planted fields replanted because poor development. Statewide, reported condition is 30% excellent; 59% good; and 11% fair. Corn fields Panhandle good growth. Corn beginning to dent South Central Texas. Reported condition Statewide is 22% excellent; 62% good; 15% fair; and 1% poor. Wheat harvest winding down High, Low Plains. From Low Plains through Cross-Timbers, fields previously too wet to harvest being combined. Wheat condition Statewide is 12% excellent; 42% good; 40% fair; and 6% poor. Peanut planting rapid progress Cross-Timbers with warm, dry weather. East Texas poor seed germination caused some fields replanted. Hay baling active as dry, open weather prevailed. Some portions State, quality poor because of over maturity. Cotton squaring 41%, 48% 1980. Cotton setting bolls 18%, 18% 1980. Cotton open bolls 2%, 5% 1980. Rice headed 79%, 58% 1980. Rice turning color 0%, 24% 1980. Sorghum planted 100%, 100% 1980, 99% average. Sorghum headed 65%, 61% 1980. Sorghum turning color 47%, 46% 1980. Sorghum mature 18%, 26% 1980. Sorghum harvested for grain 10%, 12% 1980, 8% average. Wheat turning color 100%, 100% 1980. Wheat harvested for grain 94%, 85% 1980, 89% average. Oats harvested 96%, 98% 1980, 99% average. Peanuts planted 89%, 100% 1980, 97% average. Soybeans planted 78%, 99% 1980, 97% average. Sunflowers planted 88%, 97% 1980, 95% average.

Commercial vegetables: In Rio Grande Valley melon harvest neared completion. Peppers, tomatoes and cucumbers continued with good volume. Citrus groves sprayed for mites and melanose. In Coastal Bend area, harvest watermelons, cantaloups, cucumbers continued. In San Antonio-Winter Garden area wet fields continued to delay harvest activity. In East Texas, harvest blackeye peas, sweet corn, tomatoes, squash, beans, watermelons and cantaloup active. In Trans-Pecos area, cantaloups, watermelons making excellent growth. Onion harvest nearly complete at Pecos. On Plains, harvest of onions began with average yields. Potatoes continue to develop well. Peach harvest continues active. Pecans continue to size rapidly, however, some droppage has occurred.

Range and livestock: Ranges, pastures continued to provide adequate growth most areas except Plains where moisture remains short. Moisture has been adequate and forage growth has been plentiful. Livestock good condition most areas. Hay crops being baled between showers. Some damage from grasshoppers occurred in West Texas.

UTAH: Few widely scattered showers and thunderstorms. Accumulated amounts moisture generally light to locally moderate. Local areas of strong gusty winds and hail with some damage to crops latter part last week. Average temperatures continued well above normal, ranging between 2 and 7° above. Soil temperatures at 4 in. germinating depth ranged from mid-70's in Cache Valley to mid-90's in Utah's "Dixie". Pan evaporation ranged from about 1.80 in. in cooler valleys to nearly 3 in. in warmest areas.

Hot, dry weather reduced soil moisture to short across most of State. Irrigation water been adequate to date, but streams dropping fast. Small grain yields uncertain because of frost damage. A few fields cut for hay. Alfalfa making good recovery after mediocre first cutting, but water may run short. Harvest of a good sweet cherry crop about half complete. Quality good.

VIRGINIA: Precipitation began on 1st and continued throughout the remainder of period. Totals averaged from 2.00 to 3.00 in. with lesser amounts in southwest. Temperatures were about 5° below normal and showed a warming trend by end of period. Prior to 4th of July weekend, soil moisture was rated 61% short, 38% adequate, 1% surplus. Rain

fell over most of the State 3rd, 4th, 5th. Norfolk considering removing water shortage restrictions imposed nearly a year ago. An average of 4.8 days suitable for fieldwork. Corn rated good to excellent condition; 24% of the crop was silked, 12% 1980. Soybeans in good to excellent condition, late planting of double cropped beans still active. Tobacco in good to excellent condition, topping and spraying for sucker control were active. Irrigation systems were utilized during the week. Some very early plantings have been primed. Peanuts in good to excellent condition, applications of land plaster and spraying for leafspot continued. Hay-making and baling straw were active. Hay fields in good condition although some hay was spoiled by the rain. Pastures only good after two weeks of minimal rainfall. Small grain harvest winding down with 97% of barley combined, 90% 1980, 84% average. Wheat 80% cut, 71% 1980, 70% average. Oats 52% harvested, 50% 1980, 51% average. The fruit crop in good condition and a few early peaches were picked during the week. Vegetable harvest continued and the potato crop ahead of last year.

WASHINGTON: West: Temperatures were slightly above normal except in the northeast Olympics, where they averaged 2° below normal. Precipitation averaged well below normal for the entire area with amounts ranging from 0.05 in. in the Olympics to 0.20 in the Cascades. No rain fell in the southwest interior. Strawberries were at peak harvest while raspberries were approaching it. Fruit rot in strawberry fields continued to surface. Warm weather vegetable crop showed improvement under the warm, sunny conditions. The harvest of early vegetables continued. Hay cutting progressed in drier areas of the west. Hay supplies remained adequate. Soil moisture was adequate or better.

East: Temperatures were near normal in all but the eastern part where they averaged 2 to 4° above normal. No precipitation fell in the south and southeast and only very light amounts were reported elsewhere. All areas had below normal precipitation. Cherry harvest was winding down in the early areas but continuing in the upper elevations. Peaches, pears, nectarines and apricots sizing well. Apples reported somewhat slower. Vegeta-

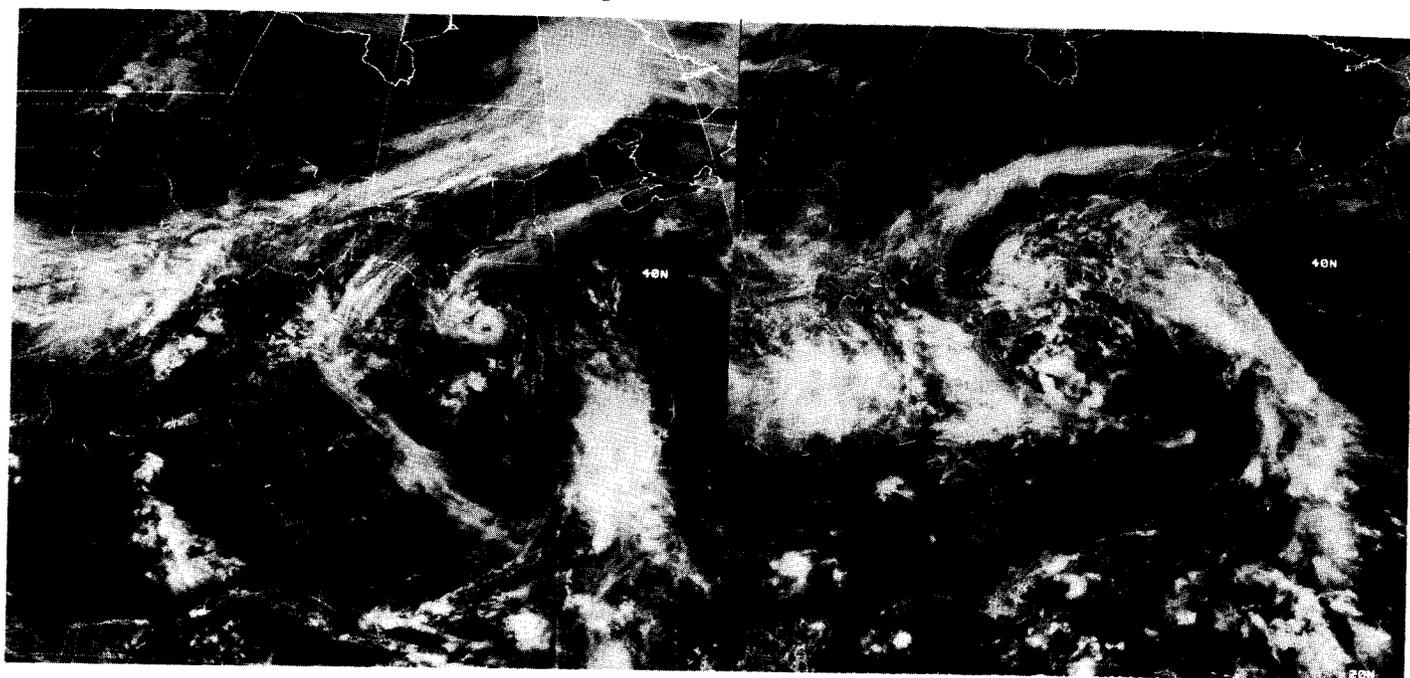
bles, potatoes and green peas progressing nicely. Early cabbage harvest was near completion while sweet corn harvest will begin soon. Grain crops reported to be in good condition. Some spraying for aphids, however, was still necessary in badly infested fields. Soil moisture generally good in all dryland areas. Both lentils and dry peas in good condition.

WEST VIRGINIA: Temperatures averaged below normal. High 90°, low 37°. Precipitation well above average except in north central; range 5.36 to 0.31 in.

Soil moisture adequate to surplus. Days suitable for fieldwork: 3.3. Main activities, haying, gardening, general maintenance. Grains in good to fair condition. Wheat: 68% headed, 26% ripe, 6% harvested; 47%, 47%, 6% in 1980. Barley 25% headed, 55% ripe and 20% harvested; 16%, 56%, and 28% in 1980. Oats 34% pre-headed, 60% headed, 5% ripe; 1% harvested; 22%, 71%, 4%, and 3% in 1980. Corn 100% planted, 98% emerged; 99%, and 96% in 1980. Tobacco fair condition. Hay fair to good condition, 1st harvest 56% complete, 2nd cutting 11%; 81% and 17% in 1980. Pastures good to fair condition. Potatoes and gardens fair to good. Fruit fair to good. Frequent summer showers continue to dominate State causing problems with hay harvest and insect control.

WYOMING: Temperatures above normal. Highest temperature 109°. Lowest 40° in Big Horn and Belle Fourche Drainages. Below normal precipitation all stations except two. Greatest amount 0.57 in.

Topsoil moisture supplies rated 15% adequate; 85% short or very short; year ago, 21% adequate; 79% short or very short. Days suitable for fieldwork: 6.6. Winter wheat: 65% turning color; year ago 66%; normal 60%. Spring wheat headed 55%; year ago 60%; normal 65%. Oats headed 50%; year ago 49%; normal 60%. Barley headed 70%; year ago 70%; normal 74%. First cutting alfalfa 60% complete; year ago 54%; normal 57%. Other hay 20% cut; year ago 12%; normal 21%. Over 80% counties report no hail damage, same as year ago. Most ranges reported as fair to good. Stock water supplies 45% adequate; 55% short; year ago 79% adequate; 21% short.



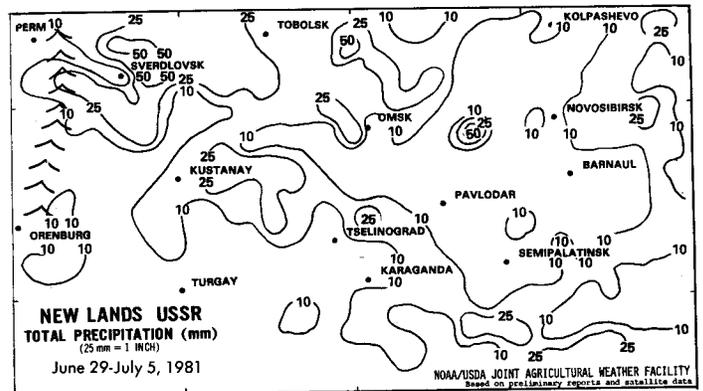
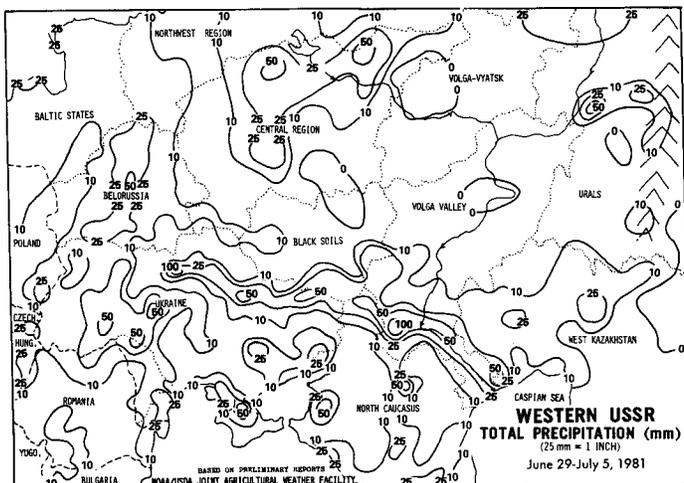
Tropical storm Bret, shown just before it moved onshore in Southern Virginia the afternoon of June 30, 1981 (left), and again in the afternoon of the following day (right). Bret caused widespread rain along the middle Atlantic seaboard as it moved inland.

International Weather and Crop Summary

June 29 - July 5, 1981

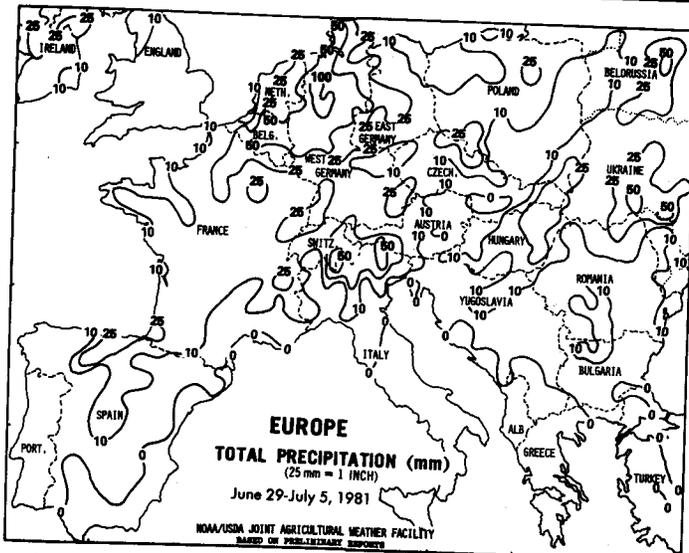
HIGHLIGHTS

- EUROPE: Conditions became unfavorably wet for maturing winter grains in West Germany.
- USSR: Rainfall and cooler weather improved growing conditions in southeastern European USSR. Dry conditions in the eastern New Lands remained a threat to spring grains, despite cooler weather.
- CHINA: Heavy rains across much of the north improved growing conditions. The excessive water may have caused some localized flooding or erosion problems.
- INDIA: Heavy monsoon rainfall covered much of the north. Flooding was reported on the Brahmaputra and Ganges Rivers.
- CANADA: Warm, relatively dry weather increased crop moisture use as wheat approached the heading stage.
- AUSTRALIA: Periods of showers and dry weather provided favorable conditions for crop growth.
- SOUTHEAST ASIA: Remnants of tropical storm Kelly dumped heavy rain over portions of Southeast Asia.
- SOUTH AMERICA: Relatively dry, cool weather prevailed in the wheat belts of Brazil and Argentina.
- MEXICO: The Northwest, the southern Plateau, and Veracruz and southward received rain, but the Northeast was generally dry.

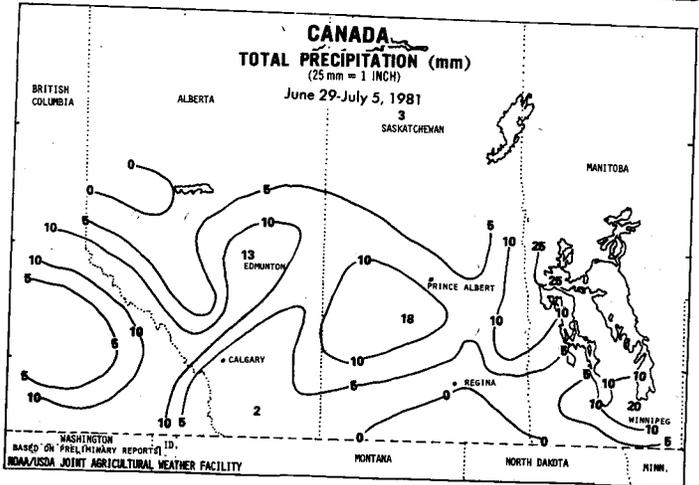


USSR: The high-pressure system over southeastern European USSR weakened somewhat during the week. A front pushed through from the west, producing showers in a band across the dry area, and lowering temperatures to near normal by the weekend. Roughly half of the dry area received above normal rainfall, halting the decline of spring grain yields in those portions. Other parts of the area remained too dry, but stress on plants lessened as cooler weather moved in. Above normal rainfall continued in western portions of the country, and conditions became unfavorably wet

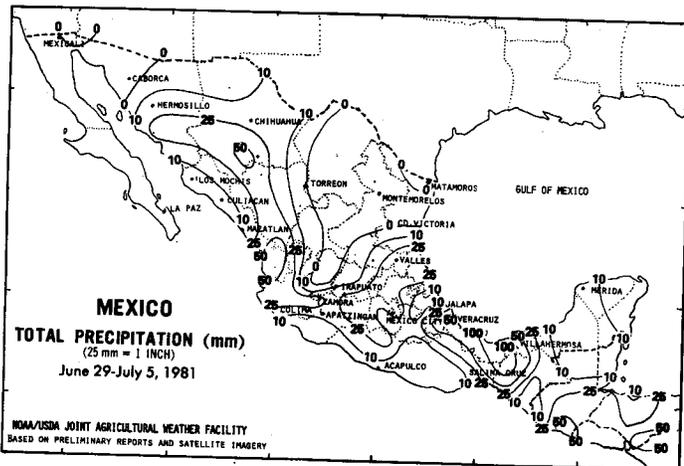
for maturing winter grains in the western Ukraine. Temperatures there dipped below normal. Scattered showers across the south interfered with early winter grain harvesting. In the New Lands, dry weather continued over much of the east, but crop stress lessened as temperatures decreased to below normal with light, scattered frost. Despite this change, dry conditions maintained the potential for serious crop damage to spring grains now nearing the heading stage of development. Many crop areas in the western and northern New Lands received above normal rainfall, keeping crops adequately moist as temperatures surged above normal. Some dry pockets persisted in the northwest, however.



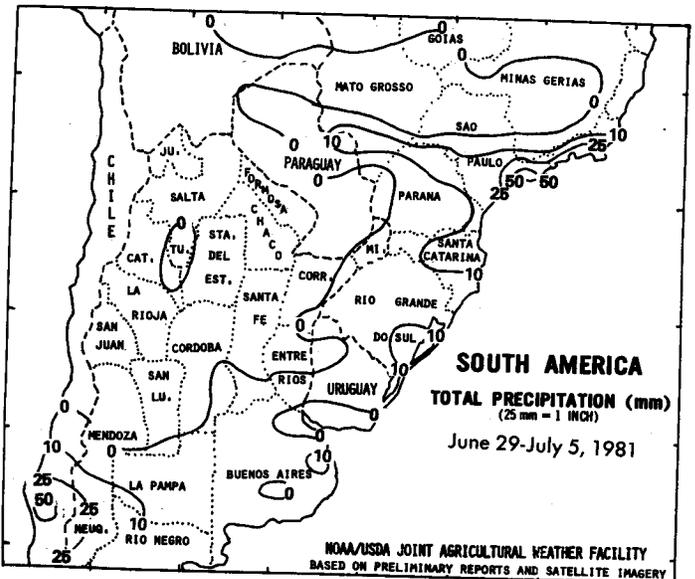
EUROPE: Several fronts moving across the region dumped above normal rainfall on some northwestern areas. The wetness was unfavorable for maturing winter grains, especially in West Germany, but clearer weather returned at the week's end. Generally dry weather in England favored maturing winter grains, while moderate rains in Spain benefited spring-sown crops, and rainfall returned to near normal over most of France. Temperatures ranged just below normal over most of the western countries. A variable rainfall pattern in the east did not show any excessive wetness, allowing most previously wet areas to dry out somewhat. Nearly all eastern countries should have adequate moisture for crop growth. Temperatures stayed near normal.



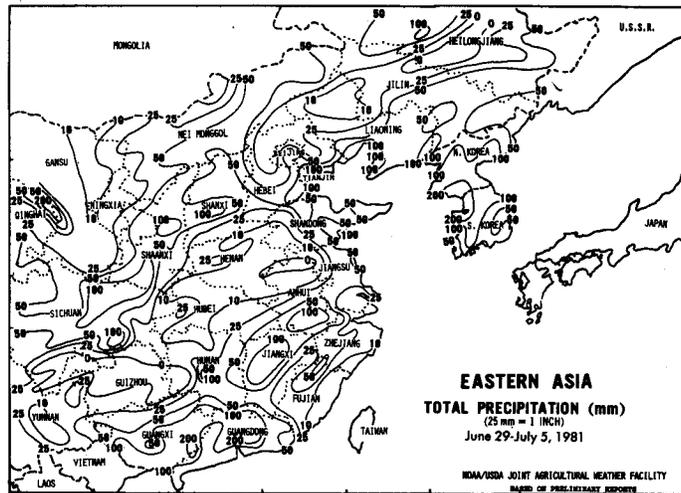
CANADA: Scattered, light showers produced less than 15 mm of weekly rainfall in the Prairie Provinces. Crop areas of Alberta and Manitoba should be well supplied with soil moisture, while, in Saskatchewan, crops should have adequate soil moisture for the near future. Southern Saskatchewan was mostly dry throughout the week, however. Hot weather pushed into the Prairies over the weekend. High temperatures, averaging 32-36° C in southern crop areas, increased crop moisture demands as the wheat crop approached the heading stage of development. The dry weather will force crops to draw from available soil reserves to meet moisture requirements. Crops are rated mostly good throughout the Prairies.



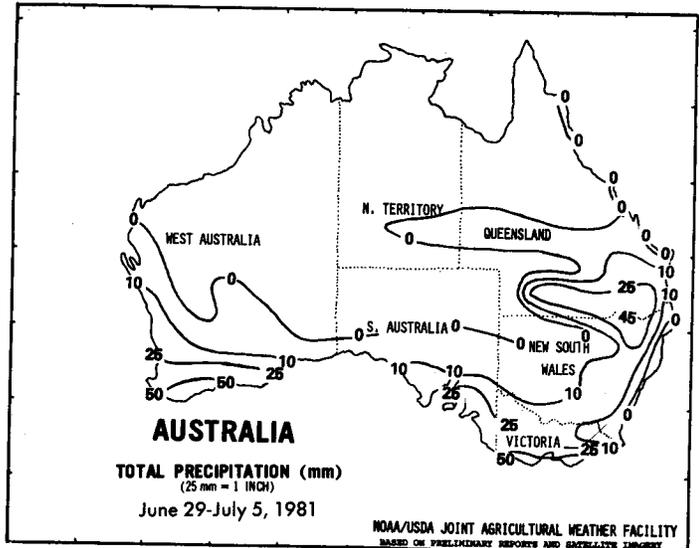
MEXICO: The rainy season was very active over the Northwest, especially the mountainous watersheds. Satellite photos indicated considerable cloudiness with potential rains extending into the West Coast croplands. The Northeast was generally dry, favoring grain harvesting but stressing non-irrigated citrus orchards. Citrus from Valles to Jalapa benefited from light to moderate showers. Most of the southern Plateau cornbelt received 10 to 45 mm of rainfall, helping the crop as it entered a high water use stage. Sugarcane around Veracruz and southward had beneficial heavy rains, 50 to 100 mm.



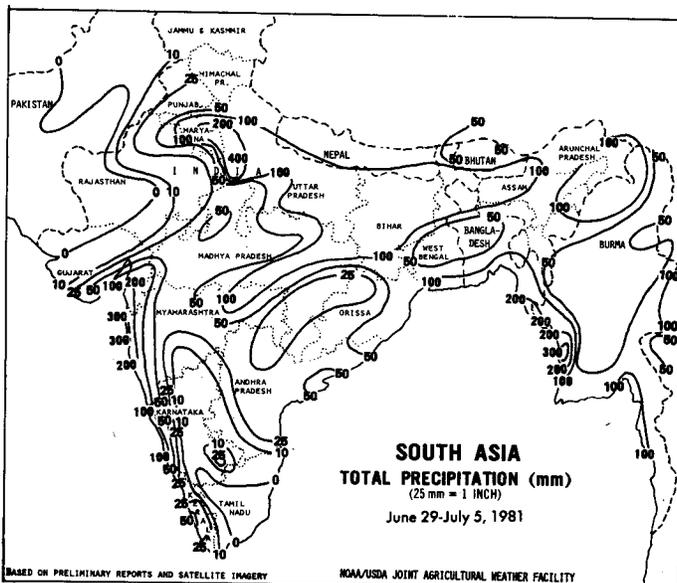
SOUTH AMERICA: Weekly rainfall was light (less than 10 mm) throughout the major crop areas of Brazil and Argentina. Significant moisture was confined mostly to coastal regions of Brazil, east of the primary crop areas. Cool weather dropped temperatures below the freezing level in Argentina's wheat-growing region, but temperatures remained above freezing in Brazil. The wheat crop has advanced into the period of grain formation in northern crop areas of Brazil. Late wheat planting should be nearing completion in Brazil's southern crop area. In Argentina, cool weather sent the wheat crop into a semi-dormant state. Estimates of crop damage resulting from the mid-June frost in Parana suggest that up to 20-25 percent of that State's wheat crop could have been affected. Parana generally produces about 35 percent of Brazil's total wheat crop.



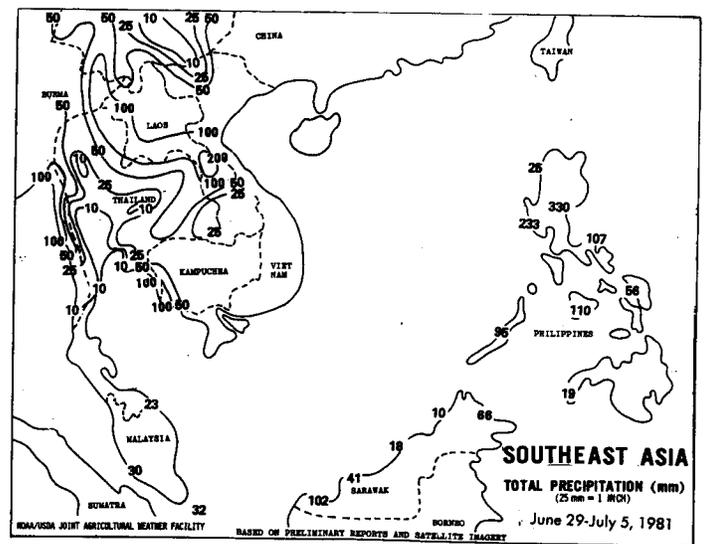
EASTERN ASIA: A slow-moving frontal system dumped heavy rains across the north during the weekend. The areas which benefited from rains included Japan, North and South Korea, China's lower Manchurian Valley, Hebei, Inner Mongolia, and a broad band extending southwestward into the Sichuan Valley. The intense rains likely caused some erosion in the hills of China, but in general, the moisture benefited spring crops immensely. Earlier in the week, heavy rains south of the Yangtze River kept some areas very wet, but conditions in general were favorable for rice growth. Drier weather will be needed in Guangxi and Guangdong as the harvest season for early rice approaches.



AUSTRALIA: Rain fell in nearly all wheat areas during the week, interspersed with several days of dry weather. Above-average amounts of 25-40 mm, associated with a stationary front, occurred in eastern wheat-growing areas of Queensland and northern New South Wales. Seasonal rainfall amounts of 10-25 mm occurred in most other crop areas. The dry weather, as indicated by satellite photos, provided favorable conditions for late sowing activities. Much of the wheat and barley should be in early vegetative growth. Soil moisture supplies should be adequate for vegetative development in most all areas. Early-planted wheat usually does not enter the moisture-sensitive heading period until late August or early September in eastern crop areas.



SOUTH ASIA: The monsoon continued its advance in northwestern India, nearly reaching the Pakistan border. Localized flooding in New Delhi was reported, and abundant rain fell across most of northern India. Lower-than-normal rainfall in parts of Bangladesh was countered by excessive water in the major rivers. Both the Brahmaputra River and tributaries of the Ganges were reported in flood stage. Rainfall slackened in central and northern Gujarat, where planting of cotton and peanuts should be in progress. Dryness persists in parts of Tamil Nadu, although rains are normally relatively light there at the beginning of the monsoon season.



SOUTHEAST ASIA: Relatively cool, dry air, associated with a strong northeasterly flow aloft, brought a temporary lull in the monsoon over the Central Plains of Thailand. However, the remnants of Typhoon Kelly moved over Southeast Asia late in the week, producing locally heavy rain (100-200 mm) in central Laos and extreme northern and eastern Thailand. Rainfall increased over the remainder of Thailand by week's end as the monsoon weather pattern re-established itself. Early-season corn should be approaching maturity in Thailand.

