

WEEKLY WEATHER AND CROP BULLETIN

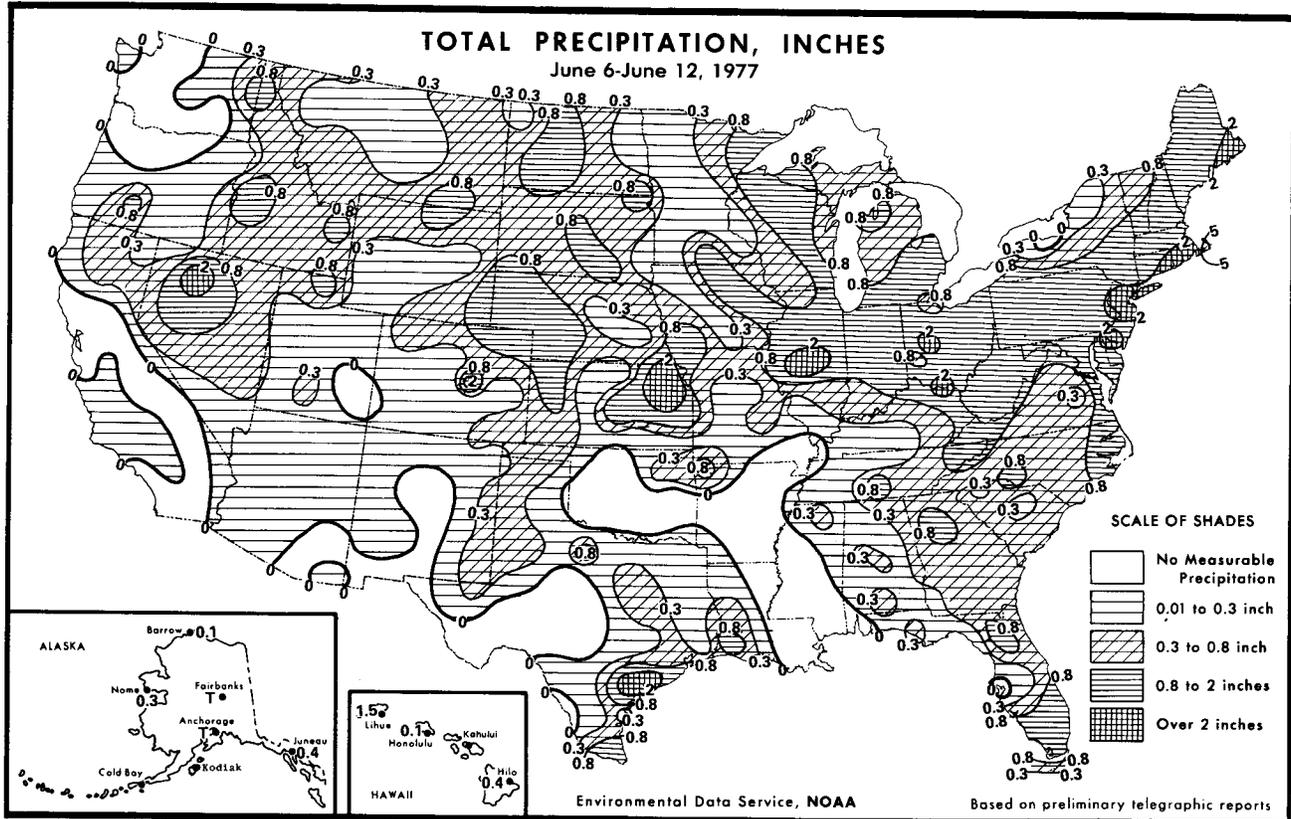
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National Weather Summary

June 6 - 12

HIGHLIGHTS: Typical for this time of year, thunderstorms and some tornadoes dominated the weather in many parts of the Nation. Occasional hail accompanied the storms and some crop damage was reported in parts of Nebraska. Much-needed rain fell from central Illinois eastward through Pennsylvania. Most of West Virginia, Maryland, and Delaware also had significant rainfall.

Temperatures averaged above normal west of the Mississippi where some areas in the central Rockies averaged 9 to 10° higher than normal. East of the Mississippi, cool weather dominated, although the Southeast warmed significantly toward week's end. Parts of West Virginia, Pennsylvania, and Ohio averaged 12 to 13° cooler than normal.

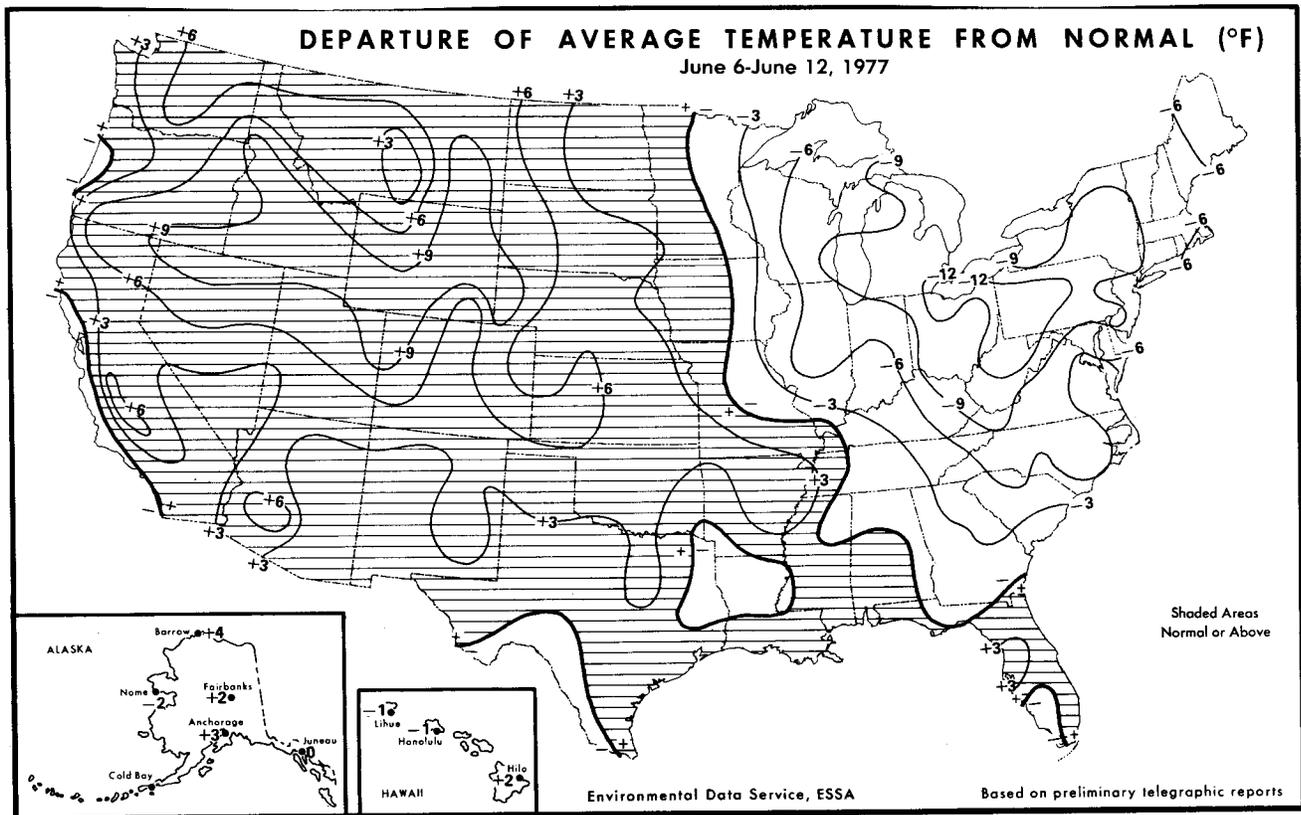
A cold front pushed southward Monday morning producing heavy rain and hail in Virginia and West Virginia. In late afternoon, strong winds and rain played havoc with the central Eastern Seaboard. The southern and eastern U.S. were pounded by numer-

ous severe thunderstorms and tornadoes. Nighttime reports showed a line of very heavy thunderstorms from the Atlantic across northern Florida to western Alabama. Showers were scattered over New England, the Mississippi Valley, the southeastern slope of the Rockies, and the Intermountain Region.

Little Rock and Boise were blistered by their hottest temperatures for this early in the year; Grand Junction, Colorado, warmed to a fifth straight record-breaking day of heat; and Memphis and Savannah reached 100° for the first time in six years.

A Kansas high pressure system dominated most of the country, from the Rockies eastward, on Tuesday. There were early scattered showers over New England and Florida. Later, heavy thunderstorms rumbled through the middle Mississippi Valley. Tornadoes touched down in Iowa and Minnesota.

Temperatures were very warm over the northern portions of the U.S. from eastern Washington to the upper half of the Plains. Meanwhile, several re-



cord low readings chilled points east of the Mississippi River. Madison, Wisc., and Beckley, W.Va., set new low temperatures for June 7; Pittsburgh, Sault Ste. Marie, Mich., and Charleston, W.Va., tied low records.

A high pressure system over Alabama controlled a large section of the country bringing cool morning temperatures on Wednesday. Records were set from the Atlantic Coast to Texas. Elkins, W.Va., looked askance at its June calendar while noting 25°.

Precipitation was scattered--drought-plagued northern Wisconsin received about one-half inch of rain; hail peppered northern Illinois and southeastern Wisconsin; and a tornado was spotted outside Columbus, Ohio. Moderate showers dotted the Ohio Valley, lower Great Lakes, Iowa and Missouri, central Intermountain Region, northern Rockies, and West Coast except the Pacific Northwest. Earlier showers dampened the desert areas of southeastern California and southwestern Arizona.

Heavy rains and isolated severe weather darkened Thursday from southern New England to the Carolinas. Showers or thunderstorms also moved through sections of the Great Plains, lower half of California into the Rockies, Pacific Northwest, southern half of Florida, and upper Mississippi Valley. By evening, a line of heavy thunderstorms rumbled over Las Vegas into northwestern Arizona. Two tornadoes buzzed North Carolina and one each whirled into Delaware, New Jersey, and Colorado.

Once again, chilly temperatures broke records in many cities east of the Mississippi River.

Friday began with some isolated showers in widely scattered locales. By afternoon, a well developed storm system off Cape Cod brought rain from the northern middle Atlantic Coast States northward through New England. Thunderstorms ranged from the Oregon/California border to the upper half of the Great Plains. Showers dotted the upper

Great Lakes southward to Kentucky, and fell in southern Florida. Large hail clobbered parts of Iowa and South Dakota where a tornado also struck. Around midnight, thunderstorms moved from the eastern Dakotas through northern Michigan and southward to Kentucky.

Apalachicola, Fla., had something to talk about. On Thursday, the city set a new low temperature reading for the day of 56°, six degrees below the former record. On Friday, residents hung up their coats in deference to 92° heat which toppled the 1954 peak of 91°.

Two frontal systems brought Saturday thunderstorms to the upper half of the Plains and Mississippi Valley through the western sections of the Great Lakes and Ohio Valley. A stubborn low pressure system pumped cool, wet weather into New England.

Later in the day, heavy thunderstorms battered an area from eastern Wyoming to southwestern Texas. Two tornadoes and hail clipped parts of Colorado. Evening hail hit Kansas which also reported the highest temperature in the Nation for the second straight day. Around midnight, severe weather developed over northern Georgia and a band of thunderstorms caused heavy rain along the Nebraska/Missouri border.

Sunday thundershowers dampened the southern portions of Texas and Louisiana. Tornadoes raced through Oklahoma and Nebraska. Moisture-laden clouds dumped rain on the northern Intermountain Region and several sections of the U.S. east of the Mississippi River.

Hot and humid weather extended across the southeast quarter of the Nation with most areas reporting temperatures well into the 90's by early afternoon. Savannah, Ga., Meridian, Miss., and Columbia, S.C., all reached a record high of 100° while Montgomery, Ala., climbed to 101°.

National Agricultural Summary

June 6-12

HIGHLIGHTS: Rains quenched thirsty crops in parts of the major corn and wheat production areas. Rains fell in areas where wheat was not mature, so combining was not delayed. Farmers delayed planting in the dry south central States, but almost finished in the north central States. Sorghum planting advanced to 84% complete compared with 82% in 1976 and 78% average. Cotton planting advanced rapidly in Texas and Oklahoma; elsewhere planting was complete. Winter wheat harvest advanced into Kansas; Nebraska farmers opened a few fields. Soil moisture remained short throughout most of the Nation; but rains across the northern part of the U. S. from the Great Plains eastward improved growing conditions in most of the north central States. Pastures generally rated poor to fair although the rains improved some grasslands. Ranges rated good in the southern half of the Great Plains and pastures at higher elevations in the western States.

SMALL GRAINS: The Nation's winter wheat crop was nearly headed; the Montana crop advanced to 65% headed. The crop turned color in all but the most northern areas. Harvest reached 35% complete in Oklahoma and 34% in Texas, well advanced compared with 1976 and the average. Elsewhere in the South, winter wheat harvest ranged from 40 to 90% complete. Kansas and Nebraska producers began combining some fields, but had not made significant progress.

The oats crop was in good condition and reached 25 to 92% headed in the major producing States. The crop maturity was up to two weeks earlier than usual. Oats combining in southern areas ranged from 16% complete in Alabama to 93% in Arkansas.

CORN: The corn crop rated fair to good and was more advanced than most recent years in the eastern north central States. Plants grew to a height of 12 to 27 inches; a year earlier, the plants measured 8 to 14 inches and the average height was 6 to 12 inches. The most advanced Illinois corn crop attained 42 inches, double the 1976 and average measurement.

In the western north central States, the crop emerged and grew to an average height of 12 to 22 inches, two to three times the usual.

The southern States corn crop rated poor to fair. Dry weather affected germination and stressed some crop growth; some Florida corn was lost. Almost half of the Louisiana crop silked; in Mississippi, was 15% silked; and Texas and Oklahoma corn was tasselled.

SOYBEANS: Soybean farmers planted 89% of the 1977 crop, slightly ahead of 1976 and far ahead of the average. Stands varied while dry weather reduced the effectiveness of herbicides and slowed planting in southern States.

In the eastern north central States, farmers planted 99% of the crop, 1 point ahead of 1976 but far surpassing the 74% average. Plants grew 5 inches tall, about the same as most recent years.

Planting reached 96% complete in the western north central States, ahead of both 1976's 94% and the average 69%. Farmers finished in most States except Kansas. Plants grew to 7 inches in Minnesota, almost double the usual size.

Farmers in the south central States planted 75% of the soybean crop by June 12, equalling 1976's rate and 9 points ahead of average. Dry soils reduced germination and farmers delayed planting additional fields waiting for more rain.

COTTON: Farmers continued planting the 1977 cotton crop in Oklahoma and Texas, elsewhere planting was complete. In Texas, farmers planted 96% of the crop compared with 95% in 1976 and 94% average. Plants emerged rapidly responding to high temperatures. South Texas cotton fruited well. Oklahoma cotton growers planted 75% of the cotton crop, near the 77% for 1976 and average.

Squaring was observed in 39% of the Georgia crop; 12% were setting bolls. In the Delta States, the crop rated fair to good with squaring ranging from 5 to 37% complete. The crop needed moisture in Arkansas.

OTHER CROPS: Sorghum planting advanced to 84% complete ahead of 1976's 82% and the 78% average. In Texas, sorghum planting reached 94% complete. Early stands on the Plains grew rapidly. Sorghum development in the southern part of the State ranged from boot to heading and needed rain.

The U. S. rice crop rated good. Water evaporated rapidly from Arkansas fields. Some rice began heading in Texas.

The Maine potato crop grew rapidly; some fields were weedy. About 70% of the Idaho crop emerged compared with 75% last year; 10% of the crop grew to 6 inches and 5% reached 12 inches.

Peanuts were in good condition. Half of the Georgia crop bloomed and 18% pegged, far ahead of 1976 maturity. Virginia growers applied land-plaster; in Alabama 7% of the crop pegged.

FRUITS AND NUTS: Peach growers in northern areas sprayed trees and mowed orchards; the crop sized well. In southern areas, dry soils limited sizing and picking advanced to 11% complete in North Carolina, 38% in Georgia and almost finished in Florida. Arkansas growers harvested some early apples. New York cherries colored and grapes bloomed. The Oregon cherry harvest should begin soon. Citrus growers harvested the last of the Valencias and grapefruit. Florida citrus growers irrigated groves; most were in good condition.

VEGETABLES: Cool temperatures slowed vegetable development in the northeastern part of the Nation, but growers harvested some vegetables throughout the area. Florida vegetable shipments declined 36%. Only eggplant supplies increased; all others declined including watermelons. Texas growers harvested a wide variety of vegetables and melons. Crops needed rain in some areas. California growers picked increasing volumes of melons, celery, potatoes, and tomatoes; and heavy volumes of broccoli, cauliflower, lettuce, and strawberries.

PASTURES AND LIVESTOCK: Grasslands generally rated poor to fair although rains stimulated growth in some north central States. Ranges rated good in the Great Plains from Nebraska southward and pastures at high elevations in the mountain States. Producers in some areas marketed cattle to conserve feed.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 12, 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 . . .	76	0	T	-.9	La.Baton Rouge . . .	80	0	0	-.8	Youngstown . . .	52	-14	1.9	+1.1
Mobile . . .	80	0	0	-1.3	Lake Charles . . .	81	+1	1.5	+.4	OKLA.Okla. City . . .	78	+3	T	-1.1
Montgomery . . .	80	+2	.1	-.8	New Orleans . . .	80	0	7	-1.0	Tulsa . . .	80	+4	.3	-.8
ALASKA,Anchorage . . .	56	+3	T	-.2	Shreveport . . .	77	-2	.1	-.7	OREG.Astoria . . .	57	+1	T	-.6
Barrow . . .	35	+4	.1	0	MAINE,Caribou . . .	55	-3	1.4	+6	Burns . . .	65	+8	.2	-.1
Fairbanks . . .	60	+2	T	-.3	Portland . . .	53	-7	1.0	+2	Medford . . .	69	+7	.4	+1
Juneau . . .	52	0	.4	-.2	MD,Baltimore . . .	63	-8	1.6	+8	Pendleton . . .	69	+5	T	-.3
Kodiak . . .	---	---	---	---	MASS,Boston . . .	59	-7	1.6	+8	Portland . . .	63	+2	0	-.4
Nome . . .	42	-2	.3	+1	Chatham . . .	56	---	5.3	---	Salem . . .	61	+1	0	-.4
ARIZ.Flagstaff . . .	58	+2	.3	+2	MICH,Alpena . . .	50	-9	.4	-.3	PA.Allentown . . .	61	-7	1.8	+1.0
Phoenix . . .	90	+7	.1	+1	Detroit . . .	56	-11	1.4	+6	Erie . . .	54	-9	1.3	+5
Tucson . . .	82	+1	T	0	Flint . . .	53	-11	1.4	+6	Harrisburg . . .	61	-10	1.0	+3
Winslow . . .	70	0	.1	+1	Grand Rapids . . .	56	-10	.7	-.1	Philadelphia . . .	61	-10	1.6	+8
Yuma . . .	87	+3	T	0	Houghton Lake . . .	53	-8	.5	-.3	Pittsburgh . . .	54	-13	1.1	+3
ARK.Fort Smith . . .	78	+1	T	-1.0	Lansing . . .	56	-10	1.3	+5	Scranton . . .	56	-10	1.6	+8
Little Rock . . .	81	+4	T	-.9	Marquette . . .	51	-7	.4	-.4	R.I.Providence . . .	59	-6	2.8	+2.2
CALIF,Bakersfield . . .	81	+6	.1	+1	Muskegon . . .	55	-9	.4	-.2	S.C.Charleston . . .	76	-1	.3	-1.0
Eureka . . .	54	-1	T	-.2	S. Ste. Marie . . .	48	-9	.4	-.4	Columbia . . .	73	-5	.3	-.5
Fresno . . .	76	+4	0	0	MINN,Duluth . . .	54	-3	.9	-.2	Greenville . . .	73	-2	.2	-.7
Los Angeles . . .	67	0	0	0	Internat Falls . . .	59	0	.6	-.3	S.D.Aberdeen . . .	66	+2	.5	-.3
Red Bluff . . .	77	+3	.4	+3	Minneapolis . . .	65	0	.1	-.8	Huron . . .	69	+4	.3	-.6
San Diego . . .	65	0	T	0	Rochester . . .	63	-2	.2	-.9	Rapid City . . .	69	+7	.5	-.4
San Francisco . . .	59	-2	T	-.1	St. Cloud . . .	63	0	.1	-1.0	Sioux Falls . . .	71	+5	T	-1.1
Stockton . . .	74	+4	0	0	MISS,Jackson . . .	78	0	0	-.8	TENN.Chattanooga . . .	73	-2	.5	-.3
COLO,Denver . . .	70	+6	.2	-.3	Meridian . . .	79	+1	T	-.8	Knoxville . . .	70	-5	.5	-.3
Grand Junction . . .	78	+9	T	-.1	MO,Columbia . . .	71	-1	T	-1.1	Memphis . . .	82	+5	.3	-.5
Pueblo . . .	75	+6	T	-.3	Kansas City . . .	72	0	.4	-.9	Nashville . . .	73	-2	T	-.8
CONN,Bridgeport . . .	58	-8	1.6	+1.0	St. Louis . . .	71	-3	.1	-1.0	TEX.Abilene . . .	81	+2	0	-.7
Hartford . . .	60	-6	1.9	+1.1	Springfield . . .	75	+3	.1	-1.0	Amarillo . . .	78	+5	.2	-.6
D.C.Washington . . .	67	-6	1.0	+2	MONT,Billings . . .	62	+2	.3	-.4	Austin . . .	82	+1	.1	-.7
FLA,Apalachicola . . .	79	0	.2	-.9	Glasgow . . .	67	+7	.6	-.1	Beaumont . . .	82	+2	.2	-.9
Daytona Beach . . .	81	+2	.4	-1.1	Great Falls . . .	64	+5	.1	-.7	Brownsville . . .	82	0	1.7	+1.0
Ft. Myers . . .	80	-1	1.6	-.4	Havre . . .	66	+6	.1	-.5	Corpus Christi . . .	84	+2	.2	-.5
Jacksonville . . .	79	0	.3	-1.1	Helena . . .	62	+5	.3	-.3	Dallas . . .	---	---	---	---
Key West . . .	82	-1	.2	-.8	Kalispell . . .	61	+6	.1	-.5	Del Rio . . .	82	-1	.1	-.4
Lakeland . . .	83	+3	.2	-1.2	Miles City . . .	73	+10	.3	-.5	El Paso . . .	80	+1	T	-.1
Miami . . .	82	+1	1.0	-1.1	Missoula . . .	62	+5	.2	-.4	Fort Worth . . .	84	+5	.5	-.3
Orlando . . .	82	+2	.3	-1.2	NEBR,Grand Island . . .	74	+5	.1	-1.0	Galveston . . .	81	0	1.8	+9
Tallahassee . . .	77	-2	.2	-1.2	Lincoln . . .	73	+3	.1	-1.1	Houston . . .	80	0	.5	-.6
Tampa . . .	84	+3	T	-1.4	Norfolk . . .	71	+3	.7	-.5	Lubbock . . .	78	+2	.6	-.1
W.Palm Beach . . .	81	+1	2.0	+1	N.Platte . . .	70	+4	1.0	+1	Midland . . .	81	+2	.1	-.3
GA,Atlanta . . .	72	-3	.8	0	Omaha . . .	72	+3	.8	-.4	San Angelo . . .	81	0	T	-.5
Augusta . . .	77	-3	.6	-.2	Valentine . . .	70	+5	.7	-.2	San Antonio . . .	82	+1	T	-.7
Macon . . .	74	-2	.4	-.5	Las Vegas . . .	82	+2	.1	+1	Victoria . . .	83	+2	2.2	+1.4
Savannah . . .	78	0	.4	-.9	Reno . . .	65	+5	.7	+6	Waco . . .	84	+3	.3	-.4
HAWAII,Hilo . . .	76	+2	.4	-1.1	Winemucca . . .	68	+9	2.3	+2.0	Wichita Falls . . .	82	+2	.1	-.7
Honolulu . . .	78	-1	.1	0	N.H.Concord . . .	55	-8	1.4	+6	UTAH,Blanding . . .	69	+5	T	-.1
Kahului . . .	---	---	---	---	N.J.Atlantic City . . .	61	-8	1.3	+5	Salt Lake City . . .	72	+8	.1	-.3
Lihue . . .	76	-1	1.5	+1.1	Trenton . . .	62	-8	2.7	+2.0	VT,Burlington . . .	56	-8	.5	-.3
IDAHO,Boise . . .	71	+8	1.2	+9	N.MEX.Albuquerque . . .	75	+2	T	-.1	VA,Lynchburg . . .	63	-8	.6	-.2
Lewiston . . .	72	+9	.2	-.3	Roswell . . .	79	+3	.1	-.2	Norfolk . . .	69	-4	1.4	+6
Pocatello . . .	69	+9	.7	+3	N.Y.Albany . . .	56	-10	1.2	+5	Richmond . . .	67	-6	.1	-.6
ILL,Cairo . . .	78	+1	T	-1.1	Binghamton . . .	54	-9	1.2	+4	Roanoke . . .	64	-7	.4	-.4
Chicago . . .	61	-8	1.2	+3	Buffalo . . .	57	-7	.2	-.3	WASH,Coville . . .	67	+7	.4	0
Moline . . .	65	-4	1.2	+2	New York . . .	62	-8	2.0	+1.3	Omak . . .	69	+7	T	-.3
Peoria . . .	64	-6	1.3	+4	Rochester . . .	57	-8	T	-.6	Quillayute . . .	55	+1	T	-.9
Rockford . . .	61	-6	.6	-.4	Syracuse . . .	55	-10	.3	-.4	Seattle-Tacoma . . .	63	+4	0	-.4
Springfield . . .	65	-7	2.8	+1.8	N.C.Asheville . . .	64	-6	.7	-.2	Spokane . . .	65	+5	1.2	+8
IND,Evansville . . .	70	-3	.3	-.5	Charlotte . . .	69	-6	1.0	+2	Walla Walla . . .	71	+6	T	-.3
Ft. Wayne . . .	60	-8	1.2	+3	Greensboro . . .	67	-6	.5	-.4	Yakima . . .	70	+7	T	-.2
Indianapolis . . .	65	-5	.9	-.1	Hatteras . . .	69	-4	2.0	+9	W.Va.Beckley . . .	55	-11	1.0	0
South Bend . . .	58	-9	.9	+1	Raleigh . . .	66	-7	.4	-.4	Charleston . . .	60	-11	1.2	+5
IOWA,Burlington . . .	65	-5	.7	-.4	Wilmington . . .	71	-6	.7	-.5	Huntington . . .	60	-11	1.3	+5
Des Moines . . .	73	+4	T	-1.2	N.DAK,Bismarck . . .	65	+3	1.1	+2	Parkersburg . . .	59	-12	.9	0
Dubuque . . .	62	-4	.7	-.6	Fargo . . .	65	+2	T	-.7	WIS.Green Bay . . .	55	-8	.7	-.1
Sioux City . . .	71	+2	.3	-.8	Williston . . .	67	+6	.3	-.5	La Crosse . . .	62	-5	.6	-.5
KANS,Concordia . . .	75	+4	.1	-1.1	OHIO,Akron-Canton . . .	56	-11	1.2	+4	Madison . . .	56	-8	.6	-.4
Dodge City . . .	79	+7	.6	-.2	Cincinnati . . .	62	-9	1.2	+4	Milwaukee . . .	53	-10	.8	0
Goodland . . .	71	+4	.6	-.1	Cleveland . . .	55	-12	.9	+1	WYO,Casper . . .	70	+10	.1	-.3
Topeka . . .	75	+3	2.1	+7	Columbus . . .	58	-11	1.3	+3	Cheyenne . . .	64	+5	1.0	+4
Wichita . . .	78	+4	.2	-.8	Dayton . . .	61	-9	.6	-.3	Lander . . .	67	+8	T	-.5
KY,Lexington . . .	65	-7	.6	-.4	Toledo . . .	56	-12	.6	-.2	Sheridan . . .	68	+9	1.4	+6
Louisville . . .	68	-4	.8	-.2						P.R.San Juan . . .	82	+2	.1	-1.3

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: Temperatures near normal. Rainfall light.

Fieldwork: 5.7 days suitable. Soil moisture very short; critical some areas. Cotton fair to good condition; 5% squaring, none 1976, 12% average. Corn poor to fair condition, 21% tasseled, 18% 1976, 14% average. Soybeans fair condition, 71% planted, 58% 1976, 70% average. Peanuts fair condition, 7% pegging, 5% 1976. Wheat harvest advanced rapidly; 63% complete, 43% 1976, 54% average. Pastures poor to fair. Some supplemental feeding of livestock.

ALASKA: Tanana Valley: Sunny weather and warmer than normal temperatures prevailed. Precipitation below normal. Matanuska Valley: Mostly sunny weather, temperature above normal. Precipitation varied. Kenai Peninsula: Mostly cloudy with showers. Temperatures near normal. Precipitation about twice normal. Kodiak Island: Cloudy skies and occasional rain. Temperatures and precipitation below normal.

Crops throughout railbelt responded favorable. Small grain seeding continues for hay and silage. Soil moisture mostly adequate except Tanana Valley. Farmers making preparations first cutting of hay.

ARIZONA: High temperatures, moist air produced widely scattered thundershowers through 8th. Temperatures 4° below normal to 7° above.

Cotton good progress, blooming Yuma area. Small grain harvest full swing central, west. Sorghum planting well advanced. Safflower growing well, good seedhead development. Third cutting alfalfa hay underway warmer areas. Sugarbeet harvest completed Yuma, full swing Salt River Valley. Cantaloups, watermelons good growth, harvest early cantaloups underway Yuma. Valencia orange, grapefruit harvest active. Deciduous fruit harvest nearing completion Salt River Valley. Conditions remain dry lower, mid-elevation ranges. Higher ranges fair to good. Cattle, calves fair to good. Supplemental feeding, water hauling many areas.

ARKANSAS: Temperatures 1 to 5° above normal. Extremes: 43 and 103°. Rainfall extremely spotty.

Soil moisture short. Fieldwork: 6.5 days suitable. Soybean planting delayed by lack of adequate moisture. Some scattered plantings accomplished; crop 74% planted, 76% 1976, average 62%. Crop in critical need of rain. Cotton crop fair to good condition and needing rain to promote growth. Rice stands good; water evaporation high. Corn fair condition and needing rain. Sorghum planting 96% complete with remainder to be planted following small grain harvest. Wheat harvest 88% complete, 35% last year. Oats harvest 93% complete, 44% 1976. Harvest early variety apples underway. Peach harvest continued, lack of adequate moisture caused small fruit. Pastures providing below average amounts of feed. Livestock marketing heavy due to short pastures.

CALIFORNIA: Temperatures well above normal; rainfall in all areas. Showers and thunderstorms produced the rainfall; over 1.00 in. at Sierra Nevada station and northeast interior. Central Valley rain mostly in the San Joaquin Valley.

Small grain harvest active southern areas, Cotton, rice, corn making rapid growth after hot temperatures. New crop sugarbeets developing well. Dry beans emerging. Apricot harvest underway. Bing cherry harvest almost complete. Lemon and desert grapefruit harvest nearly complete. Early freestone peaches being harvested. Pears sizing well. Walnut crop looks good. Cantaloup, celery, potatoes, tomatoes, watermelons volume increasing. Broccoli, cauliflower, lettuce, strawberries continue in heavy supply. Desert sweet corn and carrots nearing end. Rangelands poor condition; stock water short, supplemental feeding active. Cattle fair condition.

COLORADO: Temperatures well above normal. Precipitation in form of widely scattered thunderstorms; individual amounts light, except few locations eastern foothills over 1.00 in.

Winter wheat good to fair condition; 97% headed, 93% 1976, 85% average. Sugarbeet 71% thinned, 51% 1976, 46% average. First cutting alfalfa 49% complete. Soil moisture short. Spring seedings: Sorghum 84%, 85% 1976, 73% average. Dry bean 80%, 73% 1976, 64% average. Corn good condition.

FLORIDA: Record cool temperatures with midweek lows of 40 to 50° northern areas, followed by record heat with weekend highs in upper 90's over north and central. Record rainfall over southeast coast while drought conditions continued north and central. Temperatures near to slightly above normal. Rainfall ranged from none to up to 5.50 in. southeast coast.

Soil moisture short. Scattered showers helpful but more needed. Most crops poor to fair condition depending on available moisture. Some corn lost. Soybean planting continues but progress slow. Small grain harvest about complete. Peach and nectarine harvest nearing completion. Sugarcane good condition. Overall pasture condition improving; however, rainfall spotty. Drought conditions continue western coastal areas, Panhandle. Southern pastures improving with recent rainfalls. Cattle condition poor, west Panhandle, central Peninsula; mostly good elsewhere. Most citrus groves good condition; many caretakers still irrigating. Valencias and grapefruit softening, harvest slowing, labor supply short. Moisture level generally good southern vegetable area; north, west areas dry. Vegetables including watermelons damaged. Crop conditions mostly fair. Overall shipments down 36%. Eggplant increased. Supplies snap beans, cabbage, carrots, celery, sweet corn, cucumbers, peppers, radishes, squash, tomatoes, potatoes decreased. Watermelon supplies also declined. North central, northern areas providing major volume. Mostly salvage in south. Quality, size mostly good. Harvest getting underway Panhandle.

GEORGIA: Temperatures 1 to 4° below normal. Dry except for general thunderstorm activity 6th. Rainfall 0.25 in., no heavy amounts. Scattered thundershowers weekend.

Soil moisture mostly very short to short. Fieldwork: 6 days suitable. Scattered light showers provided some moisture for planting and cultivation. Corn condition poor to fair. Tobacco fair to good. Cotton mostly fair to good; 39% squaring, 22% last year, 12% setting bolls, 2% last year. Peanuts fair to good; 51%

blooming, 34% last year, 18% pegging, 2% last year. Soybeans mostly fair to good, 70% planted, 75% last year, average 72%. Sorghum 49% planted, last year 61%, average 58%. Wheat harvest 73% complete, last year 67%, average 56%. Oats harvest 79% complete, last year 73%, average 57%. Hay condition declined, poor to fair. Peaches fair to good, 38% harvested, 37% last year, 21% average. Apples fair to good. Watermelons mostly fair to good, 3% harvested, 3% last year. Pasture condition declined, poor to fair. Cattle fair to good. Hogs fair to mostly good.

HAWAII: Weather favorable. Showers light and scattered.

Melon production Oahu increasing. Heavy irrigation most areas. Spraying heavy to control insects. Supplies mustard, cabbage short. Lettuce production active. Banana supplies Brazilian variety heavier; other light. Papaya production more active. Sugar harvesting steady. Pineapple harvesting increasing. Pastures fair to good.

IDAHO: Weather started hot dry ended cool, wet. Temperatures about 10° above normal. Extremes: 39 and 105°. All areas had precipitation.

Crop growth accelerated by warm weather. Percent crop growth stage boot 1977, 1976; headed 1977, 1976: Winter wheat 80%, 80%; 25%, 20%. Spring wheat 45%, 25%; 5%, 0%. Barley 50%, 20%; 15%, 5%. Potatoes emerged 70%, 75% 1976.

ILLINOIS: Temperatures 2° above normal to 9° below normal. Precipitation moderate to heavy north, little or none south.

Corn good; average height all fields 27 in., 14 in. 1976, 12 in. average; most advanced fields 42 in., 21 in. 1976, 20 in. average. Soybeans good to fair. Grain sorghum 95% planted. Winter wheat 94% turning yellow, 80% 1976, 76% average; 65% ripe, 26% 1976, 11% average; 5% combined, 2% 1976, 1% average. Oats 85% headed, 69% 1976, 63% average; 55% filled, 34% 1976, 28% average. First crop alfalfa hay 94% cut; red clover hay 88% cut. Pastures good to fair. Soil moisture short. Fieldwork: 5.5 days suitable.

INDIANA: Cool, temperatures ranged from 35 to 96°. Rainfall averaged about 0.50 in. Rainfall last 4 weeks 1.60 to 2.90 in. below normal.

Fieldwork: 5 days suitable. Topsoil moisture and subsoil moisture mostly short to adequate. Pastures mostly fair. Soybeans 95% planted, 1976 95%, average 75%. Soybeans 90% emerged, 1976 85%. Stands mostly fair. Soybeans 5 in. high, 1976 and average 4 in. Corn 17 in. high, 1976 12 in., average 9 in. Stands rated mostly fair to good. Oats 75% headed, 1976 70%, average 35%. Wheat 75% turning color, 1976 60%. Wheat 5% ripe, 1976 5%. Wheat in fair to good condition. Alfalfa 90% cut first time, 1976 80%, average 50%. Tobacco 85% set, 1976 75%, average 55%.

IOWA: Spotty showers and not so hot. Central very dry.

Soil moisture short. Fieldwork: 6.7 days suitable. Average height of corn 22 in. Soybean stand rated 89% full. 1st cutting alfalfa hay 94% complete, 75% last year, and 46% average. Oats 92% headed, 65% last year, 31% average. Corn, oats, and wheat in good condition. Alfalfa, clover hay and soybeans mostly good to fair. Pastures range from good to poor. Livestock suffering some heat stress.

KANSAS: General rains 0.50 in. to locally over 2.00 in. Temperatures averaged from 75 to 79°; 3°

above normal northeast to 8° above normal northwest.

Wheat harvesting off to good start south central and southeast; est cutting many areas. About 75% turning, 50% last year, 60% average. Wheat 15% ripe, 0% last year, 6% average. Diseases such as barley yellow dwarf and soil-borne mosaic west central and central. "take-all" prevalent east. Corn 100% planted, same last year and average. Soybeans 60% planted, 65% last year, average 60%. Sorghum 65% planted, last year and average 60%. First cutting alfalfa 95%, last year and average 85%. Second cutting alfalfa 10%, last year 0%, average 5%. Soil moisture adequate but hot, dry winds require more rain. Cattle spraying for flies and ticks. Farm activities: Irrigating corn, working summer fallowed ground.

KENTUCKY: Temperatures low 70's west to to mid-60's east. Precipitation over 0.50 in. east; less than 0.33 in. elsewhere.

Fieldwork: 5.5 days suitable. Activities: Planting soybeans, setting, and resetting tobacco, cultivating row crops, haying, and combining small grains. Soil moisture short. Dry soils delayed soybean planting and tobacco setting. Poor germination of soybeans and poor tobacco stands common. About 70% soybeans planted, 58% last year, and 56% average. Tobacco setting 89% complete, 85% last year, 72% average. Barley harvest active with 49% complete, 22% last year, 28% average. Wheat harvest just beginning. Dry weather causing deterioration of hay and pasture crops.

LOUISIANA: Temperatures near normal. Extremes: 49 and 102°. Showers 11th and 12th.

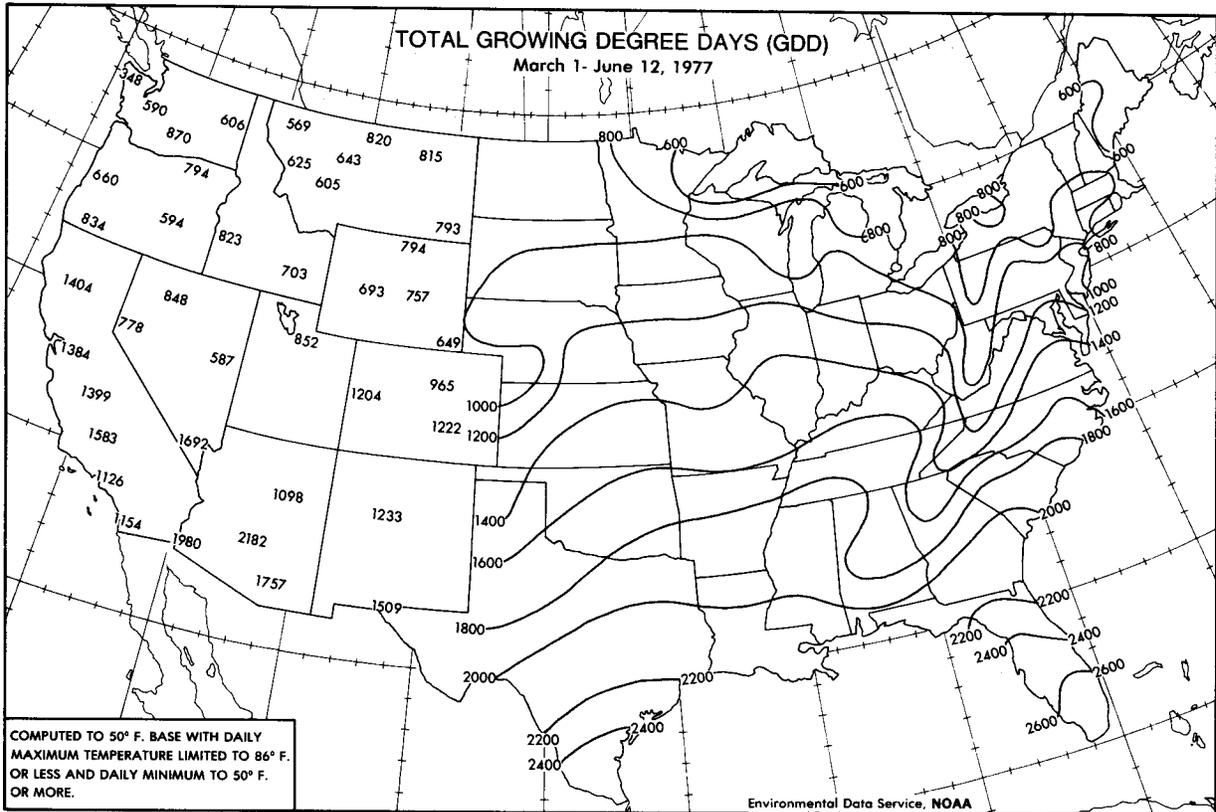
Soil moisture short. Fieldwork: 6.0 days available. Main activities: Haying, weed control, irrigation and caring for livestock. Rice condition good. Corn condition fair; 48% silked. Cotton condition fair; 17% squaring. Sorghum 80% planted, 84% last year; 71% up to stand. Soybeans 76% planted, 81% last year, 70% average; 65% up to stand; condition fair. Sweetpotato transplanting 78%, 76% last year. Oat and wheat harvest 95% complete. Pasture and hay condition fair; cattle fair to good.

MARYLAND AND DELAWARE: Temperatures 8° below normal. Highs mid-70's; lows mid-50's. Precipitation widespread, mostly 1.00 to 2.00 in.

Soil moisture adequate. Pastures supplying below average amounts of feed. Corn planting nearly finished; ahead of normal. Fields weedier than normal due to dry conditions. Soybean planting 70%, 65% 1976, 61% average. Stands in good condition, although fields weedy. Haying slowed by rain. First cutting alfalfa 95%, clover and clover mixtures 65%. Second growth alfalfa ready to cut in about week. Tobacco transplanting active. Some growers still marketing 1976 crop. Fruit growers thinning peaches, mowing, and spraying.

MICHIGAN: Temperatures 8 to 10° below normal. Scattered frost 7th, 9th, and 10th. Warmest temperatures to mid-70's 10th. Precipitation ranged 0.30 to 1.40 in.

Cool weather slowed crop growth. Rains welcomed. Some frost damage. Fieldwork: 5 days suitable. Soil moisture short to adequate. Pasture feed supplies short, but improving. Winter wheat 90% headed, 75% last year, 65% normal. Oats 10% headed, 2% last year and normal. Dry beans 50% planted, 40% last year, 16% normal. Soybeans 95% planted, 80% last year, 70% normal. Early potatoes in bloom. Hay 50% first cut, 27% last year, 15% normal. Vegetable development



below average. Asparagus harvested 95%, 80% last year and normal. Strawberry harvest 35% picked, 17% last year, 10% normal.

MINNESOTA: Temperatures 3° above normal west to 3° below normal northeast and southeast. Extremes: 96 and 35°. Precipitation less than 0.15 in., except 0.50 to 1.00 in. northeast and extreme southeast.

Crops continuing excellent growth, most 2 to 3 weeks ahead of normal. Topsoil moisture becoming short southwest, west central; mostly adequate elsewhere. Some oats in south cut for silage. Few winter wheat, rye fields turning color. Most alfalfa hay cut in south, active in northwest. Height: Corn 22 in., 1976 9 in., normal 6 in. Soybeans: 7 in., 1976 4 in., normal 3 in. Percent heading: Spring wheat 52%, 1976 32%, normal 8%; oats 60%, 1976 37%, normal 9%; barley 53%, 1976 31%, normal 9%; winter wheat 92%, 1976 90%, normal 53%; rye 97%, 1976 89%, normal 70%. Flax 40% budded, 1976 15%. Alfalfa hay 77% cut, 1976 52%, normal 34%.

MISSISSIPPI: Temperatures 1 to 2° above normal Delta, 1 to 4° subnormal elsewhere. Extremes: 45 and 104°.

Soil moisture very short. Fieldwork: 6.2 days suitable. Soybeans 73% planted, 82% 1976, 67% average; 55% up to stand, 63% 1976. Cotton 37% squaring, 3% 1976, 11% average. Corn 15% silked, 12% 1976. Winter wheat 87% harvested, 53% 1976, 46% average. Oats 83% harvested, 52% 1976, 54% average. Hay crops 36% harvested, 33% 1976, 28% average. Peaches 15% harvested, 16% 1976, 10% average. Irish potatoes 38% harvested, 40% 1976, 35% average. Cucumbers 19% harvested,

8% 1976. Sorghums 74% planted, 76% 1976, 69% average. Sweetpotatoes 87% planted, 71% 1976, 69% average. Crops in fair to good condition. Pasture in poor to fair condition.

MISSOURI: Temperatures mostly hot, averaging 8° above normal northwest prairie, west central plains; 2 to 5° above normal northeast prairie, east and west Ozarks; normal elsewhere. Precipitation generally light, averaging 0.25 in. to 1.00 in. northwest prairie, zero to 0.50 in. northeast prairie, light elsewhere.

Fieldwork: 5.9 days suitable. Soybeans 95% planted, 86% last year, 65% normal. Grain sorghum 92% planted, last year 83%, 69% normal. 1st cutting alfalfa hay 98% complete, last year 87%, normal 79%. 2nd cutting just underway, 9% complete. Clo-timothy harvesting 52% complete. Wheat 99% turning color, last year 90%, normal 78%. Wheat 46% ripened, last year 27%, normal 22%. Corn mostly fair to good. Pastures fair to good. Soil moisture supply short.

MONTANA: Hot with strong cooling mid-week. Temperatures 5 to 10° above normal. Precipitation significant in the south and some areas northeast, where some amounts well over 1.00 in. above normal. Elsewhere most precipitation light and below normal.

Topsoil moisture short. Scattered weekend rains helped some. Most crops fair to good condition. Winter wheat 65% headed, 30% boot. Last year 40% headed, 45% boot. Average 10% headed, 35% boot. Nearly 5% spring wheat, oats, barley headed, 20% boot, ahead of last year and normal. About 50% sugarbeets thinned. First cutting alfalfa 10% done. Shorter than usual summer range feed expected. Stockwater supplies short, particularly north central and east districts.

NEBRASKA: Temperatures 3 to 10° above normal. Thunderstorms in western third with around 0.75 in.

Topsoil moisture short to adequate. Subsoil moisture supply adequate. Winter wheat mostly good condition, 35% turned. Harvest started in extreme southeast. Corn nearly 100% emerged. Grain sorghum and soybean planting over 95% complete; same as year ago; 90% normal. First cutting alfalfa 90% complete. Pasture and range feed supplies mostly adequate.

NEVADA: Unseasonably warm early, cool and wet remainder. Temperatures above normal. Extremes: 107 and 37°. Precipitation exceptionally heavy north and central; light south.

Alfalfa hay harvest extending north. Some cut hay rained on. Showers improved range conditions north and central.

NEW ENGLAND: Wet, cool. Rain ranged 1.00 in. north Vermont to 3.50 in. Rhode Island and Massachusetts. Temperatures mostly 50°.

Aroostook, Maine potatoes growing rapidly; weed control problem. Early vegetables moving to market. Weeds problem in field corn. Apples, peaches, pears sizing well. First cutting hay light.

NEW JERSEY: Cool, wet. Temperatures 8° below normal. Extremes: 39 and 83°. Rainfall 2.59 in. north, 2.34 in. central and 1.53 in. south. Soil moisture in percent of field capacity averaged 88% north, 82% central, and 69% south. Soil temperature averaged 64° north, 66° central and south.

Rainfall especially beneficial in central and south. Cool temperatures slowed development of some crops. Harvest of cabbage, escarole, lettuce and squash becoming general. Spinach, green onions, peas, beets and greens harvested in light to moderate volume. Apples and peaches continue to size well. Wheat fields coloring. Strawberry harvest mostly central and north. Potato fields showing good growth. Pasture growth resumed following rain. Hay making expected to increase as fields dry.

NEW MEXICO: Slight and widely scattered shower activity but amounts meager.

Dryland wheat fair. Irrigated wheat, durum fair to good. Durum wheat and barley harvest to begin next week. First cutting alfalfa nearing completion in north with second cutting underway south. Corn and irrigated sorghum planting virtually completed. Planting dryland sorghum slowed by lack of soil moisture. Spring lettuce harvest virtually completed. Onion harvest underway.

NEW YORK: Temperatures 6 to 11° below normal; mostly in 50's. Extremes: 81 and 22°. Light rainfall north and west; southeast ranged from 1.00 to 3.50 in.

Corn planting complete. Oat condition uneven. Pastures need rain. First cutting alfalfa 25% done, clover-timothy 15%, grass silage 30%. Tomato, lettuce planting nearing completion. Dryness and cool weather slowing growth of onions, processing vegetables. Potato condition and growth good. Grapes reached full bloom; ahead of normal. Apple growth good. Sweet and tart cherries beginning to color.

NORTH CAROLINA: Precipitation measured 1.00 in. or more along coast; generally lighter elsewhere. Temperatures below normal with record overnight

lows at several locations on 8th. Some hail and damaging winds 6th.

Fieldwork: 4.6 days suitable. Soil moisture adequate. Farm activities: Planting soybeans, harvesting small grains, transplanting burley tobacco and cutting and baling hay. Crop conditions: Corn, peanuts, peaches, Irish potatoes, and apples mostly good. Tobacco, soybeans, cotton, hay, sweetpotatoes, and pasture fair to good. Planting: Soybeans 80% complete, 1976 70%, average 72%. Sorghum 80% complete, 1976 81%. Sweetpotatoes 75%, 1976 79%. Burley tobacco transplanting 85%, 1976 95%. Harvesting: Wheat 20% complete, 1976 30%; oats 36%, 1976 36%; Barley 34%, 1976 42%; rye 30%, 1976 30%; peaches 11%, 1976 13%; Irish potatoes 15%, 1976 18%; hay 44% cut, 1976 40%.

NORTH DAKOTA: Temperatures slightly above normal. Extremes: 96 and 38°. Precipitation moderate to heavy southwest and south central, elsewhere below normal.

Small grains fair to good condition, beginning to head out, some on short straw due to dry conditions. Row crops look good. Pastures very short most areas. Emergency feed crops still being seeded.

OHIO: Temperatures below normal. Extremes: 83 and 36°. Precipitation somewhere every day except 7th.

Soil moisture short to adequate. Crop conditions continue fair to good, stands mostly fair. Replanting poor stands soybeans where moisture is available. Other farm activities: Planting corn for silage, spraying herbicides and insecticides, cutting hay and green chop. Fieldwork: 5 days favorable. Wheat 35% turned, 20% 1976 15% normal. Oats 55% headed, same as last year, 35% normal. Average height corn 12 in., same as last year. Soybeans 5 in., same as last year and average. Cutting of hay: Alfalfa 85%, 75% 1976, 50% normal. Clover-timothy 65%, 45% 1976, 35% normal. Tobacco 65% set, 70% 1976, 60% normal. Pasture condition poor to fair.

OKLAHOMA: Temperatures above normal except extreme southeast. Precipitation ranged from 0.06 in. in the southwest to 1.35 in. in the southeast; rainfall totals generally less than 0.50 in.

Dry, hot weather allowed rapid harvest progress. Wheat 35% combined, compared 14% year ago, average 26%. Yields mostly good, some light shriveled grain west central. Harvest 80% complete in southwest. Near 50% oats and barley harvested. compared with usual of 33 to 40% and just over 20% year ago. Much of oats crop used as hay. Corn mostly good condition, with 9% crop tasseling, ahead 6% average. Sorghum planting jumped to 75% complete, same as year earlier and ahead of 71% average. Crop in good to fair condition. Cotton planting, at 75% complete, near year ago and average of 77%. Considerable replant and light stands make crop only fair. Soybeans and peanuts rated good. Peanuts 90% planted, ahead 73% year ago and 76% average. Soybeans 70% planted, behind 79% year ago but ahead of 60% average. Second cutting alfalfa now 35% baled, ahead of year ago and average. Pastures and ranges need rain in southeast where topsoils quite dry, and in other areas rains would prolong lush condition. Topsoils dry in much of east, south central, the Panhandle, and other isolated areas. Other areas could use rain to hasten seed germination.

OREGON: Wet except southwestern valleys. Rainfall averaged nearly 0.75 in. over most of west. Central and eastern sections averaged 0.10 in. ex-

cept nearly 0.33 in. northeast. Temperatures generally 2 to 8° above normal. Extremes: Low 90's, low 40's west; low 100's, low 30's east.

General crop situation is fair to good. Field crops in good shape west, warm weather improving outlook. Drought stress evident in eastern grain fields but situation improved. Haying underway. Cherry harvest starts soon. Filberts and walnuts looking good. May rains helped pasture and ranges. Stock water being hauled in east. Cattle and calves generally in good to excellent condition.

PENNSYLVANIA: Cold, wet. Rain averaged almost 1.50 in. Temperatures 8 to 10° below normal. Record cold 8th; many stations below or near freezing mark. Extremes: 29 and 83°.

Fieldwork: 4 days suitable. Moisture adequate. Activities: Cultivating, spraying, orchard mowing and pruning, making hay and filling silos, planting soybeans, transplanting tobacco, harvesting berries and vegetables. Corn 7 in., last year 5 in., hurt by frost. Soybeans 83% planted, last year 81%. Tobacco 64% transplanted, same as 1976. Barley 43% headed, 44% turning yellow; last year 32% turning. Wheat 87% headed, some turning, same as last year. Oats headed 23%, last year 18%. Alfalfa first cut 70%, last year 49%. Feed from pastures mostly below average.

PUERTO RICO: Island rainfall 0.06 in. or 1.67 in. below normal. Temperatures about 80° on coasts and 75° interior. Extremes: 95 and 57°.

Except for light showers eastern interior general lack of rainfall continued. Drought conditions intensified following temporary relief by moderate rains late in May. Water supplies critically low in south central and western interior where water rationing continued. Much more rain needed to give permanent relief to agricultural drought. Many farmers prepared ground but delayed planting until additional rains occur.

SOUTH CAROLINA: Temperatures below normal. Extremes: 99 and 44°. Showers on 6th, scattered showers near weekend.

Cotton condition fair. Corn condition poor to fair. Corn plants being adversely affected by dry weather. Plants many fields tasselling prematurely, showing severe burn. Tobacco condition good. Crop making excellent progress. Budworm activity some areas. Soybeans planting continues; young plants need rain to make good growth. Peach harvesting all production areas; condition fair to good. Dry weather hurt size of fruit in some areas. Small grains, pastures, watermelons fair condition. Dry conditions decreased small grain yields. Other activities: harvesting tomatoes, squash, cucumbers. Soybeans planted 78% 1977, 71% 1976, 73% average.

SOUTH DAKOTA: Thunderstorms weekend. Precipitation 0.50 in. north; scattered south, up to 2.00 in. High temperatures in 80's and 90's. Extremes: 42 and 99°.

Topsoil moisture short. Field crops developing rapidly. Weed and cutworm problems most crops. Small grain stands fair to excellent but shorter than normal. Percent headed Rye 99%, 1976 96%, normal 94%; winter wheat 96%, 1976 92%, normal 67%; spring wheat 63%, 1976 54%, normal 7%; oats 75%, 1976 51%, normal 11%; barley 77%, 1976 64%, normal 18%. Flax beginning to bloom. Corn height 12.00 in., 1976 6.00 in., normal 6.00 in. Corn cultivated 1st time: 77%, 1976 55%, normal 48%. Corn cultivated 2d time: 14%, 1976 0%, normal 0%. Sorghum planted, 95%, 1976 81%, normal 80%. Alfalfa hay harvested 1st time: 67%, 1976 31%, normal 23%. Prairie hay harvested: 10%, 1976 0%, normal

0%. Pastures recovering nicely but more rain needed to maintain growth.

TENNESSEE: Temperatures above normal west, normal mid and below normal east. Precipitation none to 1.00 in. east. Well below normal.

Fieldwork: 5.8 days suitable. Soil moisture short. Pastures and cattle poor. Corn, cotton, soybeans and tobacco fair to poor. Corn planted 98% this year, 96% last year, 94% normal. Soybeans planted 85% this year, 76% last year. 69% normal. Wheat ripe 77% this year, 78% last year, 55% normal. Wheat harvested 40% this year, 25% last year, 18% normal. Oats ripe 50% this year, 48% last year, 40% normal. Oats harvested 16% this year, 12% last year, 10% normal. Barley ripe 75% this year, 40% last year, 45% normal. Barley harvested 40% this year, 30% last year, 30% normal. Alfalfa hay 2d cut 40% this year, 44% last year, 29% normal. Tobacco transplanted 90% this year, 95% last year, 92% normal.

TEXAS: Thunderstorms more numerous late week. Temperatures 4 to 5° above normal west, 2 to 3° above normal north central and east and near normal south. Rainfall, 0.50 to 0.75 in. above normal in far south, east, coastal plains; near normal south plains, Edwards Plateau, south central; and 0.50 to 0.75 in. below normal Panhandle, north.

Fieldwork very active. Planting remaining field crops, cultivating, harvesting small grains, baling hay. Cotton, sorghum planting nearing completion. Wheat harvest beginning northern High Plains, active other areas. Crops in portions of Blacklands, East Texas, Upper Coast beginning to stress; lack of moisture. Cotton planting nearing completion on plains. Hot weather resulted rapid emergence on plains, good growth most areas. Cotton fruiting well south; insect activity light. Sorghum planting, nearing completion. Early stands, plains rapid growth. Sorghum fields Blacklands, East Texas, upper coast range from boot to heading out; need rain. Corn on plains good growth; farmers cultivation, irrigating. Some fields tasselling as far north as Low Plains. Corn Blacklands and east under stress lack of moisture. Soybean planting good progress despite dry conditions, some areas. Many farmers waiting for rain before finishing planting. Rice fields good progress; heads showing many fields. Peanut planting good progress. Moisture needed Cross-Timbers, Blacklands, east, south central to finish planting. Cotton planted: 96% 1977, 95% 1976, 94% average. Sorghum planted: 94% 1977, 92% 1976, 91% average. Peanuts planted: 67% 1977, 52% 1976, 62% average. Soybeans planted: 76% 1977, 73% 1976, 75% average. Wheat harvested: 34% 1977, 23% 1976, 28% average. Barley harvested: 33% 1977, 28% 1976, 49% average. Oats harvested: 68% 1977, 58% 1976, 69% average. Flax harvested: 94% 1977, 77% 1976, 92% average.

Growers harvesting cucumbers, onions, cabbage, cantaloups, honeydews, green peppers, tomatoes, okra, watermelon. Light volume citrus remains; irrigation of groves active. In some areas vegetables suffered from heat, lack of water. Peach harvest continues; trees and fruit in east need rain. Pastures over the Blacklands, East Texas, Trans-Pecos stressed for moisture. Other areas adequate to good grazing. Livestock generally good condition. Hay harvest active but moisture needed for regrowth.

UTAH: Scattered showers and thundershowers. Moisture generally light but locally moderate to heavy few localities. Moisture improved severe drought conditions most sections. Temperatures 4 to 12° above normal.

Nonirrigated land soil moisture short. Range and pasture feed supplies poor. Sugarbeet acre-

age about 40% thinned. First alfalfa cutting 20% completed. Most small grains jointing stage or further. Vegetable crop conditions fair to good.

VIRGINIA: Temperatures 6° below normal. Extremes: 92 and 31°. Rainfall 0.80 in.

Topsoil moisture short to adequate. Fieldwork: 4.6 days suitable. Soybeans planting, harvest of hay and small grains main activities. Corn stands in good condition, cultivation active. Soybeans 65% planted, 66% 1976, 58% average; good condition. Landplaster applied to peanuts; good condition. Barley 16% combined, 35% 1976, 14% average. Oat harvest 9% complete, 13% 1976, 8% average. Wheat 3% harvested, 11% 1976, 3% average. Tobacco good condition. Flue-cured planting virtually complete. Fire-cured 88% planted, 93% 1976. Burley 85% planted, 88% 1976. Sun-cured 96% planted, 96% 1976. Potato digging started.

WASHINGTON: West: Temperatures near normal to 3° above normal. Precipitation 0.10 to 0.70 in. below normal.

Early potatoes up. Green pea and corn planting nearly complete. Fall grains heading with stripe rust showing. Haying, making grass silage and feeding green chop.

East: Temperatures 3 to 6° above normal. Precipitation near to 0.30 in. below normal.

Early cherries harvested. Hand thinning apples, peaches, pears, nectarines. Irrigating, spraying orchards. Fall grains heading but continue showing stress. Peas blooming. First cutting alfalfa hay down.

WEST VIRGINIA: Temperatures below normal. Precipitation above normal.

Main farm activities: Hay harvesting and fencing. Soil moisture short. 1st cutting hay 46% complete, 32% last year, 28% average. 2nd hay cutting less than 2% complete. Barley 86%

headed. Wheat 86% headed, 4% ripe. Oats 43% headed. Corn 95% planted, 85% emerged. Condition of grains mostly fair. Pastures short and dry. Some corn frosted.

WISCONSIN: Cloudy, cool with frequent showers and thunderstorms. Temperatures nearly 9° below normal. Heavy frost north, scattered light frost south. Rainfall averaged 0.50 to 1.20 in., but some locally heavier amounts. Hail damage some areas.

Hay harvest slowed by rains. First crop 45% harvested, 1976 30%, normal 15%. Hay becoming too mature for best quality. Corn growing well; height average 16 in., 1976 8 in., normal 6 in. Early corn beyond knee high, late corn uneven due to spotty emergence when dry previously. Oats 25% headed, 1976 10%, normal 5%. Oats good but straw length short. Some oatlage going into silos. Winter wheat, rye, and barley headed out on short straw. Soybean planting completed. Early beans up several inches. Pasture condition above last year but below normal. Tobacco planting continues, better moisture than year ago. Early peas being harvested, yields small. Strawberries being picked, crop poor to fair. Some frost damage to crops in low areas. Insects numerous but cooler temperatures showed development. Soil moisture short to adequate.

WYOMING: Temperatures 10° above normal. Precipitation below normal. Most fell in southeast and north central.

Soil moisture short. Potatoes 99% planted, 77% emerged. Dry beans 89% planted, 47% emerged. Corn 92% emerged. Condition of small grains mostly fair to good, some poor. Sugarbeets in good condition, 62% thinned. Winter wheat headed 49%. Hay harvested: Alfalfa 6%, other hay 1%. Range and pasture fair to good. Livestock on summer pasture.

World Weather and Crop Update

USSR. Weather in European USSR in the first part of June was a continuation of the generally cool and wet regime evident over much of the area in the last 10 days of May. All regions received some precipitation during the reporting period with the heaviest amounts--15 mm to 30 mm generally but up to 60 mm in places--recorded in the central and central Black Soil regions and in the southern and eastern Ukraine. Moderate rains fell over most of the Volga Valley including the middle Volga region where May precipitation was only two-thirds of normal. Rainfall was light, however, in the southern Urals, an important spring wheat region with well below normal rainfall this spring. Prospects for winter grains continued to be favorable with crop development about 10-15 days ahead of normal. Harvesting was expected to begin in the southern regions in about two weeks. Rainfall was generally light throughout most of the spring wheat area in western Siberia and northern Kazakhstan. Estimated soil moisture was fairly good throughout these areas, but surface moisture was short in some places.

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. But precipitation was light over much of the northern China Plain, China's major winter wheat belt which has been suffering from drought since last winter. Heavy rains fell over most of the rice growing areas south of the Yangtze River. In India, heavy rains over the western coastal regions were partly induced by a tropical cyclone that interrupted the normal monsoonal buildup in the southwest. Temperatures in the 100's continued over most of that country. Scattered light showers fell along the coasts in Australia, but newly planted winter grains in the interior did not receive any significant rainfall during the week.

EUROPE. Wet, cool weather returned to western Europe interrupting the hay harvest in some areas. Prospects for winter grains were favorable in most

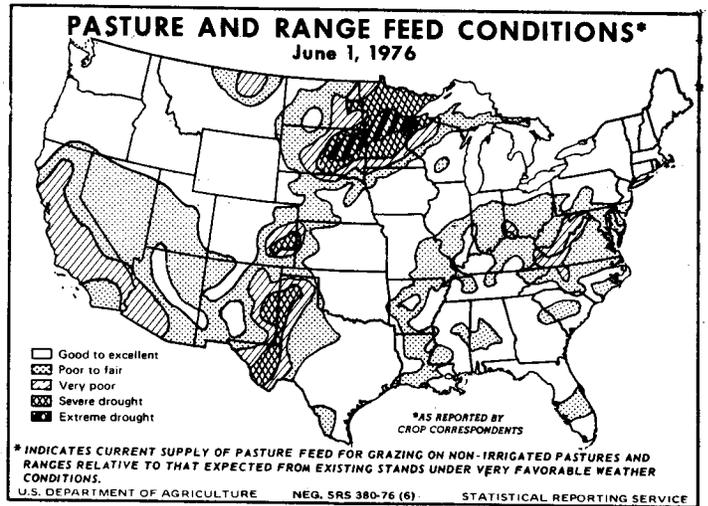
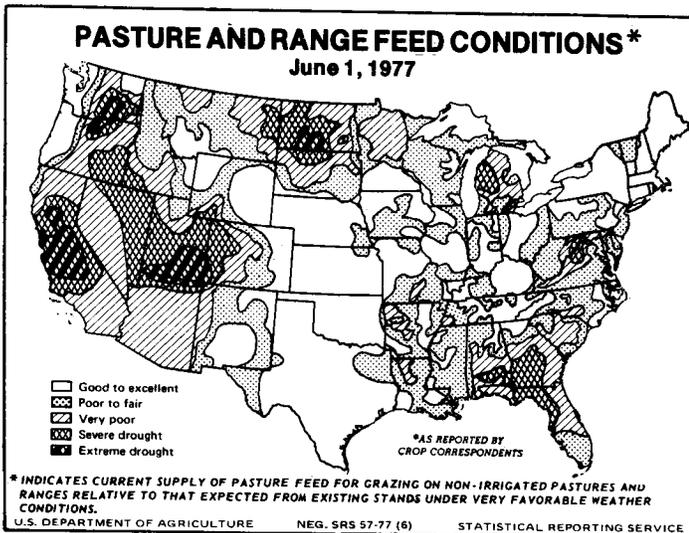
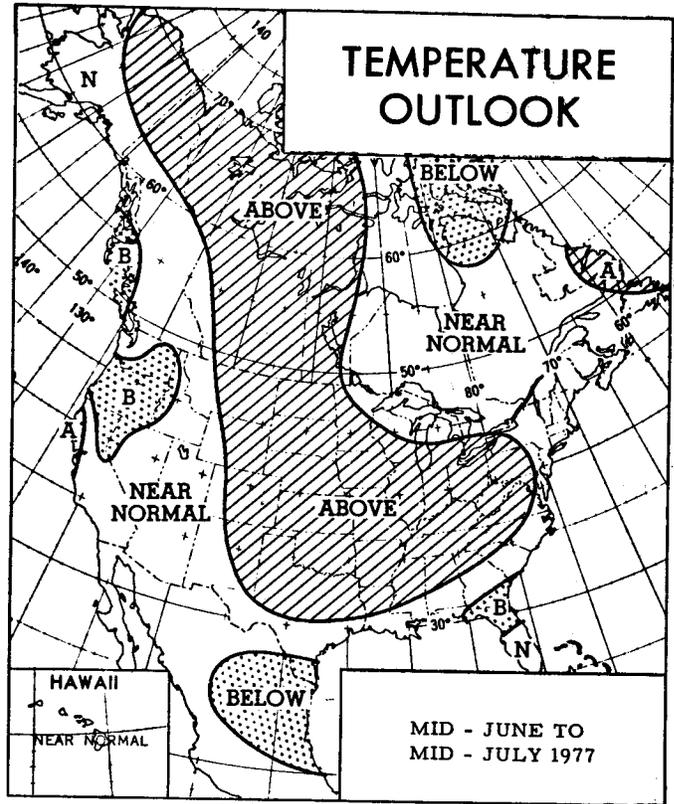
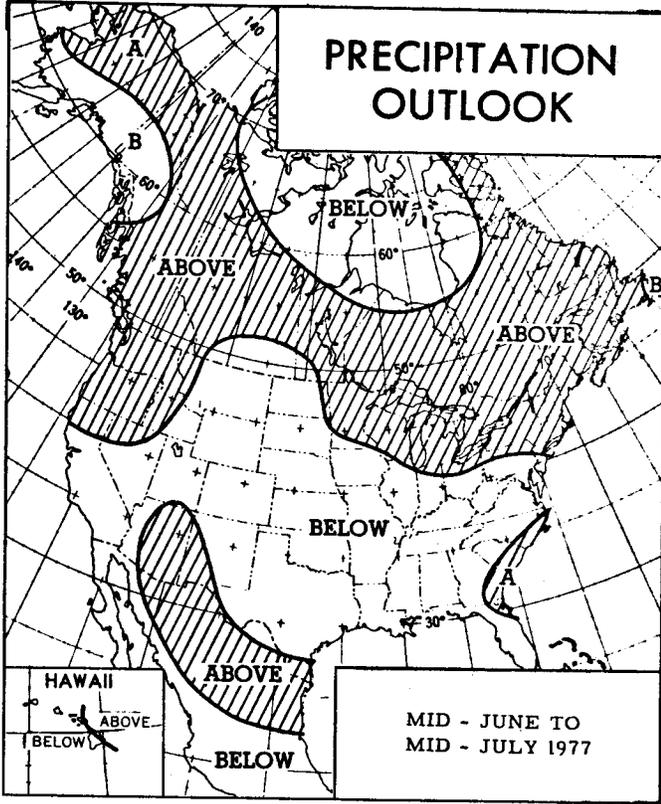
areas. Light to moderate showers moistened the Po Valley of Italy, but drought-stricken southern Italy was essentially without rainfall. Southern Spain, another drought area, also was dry last week. Light rains dampened the northern half of eastern Europe, including Hungary, but the southern-most countries received mainly light scattered showers. Rainfall was scarce in Greece while showers fell mainly outside the principal agricultural areas in Turkey.

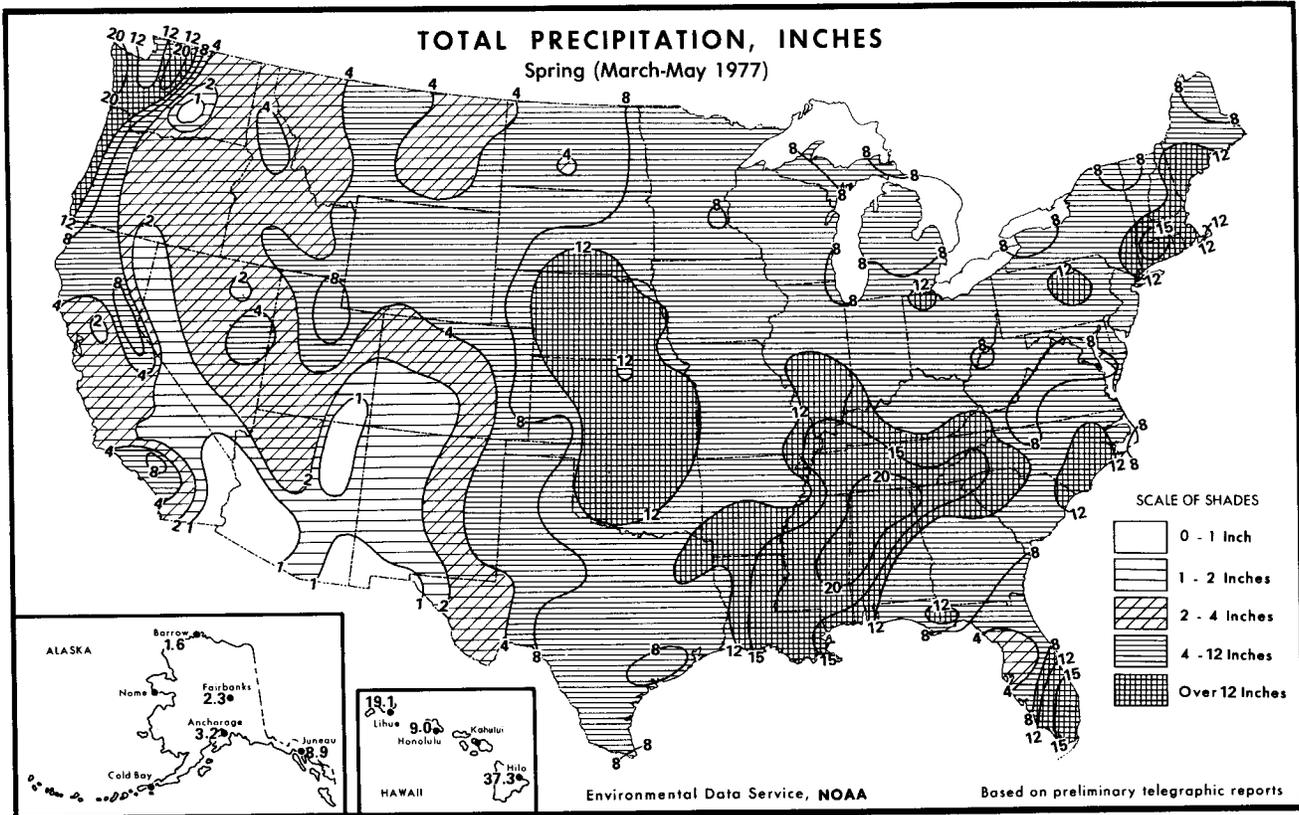
AFRICA. North Africa--Morocco, Algeria, Tunisia--had little precipitation. Drought has greatly reduced winter grain production in these areas since last winter. South Africa also was dry, but agricultural activity at this time of year is minimal.

SOUTH AMERICA. In Brazil, a cold front dropped temperatures in the coffee-producing state of Parana, but frosts occurred only at higher elevations and posed no threat to coffee trees. Rainfall was scattered and light in the main agricultural areas in the south and southeast. Light to moderate showers also fell over much of the grain areas in Argentina where temperatures were generally above normal for the week.

NORTH AMERICA. Heavy rains have alleviated the dry spell in the eastern Corn Belt where crops were beginning to show some stress. Some dry spots, however, continued in the western Corn Belt, notably south central Iowa. Light to moderate rains dampened spring wheat areas in North Dakota and eastern Saskatchewan and western Manitoba in the Canadian Prairie Provinces. But there was no relief for southern Alberta which missed out on most of the showers. General showers brought some relief to mid-Atlantic Coastal States where parched crops and pastures were beginning to show signs of stress. Badly needed rains also fell in the drought-afflicted Delta states. Harvesting of winter grains in the southern Great Plains moved into Oklahoma with conditions generally favorable.

Average Monthly Weather Outlook





Spring Weather Review

HIGHLIGHTS: One of the most difficult winters in recent memory gave way to the warming and blooming of the 1977 spring. Precipitation was below normal during winter, but made a comeback in much of the important central Great Plains during the past three months. Moisture exceeded the average amounts there each of the three months in the spring season. However, the eastern portion of the central Plains and eastward through the mid-west had less than normal rains.

An early March changing weather pattern brought welcome precipitation to the Plains and the Pacific Northwest. The remainder of the month continued with series of storm systems and isolated severe weather that carried more moisture than expected for that time of year. Much of the Nation topped the precipitation normal in March except the central Intermountain Region; western Arizona northeastward to southern Utah and eastward to the Oklahoma Panhandle and western Texas; northeastern Montana and northwestern North Dakota; and the Ohio Valley and the East Coast of U.S. Temperatures were above normal throughout the country save the West Coast south of Washington and eastward to the western slope of the Rockies.

April was kind to the previously dry winter wheat areas of Oklahoma and Texas when two to four inches of rain fell. Precipitation also fell in greater amounts than expected in the west central Great Plains; the eastern half of the lower Mississippi Valley; from Tennessee northeastward to

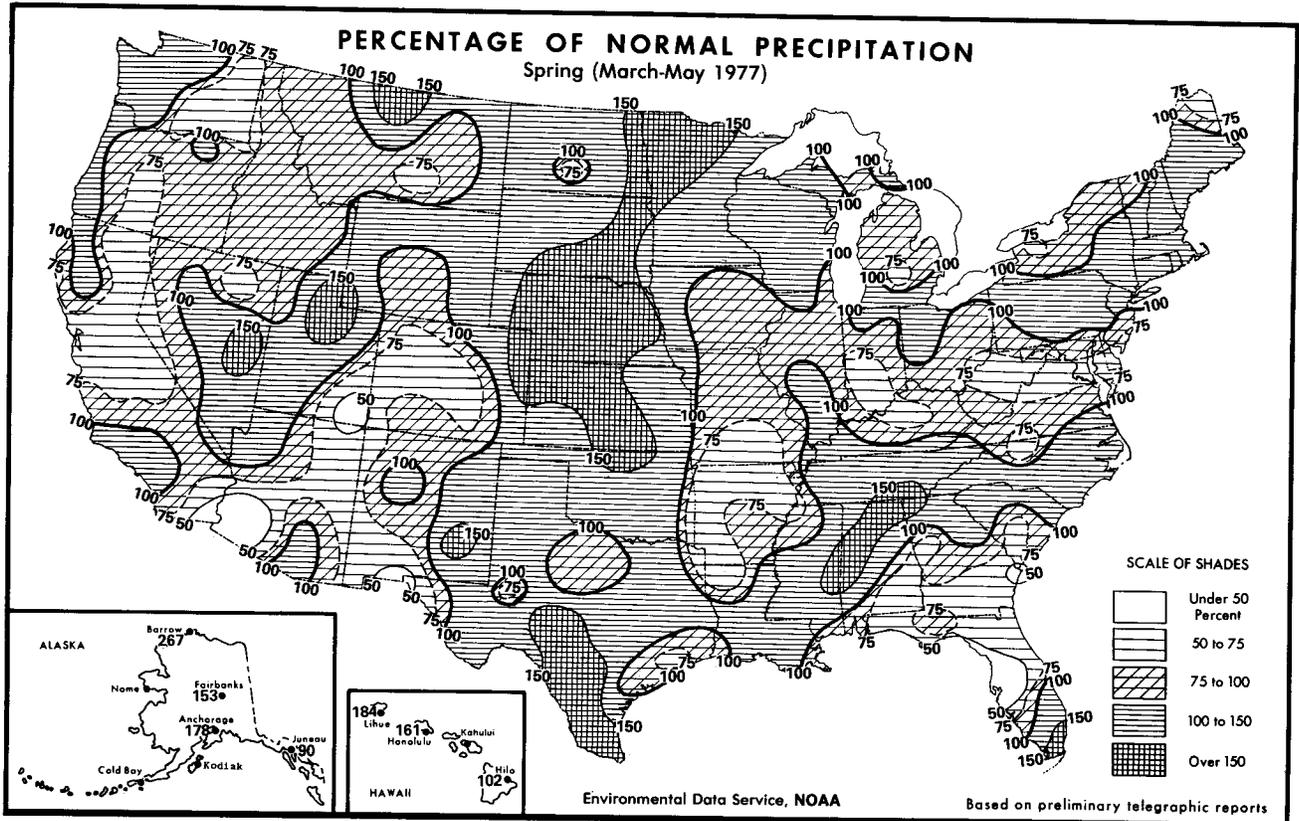
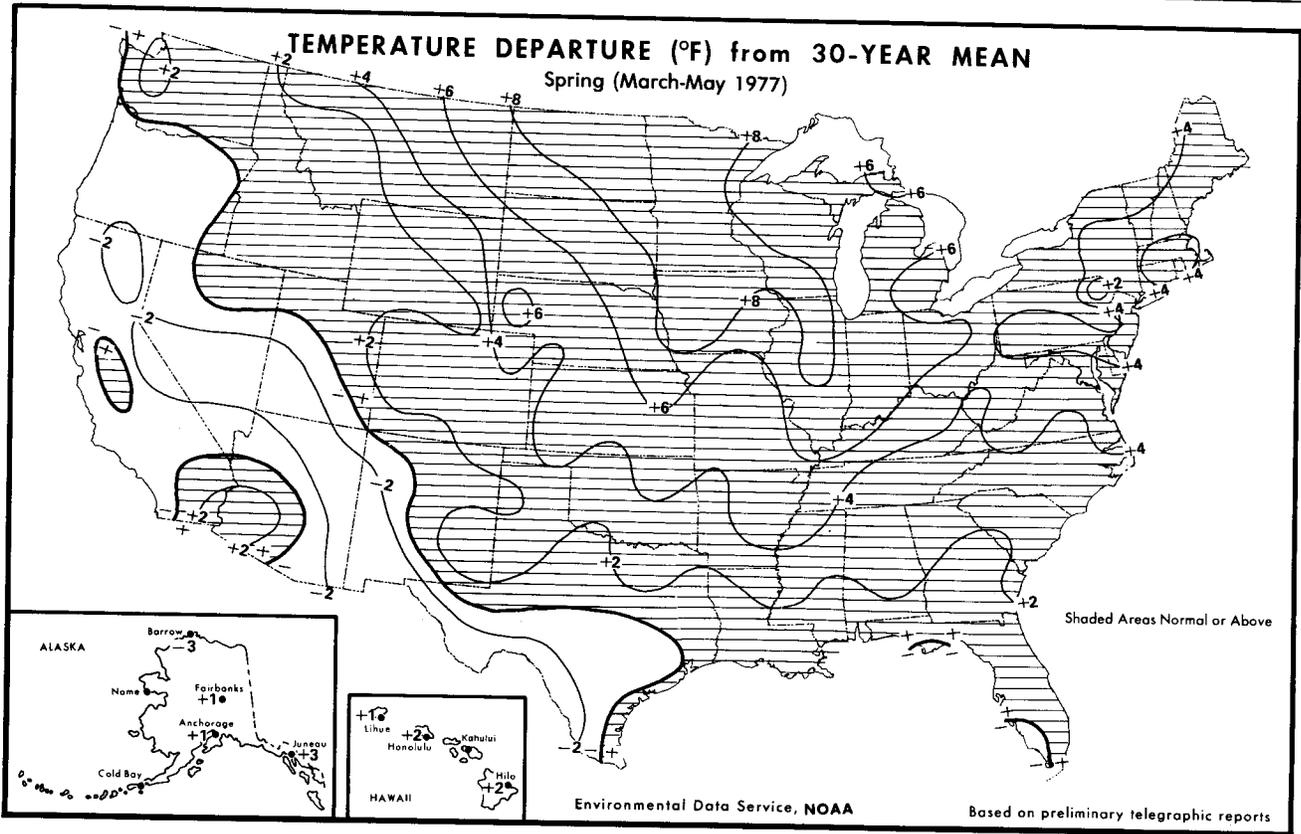
the Virginia/West Virginia border; Minnesota, Wisconsin, and Pennsylvania.

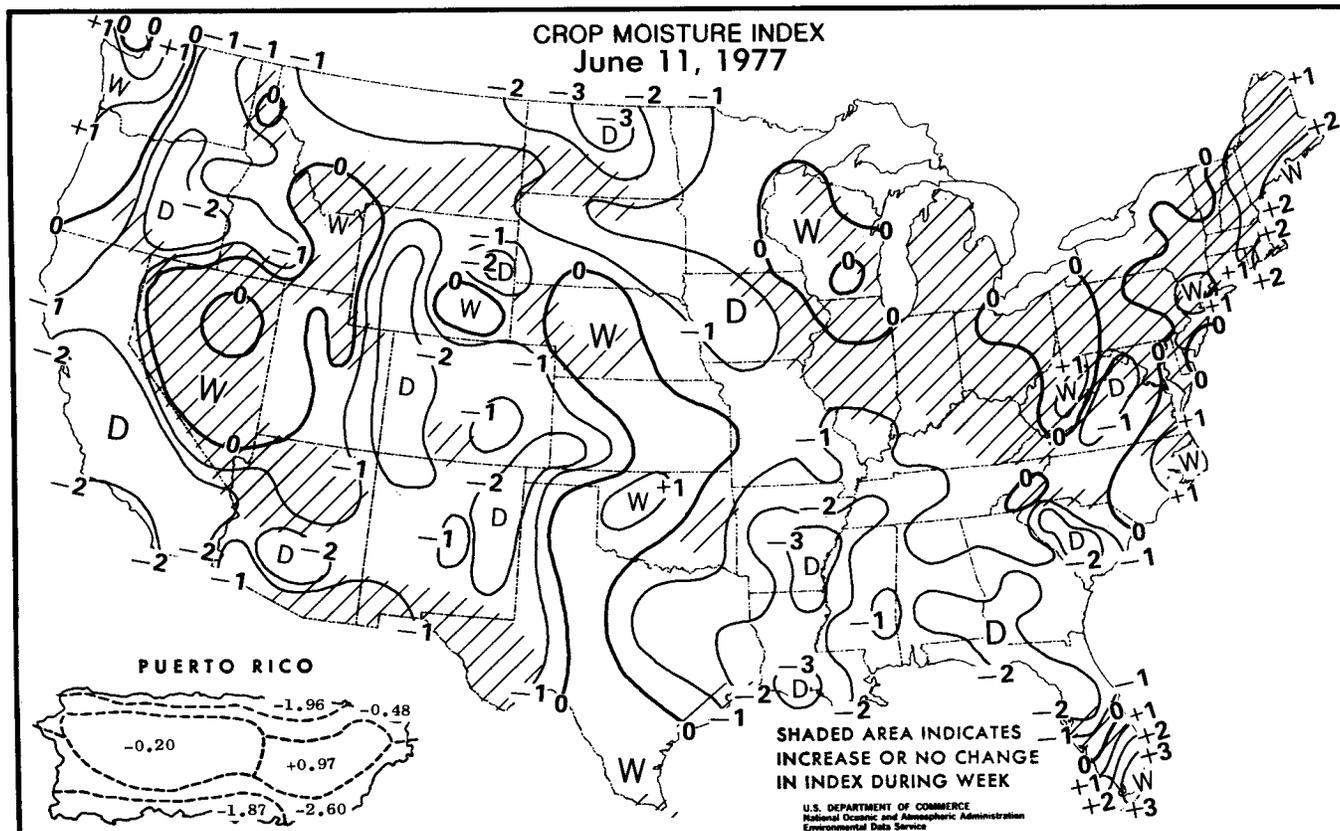
Southwestern Virginia and southern West Virginia were ravaged by serious floods in early April. Tornadoes and flooding hit portions of the lower Mississippi Valley and Texas. A late April winter air mass moved southward through the Great Lakes bringing frost from Ohio through New England.

Temperatures were above normal for the entire U.S. except the southern regions of New Mexico, Texas, Louisiana, and Georgia; the northern half of Florida; and Maine.

Heavy rains drenched the central Great Plains in May. The Pacific northwest had higher-than-average amounts of rain while east of the Mississippi River, drier-than-normal conditions prevailed. The central and western U.S./Canadian border received generous and much-needed moisture while extreme southern Florida, eastern North Carolina, and southwestern Texas were deluged by hefty amounts of rain. Isolated areas in the Rockies and southern New England got more precipitation than expected, especially Connecticut and Massachusetts where 10 inches of snow whitened May 10.

Much of the Nation west of the Rockies showed above-normal temperatures, as much as 10 to 12° departures from northern North Dakota southeastward to the Chicago area. Although unstable weather was common over the Nation during May, planting progressed at a healthy pace. The northern growing region of California had some slight relief from drought, but the area was generally dry. The southern portion of the State enjoyed substantial moisture. Parts of southern California had unusually heavy rains.





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

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

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

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

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

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

SHADED 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



FIRST CLASS MAIL

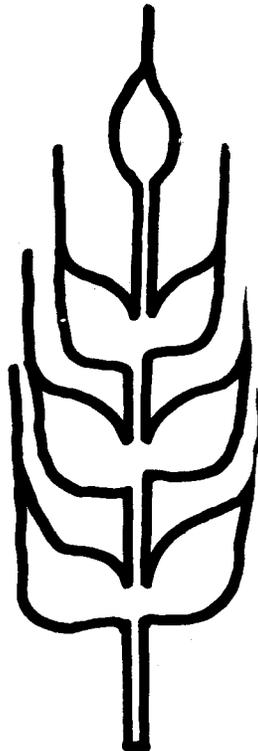
Planting Progress

Percent of acreage planted as of June 12

SOYBEANS			
	1977	1976	Avg.
Ala.	71	58	70
Ark.	74	76	62
Ga.	70	75	72
Ill.	100	100	NA
Ind.	95	95	75
Iowa	100	100	NA
Kans.	60	65	60
Ky.	70	58	56
La.	76	81	70
Mich.	95	80	70
Minn.	100	100	NA
Miss.	73	82	67
Mo.	95	86	65
Nebr.	95	95	90
N. C.	80	70	72
Ohio	100	100	NA
S. C.	78	71	73
Tenn.	85	76	69
U. S.	89	88	68

These 18 States produced 96% of the 1976 U. S. soybean crop.

NA--Not Available



SORGHUM			
	1977	1976	Avg.
Colo.	84	85	73
Kans.	65	60	60
Mo.	92	83	69
Nebr.	95	95	90
Okla.	75	75	71
S. D.	95	81	80
Tex.	94	92	91
7-States	84	82	78

These 7 States produced 90% of the 1976 U. S. sorghum crop.