

# WEEKLY WEATHER AND CROP BULLETIN

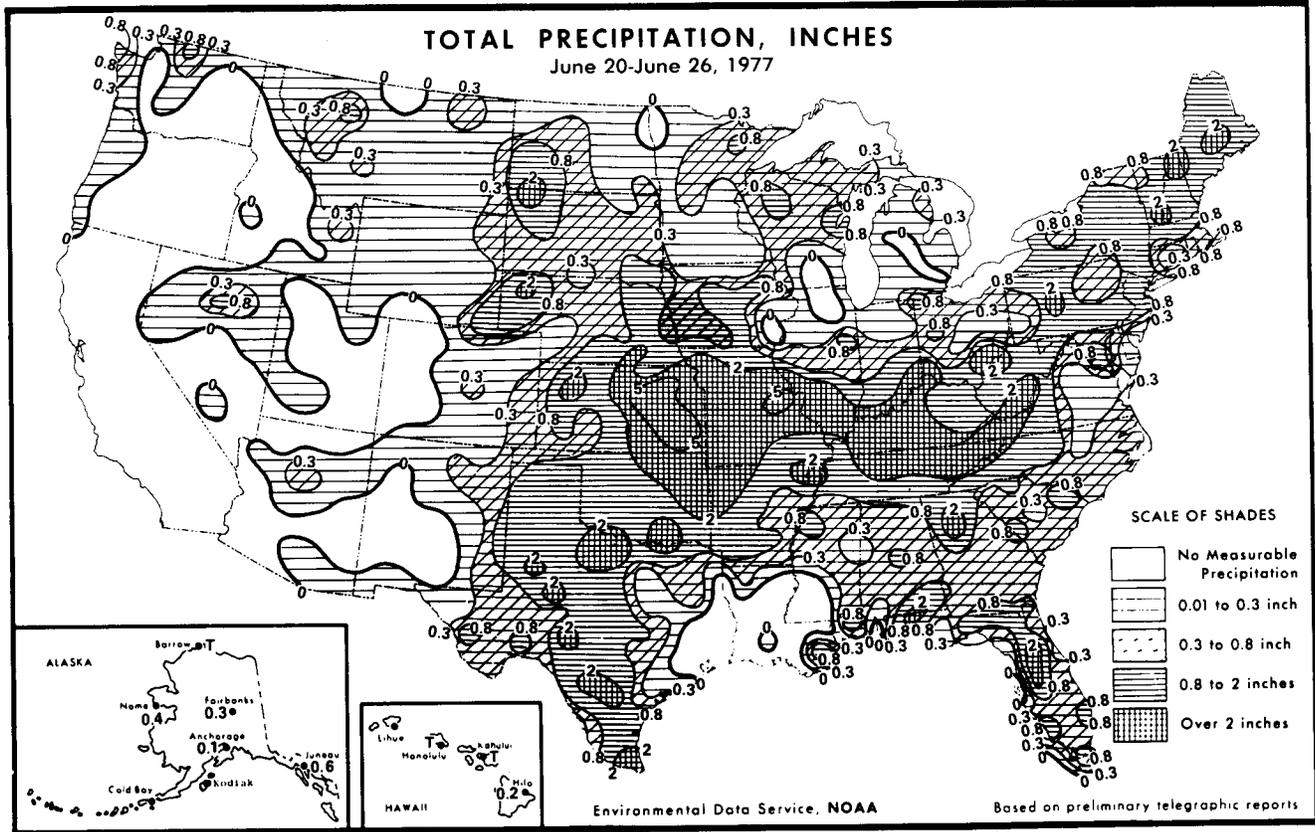
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## National Weather Summary

June 20-26

**HIGHLIGHTS:** Thunderstorms flooded an area from eastern Kansas through Missouri. Heavy rains also hit parts of the Southeast, but skirted the driest portions. Most of the western U.S. received little or no precipitation from the West Coast to the Rockies.

Temperatures were generally above normal except from the southern Rockies southward into the western half of Texas and from the Great Lakes eastward to the Atlantic Coast and southward to North Carolina.

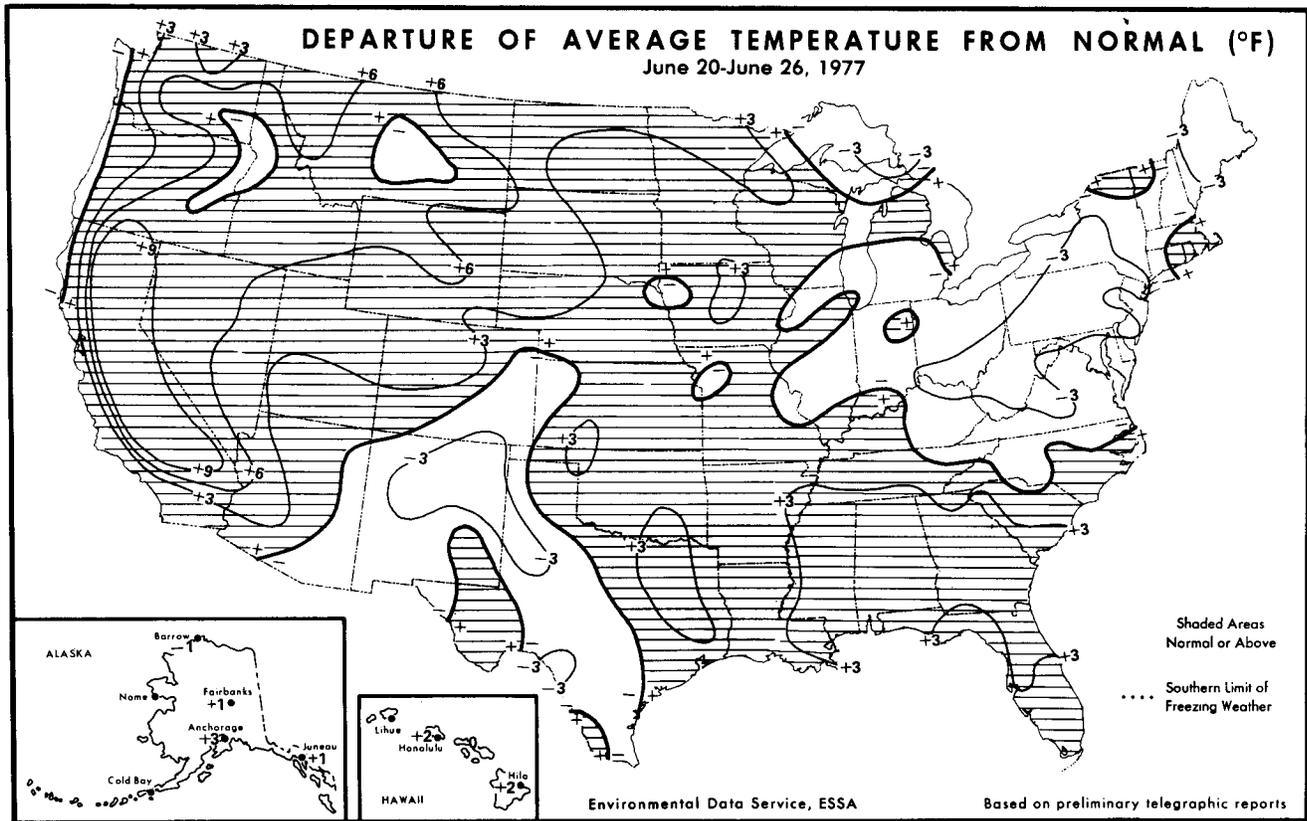
Monday morning thunderstorms extended from the lower Ohio Valley across the central Mississippi Valley to the central Rockies. After several days of heavy rain, banks overflowed in Kansas and flooding reached through Oklahoma to Texas. Showers and thunderstorms dotted many areas from the Great Plains eastward to the Atlantic Coast.

Showers were widely scattered in the Rockies and Pacific Northwest.

Violent thunderstorms containing large hail, high winds, and heavy rain drove from central Kentucky to the middle Atlantic Coast States and as far north as southern New England. Five tornadoes blitzed Wyoming.

A stationary front lying across south central Missouri and central Kansas triggered more heavy rains in those soaked States on Tuesday. Nebraska and the middle Mississippi Valley also felt the effects. Kansas and Missouri flooding worsened and more trouble developed in the afternoon when large hail and tornadoes charged across the same area. Thunderstorms also dumped rain on parts of Wyoming, Colorado, Texas, and Kentucky; by nightfall, precipitation fell in the lower half of the Rockies, upper Mississippi Valley, and New England.

Alamosa, Colo., set a record low of 35° for this first day of summer.



The Nation's midsection was saturated and flooding was common from Kansas and Missouri southward to Oklahoma. The Topeka area had received at least one inch of rain in each of the five previous days.

Wednesday morning was marked by showers and thunderstorms from the lower Ohio Valley across the upper two-thirds of the Mississippi Valley to much of the Great Plains. Showers were scattered along the western Gulf Coast, over New England, and the Pacific Northwest. By afternoon, a line of heavy thunderstorms reached from southeastern Missouri into eastern Kentucky. Severe thunderstorms formed over northeastern Colorado and moved into Nebraska. Others formed over an area from southern Texas to the Dakotas.

The severest weather struck Georgia and extreme northeastern Florida where high winds, hail, and three tornadoes pounded the region. Although the severity was unwelcome, the precipitation was sorely needed in this dry region.

Thursday morning thunderstorms were scattered from the upper Mississippi Valley to the central and southern Great Plains. Heavy thunderstorms developed later over the southern Atlantic Coast States and parts of the Gulf Coast. These extended past the Great Plains into the central Rockies. Hail and rain hit especially hard in southeastern Wyoming and triggered some flooding. More than one inch of rain fell in southern Texas, western Kentucky, and southern Indiana. Tornadoes clipped Aberdeen, S. Dak., and Valdosta, Ga.

Other areas troubled by flooding included eastern Colorado, southeastern Nebraska, central Missouri, and points in Kansas, Tennessee, Alabama, and Georgia. However, the precipitation failed to fall in the driest portions of the Southeast.

Rain-plagued Kansas was given no chance to recover; strong thunderstorms unleashed three to five more inches on Friday and local flooding continued.

Precipitation covered an area from the southern half of the Plains across the middle Mississippi Valley to the middle Ohio Valley. Thundershowers ranged from the eastern Gulf into southern Virginia and the lower Great Lakes. As darkness moved in, heavy thunderstorms raked points from the Plains eastward to the Carolinas. Widely scattered showers dotted the southern Intermountain Region and southern New Mexico, western Washington, and northern New England. An evening tornado touched down near Milwaukee.

A high pressure system that extended from the Atlantic into the Southeast was the villain that kept most of the heavy rain in the central U.S. By Saturday, a weakening of this system brought some relief to the Kansas/Missouri area, but intensified storms to the south and east.

Storms dumped rain and triggered tornadoes from the Atlantic Coast to the Plains. Western New York reported 2.50 inches. Three twisters clipped North Carolina while three others struck Virginia, Oklahoma, and Wyoming. Severe thunderstorms and hail pummeled northwestern Texas. Isolated showers dampened the western U.S. from the Sierra Nevada Mountains to the lower half of the Rockies.

Fort Smith, Ark., awoke to 2.50 inches of rain in two hours on Sunday. This was the beginning of some locally intense weather that was reported in various sections of the country throughout the day. Heavy rain and flash flooding in southern Illinois preceded heavy hail in North Dakota and a tornado in northern Alabama. A town in southeastern Oklahoma was drenched by four inches of rain; three inches fell in east central Missouri. Strong thunderstorms blasted Indiana and Kentucky where Owensboro waded through streets with water four feet deep.

## National Agricultural Summary

June 20-26

**HIGHLIGHTS:** Rains on the Great Plains delayed the 1977 winter wheat harvest, but combining advanced to 40% complete, ahead of both 1976 and the average. Rain and hail damaged some fields. Corn continued its rapid development; a few early fields silked as far north as Nebraska and Wisconsin. Farmers finished planting cotton and the first cotton was harvested in the Rio Grande Valley. Farmers planted double crop soybeans after the small grain harvest; rains improved growing conditions for the emerged soybeans and planting conditions for the late crop. Sorghum planting was almost complete; Texas producers began harvesting the 1977 crop. Soil moisture rated short to adequate in most of the central States and short elsewhere. Rains brought temporary relief to many areas in the eastern U. S., but some had to overcome long deficits of precipitation. Pastures rated good from Nebraska southward through the Great Plains; elsewhere grasslands were poor to fair. Some producers marketed cattle to stretch feed and forage supplies. Peach harvesting extended into Delaware and Maryland. Tart cherry picking advanced into Washington and Michigan.

**SMALL GRAINS:** Rains delayed the Great Plains winter wheat harvest and locally heavy rain and hail lodged some fields. Combining advanced to 40% complete surpassing both 1976's 30% and the average 34%. Texas farmers made good progress harvesting the 1977 crop despite rains. Producers harvested on the northern High Plains; elsewhere combining was nearly complete. The Oklahoma harvest was nearly complete in all but the Panhandle and along the northern border. Scattered rainfall slowed cutting late in the week. Combining reached 89% complete, ahead of both 1976's 72% and the 81% average. Heavy rains and hail slowed wheat harvest, lodged fields, and damaged some of the Kansas crop. Combining was 35% complete, 15% in 1976 and 10 points ahead of average; 80% of the wheat was ripe compared with 50% last year and the 55% average. Nebraska and Iowa farmers harvested 5% of the wheat crop.

Oats rated fair to good in the major producing States. Heading ranged from 50 to 95%; some early fields ripened.

**CORN:** Corn maintained its fast growth and development. Some fields silked as far north as Minnesota. Some areas need moisture to keep the crop in good condition. The Southeast crop rated poor to fair, prematurely tasseling in South Carolina.

In the eastern north central States, plant height reached 23 inches in Ohio to 52 inches in Illinois. The most advanced Illinois fields reached 67 inches. Growth ranged from 3 inches above normal in the drier areas to 26 inches above normal in areas with adequate soil moisture. A few fields tasseled in Wisconsin.

In the western north central States, average plant height reached 43 inches. Tasseling reached 4% in Iowa and began in Minnesota and Nebraska.

The southern States crop rated fair; silking ranged from 18% in Kentucky to 54% in Mississippi. Some corn rated poor in Alabama, Florida, and Georgia.

**COTTON:** Producers planted the last cotton fields of 1977 and lower Rio Grande Valley farmers began

picking cotton. Crop condition was fair to good and development was ahead of normal. The crop set bolls and ranged from 15% set in Mississippi to 42% in Georgia. Some of the South Carolina crop was heavily infested with bollworms. Early fields squared in the Texas southern High Plains. High temperatures provided excellent growing conditions. The Arizona crop set bolls.

**SOYBEANS:** Rains provided moisture to plant soybeans in most of the south central States. Many of the fields remaining to be planted were in Kansas and the south central States. Planting ranged from 83% complete in Alabama to 93% in Tennessee and Mississippi; Kansas farmers reached 85% complete. Previously dry weather in some areas rendered herbicide applications ineffective and recent rains developed weeds. Eastern north central States plants reached 9 inches in fair to good condition. Early plants bloomed in Minnesota; plants reached an average of 12 inches.

**OTHER CROPS:** Sorghum growers in the major producing States almost finished planting; Kansas growers reached 90%, Oklahoma 95%, and Texas 99%. Rains improved Texas sorghum and growers harvested some fields from the Coastal Bend southward.

Rice was in good condition; some early fields along the Texas Upper Coast began maturing.

Maine potato growth slowed and some fields became weedy. In Idaho, 95% of the potatoes emerged compared with 85% in 1976. Potatoes sized well in the Pacific Northwest.

Georgia peanuts rated fair to good. Pegging reached 58% compared with 35% in 1976. In the Carolinas and Virginia, growers sprayed and applied landplaster. Texas planting reached 89%; rains improved planting conditions, but some areas needed more moisture.

**FRUITS AND NUTS:** Peach picking advanced northward into Delaware and Maryland; harvest was 66% complete in Georgia, 25% in South Carolina, 34% in North Carolina, and 43% in Mississippi. Rains improved the size of peaches in South Carolina. Growers harvested tart cherries in Michigan and Wisconsin. California growers harvested a wide variety of fruits.

Texas rains interrupted citrus tree spraying. Florida citrus groves were in good condition, but needed moisture in some areas; growers irrigated some groves. A little late bloom showed while producers harvested a few Valencias.

**VEGETABLES:** The Florida vegetable season was nearly ended; watermelons, sweet corn, and peppers provided the bulk of supplies. Texas growers shipped tomatoes, green peppers, okra, squash, melons, cucumbers, and onions. Growers prepared land for fall spinach and cabbage. Rains boosted vegetables in some areas. California growers harvested broccoli, melons, carrots, celery, sweet corn, and tomatoes.

**PASTURES AND LIVESTOCK:** Pastures were good in the Great Plains from Nebraska southward. Grasslands rated poor to fair in most other areas of the U. S. Livestock producers in the northern Great Plains and some southern areas marketed cattle to stretch diminishing feed supplies and reduce damage to overgrazed pastures.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 26, 1977

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
ALA. Birmingham . . .	83	+ 4	.4	-.6	La. Baton Rouge . . .	84	+ 3	0	-1.0	Youngstown . . .	67	- 2	.4	-.4
ALA. Mobile . . .	86	+ 5	0	-1.6	LAKE CHARLES . . .	83	+ 1	0	-1.2	OKLA. Okla. City . . .	80	+ 1	1.5	+.6
ALA. Montgomery . . .	85	+ 5	.4	-.6	LAKE CHARLES . . .	84	+ 3	1.0	-.2	Tulsa . . .	81	+ 2	2.3	+1.3
ALASKA. Anchorage . . .	59	+ 3	.1	-.2	Shreveport . . .	82	0	T	-.7	OREG. Astoria . . .	57	- 1	.2	-.3
ALASKA. Barrow . . .	34	- 1	T	-.1	MAINE. Caribou . . .	58	- 4	.7	-.1	Burns . . .	70	+ 9	0	-.2
ALASKA. Fairbanks . . .	62	+ 1	.3	-.1	Portland . . .	61	- 3	1.4	+.7	Medford . . .	72	+ 6	0	-.2
ALASKA. Juneau . . .	55	+ 1	.6	-.1	MD. Baltimore . . .	72	- 2	.4	-.5	Pendleton . . .	72	+ 4	0	-.2
ALASKA. Kodiak . . .	51	0	.4	-.5	MASS. Boston . . .	70	0	.4	-.3	Portland . . .	66	+ 3	T	-.3
ALASKA. Nome . . .	---	---	---	---	Chatham . . .	63	- 1	1.2	---	Salem . . .	64	+ 1	.1	-.2
ARIZ. Flagstaff . . .	62	+ 2	.4	+.2	MICH. Alpena . . .	65	+ 2	.8	+.1	PA. Allentown . . .	70	- 1	1.0	+.2
ARIZ. Phoenix . . .	90	+ 3	0	-.1	Detroit . . .	70	0	T	-.8	Erie . . .	65	- 2	1.0	+.2
ARIZ. Tucson . . .	83	- 1	.1	0	Flint . . .	67	- 1	T	-.8	Harrisburg . . .	70	- 4	1.5	+.8
ARIZ. Winslow . . .	75	+ 1	T	-.1	Grand Rapids . . .	68	+ 1	T	-.8	Philadelphia . . .	70	- 4	.8	-.1
ARIZ. Yuma . . .	89	+ 1	0	0	Houghton Lake . . .	65	+ 1	.1	-.7	Pittsburgh . . .	66	- 4	T	-.8
ARK. Fort Smith . . .	82	+ 2	4.0	+3.2	Lansing . . .	67	- 2	0	-.8	Scranton . . .	65	- 5	.6	-.2
ARK. Little Rock . . .	81	+ 1	.7	-.1	Marquette . . .	60	- 2	.6	-.2	R.I. Providence . . .	70	+ 1	.6	0
CALIF. Bakersfield . . .	90	+11	0	0	Muskegon . . .	65	- 3	.1	-.5	S.C. Charleston . . .	84	+ 5	.5	-1.1
CALIF. Eureka . . .	54	- 2	T	-.1	S. Ste. Marie . . .	60	- 1	.2	-.6	Columbia . . .	81	+ 1	.1	-.9
CALIF. Los Angeles . . .	86	+10	0	0	MINN. Duluth . . .	65	+ 4	.6	-.5	Greenville . . .	80	+ 3	.6	-.4
CALIF. Red Bluff . . .	70	+ 1	0	0	Internat. Falls . . .	67	+ 2	.2	-.8	S.D. Aberdeen . . .	68	0	.3	-.6
CALIF. San Diego . . .	89	+11	0	-.1	Manchester . . .	71	+ 2	.1	-.8	Huron . . .	71	+ 2	.8	-.1
CALIF. San Francisco . . .	64	+ 2	0	0	Rochester . . .	70	+ 2	.1	-1.0	Rapid City . . .	71	+ 2	.4	-.4
CALIF. Stockton . . .	84	+11	0	0	St. Cloud . . .	69	+ 2	.1	-.0	Sioux Falls . . .	70	+ 2	.4	-.6
COLO. Denver . . .	72	+ 4	.2	-.2	MISS. Jackson . . .	84	+ 3	0	-.8	TENN. Chattanooga . . .	52	+ 3	.9	0
COLO. Grand Junction . . .	78	+ 4	T	-.1	Meridian . . .	84	+ 4	.4	-.5	Knoxville . . .	77	+ 0	3.7	+2.8
COLO. Pueblo . . .	71	- 2	.1	-.2	MO. Columbia . . .	76	+ 1	3.1	+2.0	Memphis . . .	84	+ 4	.7	-.1
CONN. Bridgeport . . .	68	- 2	.1	-.5	Kansas City . . .	75	- 1	2.1	+.8	Nashville . . .	80	+ 2	3.3	+2.5
CONN. Hartford . . .	70	0	.2	-.6	St. Louis . . .	76	- 1	3.9	+2.8	TEX. Abilene . . .	80	- 2	1.7	+.1
CONN. Newington . . .	75	- 1	1.0	+.2	Springfield . . .	76	+ 1	3.8	+2.7	Amarillo . . .	76	0	.8	0
FLA. Apalachicola . . .	84	+ 3	T	-1.4	MONT. Billings . . .	76	+ 9	.1	-.5	Austin . . .	82	- 1	.7	0
FLA. Daytona Beach . . .	84	+ 4	T	-1.7	Glasgow . . .	69	+ 5	.3	-.3	Beaumont . . .	85	+ 3	0	-1.2
FLA. Ft. Myers . . .	82	0	1.0	-1.3	Great Falls . . .	71	+ 8	T	-.7	Brownsville . . .	82	- 1	2.5	+1.9
FLA. Jacksonville . . .	84	+ 4	.3	-1.3	Havre . . .	72	+ 8	T	-.6	Corpus Christi . . .	83	0	1.2	+.6
FLA. Key West . . .	85	+ 1	T	-1.1	Helena . . .	68	+ 7	.1	-.4	Dallas . . .	---	---	---	---
FLA. Lakeland . . .	84	+ 3	2.1	+.4	Kalispell . . .	64	+ 5	T	-.7	Del Rio . . .	82	- 3	.7	+.3
FLA. Miami . . .	82	0	.3	-1.8	Miles City . . .	75	+ 8	.2	-.6	El Paso . . .	81	- 1	T	-.2
FLA. Orlando . . .	83	+ 2	.5	-1.4	Missoula . . .	66	+ 5	.4	-.1	Fort Worth . . .	85	+ 3	.1	-.5
FLA. Tallahassee . . .	82	+ 1	1.2	-.5	NEBR. Grand Island . . .	74	+ 1	.5	-.5	Galveston . . .	83	+ 1	0	-1.0
FLA. Tampa . . .	85	+ 3	T	-1.7	Lincoln . . .	75	+ 1	.8	-.8	Houston . . .	83	+ 1	T	-1.0
FLA. W. Palm Beach . . .	82	+ 1	.8	-1.2	Norfolk . . .	73	+ 1	1.8	+.6	Lubbock . . .	75	- 4	1.7	+1.1
GA. Atlanta . . .	80	+ 3	2.0	+1.1	N. Platte . . .	71	+ 1	T	-.9	Midland . . .	81	0	.5	+.2
GA. Augusta . . .	84	+ 5	.9	0	Omaha . . .	74	+ 2	.6	-.5	San Angelo . . .	82	- 1	.5	+.1
GA. Macon . . .	85	+ 4	.7	-.2	Las Vegas . . .	64	+ 4	-1	-.1	San Antonio . . .	82	- 1	1.8	+1.2
GA. Savannah . . .	85	+ 5	.5	-1.0	RENO. Reno . . .	72	+ 9	T	-.1	Victoria . . .	83	0	.3	-.4
HAWAII. Hilo . . .	77	+ 2	.2	-1.3	Winnemucca . . .	73	+ 7	T	-.2	Waco . . .	86	+ 3	.3	-.2
HAWAII. Honolulu . . .	81	+ 2	T	-.1	N.H. Concord . . .	65	- 2	1.0	+.2	Wichita Falls . . .	83	0	2.4	+1.7
HAWAII. Kahului . . .	77	0	T	0	N.J. Atlantic City . . .	69	- 3	.1	-.7	UTAH. Blanding . . .	70	+ 2	T	-.1
HAWAII. Lihue . . .	---	---	---	---	Trenton . . .	71	- 2	1.0	+.2	Salt Lake City . . .	74	+ 5	T	-.3
IDAHO. Boise . . .	73	+ 6	T	-.2	N.MEX. Albuquerque . . .	73	- 3	T	-.1	VT. Burlington . . .	68	+ 1	.5	-.3
IDAHO. Lewiston . . .	76	+ 9	0	-.4	Roswell . . .	79	+ 1	.1	-.2	VA. Lynchburg . . .	70	- 4	.6	-.2
IDAHO. Pocatello . . .	70	+ 6	T	-.3	N.Y. Albany . . .	68	- 1	.9	+.2	Norfolk . . .	75	- 1	.4	-.5
ILL. Cairo . . .	80	+ 1	1.9	+.9	Binghamton . . .	64	- 3	.5	-.3	Richmond . . .	74	- 2	.1	-.8
ILL. Chicago . . .	75	+ 2	T	-1.0	Buffalo . . .	66	- 2	1.8	+1.3	Roanoke . . .	71	- 2	1.4	+.6
ILL. Moline . . .	72	- 1	.1	-1.0	New York . . .	70	- 4	1.9	+1.2	WASH. Colville . . .	69	+ 6	0	-.4
ILL. Peoria . . .	74	+ 1	.1	-.8	Rochester . . .	67	- 2	.5	-.1	Omak . . .	68	+ 2	T	-.3
ILL. Rockford . . .	69	- 2	T	-1.1	Syracuse . . .	64	- 5	.9	+.2	Quillayute . . .	54	- 2	1.0	+.2
ILL. Springfield . . .	74	- 4	.6	-.4	N.C. Asheville . . .	73	+ 1	1.4	+.4	Seattle-Tacoma . . .	65	+ 4	T	-.3
IND. Evansville . . .	78	+ 2	2.2	+1.4	Charlotte . . .	76	- 1	.6	-.3	Spokane . . .	69	+ 6	T	-.3
IND. Ft. Wayne . . .	72	+ 1	T	-.9	Greensboro . . .	76	0	1.0	0	Walla Walla . . .	75	+ 6	0	-.2
IND. Indianapolis . . .	72	- 1	1.0	0	Hatteras . . .	77	+ 1	.7	-.5	Yakima . . .	72	+ 6	0	-.1
IND. South Bend . . .	70	- 1	.2	-.7	Raleigh . . .	76	0	.2	-.7	W.Va. Beckley . . .	65	- 4	2.4	+1.4
IOWA. Burlington . . .	73	0	T	-1.1	Wilmington . . .	80	+ 1	.7	-.8	Charleston . . .	70	- 3	.8	0
IOWA. Des Moines . . .	75	+ 3	1.1	0	N.DAK. Bismarck . . .	67	+ 1	.7	-.1	Huntington . . .	71	- 3	1.3	+.5
IOWA. Dubuque . . .	70	+ 1	.5	-.7	Fargo . . .	69	+ 2	T	-.8	Parkersburg . . .	70	- 4	2.9	+1.9
IOWA. Sioux City . . .	71	- 1	1.2	+.1	Williston . . .	70	+ 5	T	-.8	WIS. Green Bay . . .	69	+ 2	.9	+.1
KANS. Concordia . . .	75	0	2.0	+.9	OHIO. Akron-Canton . . .	69	- 1	.2	-.6	La Crosse . . .	71	+ 1	.3	-.8
KANS. Dodge City . . .	79	+ 3	.3	-.5	Cincinnati . . .	70	- 4	2.3	+1.4	Madison . . .	68	0	T	-1.1
KANS. Goodland . . .	70	- 1	.6	-.1	Cleveland . . .	68	- 2	.5	-.3	Milwaukee . . .	66	- 1	T	-.9
KANS. Topeka . . .	76	+ 1	3.7	+2.3	Columbus . . .	70	- 2	.1	-.9	WYO. Casper . . .	71	+ 7	.1	-.2
KANS. Wichita . . .	78	0	2.8	+1.7	Dayton . . .	71	- 2	.4	-.5	Cheyenne . . .	66	+ 2	.9	+.4
KY. Lexington . . .	73	- 2	1.7	+.7	Toledo . . .	69	- 2	.7	-.1	Lander . . .	69	+ 5	.2	-.2
KY. Louisville . . .	76	+ 1	2.1	+1.2						Sheridan . . .	68	+ 5	.1	-.6
										P.R. San Juan . . .	83	+ 2	.2	-1.1

Based on 1941-70 normals

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

**ALABAMA:** Abnormally hot with scattered showers. Temperatures averaged 3° above normal. Rainfall light to moderate.

Some relief from drought. Fieldwork: 5.3 days. Soil moisture adequate north, short to very short central and south. Cotton fair to good condition; 50% squaring, 18% 1976, 49% average. Corn poor to fair; 51% tasseling, 42% 1976, 39% average. Soybeans fair; 83% planted, 94% 1976, 95% average. Peanuts fair; 20% pegging, 21% 1976, 32% average. Wheat harvest 92% complete, 91% 1976. Pastures, hay poor to fair.

**ALASKA:** Rain and wet fields in Tanana, cloudy weather in Matanuska Valley slowed haying. Crops responded favorably throughout major farming areas. Small grains in preboot stage. Ground moisture ranged from short to adequate Matanuska Valley, adequate to surplus Tanana Valley. Harvest commercial vegetables underway.

**ARIZONA:** Widely scattered thunderstorms, north, eastern high country. Mostly less than 0.25 in. Temperatures slightly below normal, normal other areas.

Fieldwork uninterrupted. Cotton flowering, squaring, setting bolls. Weed control, irrigation continues. Insect activity increased but controlled. Sorghum planting about complete. Fields heading, southwest. Harvesting wheat, barley increased, majority harvested. Sugarbeet harvest complete. Third cutting alfalfa hay complete west, central areas. Lettuce harvest complete. Picking cantaloup peaking. Watermelon harvest underway. Potato, dry onion digging full swing. Grape harvest advancing rapidly. Valencia orange, grapefruit harvest nearing completion. Water supplies short, most areas; desert ranges dry. Livestock mostly fair condition. Water hauling, supplemental feeding required.

**ARKANSAS:** Temperatures were 1 to 5° above normal. Extremes: 102 and 64°.

Rain continued to bring relief to drought-stressed crops. North short of soil moisture. South received showers. Fieldwork: 6 days suitable. Recent rains increasing soybean growth. Dry weather delayed bean plantings. Planting 92% complete same as last year. Cotton growth excellent. Squaring ahead of last year. Plant bugs continue to require treatment. Crop in good condition. Rice condition good. Mid-season nitrogen and herbicides applied. Infestation of rice water weevils reported. Corn fair condition. Sorghum planting complete, 98% last year. Milo booting and some beginning to head out. Corn leaf aphid infestations reported. Wheat harvest completed, 96% in 1976. Peach harvest continues. Rain encouraged pasture and meadow growth insuring a second cutting. Cattle lost weight on short pasture.

**CALIFORNIA:** Scattered showers north coast mountains early week, and over Sierra Nevada beginning and end of week, otherwise no precipitation. Temperatures well above normal.

Cotton growing well. Small grain harvest in progress. Alfalfa hay baling continues. Safflower blooming, irrigated crops in good shape. Apple crop sizing well. Apricot, nectarine, and peach harvest continues. Grapes sizing well in Central Valley. Thompson seedless harvest underway desert. Walnuts developing well. Broccoli, potatoes lighter. Cantaloup, carrot, celery, sweet corn volume good.

Market tomato increasing. Processing tomato beginning. Honeydew light. Supplemental feeding increased. Northern coastal pastures good condition due to foggy weather. Range forage rapidly drying. Water hauling many local areas. Cattle moved to higher elevation. Imperial Valley cattle fed beet tops.

**COLORADO:** High humidity east and dry mountains and west. Thunderstorms east. Little precipitation mountains and west. Temperatures 2 to 4° above normal.

Winter wheat fair to good; 21% ripe, 1976 5%, 12% average. Harvest started southeast. 71% barley turned color, 13% ripe. Dry beans all planted, 36% emerged, good condition. Corn good to very good, 23 in. high. First cutting alfalfa 66% complete, second cutting started some areas. Barley fair to very good. Sorghum and oats good. Range and pastures fair east, poor to very poor west. Livestock good condition. Soil moisture eastern plains short to adequate; western slope very short to short.

**FLORIDA:** Partly cloudy, hot and humid with scattered thundershowers. Temperatures 2 to 4° above normal. Rainfall generally light to moderate ranging from a trace to 5.00 in.

Soil moisture mostly adequate south, short other areas. Scattered showers helped few localities in dry areas. Corn, tobacco condition poor where not irrigated. Tobacco and hay harvest underway. Peanut, soybeans fair condition, need rain. Sugar-cane good condition. Pastures suffering from drought conditions Panhandle, northern Peninsula. Grazing lands mostly poor to fair elsewhere. Cattle condition poor drought-stricken Panhandle, northern Peninsula, mostly good elsewhere. Citrus grove condition good, rain needed most areas, some irrigation. Little late bloom showing. Valencia harvest continues to slow. Vegetable season almost ended except for miscellaneous summer crops. Watermelons, sweet corn, peppers providing bulk of supplies. Watermelon shipments continued heavy. Sweet corn harvest slow due to market conditions.

**GEORGIA:** Substantial rainfall over south and west eased drought temporarily. Rainfall in excess of 3.00 in. Temperature near normal northeast to plus 3° central. Normal temperatures from 77° in northeast to 85° along coast.

Soil moisture spotty but improved, rated very short to short. Fieldwork: 5 days suitable. Corn condition mostly poor to fair; more rain needed. Tobacco mostly fair to good, 10% harvested, last year 10%, average 10%. Applying sucker control and harvesting very active. Cotton mostly fair to good; 70% squaring, 56% last year; 42% setting bolls, 16% last year. Spraying for insects active. Peanuts mostly fair to good, slightly improved; 80% blooming, 76% last year; 58% pegging, 35% last year. Insect control active. Soybeans mostly fair to good; 86% planted, 91% last year, average 87%. Grain sorghum 60% planted, 81% last year. Oat harvest 96% complete, last year 93%, average 87%. Wheat harvest 96% complete, 93% last year and 88% average. Hay condition mostly poor to fair. Peaches declined to mostly fair to good; 66% harvested, last year 59%, average 47%. Apples fair to good. Watermelons poor to mostly fair; 35% harvested, 20% last year. Pasture condition mostly poor to fair. Cattle condition mostly fair.

**HAWAII:** Temperatures warm with light and scattered showers.

Leeward area dry. Irrigation increased all sections. Spraying heavy to control insect infestation. Vegetable supplies: mustard cabbage light, others adequate. Banana supplies moderate. Papaya supplies heavy. Penapple harvesting full swing. Sugar harvesting steady. Pastures fair to good.

**IDAHO:** Temperatures above normal. Extremes: 34 and 96°. Precipitation well below normal.

Crops benefited from summer weather. Main crop activity is cultivating, irrigating and haying. Small grain growth stage: % headed 1976, 1977. Winter wheat 65%, 95%; spring wheat 40%, 50%; barley 30%, 70%. Sugarbeets blocked and thinned 90%, 90%; Potatoes % emerged 85%, 95%; Alfalfa 1st cutting harvested 50%, 50%.

**ILLINOIS:** Temperatures 9° above normal extreme north and extreme south, 2° below normal elsewhere. Precipitation less than 0.10 in. north, near 4.00 in. south.

Corn excellent to good; average height all fields: 52 in., 32 in. 1976, 26 in. average; most advanced fields 67 in., 46 in. 1976, 44 in. average. Soybeans good to fair. Winter wheat 65% combined, 31% 1976, 33% average. Oats 87% filled, 70% 1976, 73% average; 50% turned yellow, 22% 1976, 17% average; good to fair. Barley 50% combined. Second crop alfalfa hay 30% cut, 20% 1976, 5% average. Alfalfa hay good. Pastures fair. Soil moisture short. Fieldwork: 5.3 days suitable.

**INDIANA:** Excellent rains in central and south; northwest received very little. South and east central averaged 1.80 in.; northeast and west central averaged 0.80 in. Temperatures ranged from 46 to 93° and averaged near normal.

Fieldwork: 5 days suitable. Topsoil and subsoil moisture mostly short to adequate. Pastures improved, mostly fair. Corn fair to mostly good. Corn 35 in., 1976 29 in., average 22 in. Soybeans mostly fair to good; 9 in.; 1976 9 in.; average 7 in. Wheat 10% combined; 1976 5%; average 10%; fair to good. Alfalfa hay 40% cut second time. Clover 95% cut, 1976 85%.

**IOWA:** Temperatures 1 to 2° above normal. Widely scattered thundershowers gave significant rains in central and southwest but north, east, and south 0.50 to 1.00 in. deficient.

Soil moisture improved; but topsoil and subsoil short. Corn 43 in. tall with 4% tasseled. 2d cutting alfalfa hay 17% complete. Wheat harvest 5% complete. Oats hay harvest 40% complete. Corn in good condition. Soybeans, oats, wheat, alfalfa and clover hay mostly good to fair. Pastures fair to poor. Livestock mostly good condition with insect and heat stress problems.

**KANSAS:** Record to near record rains southeast and east central; 2.00 to 3.00 in. rains common northeast, central and south central, 1.00 in. northwest, 0.25 in. southwest. Considerable flooding and local flash flooding east central and southeast. Temperatures ranged 73° northwest to 78° elsewhere; 1 to 2° above normal.

Generally heavy rains slowed wheat harvesting. Extensive hail damage some areas. Lodging wheat heavy. Harvesting completed 35%, last year 15%, average 25%; 80% wheat ripe, last year 50%, average 55%. Rains stimulated weeds, problem already. Row crop growth benefited, but slowed plantings. Sorghum 90% complete, 95% last year, 90% average. Soybeans 85%, same last year, 80% average. Insect infestations, chinch bugs and grasshoppers, light to

moderate. Second cutting alfalfa hay 35%, last year 30%, average 25%. Livestock on excellent pastures.

**KENTUCKY:** Temperatures near normal and precipitation about 2.00 in.

Soil moisture adequate to surplus depending on local thundershower intensity. Some wheat harvested, soybeans seeded and crop cultivation where soil permitted. Rains put crops back to more normal condition. About 85% soybeans planted, 78% last year and 83% average. Progress slowed on double crop acreage awaiting wheat harvest and necessary rains. Soybeans now average 10 in. high, 8 in. last year. Corn well advanced, improved by rains; 18% tasseling compared 6% last year and 8% average. Tobacco: 75% over 6 in., 25% over 12 in. tall; mostly minor insect problems, some fertilized. Winter wheat harvest 60% completed, 44% last year, some hold-up due rains.

**LOUISIANA:** Temperatures 1 to 4° above normal. Extremes: 68 and 99°. Scattered showers.

Soil moisture short. Fieldwork: 5.7 days available. Main activities: Planting soybeans, cultivating row crops, and haying. Rice condition mostly good; 26% headed. Cotton condition fair to good; 57% squaring. Corn condition fair; 82% tasseled. Sorghum 89% planted, 91% last year; 86% up to stand. Soybeans 91% planted, 96% last year, 87% average; 79% up to stand. Condition fair to good. Sugarcane condition good. Sweetpotato transplanting 87%, 92% last year. Pasture and hay condition fair, cattle fair to good.

**MARYLAND & DELAWARE:** Temperatures 1 to 2° below normal. Extremes: low 80's and low 60's. Precipitation varied considerably, southern areas 1.00 to 2.00 in., northern areas less than 0.10 in.

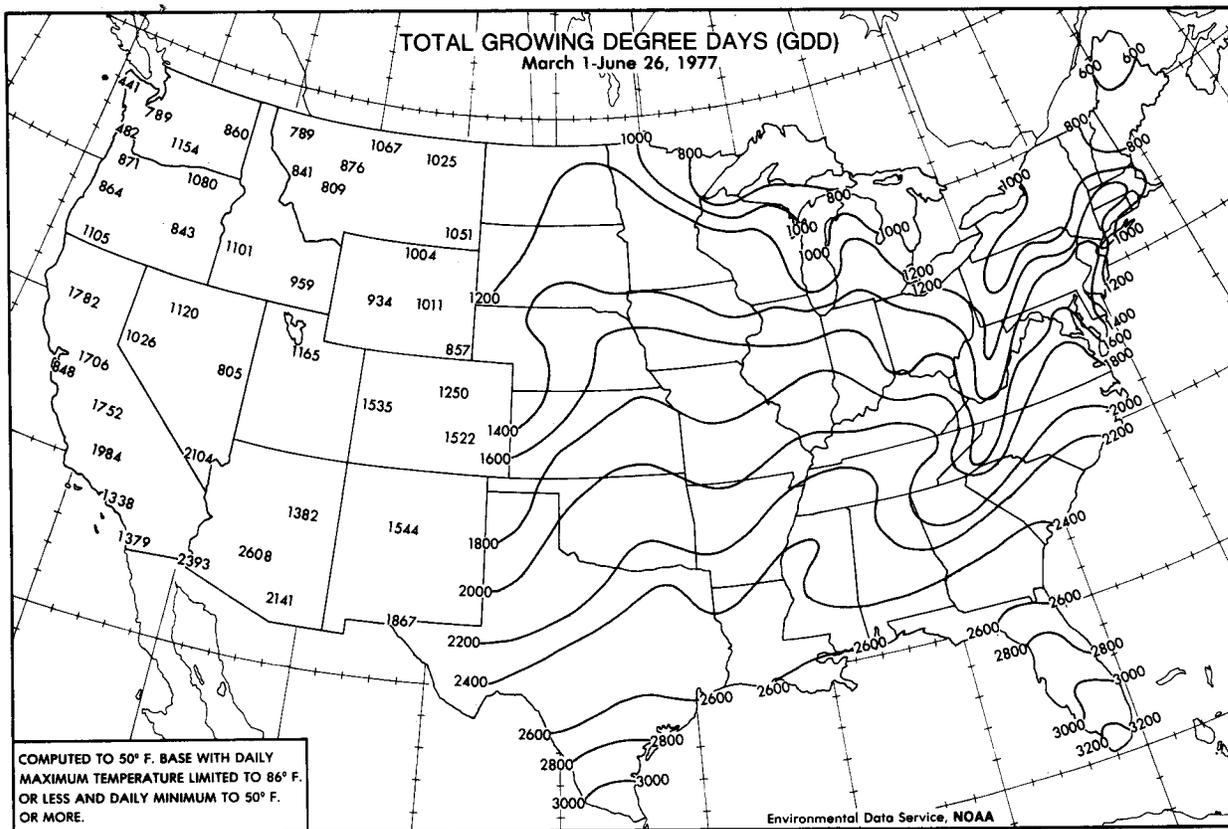
Corn crop good condition but weedy. Full season soybeans planted; double cropped beans planted as small grains harvested. Early planted fields flowering. Second cutting alfalfa 50% cut. Early apples and peaches harvested. Tobacco growers cultivation and sidedressing.

**MICHIGAN:** Temperatures 1 to 2° below normal. Temperatures early week 60's and 70's warmed to 80's and 90's weekend. Precipitation light and spotty; mostly zero to 1.81 in.

Soil moisture short. Crop development hindered by dry conditions. Livestock farmers culling closer to meet feed supplies. Fieldwork: 6 days suitable. Pasture feed supplies short. Dry beans 95% planted, 80% last year, 60% normal. Hay 80% first cut, 65% last, 45% normal. Second cutting started southern areas. Corn height 20 in., 14 in. last year, 12 in. normal. Winter wheat 100% headed, 50% yellow; 1976 65% headed, 35% yellow; normal 75% headed, 25% yellow. Wheat harvest underway south. Oats 60% headed, 50% last year, 30% normal. Sweet cherry picking 20% complete. Tart cherry harvest starting southwest. Strawberry harvest 80% picked, 60% last year, 30% normal.

**MINNESOTA:** Temperatures near normal extreme north to 5° above normal elsewhere. Extremes: 93 and 42°. Precipitation less than 0.25 in. southeast and northwest and 0.25 to 1.00 in. elsewhere except 1.00 to 1.50 in. some north central sections.

Crop growth remained exceptional. Topsoil moisture mostly adequate. Some advanced corn fields beginning to tassel. Few soybeans blooming. Small grains turning ripe in south. Some winter wheat, rye swathed. Most first crop alfalfa cut; second crop cutting beginning in south. Height: Corn 42 in., 1976 25 in., normal 18 in.; soybeans 12 in., 1976 8 in., normal 7 in. Heading: Spring wheat



89%, 1976 75%, normal 38%; oats 95%, 1976 84%, normal 47%; barley 93%, 1976 77%, normal 40%. Turning ripe: Winter wheat 67%, 1976 40%, normal 12%; rye 65%, 1976 49%, normal 16%. Alfalfa hay 93% cut first crop, 1976 85%, normal 79%.

**MISSISSIPPI:** Temperatures slightly above normal. Extremes: 64 and 100°.

Soil moisture short to very short south and east central, adequate to short elsewhere. Fieldwork: 5.8 days suitable. Soybeans 90% planted, 93% 1976, 84% average; 72% up to stand, 86% 1976. Cotton 85% squaring, 23% 1976, 39% average; 30% blooming, 1% 1976; 15% setting bolls, 9% average. Corn 54% silked, 26% 1976; 14% in dough stage, 7% 1976. Hay crops 40% harvested, 37% 1976, 36% average. Peaches 43% harvested, 30% 1976, 32% average. Cucumbers 47% harvested, 29% 1976. Irish potatoes 75% harvested, 75% 1976, 69% average. Sorghums 80% planted, 88% 1976, 83% average. Sweet potatoes 92% planted, 83% 1976, 84% average. Pastures in poor condition. Cotton in good to fair condition. Rice in good condition. Soybeans in fair to good condition. Corn in fair to poor condition.

**MISSOURI:** Temperatures slightly below normal except Bootheel which averaged 2° above normal. Daytime temperatures were in the 80's with a few days in the 90's. Humidity was high. Precipitation every day with averages 1.00 to 2.00 in. in north and Bootheel, 2.65 in. east Ozarks, 5.22 in. west Ozarks, and 7.10 in. in west central.

Fieldwork: 2.7 days suitable. Double cropped soybeans 49% planted. Winter wheat: 99% ripened, 86% 1976, 72% normal; 63% harvested, 40% 1976, 38% normal. Corn 29% silking; condition fair to excellent. Cotton 70% squaring stage; fair to good condition. 2d cutting alfalfa hay 48% harvested, 27% 1976, 21% normal. Pasture condition poor to

fair. Timely rains helped crops. Soil moisture short to adequate.

**MONTANA:** Widespread showers ended early week. Precipitation well below normal except for scattered areas south central and northeast. Temperatures warmed and averaged 3 to 9° above normal.

Grain crops developing ahead of normal. Condition fair to good. More moisture needed. Winter wheat 90% headed, 85% last year, 45% normal. Spring wheat 35% headed. Barley 25% headed. Last year near 30% both crops. First cutting alfalfa 35% harvested, last year 15%. Range feed short except south. Stockwater mostly short except southwest.

**NEBRASKA:** Temperatures normal to 5° above. Thunderstorms midweek averaged 0.75 in.

Topsoil moisture short to adequate. Subsoil moisture adequate. Winter wheat 30% ripe compared to 15% 1976 and 20% normal. Harvest over 5% complete compared to none last year and normal of just starting. Corn tasseling few areas. Second cutting alfalfa beginning, quality and tonnage good. Chinch bug infestations moderate to heavy southeast. Pasture and range feed supplies adequate nearly all areas.

**NEVADA:** Locally heavy thundershowers central and north, light south. Temperatures above normal. Extremes: 38 and 110°.

Alfalfa harvest active. Ranges benefited from showers some localities.

**NEW ENGLAND:** Temperatures fluctuated from near normal to 10° below normal. Scattered showers with rainfall varying from less than 1.00 in. to over 2.00 in. Northern States received more rainfall than southern States.

Maine potatoes slowed as weed control becoming a problem. Vegetable growth slowed. Weeds problem in field corn. Most fieldwork including hay harvesting limited.

**NEW JERSEY:** Temperatures 4° below normal. Extremes: 43 and 89°. Rainfall 1.58 in. north, 0.75 in. central and 0.17 in. south. Soil moisture in percent of field capacity; 81% north, 59% central and 33% south. Soil temperature 70° north and central and 74° south.

Vegetable harvest on schedule. Harvest of sweet corn from open fields begun. Cabbage volume heavy. Harvest of snap beans, cucumbers and tomatoes increasing. Strawberry harvest complete. Early peach harvest to begin next week. Apples continue to size well. Barley harvest general. Wheat harvest about to begin.

**NEW MEXICO:** Widely scattered, local showers. Most totals less than 0.10 in. but more than 1.00 in. northeast.

Corn, grain sorghum, cotton, good. Alfalfa haying continues with second cut 50% completed in south and first cut nearing completion north. Durum wheat approaching harvest. Winter wheat harvest continues, 20% completed in major producing area. Barley harvest 50% complete. Ranges poor to fair. Livestock fair to good.

**NEW YORK:** Temperatures up to 6° below normal in most areas. All areas received rain mostly on 25th and 26th. Rainfall varied from 3.75 in. in southern Adirondacks to less than 0.25 in. lower Hudson Valley.

Soil moisture short. Weed control problems in some corn fields. Light rainfall slowing crop growth. Dry bean condition good. First cutting alfalfa 75% done, clover-timothy 55%, grass silage 80%. Snap bean planting continues; sweet corn planting, cabbage direct seeding nearing completion. Some early fresh market cabbage harvesting underway, leaf lettuce, potatoes in good condition. Lake Champlain apples sizing well, spraying and mowing activity in orchards. Some thinning in peach orchards, sweet cherry, strawberry harvests continuing.

**NORTH CAROLINA:** Temperatures slightly above normal. Daily, widespread showers measured 0.50 to 2.50 in.

Fieldwork: 4.6 days suitable. Soil moisture short to adequate. Principle farm activities: Cultivating, harvesting small grains and vegetables, and digging Irish potatoes. Crop conditions: Irish potatoes, peaches, apples, sweet potatoes, and corn mostly good. Tobacco, cotton, peanuts, soybeans, hay crops, and pastures fair to good. Planting: Soybeans 92% complete, 1976 87%; sorghum 93%, 1976 92%. Burley tobacco transplanting 99%, 1976 99%. Sweetpotato transplanting 94%, 1976 89%. Harvesting: Wheat 77% complete, 1976 69%, average 58%; oats 81%, 1976 76%, average 67%; barley 86%, 1976 77%, average 73%; rye 83%, 1976 77%, average 74%; peaches 34%, 1976 36%, average 24%; hay 52%, 1976 55%; Irish potatoes 53%, 1976 47%.

**NORTH DAKOTA:** Temperatures near normal. Extremes: 41 and 97°. Precipitation very light in northeast and moderate in southwest.

Crop condition extremely variable, mostly fair to good condition. About 50% of small grains headed to flowering with earliest fields turning ripe. Pasture growth fair to poor with cattle still being marketed as feed supplies diminish. Haying making normal progress with yields below normal.

**OHIO:** Near normal temperatures. Scattered showers. Crop conditions fair to good. Additional moisture needed for normal growth. Soil moisture short. Corn 23 in., 25 in. 1976, 20 in. normal. Soybeans 9 in., 10 in. 1976, 8 in. normal. Clo-tim hay first cutting 95% complete, 80% 1976, 65% normal. Wheat 20% ripe, 25% 1976, 10% normal. Wheat combining underway, 5% complete, less than 5% 1976. Oats 90% headed, 95% 1976, 75% normal. Oat combining just started.

**OKLAHOMA:** Temperatures near or slightly above normal. Precipitation averaged 2.70 in. east central, 2.13 in. north central, 2.35 in. northeast. Drought areas southeast and extreme east received substantial rainfall weekend.

Wheat harvest nearly complete all but Panhandle and north. Scattered rainfall slowed clean-up cutting. Combining 89% complete, ahead of the 72% year ago and 81% average. Oats and barley harvest 95% complete. Corn rated good to fair with 16% crop tasseling, behind the 19% of a year ago and average. Sorghum planting 95% complete, average for the date and one point behind year ago. Cotton planting virtually complete, usual for date, but with 90% acreage up to stand few days ahead of year ago. Soybean planting 90% complete, the same as a year ago and 3 points ahead of average. Condition is good to fair, as seeding after wheat gets underway in east. Peanut condition fair to good; planting complete and 87% of the acres up to stand. Second cutting alfalfa nearly 67% baled. Ranges providing ample feed but showing some stress from dryness and high temperatures. Topsoil moisture short but scattered weekend rains helped ease the situation.

**OREGON:** Precipitation 0.20 in. along coasts, 0.10 in. interior western valleys, 0.03 in. or less east. Temperatures near normal west. 4 to 7° above normal east. Extremes: Low 90's, low 40's west; mid-90's, mid-30's east.

Fall and spring grains heading, barley turning. Crop prospects fair to good west, and poor to fair east considering dry conditions. Hay activity in all areas. Hops and peppermint good growth west. Peppermint situation mixed east. Cherry harvest continuing. Prunes developing heavy set. Vegetable harvests continue on schedule. Livestock in fair condition east and good condition west. Range and pasture conditions generally poor east and fair to good in west. Hot weather drying ranges.

**PENNSYLVANIA:** Cool with significant rainfall beginning and weekend. Temperatures 2 to 6° below normal. Extremes: 36 and 89°. Showers and thunderstorms brought 0.50 to 2.00 in. with up to 4.00 in. central.

Fieldwork: 6 days suitable. Moisture short to adequate. Activities: Making hay, cultivating corn and potatoes, mowing and spraying, combining barley, tobacco transplanting, orchard maintenance, and harvesting berries and vegetables. Corn 14 in., last year 15 in. Soybeans 97% planted, last year 92%. Tobacco 90% transplanted, 88% last year. Barley 50% turning yellow, 22% ripe, 11% harvested. Wheat 60% headed, 37% turning. Oats 68% headed, 4% turning yellow. Alfalfa first cut 91%, last year 78%. Feed from pastures below average.

**PUERTO RICO:** Island rainfall 0.27 in. or 1.11 in. below normal. Temperatures about 82° on coasts and 76° interior. Extremes: 97 and 60°.

Below normal rainfall intensified drought except western interior where scattered locally heavy showers were reported. Island under severe

to extreme drought conditions except for eastern interior where severity is moderate. Water supplies at critical levels south and central where rationing measures being stepped up. Agricultural planting operations well behind schedule and irrigation supplies below requirements. Severe crop stress nonirrigated zones.

**SOUTH CAROLINA:** Temperatures above normal. Scattered thundershowers; only coastal area received more than normal.

Tobacco condition fair to good. Harvest started. Corn condition fair except early planted fields; many burned, tasselled prematurely. Soybean planting near completion, stands good condition. Cotton condition fair to good; some areas may be declared state of emergency due bollworm infestation. Peach harvest continues, size improving Piedmont area due recent rains. Peak production probably next week. Pastures, wheat, hay crops fair condition. Watermelons, oats fair to good condition. Grapes good condition. Soybean planted 93% 1977, 85% 1976, 86% average. Sorghum planted 87% 1977, 70% 1976, 79% average. Peaches harvested 25% 1977, 39% 1976, 24% average.

**SOUTH DAKOTA:** Thunderstorms widespread early week; precipitation 0.02 in. west, 0.87 in. east. Extremes: 40 and 101°. Temperatures above normal.

Soil moisture adequate. Field crops continue rapid development. Weed and cutworms are problems. Winter wheat turning 83%, 1976 66%, normal 28%. Spring wheat turning 15%, 1976 21%, normal 3%. Oats turning 37%, 1976 33%, normal 5%. Soybeans beginning to bloom. Corn height 28 in., 1976 14 in., normal 15 in. First cutting alfalfa 98% harvested, 1976 76%, normal 79%. Second cutting alfalfa 6% harvested, 1976 0%, normal 5%. Pastures fair to good, but weedy.

**TENNESSEE:** Temperatures above normal. Precipitation 0.50 to 3.88 in.

Soil moisture mostly adequate. Subsoil moisture very low. Fieldwork: 3.3 days suitable. Most crops in good condition and improving. Livestock improving. Soybeans planted 93% 1977, 87% 1976, 85% normal. Corn silking 30% 1977, 7% 1976, 14% normal. Cotton squaring 55% 1977, 24% 1976, 35% normal. Wheat harvested 75% 1977, 63% 1976, 63% normal. Oats harvested 62% 1977, 53% 1976, 55% normal. Barley harvested 78% 1977, 64% 1976, 75% normal. 2d cutting alfalfa 68% 1977, 60% 1976, 54% normal.

**TEXAS:** Thunderstorm activity mainly in south and west early week; statewide midweek; northeast, central, southeast late week. Temperatures 1 to 3° below normal east, south, northwest; near normal elsewhere. Rainfall 0.25 to 0.75 in. above normal northwest; 1.00 to 2.00 in. above normal north central, southwest; 0.50 to 1.00 in. above normal south; 0.75 to 1.00 in. below normal east, Upper Coast.

Scattered showers improved growing conditions. Wheat harvest slowed by rain but good progress made. Combining in full swing on northern High Plains; nearly complete, other areas. Cotton planting generally complete. Early fields southern High Plains squaring. Sorghum planting, nearing completion; rains boosted yield prospects. Growers harvested few early fields Coastal Bend southward before rains. Corn fields lower northern High Plains beginning to tassel. Soybeans responded to recent rains; planting conditions also improved. Peanut planting fair progress; rains improved growing conditions but additional moisture needed Cross-Timbers to complete planting. Rice fields headed out; some early fields Upper Coast beginning

to mature. Cotton planted: 100% 1977, 100% 1976, 98% average. Sorghum planted: 99% 1977, 97% 1976, 96% average. Peanuts planted: 89% 1977, 80% 1976, 81% average. Soybeans planted: 94% 1977, 90% 1976, 92% average. Wheat harvested: 74% 1977, 66% 1976, 77% average. Barley harvested: 95% 1977, 80% 1976, 89% average. Oats harvested: 99% 1977, 93% 1976, 96% average. Harvesting tomatoes, green peppers, okra, squash, melons, sweet corn, beans. Rain needed some areas. Peach harvest underway High Plains; trees carrying heavy fruit load. Pecan trees dropping nutlets north; lack of moisture. Grazing conditions improved, responding to rains, however, parts Blacklands, Edwards Plateau, Trans-Pecos still dry. Livestock fair to good condition. Hay harvest active but slowed by showers.

**UTAH:** Fair weather with few isolated showers and thunderstorms. Precipitation ranged from little or none to locally moderate. Temperatures ranged from near normal to 7° above.

Soil moisture deficit extremely severe east; increasing severity west.

Nonirrigated soil moisture very short. Range feed poor to very poor. Winter wheat condition fair; 90% headed, 15% turning color. First crop alfalfa hay 67% harvested. Field and sweet corn rated fair to good. Range cattle: 35% spring range, 65% summer.

**VIRGINIA:** Temperatures averaged near normal; extremes: 99 and 45°. Rainfall averaged 0.50 in.

Topsoil moisture short. Fieldwork: 4.9 days suitable. Small grain and hay harvest, soybean planting primary activities; also cultivation, spraying of corn, peanuts, and tobacco. Corn stands good except in drier northern section; corn 7% silked, soybeans good. No weed or insect problems. Barley 62% harvested, 73% 1976, average 59%. Oats 37% combined, 46% 1976, average 38%. Wheat harvest 37% complete, 39% 1976, average 30%. Peanut stands good; fungicides, herbicides, and landplaster applied. Tobacco stands good; cultivation and sidedressing active. Hay yields short, second growth short. Pasture very poor; critical drought in north portion.

**WASHINGTON:** West: Temperatures near normal. Precipitation 0.60 to 0.20 in. below normal.

East: Temperatures 4 to 9° above normal. Precipitation 0.30 in. below normal.

Cherry harvest full swing. Apple, pear thinning continued. Potato tubers sizing. Recrop grain fields showing extreme drought stress. Winter wheat and barley 75 to 100% headed. Some cattle movement off drought-weakened ranges.

**WEST VIRGINIA:** Precipitation above normal except northeast which averaged below normal. Temperatures below normal.

Main farm activities: Hay harvesting and general farm chores. Soil moisture short. 1st cutting hay 72% complete, 56% last year, 54% average. Wheat fair; 75% headed, 4% harvested. Barley fair; 35% headed, 26% harvested. Corn and tobacco fair. Pastures poor to fair.

**WISCONSIN:** Temperatures near normal. Cooler until 24th when becoming very warm through weekend with high's in 90's. Scattered showers and thunderstorms in the warm, unstable air after midweek. Rainfall varied widely, some areas only trace while others 1.00 in. Showers most numerous north and central, very isolated south.

First crop haying 85% done, 1976 75%, normal 45%. Second crop good growth where first crop cut May. Corn growing rapidly; average height 32 in., 1976

19 in., normal 13 in. Early fields starting to tassel. Rain needed to maintain corn development; some curling in dry areas. Soybeans growing well; could use moisture. Oats 80% headed, 1976 50%, normal 30%. Oats look good, straw length varies. Early oats turning. Winter wheat ripening. Pasture conditions below normal. Tobacco planting nearly completed; stands look good. Pea harvest continues. Irrigated vegetable crops developing rapidly. Cherries ripening. Spring frosts reduced set on apple trees. Topsoil moisture short to adequate. Subsoil moisture very short.

WYOMING: Temperatures 4 to 5° above normal. Precipitation mostly below normal.

Topsoil moisture short. Major activities: Irrigating and haying. Alfalfa first cutting 41% complete, other 5% harvested. Potatoes and dry beans 91% and 92% emerged, respectively. Sugarbeet acreage 89% thinned. Winter wheat 81% headed and turning color in many areas. Barley and oats 68% and 53% headed. Hail damage previous week severe in many eastern areas. Crops affected were small grains, corn, sugarbeets, dry beans and hay. Many farmers harvesting hail-damaged wheat for hay.

## World Weather and Crop Update

USSR. Crop conditions continued favorable over most of European USSR. Adequate to locally heavy rains fell over most areas maintaining good growing conditions for spring crops. Winter grains harvesting commenced in the southern regions; good yields were anticipated in most areas. The heavy rains and winds of recent weeks, however, resulted in considerable lodging in some areas and may affect yields. Heavy rains throughout the middle Volga improved moisture and the crop prospects. But more rain was needed in the southern Urals, an important spring wheat region, to maintain good growing conditions. Precipitation was spotty in the principal spring wheat regions of western Siberia and northern Kazakhstan. Moderate to locally heavy rains fell in western Siberia, but precipitation was light over most of northern Kazakhstan where surface moisture was short in some areas. Heavy, timely rains fell in Altai Kray.

ASIA. In the People's Republic of China, moderate to heavy rains fell throughout the northeast, an important region producing spring wheat, soybeans, and coarse grains. Moderate to heavy rains also fell in the PRC's main winter wheat belt in the northern China Plain where the wheat harvest was underway. Extremely heavy precipitation drenched the rice growing areas of southern China causing some localized flooding and waterlogging. The monsoon was active in India and brought heavy precipitation over several areas. In Australia, scattered light showers fell mostly along the coast, but there was practically no rainfall in the principal grain areas of the interior.

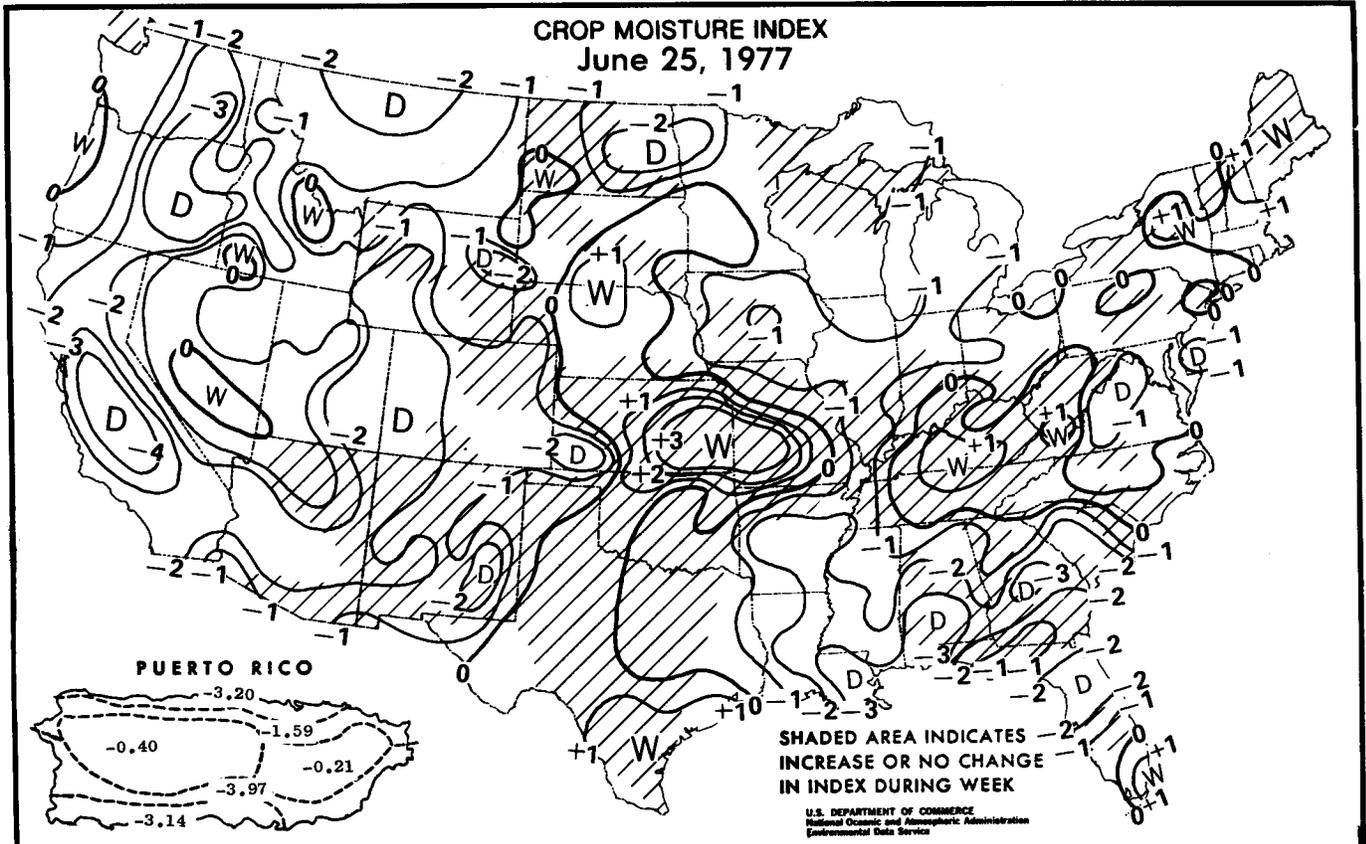
AFRICA. North Africa--Morocco, Algeria and Tunisia--was hot and rainless. At the other end of the continent, South Africa was seasonally cool and dry.

SOUTH AMERICA. A cold front dropped temperatures in the Brazilian coffee growing states of Parana

and Sao Paulo, but no frosts were reported there. Extremely heavy rains--50 mm to 100 mm--fell throughout the important agricultural states in the south. In Argentina, moderate rains--10 mm to 20 mm--dampened the principal grain regions where the sowing of winter grains was retarded in some areas because of shortage of moisture. Unseasonable cold with below freezing temperatures also impeded some fall planting.

EUROPE. A generally dry week in western Europe helped advance the development of winter grains and spring crops in the United Kingdom, Denmark, and northern France. Moderate to locally heavy showers, however, fell in central France and in the central and southern portions of West Germany. Light precipitation dotted the main agricultural areas of Spain where unirrigated crops needed moisture. Moderate to heavy showers in Italy moistened the northern agricultural regions in the Po Valley, but only scattered light showers fell over parched fields and pastures in the south. Crop prospects continued generally favorable in eastern Europe. Moderate to heavy showers dampened the interior regions of East Germany, Poland, and Czechoslovakia. Moderate showers fell over Bulgaria, northern Yugoslavia, and parts of Romania, however, rainfall was light elsewhere. Drought-stricken Greece was without significant rainfall during the week while only a few showers fell over the northern third of Turkey.

NORTH AMERICA. Good, soaking rains fell in portions of the western and southern Corn Belt including Iowa, Missouri, and Illinois to help ease the poor moisture situation in those States. Scattered light showers fell throughout the spring wheat producing States of the northern Great Plains while showers were fairly general throughout much of the adjacent Prairie Provinces of Canada. There was no relief for the severe drought in southern Alberta. It was dry in the Pacific Northwest and California. Portions of the Deep South also needed rainfall.



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

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

**UNSHADED AREAS: INDEX DECREASED**

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

value. However, if moisture meets or exceeds demand the index is positive.

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

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

**SHADED AREA: INDEX INCREASED OR DID NOT CHANGE**

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

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

Agricultural Climatology Service Office  
South Building Mail Unit  
U. S. Department of Agriculture  
Washington, D.C. 20250

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### HARVESTING PROGRESS

Acreage harvested as of June 26

#### WINTER WHEAT

	1977	1976	Avg.
Colo.	1/	NA	NA
Ind.	10	5	10
Iowa	5	NA	NA
Kans.	35	15	25
Mo.	63	40	38
Mont.	0	0	0
Nebr.	5	0	1/
Ohio	5	1/	NA
Okla.	89	72	81
Tex.	74	66	77
U. S.	40	30	34

These 10 States produced 77% of the  
1976 U. S. winter wheat crop

1/ Less than 5%.  
NA Not Available.